

INVESTIGATING INTERNATIONAL POSTGRADUATE BUSINESS
STUDENTS' MULTIMODAL
LITERACY AND NUMERACY PRACTICES:
A MULTIDIMENSIONAL APPROACH

A thesis by
Hesham Suleiman AlYousef

Submitted in fulfilment of
requirements for the degree of

Doctor of Philosophy

Discipline of Linguistics
Faculty of Humanities & Social Sciences
University of Adelaide, Australia

March 2014

Table of Contents

LIST OF TABLES	V
LIST OF FIGURES	VII
ABBREVIATIONS	VIII
ABSTRACT	IX
STATEMENT OF ORIGINAL AUTHORSHIP	X
ACKNOWLEDGEMENTS	XI
CHAPTER 1: INTRODUCTION	1
1.1 RATIONALE FOR THE STUDY	1
1.2 RESEARCH QUESTIONS	4
1.3 SIGNIFICANCE OF THE STUDY	5
1.4 ORGANIZATION OF THE THESIS	7
CHAPTER 2: LITERATURE REVIEW	9
INTRODUCTION	9
2.1 LITERACY MODELS	9
2.2 HALLIDAY'S SYSTEMIC FUNCTIONAL LINGUISTIC (SFL) THEORY	13
2.2.1 <i>Social context and language</i>	16
2.2.1.1 The TRANSITIVITY system	16
2.2.1.2 MOOD & modality	17
2.2.1.3 THEME and INFORMATION structure systems	20
2.2.1.4 Cohesion	21
2.2.1.5 Genre: an aspect of register or a distinct system	23
2.3 WIKI: A SOCIO-CULTURAL OR A SOCIO-CONSTRUCTIVIST MODEL FOR LEARNING	27
2.4 METADISOURSE ANALYSIS MODELS	29
2.5 RESEARCH STUDIES ON ACADEMIC LITERACIES	31
2.5.1 <i>Research on the use of wikis in collaborative learning tasks</i>	32
2.5.2 <i>Research on the use of metadiscourse</i>	35
2.5.3 <i>Research on academic socialisation and students' experiences</i>	36
2.5.4 <i>The literacy and numeracy practices of Business program students</i>	38
2.5.5 <i>Research on textual cohesion</i>	41
2.5.6 <i>Research on multimodal communication and representation with an SFL lineage</i>	46
SUMMARY	52
CHAPTER 3: METHODOLOGY	55
INTRODUCTION	55
3.1 THEORETICAL FRAMEWORK: LITERACY AS A SOCIAL AND CULTURAL SITUATED PRACTICE	56
3.2 AN ANALYTICAL INTERPRETIVE RESEARCH APPROACH	57
3.3 RESEARCH DESIGN: A MULTIFACETED SOCIOSEMIOTIC ETHNOGRAPHY	58
3.4 METHODOLOGY	60
3.4.1 <i>Ethnography as methodology for literacies narratives of experience</i>	60
3.4.2 <i>Systemic Functional Linguistics</i>	61
3.4.2.1 Language systems in SFL	61
3.4.3 <i>Systemic Functional Multimodal Discourse Analysis (SF-MDA)</i>	62
3.5 THE SOCIAL CONTEXT	62
3.5.1 <i>Research setting</i>	63
3.5.2 <i>Selection of participants</i>	63
3.5.3 <i>The participants' profiles</i>	64
3.5.4 <i>The participants' course sequences</i>	65
3.6 DATA SOURCES AND COLLECTION TECHNIQUES	68
3.6.1 <i>Observation</i>	68
3.6.2 <i>Interviews</i>	69
3.6.3 <i>Documents</i>	71
3.7 DATA ANALYSIS AND PRESENTATION TOOLS: A MULTIDIMENSIONAL FRAMEWORK FOR EXPLORING LITERACY PRACTICES	71

Stage 1: The epistemologies of the course under study.....	73
Stage 2: SF-MDA	74
Stage 3: The use of literacies narrative as evidence of experience	78
3.8 QUALITATIVE DATA MANAGEMENT AND CODING TOOLS	80
3.8.1 Data reduction & coding	80
3.8.2 Data coding tools	81
3.8.3 A Triangulation Technique	84
3.9 VALIDITY AND RELIABILITY	84
3.10 ETHICAL CONSIDERATIONS.....	86
3.11 THE PILOT STUDY.....	87
SUMMARY.....	89

CHAPTER 4: STUDENTS' LITERACY AND NUMERACY SOCIAL PRACTICES IN THE ACCOUNTING CONCEPTS AND METHODS MODULE..... 91

INTRODUCTION	91
4.1 THE EPISTEMOLOGIES OF THE ACCOUNTING MODULE	91
4.1.1 Description of the accounting module and assessment criteria	92
4.1.2 Graduate attributes and learning outcomes of the accounting module and the practices valued by CPA/ICA Australia and employer groups	93
4.1.3 The curriculum of the accounting module	97
4.1.4 The literacy and numeracy activities students were expected to engage in to perform the first assignment	99
4.2 A DESCRIPTION OF THE ACTUAL LITERACY EVENTS AND THE PARTICIPANTS' PRACTICES AND EXPERIENCES....	102
4.2.1 The literacy and numeracy practices in a tutorial class	104
4.2.2 Tutor's comments on the mid-term test papers.....	108
4.2.3 The accounting practice sets: MYOB and Perdisco	109
4.2.4 The participants' experiences in the accounting module.....	112
4.2.5 The literacy and numeracy activities students engaged with to perform the first individual assignment	114
4.3 THE SF-MDA OF THE ACCOUNTING DISCOURSE	117
4.3.1 The SF-MDA of the accounting test.....	117
4.3.2 The SF-MDA of the first assignment.....	127
SUMMARY.....	147

CHAPTER 5: STUDENTS' LITERACY AND NUMERACY SOCIAL PRACTICES IN A KEY TOPIC IN THE PRINCIPLES OF FINANCE MODULE..... 149

INTRODUCTION	149
5.1 THE EPISTEMOLOGIES OF THE PRINCIPLES OF FINANCE MODULE	149
5.1.1 Social Context.....	150
5.1.2 Materials.....	150
5.1.3 An overview of capital budgeting techniques	151
5.1.4 The graduate attributes and the learning outcomes of the management report task	152
5.1.5 Nature of the management report assignment task sheets	155
5.2 THE SF-MDA OF CAPITAL BUDGETING MANAGEMENT REPORTS	157
5.2.1 The Experiential meaning in capital budgeting management reports.....	158
5.2.1.1 Participants' intuitive interpretations of the conceptual and procedural capital budgeting procedures	164
5.2.1.2 Expansion of the experiential meaning in capital budgeting formulae	168
5.2.2 The interpersonal features of capital budgeting management reports.....	173
5.2.3 The textual features of capital budgeting management reports.....	177
5.2.3.1 Thematic progression	179
5.2.3.2 Nominalisation	185
5.2.3.3 Cohesion analysis	185
5.3 THE SF-MDA OF STATISTICAL GRAPHS	191
5.4 THE SOCIAL PRACTICES EAL PARTICIPANTS ENGAGED WITH TO COMPLETE THE ASSIGNMENT.....	197
5.4.1 Participants' literacy and numeracy social practices	197

5.4.2 <i>Cross-disciplinary knowledge</i>	200
5.4.3 <i>Participants' literacy social practices and future workplace and life prospects</i>	201
SUMMARY	204
CHAPTER 6: STUDENTS' LITERACY AND NUMERACY SOCIAL PRACTICES IN THE MANAGEMENT ACCOUNTING MODULE	207
INTRODUCTION	207
6.1 THE EPISTEMOLOGIES OF THE <i>MANAGEMENT ACCOUNTING</i> MODULE	208
6.1.1 <i>Description of the Management Accounting module</i>	208
6.1.2 <i>The graduate attributes and learning outcomes of the Management Accounting module</i>	209
6.1.3 <i>The curriculum of the Management Accounting module</i>	211
6.1.4 <i>The assignment task sheet requirements</i>	212
6.2 THE PRACTICES EAL PARTICIPANTS ENGAGED WITH TO COMPLETE THE ASSIGNMENT AND THEIR TALK AROUND THE TEXT.....	213
6.3 THE SF-MDA OF THE <i>MANAGEMENT ACCOUNTING</i> DISCOURSE	217
SUMMARY	232
CHAPTER 7: COOPERATIVE OR COLLABORATIVE LITERACY PRACTICES: MAPPING METADISOURSE IN A BUSINESS STUDENTS' WIKI GROUP PROJECT	233
INTRODUCTION	233
7.1 METHODOLOGY	233
7.2 RESULTS OF THE STUDY	234
7.2.1 <i>Aims of the task</i>	235
7.2.2 <i>Nature of the task</i>	236
7.2.3 <i>The group's postings on the wiki</i>	237
7.2.4 <i>Tutor's general and group feedback</i>	240
7.2.5 <i>Results of the interviews</i>	242
7.2.6 <i>Metadiscourse analysis</i>	245
SUMMARY	248
CHAPTER 8: DISCUSSION OF THE FINDINGS AND CONCLUSION.....	249
INTRODUCTION	249
8.1 THE EPISTEMOLOGIES OF THE FOUR MASTER OF COMMERCE MODULES.....	249
8.1.1 <i>Materials</i>	250
8.1.2 <i>The graduate attributes, learning outcomes, and the curriculum of the four Master of Commerce modules</i>	251
8.1.3 <i>The literacy and numeracy activities EAL students were expected to engage in to perform the assignments</i>	253
8.2 EMERGENT LINGUISTIC FEATURES ACROSS THE BUSINESS MODULES	255
8.2.1 <i>The experiential meaning</i>	256
8.2.1.1 The TRANSITIVITY system	256
8.2.1.2 Expansion of the experiential meaning.....	259
8.2.2 <i>The interpersonal meaning</i>	260
8.2.2.1 The Mood structure	260
8.2.2.2 Modality.....	262
8.2.2.3 Metadiscourse analysis of wiki postings and the report.....	263
8.2.3 <i>The textual meaning</i>	265
8.2.3.1 Genre	265
8.2.3.2 Theme and information structure.....	267
8.2.3.3 Cohesion	269
8.2.3.4 Nominalisation and lexical density	273
8.3 EMERGING THEMES ACROSS THE BUSINESS MODULES	274
8.3.1 <i>Interpersonal communication skills</i>	275
8.3.2 <i>Information Literacy (IL) skills for life-long learning</i>	277
8.3.3 <i>Students' knowledge capital and workplace practices and experiences</i>	279
8.3.4 <i>Accounting knowledge: prescriptive or interpretive?</i>	281
8.3.5 <i>Students' resistance to disciplinary practices</i>	283

8.3.6 Students' preparedness.....	285
8.3.7 Cooperative vs. collaborative wiki literacy practices	286
8.3.8 The tutor's wiki literacy practices: formative or summative feedback?	288
8.3.9 Tutors' empathy.....	289
8.3.10 Structured vs. uncontrolled writing tasks.....	290
8.3.11 Textual cohesion	291
8.4 THEORETICAL AND METHODOLOGICAL IMPLICATIONS	292
8.4.1 SFL and the academic literacies approaches: Are they compatible or incommensurable	296
8.5 PEDAGOGICAL IMPLICATIONS.....	297
8.5.1 Pedagogical implications for accounting, finance, and management accounting students	298
8.5.2 Pedagogical implications for accounting, finance, and management accounting tutors, course coordinators, and ESP/EAP curriculum designers.....	300
8.5.3 Pedagogical implications drawn from the participants' practices in the IFR wiki assessment task	303
8.6 LIMITATIONS OF THE STUDY	305
8.7 RECOMMENDATIONS AND SUGGESTIONS FOR FUTURE RESEARCH STUDIES	305
8.8 CONCLUDING REMARKS.....	306
REFERENCES.....	309
APPENDICES.....	327
APPENDIX 1: CONSENT FORM FOR THE PARTICIPANTS IN THE LINGUISTICS RESEARCH PROJECT	329
APPENDIX 2: STUDENT INFORMATION SHEET	331
APPENDIX 3: FIELD-NOTE LOG	333
APPENDIX 4: STRUCTURED INTERVIEW WITH THE PARTICIPANTS	335
APPENDIX 5: STRUCTURED & UNSTRUCTURED INTERVIEW WITH THE PARTICIPANTS	337
APPENDIX 6: HUMAN RESEARCH ETHICS APPROVAL	339
APPENDIX 7: CONTACTS FOR INFORMATION ON PROJECT & INDEPENDENT COMPLAINTS PROCEDURE STATEMENT	341
APPENDIX 8: TUTOR/LECTURER INFORMATION SHEET	343
APPENDIX 9: TRANSITIVITY ANALYSIS OF ABDULRAHMAN'S ACCOUNTING TEXT	345
APPENDIX 10: TRANSITIVITY ANALYSIS OF OMAR'S ACCOUNTING TEXT.....	357
APPENDIX 11: TRANSITIVITY ANALYSIS OF ABDULLAH'S ACCOUNTING TEXT	365
APPENDIX 12: TRANSITIVITY ANALYSIS OF IBRAHIM'S ACCOUNTING TEXT	375
APPENDIX 13: TRANSITIVITY ANALYSIS OF HASAN'S ACCOUNTING TEXT	383
APPENDIX 14: MOOD & MODALITY IN ABDULRAHMAN'S ACCOUNTING TEXT	391
APPENDIX 15: MOOD & MODALITY IN OMAR'S ACCOUNTING TEXT.....	393
APPENDIX 16: MOOD & MODALITY IN ABDULLAH'S ACCOUNTING TEXT	395
APPENDIX 17: MOOD & MODALITY IN IBRAHIM'S ACCOUNTING TEXT.....	397
APPENDIX 18: MOOD & MODALITY IN HASAN'S ACCOUNTING TEXT	399
APPENDIX 19: COHESION ANALYSIS OF ABDULRAHMAN'S ACCOUNTING TEXT.....	401
APPENDIX 20: COHESION ANALYSIS OF OMAR'S ACCOUNTING TEXT	409
APPENDIX 21: COHESION ANALYSIS OF ABDULLAH'S ACCOUNTING TEXT.....	415
APPENDIX 22: COHESION ANALYSIS OF IBRAHIM'S ACCOUNTING TEXT	421
APPENDIX 23: COHESION ANALYSIS OF HASAN'S ACCOUNTING TEXT	427
APPENDIX 24: THEMATIC PROGRESSION ANALYSIS OF ABDULRAHMAN'S ACCOUNTING TEXT	435
APPENDIX 25: THEMATIC PROGRESSION ANALYSIS OF OMAR'S ACCOUNTING TEXT.....	439
APPENDIX 26: THEMATIC PROGRESSION ANALYSIS OF ABDULLAH'S ACCOUNTING TEXT	441
APPENDIX 27: THEMATIC PROGRESSION ANALYSIS OF IBRAHIM'S ACCOUNTING TEXT.....	443
APPENDIX 28: THEMATIC PROGRESSION ANALYSIS OF HASAN'S ACCOUNTING TEXT.....	445
APPENDIX 29: NOMINALISATION ANNOTATION OF ABDULRAHMAN'S ACCOUNTING TEXT.....	447
APPENDIX 30: NOMINALISATION ANNOTATION OF OMAR'S ACCOUNTING TEXT	453
APPENDIX 31: NOMINALISATION ANNOTATION OF ABDULLAH'S ACCOUNTING TEXT.....	459
APPENDIX 32: NOMINALISATION ANNOTATION OF IBRAHIM'S ACCOUNTING TEXT.....	463
APPENDIX 33: NOMINALISATION ANNOTATION OF HASAN'S ACCOUNTING TEXT.....	467

APPENDIX 34: TRANSCRIPTION OF SAUD'S INTERVIEW	473
APPENDIX 35: TRANSCRIPTION OF ABDULRAHMAN'S INTERVIEW	475
APPENDIX 36: TRANSCRIPTION OF IBRAHIM'S INTERVIEW	479
APPENDIX 37: TRANSITIVITY ANALYSIS OF GROUP 1'S FINANCE TEXT	483
APPENDIX 38: TRANSITIVITY ANALYSIS OF GROUP 2'S FINANCE TEXT	505
APPENDIX 39: TRANSITIVITY ANALYSIS OF GROUP 3'S FINANCE TEXT	517
APPENDIX 40: MOOD & MODALITY IN GROUP 1'S FINANCE TEXT	545
APPENDIX 41: MOOD & MODALITY IN GROUP 2'S FINANCE TEXT	547
APPENDIX 42: MOOD & MODALITY IN GROUP 3'S FINANCE TEXT	549
APPENDIX 43: THEMATIC PROGRESSION ANALYSIS OF GROUP 1'S FINANCE TEXT	555
APPENDIX 44: THEMATIC PROGRESSION ANALYSIS OF GROUP 2'S FINANCE TEXT	559
APPENDIX 45: THEMATIC PROGRESSION ANALYSIS OF GROUP 3'S FINANCE TEXT	563
APPENDIX 46: NOMINALISATION ANNOTATION OF GROUP 1'S FINANCE TEXT	569
APPENDIX 47: NOMINALISATION ANNOTATION OF GROUP 2'S FINANCE TEXT	573
APPENDIX 48: NOMINALISATION ANNOTATION OF GROUP 3'S FINANCE TEXT	577
APPENDIX 49: COHESION ANALYSIS OF GROUP 1'S FINANCE TEXT	581
APPENDIX 50: COHESION ANALYSIS OF GROUP 2'S FINANCE TEXT	595
APPENDIX 51: COHESION ANALYSIS OF GROUP 3'S FINANCE TEXT	603
APPENDIX 52: A SCREENSHOT OF ABDULRAHMAN'S LITERACY ACTIVITY IN THE FINANCE MODULE.....	621
APPENDIX 53: TRANSCRIPTION OF ABDULRAHMAN'S INTERVIEW	623
APPENDIX 54: TRANSCRIPTION OF ABDULLAH'S INTERVIEW	625
APPENDIX 55: TRANSCRIPTION OF OMAR'S INTERVIEW.....	629
APPENDIX 56: TRANSITIVITY ANALYSIS OF GROUP 1'S MANAGEMENT ACCOUNTING TEXT	631
APPENDIX 57: TRANSITIVITY ANALYSIS OF GROUP 2'S MANAGEMENT ACCOUNTING TEXT	643
APPENDIX 58: COHESION ANALYSIS OF GROUP 1'S MANAGEMENT ACCOUNTING TEXT	667
APPENDIX 59: COHESION ANALYSIS OF GROUP 2'S MANAGEMENT ACCOUNTING TEXT	677
APPENDIX 60: THEMATIC PROGRESSION ANALYSIS OF GROUP 1'S MANAGEMENT ACCOUNTING TEXT	693
APPENDIX 61: THEMATIC PROGRESSION ANALYSIS OF GROUP 2'S MANAGEMENT ACCOUNTING TEXT	695
APPENDIX 62: NOMINALISATION ANNOTATION OF GROUP 1'S MANAGEMENT ACCOUNTING TEXT.....	697
APPENDIX 63: NOMINALISATION ANNOTATION OF GROUP 2'S MANAGEMENT ACCOUNTING TEXT.....	705
APPENDIX 64: THE SEMI-STRUCTURED INTERVIEW	715
APPENDIX 65: METADISOURSE ANALYSIS OF THE WIKI DISCUSSION PAGE 1.....	717
APPENDIX 66: METADISOURSE ANALYSIS OF THE WIKI DISCUSSION PAGE 2.....	721
APPENDIX 67: METADISOURSE ANALYSIS OF THE WIKI DISCUSSION PAGE 3.....	725
APPENDIX 68: METADISOURSE ANALYSIS OF THE WIKI DISCUSSION PAGE 4.....	735
APPENDIX 69: METADISOURSE ANALYSIS OF THE WIKI'S REPORT	737
APPENDIX 70: THE FREQUENCY OF PROCESS TYPES IN ACCOUNTING, FINANCE AND MANAGEMENT ACCOUNTING TEXTS.....	746
APPENDIX 71: TYPES OF COHESIVE TIES IN ACCOUNTING, FINANCE AND MANAGEMENT ACCOUNTING TEXTS	747

List of Tables

TABLE 1.1 INTERNATIONAL AND SAUDI TERTIARY STUDENTS' COMMENCEMENTS IN AUSTRALIA FROM 2002-2013 ..	2
TABLE 2.1 THE SYSTEM OF PROCESS TYPE (HALLIDAY, 1994)	17
TABLE 2.2 EXAMPLES OF FINITE MODAL OPERATORS.....	19
TABLE 2.3 THEME TYPES	21
TABLE 2.4 TEXTUAL RESOURCES.....	22
TABLE 2.5 HYLAND AND Tse (2004) AND HYLAND'S (2005A, 2010) MODELS OF METADISOURSE	30
TABLE 3.1 THE MAJOR LANGUAGE SYSTEMS IN SFL (JUDD & O'HALLORAN, 2010)	61
TABLE 3.2 THE DISTRIBUTION OF PARTICIPANTS IN EACH CASE STUDY	63
TABLE 3.3 A SUMMARY OF THE PARTICIPANTS' PROFILES	65
TABLE 3.4 MASTER OF COMMERCE ACCOUNTING PROGRAM MODULES	66
TABLE 3.5 THE PARTICIPANTS' COURSE SEQUENCES	67
TABLE 3.6 RESEARCH DESIGN AND TOOLS	72

TABLE 3.7 SF-MDA TOOLS	76
TABLE 4.1 THE GRADUATE ATTRIBUTES AND THE LEARNING OUTCOMES OF THE ACCOUNTING MODULE	94
TABLE 4.2 ACCOUNTING GRADUATES' GENERIC SKILLS IDENTIFIED BY THE ICAA/CPAA	96
TABLE 4.3 ACCOUNTING MODULE'S TOPICS, THE SEMIOTIC RESOURCES AND THE LEARNING OUTCOMES	98
TABLE 4.4 OMAR AND ABDULLAH'S TASK SHEET REQUIREMENTS AND THE CORRESPONDING LEARNING OUTCOMES	101
TABLE 4.5 A PIVOT TABLE OF THE SIX PARTICIPANTS' ACCOUNTING WRITTEN ASSIGNMENT	114
TABLE 4.6 EXAMPLES OF THE BALANCE SHEET TAXONOMIES	120
TABLE 4.7 ANALYSIS OF A CLAUSE IN ABDULRAHMAN'S BALANCE SHEET	121
TABLE 4.8 A REPRODUCED BALANCE SHEET FROM ABDULRAHMAN'S MID-TERM TEST	123
TABLE 4.9 FREQUENCY COUNT AND TOP KEY WORDS IN THE PARTICIPANTS' TEXTS.....	128
TABLE 4.10 LEXICAL DENSITY OF THE PARTICIPANTS' WRITTEN ASSIGNMENT	128
TABLE 4.11 THE FREQUENCY OF PROCESS TYPES IN THE FIVE ACCOUNTING TEXTS	129
TABLE 4.12 EXAMPLES OF IMPLICIT RELATIONAL IDENTIFYING PROCESS TYPE IN IBRAHIM AND HASAN'S TEXTS.....	130
TABLE 4.13 EXAMPLES OF RELATIONAL IDENTIFYING PROCESSES USED TO ASSIGN A FUNCTION TO THE PARTICIPANT	132
TABLE 4.14 EXAMPLES OF PASSIVE VOICE CLAUSES IN THE PARTICIPANTS' TEXTS	133
TABLE 4.15 THE FREQUENCY OF OCCURRENCE OF MODALISATION AND MODULATION IN THE PARTICIPANTS' TEXTS.....	135
TABLE 4.16 INSTANCES OF THE PEREMPTORY OBLIGATION 'MUST' IN OMAR, ABDULLAH, AND IBRAHIM'S TEXTS ...	136
TABLE 4.17 TYPES OF COHESIVE TIES IN THE FIVE TEXTS.....	138
TABLE 4.18 COHESIVE DENSITY INDEX IN THE FIVE TEXTS	141
TABLE 4.19 NOMINALISATION FREQUENCY COUNT OF THE PARTICIPANTS' TEXTS	145
TABLE 5.1 THE DISTRIBUTION OF THE THREE GROUPS IN THE FINANCE MODULE	151
TABLE 5.2 THE OBJECTIVES AND THE GRADUATE ATTRIBUTES OF CAPITAL BUDGETING MANAGEMENT REPORTS	153
TABLE 5.3 THE REQUIREMENTS OF THE THREE ASSIGNMENT TASK SHEETS	155
TABLE 5.4 THE REQUIREMENTS IN GROUPS 2 AND 3'S TASK SHEETS	157
TABLE 5.5 THE FREQUENCY OF PROCESS TYPES IN THE THREE GROUPS' WRITTEN ASSIGNMENTS	160
TABLE 5.6 EXAMPLES OF IMPLICIT RELATIONAL IDENTIFYING PROCESSES IN THE FINANCIAL TABLES.....	160
TABLE 5.7 EXAMPLES OF RELATIONAL IDENTIFYING PROCESSES IN THE THREE TEXTS.....	161
TABLE 5.8 EXAMPLES OF RELATIONAL PROCESSES USED TO ASSIGN A NEW FUNCTION TO THE PARTICIPANT.....	162
TABLE 5.9 EXAMPLES OF PASSIVE CLAUSES IN THE THREE TEXTS	163
TABLE 5.10 LEXICAL DENSITY OF THE PARTICIPANTS' WRITTEN ASSIGNMENT	164
TABLE 5.11 THE CONCEPTUAL/PROCEDURAL CALCULATIONS IN GROUP 2'S MANAGEMENT REPORT	165
TABLE 5.12 NPV'S FORMULA IN EXCEL	169
TABLE 5.13 FINANCIAL FUNCTIONS IN EXCEL	169
TABLE 5.14 SAMPLE EXCEL'S FORMULA FROM THE APPENDICES OF TEXT 2	170
TABLE 5.15 RANKSHIFTED NUCLEAR CONFIGURATIONS IN NPV FORMULA.....	171
TABLE 5.16 THE FREQUENCY OF OCCURRENCE OF MODALISATION AND MODULATION IN THE THREE TEXTS.....	173
TABLE 5.17 THE USE OF THE PEREMPTORY OBLIGATION 'SHOULD' AND 'MUST' IN TEXTS TWO AND THREE	174
TABLE 5.18 THE USE OF MODAL VERBS AS A CONGRUENT REALISATION OF MODULATION	175
TABLE 5.19 THE USE OF MODALISATION IN THE THREE TEXTS	176
TABLE 5.20 KEY STATISTICS OF THE THREE GROUPS' MANAGEMENT REPORTS	178
TABLE 5.21 THE FREQUENCY OF THEMATIC PROGRESSION PATTERNS IN THE THREE TEXTS.....	179
TABLE 5.22 THE DEVELOPMENT OF THEME AND INFORMATION STRUCTURE IN THE THREE TEXTS	181
TABLE 5.23 EXAMPLES OF IT-CLAUSES IN THE THREE TEXTS.....	183
TABLE 5.24 NOMINALISATION FREQUENCY COUNTS IN THE THREE TEXTS (PER 1500 WORDS)	185
TABLE 5.25 TYPES OF COHESIVE TIES IN THE THREE TEXTS.....	186
TABLE 5.26 COHESIVE DENSITY INDEX IN THE THREE TEXTS	187
TABLE 5.27 FREQUENCY AND TOP KEY WORDS IN THE THREE TEXTS.....	189
TABLE 5.28 EXAMPLES OF LEXICAL CHAINS IN THE THREE TEXTS.....	190

TABLE 5.29 THEME IN A MANAGEMENT REPORT STATISTICAL GRAPH.....	194
TABLE 5.30 TRANSITIVITY ANALYSIS OF THE GROUP 1 INTUITIVE INTERPRETATION OF FIGURE 5.4 (APPENDIX 37)	195
TABLE 5.31 COHESION ANALYSIS OF THE GROUP 1 INTUITIVE INTERPRETATION OF FIGURE 5.4 (APPENDIX 49)....	196
TABLE 6.1 THE GRADUATE ATTRIBUTES AND LEARNING OUTCOMES OF THE <i>MANAGEMENT ACCOUNTING</i> MODULE	210
TABLE 6.2 CURRICULUM OF THE <i>MANAGEMENT ACCOUNTING</i> MODULE.....	211
TABLE 6.3 THE REQUIREMENTS OF THE ASSIGNMENT	213
TABLE 6.4 A PIVOT TABLE OF NUMERACY REPRESENTATIONS IN THE PARTICIPANTS' TEXTS	218
TABLE 6.5 THE FREQUENCY OF PROCESS TYPES IN THE TWO GROUPS' WRITTEN ASSIGNMENTS	219
TABLE 6.6 EXAMPLES OF RELATIONAL PROCESSES USED TO ASSIGN A NEW FUNCTION TO THE PARTICIPANT	221
TABLE 6.7 FREQUENCY COUNT AND TOP KEY WORDS IN THE TWO TEXTS	222
TABLE 6.8 LEXICAL DENSITY IN THE PARTICIPANTS' WRITTEN ASSIGNMENT.....	223
TABLE 6.9 MODALISATION AND MODULATION IN THE MANAGEMENT ACCOUNTING TEXTS.....	224
TABLE 6.10 INSTANCES OF MODULATION IN THE TWO GROUPS' TEXTS.....	225
TABLE 6.11 TYPES OF COHESIVE TIES IN THE TWO TEXTS	226
TABLE 6.12 COHESIVE DENSITY INDEX IN THE TWO TEXTS.....	228
TABLE 6.13 EXAMPLES OF THEMATIC PROGRESSION IN THE TWO GROUPS' TEXTS.....	229
TABLE 6.14 NOMINALISATION FREQUENCY COUNT OF THE TWO GROUPS' TEXTS	231
TABLE 7.1 THE TASK SHEET QUESTIONS AND THE PAGE TITLES CREATED BY THE GROUP IN THE WIKI	238
TABLE 7.2 THE FREQUENCY OF METADISOURSE MARKERS IN THE WIKI DISCUSSION PAGES AND THE REPORT	246
TABLE 8.1 A PIVOT TABLE OF THE RESEARCH STUDY'S CORPUS	250
TABLE 8.2 MAPPING THE DIRECTIVES LISTED IN THE LEARNING OUTCOMES SECTIONS IN THE COURSE OUTLINE READERS IN THE FOUR MODULES WITH THEIR COUNTERPARTS IN THE ASSIGNMENT TASK SHEETS/TESTS.	254
TABLE 8.3 MODALISATION AND MODULATION IN THE THREE MASTER OF COMMERCE MODULES.....	263

List of Figures

FIGURE 2.1 LANGUAGE AND CONTEXT: SYSTEM AND INSTANCE (HALLIDAY, 1998, p. 8)	14
FIGURE 2.2 THE MOOD SYSTEM NETWORK IN ENGLISH (HALLIDAY & MATTHIESSEN, 2004, p. 23)	18
FIGURE 2.3 METAFUNCTION IN RELATION TO LANGUAGE, REGISTER AND GENRE (MARTIN, 2009, p. 12)	25
FIGURE 3.1 SYSTEMICS INTERFACE (JUDD & O'HALLORAN, 2010)	82
FIGURE 4.1 THE TUTOR'S NOTES ON THE TRANSPARENCY	106
FIGURE 4.2 AN EXCERPT FROM ABDULRAHMAN'S MID-TERM TEST	107
FIGURE 4.3 AN EXCERPT FROM ABDULRAHMAN'S MID-TERM TEST	118
FIGURE 4.4 AN EXCERPT FROM ABDULRAHMAN'S MID-TERM TEST	120
FIGURE 4.5 AN EXCERPT FROM ABDULRAHMAN'S MID-TERM TEST	122
FIGURE 4.6 AN EXAMPLE OF MULTIPLE-THEME PATTERN IN ABDULRAHMAN'S TEXT	142
FIGURE 5.1 AN EXCERPT FROM GROUP 2 TEXT, APPENDIX 44	180
FIGURE 5.2 MULTIPLE-THEME PATTERN IN GROUP 3 TEXT.....	182
FIGURE 5.3 EBIT TIME SERIES GRAPH IN GROUP 1'S TEXT (APPENDIX 37)	191
FIGURE 5.4 SENSITIVITY ANALYSIS GRAPH IN GROUP 1'S TEXT (APPENDIX 37)	192
FIGURE 6.1 A SAMPLE FROM GROUP'S 2 SUBMITTED ASSIGNMENT.....	215
FIGURE 6.2 A SNAPSHOT OF GROUP 1'S MEMO.....	218
FIGURE 8.1 THE GRAMMAR OF THE BALANCE SHEET IN TERMS OF COMPOSITIONAL ZONES.....	268

Abbreviations

BLE: Blended Learning Environment
CMS: Course Management System
CPA: Certified Public Accounting
CPAA: Certified Practising Accountants Australia
EAL: English as an Additional Language
EFL: English as a Foreign Language
EAP: English for Academic Purposes
ESL: English as a Second Language
ESP: English for Specific Purposes
GEAP: General English for Academic Purposes
ICAA: Institute for Chartered Accountants in Australia
IELTS: International English Language Testing System
IL: Information Literacy
LMS: Learning Management System
NLS: New Literacy Studies
OLE: Online Learning Environment
PASS: Peer-Assisted Student Support
PBL: Problem Based Learning
PEP: Pre-Enrolment English Program
SFL: Systemic Functional Linguistics
SF-MDA Systemic Functional Multimodal Discourse Analysis
SOCPA: Saudi Organization for Certified Public Accountants

Abstract

The purpose of this ethnographic case study is to document multimodal literacy and numeracy practices of seven Saudi postgraduate students enrolled in the Master of Commerce Accounting program at the University of Adelaide, Australia. Specifically, it aims to investigate the interrelated dimensions of multimodal texts, literacy and numeracy practices, and contexts.

The study employs a multidimensional framework for researching the participants' literacy and numeracy practices in three course modules: *Accounting Concepts and Methods*, *Principles of Finance*, and *Management Accounting*. The study includes a metadiscourse analysis of collaborative wiki literacy practices in the *Intermediate Financial Reporting* module. The framework consists of three stages of analysis: description of literacy and numeracy requirements, description of literacy events and participants' actual practices and their experiences, and a Systemic Functional Multimodal Discourse Analysis (SF-MDA) of Business texts. The analysis of the study is primarily based on Systemic Functional Linguistics (SFL) (Halliday, 1985; Halliday & Hasan, 1976; Halliday & Matthiessen, 2004). The findings of the case study revealed the academic literacy and numeracy practices students were expected to manage with in key topics in the business modules.

The analysis of the three accounting modules and the online literacy practices revealed the multimodal and multisemiotic nature of accounting discourse, diversity of text type, the literacy and numeracy practices, and features of collaborative learning. The multiple-perspective framework has implications for the investigation of tertiary students' literacy practices in other disciplines with the application of an SF-MDA of financial statements, graphs, and mathematical symbolism.

Statement of original authorship

I certify that this work contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution to and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition, I certify that no part of this work will, in the future, be used in a submission for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint-award of this degree.

I give consent to this copy of my thesis when deposited in the University Library, being made available for loan and photocopying, now or hereafter known, subject to the provisions of the Copyright Act 1968.

The author acknowledges that copyright of published works contained within this thesis resides with the copyright holder(s) of those works.

I also give permission for the digital version of my thesis to be made available on the web, via the University's digital research depository, the Library catalogue, and also through web search engines, unless permission has been granted by the University to restrict access for a period of time.

Signed: _____ Date: _____

Acknowledgements

All praises and thanks are due to Allah, the Almighty, for giving me the chance to exert sustained efforts to finish my PhD thesis project. Without His Grace and Mercy, this project would not have been accomplished. My thanks then go to the many people whose support and encouragement have contributed to this thesis. I give my sincere gratitude to my principal supervisor Dr Peter Mickan, and secondly, to my co-supervisor Dr Michelle Picard. It has been a privilege to work with two scholars of their calibre. I have appreciated their knowledge, wisdom, and encouragement throughout the intensive process of research. I would like to thank the anonymous reviewers of the papers I published during my candidature. I also thank the anonymous examiners of this thesis for their constructive feedback.

I thank the anonymous lecturers and tutors who gave me the opportunity to attend their classes, and provided me with invaluable data set. I am also indebted to the research participants, without their contribution this thesis would not have been possible. I thank them for their time, their effort, and the information they provided.

I also thank my colleagues at the Linguistics Discipline, the University of Adelaide, for attending my thesis orals throughout my candidature. I also acknowledge colleagues from the City University of Hong King for giving me the opportunity to present my research findings at the Halliday Centre for Intelligent Application of Language Studies, and in particular Prof Jonathan Webster for his feedback and interest in my research. I wish to thank all those members of Sysfling mailing list who have offered constructive comments on the transitivity analyses of confusing process types.

No words can express my deep gratitude to Dr. Odah. Al-Johani, the former chairman of the English Language Department at King Saud University (KSU), who I cannot thank him enough for all that he did for me.

I am grateful to my parents whose love and encouragement endowed me with the opportunity to grasp the prerequisite experiences to successfully engage in the PhD journey. I sincerely express my appreciation to my beloved wife and six kids for all that they have done, and for all that they are doing.

Chapter 1: Introduction

The concept of academic literacies in a socio-cultural sense consists of multiple literacies that are socially situated in a particular time and space (Barton & Hamilton, 1998, p. 71) and they encompass the activities, the social semiotic resources, and events learners engage in to represent disciplinary knowledge and literacy practices. Academic literacies acknowledge the whole institutional and epistemological context (Lea & Street, 1998).

The purpose of this ethnographic case study is to document and analyse the dynamic socio-cultural literacy practices of tertiary business discourse community. Specifically, it aims to provide an account of the meaning generated in the Master of Commerce Accounting program. This includes investigating the interrelated dimensions of multimodal and multisemiotic texts, literacy and numeracy practices, and contexts. The participants in the study are seven male Saudi postgraduate students enrolled in the Master of Commerce Accounting program at the University of Adelaide, Australia, in addition to 12 non-Saudi international students who only consented to the analysis of the group assignments they did with their Saudi counterparts.

1.1 Rationale for the study

Most international English as Second/Foreign Language (ESL/EFL) students in Australia and elsewhere are enrolled in business and commerce programs (Alyousef & Picard, 2011). The number of international tertiary students' commencements in Australia, and especially Saudis, has increased rapidly during the past five years, as illustrated in **Table 1.1**.

The total number of Saudi students' commencements has grown considerably since 2008. While it was just below 700 students in 2007, interestingly, it almost doubled in 2008 and increased by 107% in 2009. The Monthly Summary of International Student Enrolment (AEI, June 2010) in Australia reveals that "management and commerce was the top broad field of education in higher education, accounting for 47.1% of enrolments and 47.3% of commencements".

Table 1.1 International and Saudi tertiary students' commencements in Australia from 2002-2013

Year	Number of International Students	Number of Saudi Students
2002	62,137	24
2003	66,970	57
2004	72,431	111
2005	72,995	215
2006	74,546	421
2007	79,676	656
2008	88,885	1,162
2009	101,284	2,412
2010	101,021	2,826
2011	95,406	2,438
2012	89,326	1,923
2013	55,626*	1044*

Australian Bureau of Statistics Website <http://aei.gov.au>

*2013 commencements until June

Yet, there is a lack of research on the literacy and numeracy practices that construe disciplinary courses. Considering this rapid increase in the number of Saudi students in Australian university education, the importance of examining the key academic multimodal literacy and numeracy practices in the Master of Commerce Accounting program becomes pertinent since these practices play a vital role in maximising their rich and broad learning experiences.

Although the momentum of academic literacies research has increased during the past three decades, most of these studies have focused on academic writing (Ivanič & Lea, 2006; Leki, 2003; Spack, 1997) and/or discrete aspects of language skills, rather than focusing on students' multimodal and multisemiotic academic literacy experiences. Spack (1997) and later Leki (2003) called for the need for research in L2 writing that takes into account the social nature of literacy and the socio-cultural issues in writing. Leki (ibid, p. 103) is of the opinion that

work in L2 writing has been somewhat under theorized, not in terms of developing or debating specific aspects of L2 writing but in terms of connecting what we do to broader intellectual strands, domains, and dimensions of modern thought and contemporary lived experience.

It is important to investigate how the Saudi student cohorts in this study represent the multimodal business discourse in Australia, including their lived experiences

and their basic approach to studying, assessment, student and teacher role models, attitudes and expectations, disciplinary concepts, genres, and discourse and lexis.

Business literacy has been defined differently in workplaces and in an unclear way. Baskin (2000, p. 70) points out that the divergent applications of literacy across the business professions led to the “distinct lack of consensus over the meaning of literacy in higher education communities”. This has led to the emergence of the concept of a literacy crisis in tertiary literacy standards (Baskin, 2000; Ellis & LeCourt, 2002; Lea & Street, 1998; Romano, 2005; Soler, 1999). The crisis was mainly caused by the literacy deficits which are constructed as “a major contributor to a decline in academic standards” (Baskin, 2000, p. 71). International accounting firms discuss the failure of universities in the US to prepare entry-level accountants in specific core competencies like budgeting and product costing (Bolt-Lee & Foster, 2003). Similarly, some universities in Saudi Arabia (AlHarthi & AlKhamees, 2010) are conducting workshops with private and public employers in order to adjust their curriculum to the needs of the market. Garzone (2009, p. 156) also points out that “so far, contributions from linguists specifically dealing with multimodality in business discourse have been relatively few, and most of them have been based on the analysis of single cases or genres”.

Despite the fact that there is a number of research studies which have investigated the academic literacy practices of non-native postgraduate students, most of these have investigated second language learning or the academic literacies of undergraduates (Jones, 2006; Lea & Street, 1998; McCune, 2004; Okawa, 2008; Smith, Campbell, & Brooker, 1999; Spack, 1997). Only AlHuthali (2007) investigated mechanical engineering discourse of Saudi students at epistemological and lexico-grammatical levels, though the study was conducted over a short period. There is a lack of research case studies that investigate the literacy and numeracy practices of Saudi postgraduate students in Business. There is a lack of research that employs both the New Literacy Studies and Systemic Functional Linguistics (henceforth SFL) to describe the vivid multimodal, complex, and social situated literacy practices across tertiary postgraduate business modules.

This research study is unique in that it is the first to investigate the literacy and numeracy practices of Saudi postgraduate students in the Master of Commerce Accounting program in Australia from the perspective of SFL and academic literacies models.

1.2 Research Questions

The overall aim of this thesis is to understand the literacy features of business discourse communities. Specifically, it aims to provide an account of the multimodal and multisemiotic meaning generation in the Master of Commerce Accounting program at the University of Adelaide, South Australia. This includes investigating the practices, events and texts students are expected to engage with in a number of modules. The thesis also aims to explore how non-native Business major postgraduate Saudi students engage in academic literacy and numeracy practices and what they think about what they do in and beyond their programs.

The research questions motivating the present research study are as follows:

1. What are the key academic literacy and numeracy practices students studying in Australia are expected to engage with in each of the four Master of Commerce Accounting program modules?
2. How do international students and in particular Saudi students represent linguistic and conceptual notions of academic literacy and numeracy practices in the four Master of Commerce Accounting program modules?
 - 2A. How do international students, and in particular Saudi students studying in Australia represent notions of linguistic and conceptual business knowledge (or make meaning) through the production of texts in accounting, finance, and management accounting?
 - 2B. What are the main the textual and the interpersonal metadiscourse

features in international students' collaborative *Intermediate Financial Reporting* module's assessment task, both in the wiki discussion pages and the report?

3. What are the Saudi students' experiences and perceptions of their engagement in academic literacy and numeracy practices in a number of literacy events in the four Master of Commerce Accounting program modules?

3A. What are Saudi students' experiences and perceptions of their engagement in academic literacy and numeracy practices in a number of literacy events (lectures/seminars/tutorials/assignments) in the four Master of Commerce Accounting program modules?

3B. What are Saudi students' perceptions of the relevance and significance of their tertiary literacy and numeracy practices to those in workplace and in private life situations?

4. Did wiki facilitate collaborative learning in this module's assessment task? and
5. What assessment approach does the tutor adopt in the *Intermediate Financial Reporting* task?

Research questions 2A and 2B are listed together since they are interrelated. Similarly, questions 3A and 3B are listed together.

1.3 Significance of the study

Baynham (1995, p. 3) states that little is known about the acquisition process of academic literacies "despite decades of research about the ways in which children and adults become literate. Detailed ethnographic case studies of literacy acquisition in process may hold the key to unlocking how these processes work".

A number of researchers (Bateman, 2011; Kress, 2000b; Lea & Street, 2006; Lillis, 2003, 2006; Lillis & Scott, 2007; Wingate, 2012) argue that academic literacies research has yet to be developed as a design frame.

With the increased diversity of international university students, a body of research has recently emerged with a focus on studying the framework of tertiary academic literacy and students' academic writing in an effort to contribute to pedagogy as theory and/or practice (Ferenz, 2005; Fletcher, 2004; LIHERG; Mickan & Slater, 2003; Nye, 2006; Smith et al., 1999; Wingate, 2012)¹. The research may have significance for curriculum designers, materials development and pedagogy. As Reder and Davila (2005, p. 183) argue, insights derived from the use of writing in situated social practices “could help educators develop new models of language and literacy education with applications to improved curricula and programs” that aim at facilitating students' acquisition of academic literacy. In his final editorial for *English for Specific Purposes*, Swales (1994) appealed for more data-based investigations into Business English, which may be valuable for English for Specific Purposes (ESP)/English for Academic Purposes (EAP) tutors. Knowledge of tertiary business discourse demands and writing requirements may inform tutors, course coordinators, and ESP/EAP curriculum designers.

Some SFL-based research studies (e.g. AlHuthali, 2007; Okawa, 2008) explored tertiary academic literacies over a short period and with a quite limited scope. For example, AlHuthali (ibid) explored whether the mechanical engineering literacies of Saudi postgraduate students are autonomous or social. However, due to the concise nature of the study, the researcher conducted only three field observations of practical sessions and seminars. He also interviewed the participants twice a week over two months.

In light of the extensive research on the academic literacy of ESL/EAL speaking students, and with the exception of AlHuthali (ibid), most academic literacies studies have investigated second language learning or the academic literacies of

¹ Language in Higher Education Research Group (LIHERG) <<http://www.kcl.ac.uk/innovation/groups/ldc/about/links/liherg.aspx>> is an inter-university, project-related group committed to raising awareness about the centrality of language use across disciplines in higher education and its vital role in the academic progress of students.

undergraduates (Jones, 2006; Lea & Street, 1998; McCune, 2004; Okawa, 2008; Smith et al., 1999; Spack, 1997). While Ferenz (2005) studied the role of socialisation process in developing non-native postgraduate students' literacy and its impact on students' academic writing, Riazi's (1997) social-cognitive study overlooks the functional aspect of language. Since literacy is not absolute, but changes according to culture, society and ideology, it is worthwhile to investigate how the Saudi Master of Commerce Accounting program participants engage in literacy and numeracy practices in Australian institutions.

This research is part of a wider research project of academic literacies of native and non-native students in Australia carried out by the Discipline of Linguistics, the University of Adelaide, the Literacy Practices and Success in Tertiary Study Project (Mickan, 2013).

The implications drawn from Saudi students' experiences contribute to the significance of the study. In addition, the research contributes to the growing body of work (AlHuthali, 2007; Ferenz, 2005; Hyland, 2005a, 2005b; Jones, 2006; McCune, 2004; Okawa, 2008; Wake, 2006) that addresses tertiary academic literacies.

1.4 Organization of the thesis

The thesis has been organised into eight chapters. Chapter one provides a rationale for this research study, identifying the broad gaps in the field and highlighting the potential significance of the study. It also introduces the research questions.

Chapter two presents a review of key theorists in academic literacy models, and it addresses the literature relevant to academic literacy research studies, in particular Halliday's language as a social semiotic theory, SFL, and the previous research studies on Systemic Functional Multimodal Discourse Analysis (henceforth SF-MDA). It also explores studies related to the analysis of mathematical symbolism and the literacy and numeracy practices of Business program students. Since textual features, particularly cohesion, constitute one of the main aspects in

academic reading and writing through which students make meaning, I review the literature investigating textual cohesion in Business textbooks and Arab students' academic writing. As one of the aims of this research project is investigating the literacy and numeracy practices of Business program students in a wiki, I briefly review the use of wiki as a socio-cultural model of learning, metadiscourse analysis models, and the related literature.

In Chapter three, I present the theoretical rationale for the framing of the ethnographic longitudinal research case design for this study. Key tenets in the interpretive design and Halliday's SFL are discussed. The chapter also introduces the context of the study, research site, my participants' profiles and it describes the methodology, which is principally guided by Halliday's systemic-functional social semiotic theory (Halliday, 1978, 1985; Halliday & Matthiessen, 2004). Then I present and discuss data sources and collection techniques, data analysis and presentation tools, and qualitative data management and coding tools. Consideration is given to issues related to ethics and validity and reliability, which are crucial features of all research. Finally, the chapter concludes with a description of how the pilot study helped to refine the research design and methodology.

In Chapters four to seven, I investigate the participants' literacy and numeracy practices in the four Master of Commerce Accounting modules: *Accounting Concepts and Methods* (Chapter 4), *Principles of Finance*, (Chapter 5), *Management Accounting* (Chapter 6), and *Intermediate Financial Reporting* (Chapter 7). In Chapters four to six, I investigate the participants' practices from multiple perspectives, employing the proposed multidimensional framework, whereas I focus in Chapter 7 on the use of metadiscourse markers in a wiki financial reporting collaborative task.

Chapter eight is devoted to the discussion of the main findings of the case studies and the conclusion, including the theoretical and methodological implications of the research study, the pedagogic implications, its limitations, recommendations and suggestions for future research studies, and concluding remarks.

Chapter 2: Literature Review

Introduction

This chapter provides a review of the key theorists and research studies investigating academic literacies relevant to the present study project. Academic literacies are construed as set of socially situated multimodal and multi-semiotic literacy and numeracy social practices mediated by the institutional discourses and practices (Gee, 2008, 2012; Lave & Wenger, 1991). The literacy practices are situated because learning is “a way of being in the social world, not a way of coming to know about it” (Hanks, 1991, p. 24). Therefore, I present a review of the literature which takes social semiotics, SFL and multimodal academic literacies approaches into account.

The literature review is structured into three parts. The first part, Sections 2.1 and 2.2, presents a review of the main theories underpinning my research project, namely literacy models and Halliday’s (1978, 1985) systemic functional social semiotic theory of language. I explain the value of SFL for my research project in providing a wide range of linguistic resources for handling and interpreting multimodal socio-cultural literacy practices. I present a brief overview of the social context and the lexico-grammatical stratum of language. The second part, Sections 2.3-2.4, presents the use of wiki as a socio-cultural model of learning and Hyland and Tse (2004) and Hyland's (2005a, 2010) models for metadiscourse analysis. The third part, Section 2.5, presents a review of research studies on students’ academic literacy practices, including the use of wikis, the use of metadiscourse, academic socialisation and students’ experiences, business literacy in tertiary settings, textual cohesion, and multimodal representation with an SFL slant.

2.1 Literacy Models

Since my research project focuses on tertiary students’ writing, their literacy experiences, and perceptions of those experiences, a focus on this element of the literature follows. A number of scholars (Barton & Hamilton, 1998; Baynham, 1995, 2000; Cazden et al., 1996; Gee, 2000, 2002, 2008; Halliday, 1978, 1985,

1993a; Halliday & Matthiessen, 2004; Kalantzis & Cope, 2012; Lea, 2004; Lea & Street, 1998, 2006; New London Group, 2000; Street, 1984) have argued for approaches to understanding students' literacies in academic contexts. Luke and Freebody (2000, p. 9) define literacy as "the flexible and sustainable mastery of a repertoire of practices with texts of traditional and new communications technologies via spoken language, print and multimedia". Since my study explores the socio-cultural repertoire of multimodal meaning making processes and decisions writers take during their socialisation into disciplinary literacy and numeracy practices, I focus on models and approaches that are underpinned by this view. Two academic literacy models that are pertinent to my study are: the academic literacies (or situated literacies) model and the New London Group's multiliteracies model (hereafter called academic literacies approaches).

Lea and Street (1998), the prime advocates of the first model, conceptualise literacy practices as encompassing three overlapping models: study skills, academic socialisation, and academic literacies. They contend that previous work falls within the study skills or the academic socialisation models since it recognizes disciplinary discourses and genres as homogenous; thus, practices not conforming to those valued by the hegemony are categorized as "deficient". As McKenna (2004, p. 133) states, academic literacy is "misunderstood as being a foundation for knowledge acquisition and dissemination"; consequently, some universities embed a generic skills-based courses into the mainstream courses to expand students' knowledge in academic literacies. The generic skills' model is common in some educational settings where teachers are viewed as transmitters of knowledge and students are expected to absorb this knowledge and replicate it accurately.

Similarly, as noted by Lea and Street (1998), a number of academic socialisation research studies have focused on students' uncritical acculturation into the stable disciplinary and subject-based discourses and genres. The source of this model is anthropology, psychology, and constructivism. For example, in relation to a topic addressed in the present study, the use of wiki in education, a number of researchers (e.g. Bruns & Humphreys, 2005; Cole, 2009; Cress & Kimmerle, 2008; Judd, Kennedy, & Cropper, 2010; Kimmerle, Moskaliuk, & Cress, 2009;

Luo, 2009; Moskaliuk, Kimmerle, & Cress, 2009; Pusey & Meiselwitz, 2009) argue that wiki supports the social constructivist learning model rather than the socio-cultural theory of learning, represented by the academic literacies approaches and Halliday's social semiotic theory of learning. This argument will be refuted in Section 2.3 since this claim contradicts with the view adopted in my research about language and learning.

The third literacy model, the academic literacies or situated literacies, is allied to the social and the ideological conceptualisation of the New Literacy Studies (NLS), which was originally proposed by Street (1984). This model extends the study skills and the academic socialisation models by encapsulating the broader institutional and epistemological context of the complex literacy requirements, students' identities, and power relations. This model links with Lave and Wenger's (1991, p. 51) view on learners' identities, that of "reproduction and transformation" resulting from "situated negotiation and renegotiation" between their understanding and experience of meaning. Writing is perceived as a social process of formulating meaning whereby ideas are explored, clarified, and reformulated. This model acknowledges that literacy requirements are complex social situated practices because they do not only emphasise writing but also institutional and epistemological requirements. This model is similar to the skills or socialisation models in many ways, except that it "views the processes involved in acquiring appropriate and effective uses of literacy as more complex, dynamic, nuanced, situated, and involving both epistemological issues and social processes" (Lea & Street, 2006, p. 369). It consists of multiple literacies that are socially situated within a specific culture, and in a particular time and space.

The second pertinent model proposed by the New London Group (Cazden et al., 1996) expanded on the academic literacies work by proposing the multiliteracies framework, which aims to stress 1) the need for new literacy pedagogy that 2) responds to cultural and linguistic diversity. This framework takes into consideration that "every act of meaning both appropriates available designs and recreates in the designing, thus producing new meaning as the redesigned" (New London Group, 2000, p. 36). Students develop a metalanguage that describes both the "what" of literacy pedagogy (design processes and design elements) and the

"how" of learning, the scaffolds that involve four pedagogical components (or moves): situated practice, overt instruction, critical framing, and transformed practice.

Like the academic literacies model, the first pedagogical move provides a similar way of referring to culture and situated practice for meaning-making in multimodal socio-cultural settings. The second one, overt instruction, refers to the use of metalanguage and languages of reflective generalization that describe the form, content, and function of the discourses of practice. Linguistic design metalanguage is based on SFL, and it includes clauses and logical relations between clauses, nominalisation, transitivity, and modality. The third move is concerned with genre and it interprets the social context and purpose of designs of meaning. In the last move, students' prior redesigned meaning making practices are transferred into other contexts. Whilst interviews corroborate the discursive practices that underlie the production of texts, I argue here that the New London Group's design elements cannot be operationalised. It is hard to draw a clear-cut line between students' transformed practices and the newly recontextualised practices since they permeate together (Gee, 1996). In an attempt to recalibrate its approach to literacy teaching, the New London Group reframed these components into four knowledge processes tags that contribute to learning how to mean: experiencing, conceptualizing, analysing, and applying. These processes are neither in linear sequence nor requiring balance, but are based on the learning goals and outcomes.

The academic literacies approaches, however, accord with SFL since meaning potential is the product of not only semantic options that are realised in the lexico-grammar but also the meanings underlying different types of social contexts. The perspectives of these approaches are, therefore, pertinent to my research case study as I attempt to provide a detailed examination of my participants' writing and learning activities in a number of events, taking into account the whole institutional and epistemological context. Some scholars, such as Williams (2004) doubts if the multiliteracies model would provide a sufficient basis for literacy since it lacks any theory of learning; yet, I argue that the academic literacies approaches align with a fundamental premise in Halliday's (1978, 1985) SFL

theory of language, the social-semiotic interpretation of meanings which model language as a social phenomenon governed by culture and situation. They are allied to SFL since they emphasise literacy as a socially situated practice and they perceive student writing as being concerned with the processes of meaning-making in multimodal socio-cultural settings. Unlike SFL, however, these approaches do not provide the linguistic resources for investigating multimodal academic literacies. They act at the ontological level as a guidepost for the theoretical framing of my research case study; however, they do not provide a detailed methodological research framework for describing and analysing the socially situated multimodal and multi-semiotic academic literacy practices.

Hence, in the next section I discuss the main tenets of Halliday's (1978, 1985) social semiotic theory which is essential in the present research project because it is a flexible, dynamic system of language that can be used as a tool in the exploration of multimodal meaning making choices and decisions writers use during their socialisation processes into disciplinary literacy and numeracy practices.

2.2 Halliday's systemic functional linguistic (SFL) theory

Halliday's (1978, 1985) social semiotic theory of language, SFL, views language as a social semiotic resource for making meaning and constructing knowledge within social contexts. Halliday (1993a, p. 94) argues that "language is the essential condition of knowing, the process by which experience becomes knowledge" through an activity, context, and culture. Students' knowledge of texts is embedded in context-specific practices. As stated earlier, SFL converges with academic literacies approaches since both view knowledge as the product of the ongoing situated social practices that are developed and used. Halliday's concept of open-ended meaning making semiotic potential (or language as a system) is the foundation of his theory. As shown in Figure 2.1 below, language consists of a set of finite interlocking systems of semantic choices, which are realised in wordings, or lexico-grammatical structures: in vocabulary and syntax.

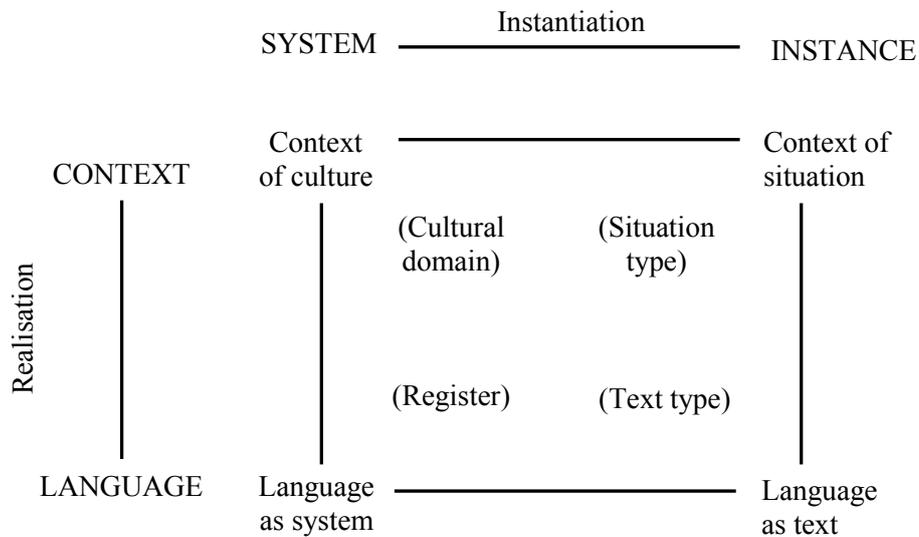


Figure 2.1 Language and context: system and instance (Halliday, 1998, p. 8)

Context encapsulates not only the immediate situation in which meanings are being exchanged, but also the broader culture within which participants are embedded. As Halliday (1998) notes, culture is instantiated in situation, while system is instantiated in text. At the vertical level, the cultural context is construed in the linguistic system (or systems of language choice), while the situational context is realised in the text. Both the context of situation and the cultural context of any text define whether the discourse is thematically coherent or not. Whereas the context of situation encompasses the three register variables (Halliday, 1985; Halliday & Matthiessen, 2004), the cultural context is represented by genre which is, in turn, realised through mode.

Although the actual texts we process and produce are limited, the potential is unlimited as we usually interact with a new text, go through semiotic mediation of the text, and then produce a text that is aligned with our socio-cultural context. As Halliday (1998, p. 23) states in educational learning, all the four quadrants in the figure above are involved since

the learner has to 1) process and produce text; 2) relate it to, and construe from it, the context of situation; 3) build up the potential that lies behind this text and others like it; and 4) relate it to, and construe from it, the context of culture that lies behind that situation and others like it.

SFL suits the context of my research project because, like the academic literacies approaches, it does not view literacy practices as something stable as in the study skills or the academic socialisation models. The socio-cultural context is interpreted through the multimodal semiotic resources we encounter, which include material resources, spatial resources, physical resources, signs of numeracy, and the signs of language. Semiotic resources do not only vary among individuals and/or groups but also undergo diachronic transformation of meaning over time.

Literate social practices cannot be explained without reference to texts as units of analysis (Halliday, 2007b; Halliday & Hasan, 1985). Mckan (2006b) stresses the need for studying texts in social practices as unit of analysis. He posits a research framework for exploring the dynamic social practices and their semiotic exponents, addressing a number of questions, including the following:

What are the social practices we engage in and what are the language conventions for participation? What systematic procedures are there for investigating semiotic resources of practices which are by definition not finite? What systems for analysis enable classification of social practices and their semiotic resources, including the text types of practices? (ibid, p. 21)

The social practices are investigated through the identification of authentic discourse features (Mckan, 2011). Learners' engagement in literacy practices is dynamic as are their use of the multifaceted semiotic resources.

The academic literacies approaches provide a means for investigating the social literacy practices associated with the written texts and their corresponding literacy events; SFL (Halliday, 1985; Halliday & Matthiessen, 2004) in its turn provides a wide range of linguistics resources for handling and interpreting multimodal socio-cultural literacy events which are mediated by written texts. The core of these resources is the lexico-grammatical stratum of language which is used to explore the three language metafunctions that construe meaning *ideationally*, *interpersonally*, and *textually*, and correlate respectively with the register variables of FIELD, TENOR, and MODE.

2.2.1 Social context and language

The meaning-making functions in Halliday's social semiotic are grouped into three language metafunctions for construing (or organising) meaning *ideationally*, by representing and ordering our experience, perceptions, consciousness, and the basic logical relations (oriented towards the field of discourse), *interpersonally*, by enacting certain social relationships (oriented towards the tenor of discourse), and *textually*, by weaving ideational and interpersonal meanings into a textual whole (oriented towards the mode of discourse). These metafunctions correlate respectively with three register semiotic variables: FIELD (what is talked about?), TENOR (how social roles and identities are constructed?), and MODE (How are the meanings organised). These variables provide useful tools in the present research study for the SF-MDA of the business discourse. The three language metafunctions correlate respectively with the three major systems of TRANSITIVITY, MOOD and modality, and THEME and information structure. The system of COHESION encompasses the logico-semantic relations and the textual meaning. Genre analysis is associated with mode (cf. page 71) since the textual metafunction weaves the ideational and interpersonal meanings into a textual whole. The importance of examining these systems becomes pertinent since they play a vital role in maximising my participants' learning experiences in the Master of Commerce Accounting program. In the next section I present an overview of these linguistic tools.

2.2.1.1 The TRANSITIVITY system

The major grammatical system in the experiential metafunction is TRANSITIVITY. This system represents our experience of the natural world to make meanings which are always about someone, something or someone doing something. It consists of three components: the process itself, the participants involved in the process, and the circumstances attendant on it, usually expressed by adverbial and prepositional phrases. Halliday classifies the transitive structure of the processes according to whether they represent states of actions, events (Material), the inner experiences of consciousness (Mental), and the processes of classifying and identifying (Relational). Located at the borderlines between these

three processes are three less clearly set apart because of their more indeterminate status, yet distinguishable processes: behavioural (those that represent outer manifestations of inner workings), verbal (symbolic relationships constructed in human consciousness and psychological states), and existential (processes concerned with existence). These six processes are best illustrated in Table 2.1 below.

Table 2.1 The system of process type (Halliday, 1994)

Process type	Category meaning	Central Participants,	Additional Participants,
Material: action event	'doing' 'doing' 'happening'	Actor= doer, (Goal= affected)	Initiator Range/Scope= not affected, Beneficiary (Recipient/Client) = to/for
Mental: perception affect cognition	'sensing' 'sensing' 'feeling' 'thinking'	Senser= doer, Phenomenon= thing known, liked/disliked, wanted, perceived	Inducer
Relational: attribution identification	'attributing' 'attributing' 'identifying'	Carrier= thing described, Attribute= description Identified, Identifier Token= form, Value= function or role	Attributor, Beneficiary, Assigner
Behavioural	'behaving'	Behaver= doer	Behaviour/ Range= done
Verbal	'saying'	Sayer= doer, Target/Recipient= said about	Receiver/Beneficiary= said to, Verbiage= said
Existential	'existing'	Existent	Existential

Having provided an overview of the system that realises the field of discourse, TRANSITIVITY, next I provide an overview of the major grammatical systems in the interpersonal function that realise the tenor of discourse: MOOD and modality.

2.2.1.2 MOOD & modality

The major grammatical system in the interpersonal meaning is MOOD, in which the clause functions as exchange between participants. Martinec (1998) proposes the term *interactional* instead of the interpersonal since the interactants in an action do not have to be human. MOOD is the semantic system for SPEECH

FUNCTION where exchanges involving (i) information and (ii) goods and services are classified as propositions and proposals respectively. The MOOD Block comprises the following components:

- Subject (S)
- Finite element (F)
- Polarity (either positive or negative)
- Modal Finite and Mood Adjunct

The system of polarity is used to indicate whether a proposition is positive or negative, whereas modality is used to express a degree that is in-between the two. The choice in the MOOD system between 'indicative' and 'imperative' is realized structurally: only indicative clauses normally have a Subject. The following figure illustrates the MOOD system's network of choices in English.

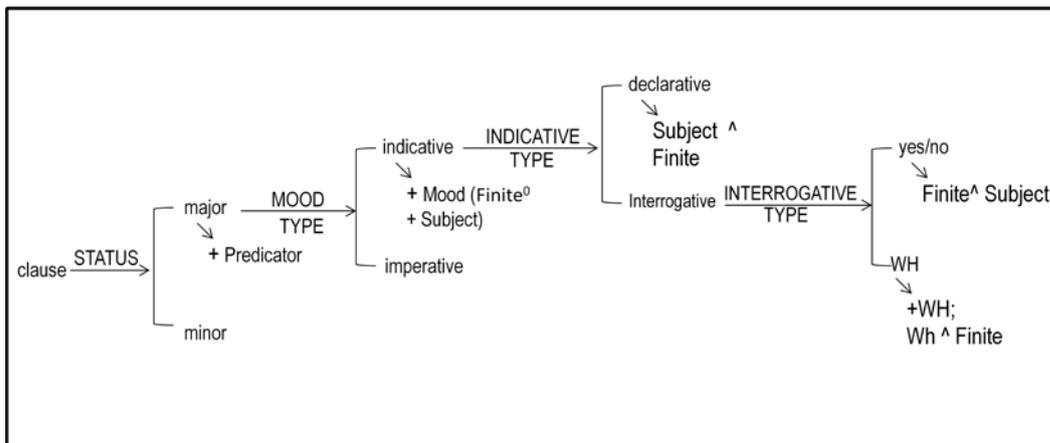


Figure 2.2 The MOOD system network in English (Halliday & Matthiessen, 2004, p. 23)

The MOOD system is dependent on the system of finiteness. Either indicative or imperative must be selected for the entry condition Finite. Indicative Mood is further divided into declarative Mood and interrogative.

MOOD consists of the two parts Mood ^ Residue with an optional Mood Tag. While the Mood component contains the Subject and the Finite, the Residue consists of a Predicator, one or more Complements (the non-essential participant in the clause), and any number of different types of Adjuncts that contribute some additional (but non-essential) information (Halliday, 1985). The Finite carries the

selections for number, tense, polarity, etc. The Predicator consists of the verbal group minus the Finite element. It occurs in the Residue. Complement is part of the Residue and consists of a nominal group participant which has the potential to be Subject. The only exception is the Attribute in a relational clause which functions as Complement but cannot function as Subject. Conjunctive Adjuncts (e.g. because, therefore) and Continuity Adjuncts (e.g. well, oh) are considered textual elements in the clause, Circumstantial Adjuncts (space, time, manner, cause, condition, etc) are considered ideational elements, and Modal finites and Mood Adjuncts (e.g. probably, may be, generally, certainly) and Comment Adjuncts (e.g. in my opinion, as expected, evidently) contribute to the interpersonal meaning since they add an expression of attitude and evaluation.

The Finite modal operators and Mood Adjuncts are classified according to the degree of certainty or usuality they express: i.e. low (might, possibly, sometimes), median (may, probably, usually), high (must, certainly, always). Modalisation involves the expressions of probability (likelihood) and usuality (the frequency), whereas modulation involves the expressions of obligation or inclination, as illustrated in the table below.

Table 2.2 Examples of Finite modal operators

Modalisation	Must= probability	Usually, always= usuality	May, Might= option, choice	Should= recommendation	
Modulation	Should= Obligation ,	Can, could= it is possible	Will-Would	Must =Obligation, requirement	Has Have

Having provided an overview of MOOD and modality, next I overview the three major systems in the textual function that realise the mode of discourse: THEME and information structure, Cohesion, and Genre.

2.2.1.3 THEME and INFORMATION structure systems

Theme and INFORMATION structure are the major structural systems within the textual metafunction since they facilitate the development of well-structured message, thereby providing cohesion within language. As Halliday and Matthiessen (2004, p. 94) state, “thematic and information structure carries the rhetorical gist of the clause”.

The notion of thematic progression was first introduced by Frantisek Daneš (1974) and later developed by Peter H. Fries (1981) and Halliday (1985). The most obvious thematic progression pattern in a text is the *zig-zag pattern* by which information placed in Rheme position is packaged in a subsequent Theme. This pattern makes the text cohesive through the cumulative development which is based on newly introduced information. Another thematic pattern which is drawn on to manage information flow is referred to as the *fan pattern* or *multiple-Theme pattern*. This pattern involves a clause (typically at the beginning of a paragraph or a text section) introducing a number of different pieces of information each of which are then picked up and used as Themes in subsequent clauses. A third form of thematic progression is one which re-iterates or maintains the Theme focus rather than developing it. It is referred to as *Theme re-iteration* or *the parallel pattern*. In this pattern the repetition of a particular element gives a clear focus to the text. Martinec (1998, p. 162) argues that feature selections and structures of the textual meaning “enable the ideational and interpersonal ones to form the cohesive wholes called phases”. Thus any stretch of text can be said to be cohesive when it is consistent in the experiential, interpersonal, and textual meaning.

The system of INFORMATION consists of two functional elements, GIVEN and NEW. Theme involves three major systems: choice of type of Theme, choice of marked or unmarked Theme, and choice of predicated or unpredicated Theme. There are three different Theme types (**Table 2.3**): textual, interpersonal and topical. Marked Theme refers to “atypical, unusual” choice while the unmarked means “most typical/usual” (Eggins, 2007, p. 318). While the unmarked Theme conflates with the Mood structure constituent- i.e. Subject (in a declarative

clause), Finite (in an interrogative), Predicator (in an imperative), or WH (in a WH-interrogative) - the marked Theme conflates with other constituents. For example, the Circumstantial element *In Switzerland* in the sentence ‘*In*

Table 2.3 Theme types

Textual Theme	Continuatives (e.g., <i>umm, yeah, ...</i>) Conjunctions (e.g., <i>and, or, but</i>) Conjunctive Adjuncts (e.g., <i>however, therefore, because, although, ...</i>) Wh-relatives (e.g., <i>which, who, ...</i>)
Interpersonal Theme	Vocatives (e.g., <i>Henry!, Sir!, ...</i>) Modal Adjuncts , including Mood and comment Adjuncts (e.g., <i>probably, usually, frankly, ...</i>) Finite elements (e.g., <i>modal auxiliaries, 'be' auxiliary, ...</i>) Wh-question words (e.g., <i>who, what, where, how, why</i>)
Topical Theme	Participant Circumstance Process

Switzerland they give you chocolate’ moved to thematic position. Another unusual case of marked Theme that occurs in conversations is when the Theme conflates with the Complement which more usually follows the verb, as in ‘*some of the comments* I’ve scrubbed out’. The clause initial Subject ‘I’ is unmarked Theme. Eggs (ibid, p. 320) states that “skilful writers and speakers choose marked themes to add coherence and emphasis to their text” through the use of Theme Predication.

As one of the main aims of the present project is to investigate the way international postgraduate business students construct cohesive texts, it is pertinent to study not only THEME and INFORMATION structure systems but also the system of cohesion, which I will review next.

2.2.1.4 Cohesion

A cohesive relation is defined by Halliday and Hasan (1976, p. 8) as “the semantic relation between an element in the text and some other element that is crucial to the interpretation of it”. Hasan (1985) states that coherence exists in a text when

‘meaning relations’ are realised by cohesive ties or chains (or the lexical and the grammatical patterns) that allow sentence sequence to be understood as connected discourse. Cohesion consists in the continuity of lexico-grammatical meaning and semantic connection with a preceding text. Halliday and Hasan (1976, p. 26) argue that cohesion “does not concern what a text means; it concerns how the text is constructed as a semantic edifice”. They list five types of cohesion: reference, substitution, ellipsis, conjunction, and lexical cohesion.

While the first three types are expressed through the grammar, lexical cohesion is expressed through the lexis, and conjunction is “mainly grammatical, but with a lexical component in it” (ibid, p. 6), i.e. it contains ties that are both grammatical and lexical. Unlike THEME/RHEME, cohesion is a non-structural system since it links “elements that are structurally unrelated to one another” (Halliday & Hasan, 1976, p. 27) to create a unified, coherent text. Halliday and Matthiessen (2004, p. 579) argue that “structural and cohesive resources work together in the marking of textual transitions and in the marking of textual statuses” as shown below.

Table 2.4 Textual resources

	Structural	Cohesive
Textual transitions [‘organic’]	(clause complex=>logical)	CONJUNCTION
Textual statuses [‘componential’]	THEME: Theme ^ Rheme; INFORMATION: Given + New	LEXICAL COHESION REFERENCE; ELLIPSIS/ SUBSTITUTION

Adapted from Halliday and Matthiessen (2004, p. 579)

Whereas conjunctions are concerned with textual transitions that form logical relations of clause complexing, the other cohesive resources (THEME, INFORMATION structure, reference, ellipsis, and substitution) are concerned with textual statuses that form textual cohesion between Theme and Information. Unlike reference and ellipsis, lexical cohesion does not only include components of messages, but also creates relations between whole messages, as do conjunctions. Conjunctive textual cohesion is captured through two types of logical-semantic relations that guide the rhetorical development of a text: expansion and projection. The projection relation is formed out when the

secondary clause projects through the primary clause, thereby instantiating it as a locution (wording) or an idea (meaning). Expansion is formed out when the secondary clause expands the primary clause through the use of one of the three main sub-types of expansion: elaboration, extension, and enhancement (ibid, p. 540). It is formed out of a mixture of paratactic (equal status) or hypotactic (unequal status) interdependency nexus. A paratactic relation is set up when two or more independent clauses are connected by conjunctive devices, while a hypotactic relation is set up when a dependent clause is connected to an independent (dominant) clause by a conjunctive device. Reference includes three types: personal, demonstrative and comparative. Endophoric reference, unlike homophoric and exophoric reference, is retrievable from within the text (Eggins, 2007). It can be of three kinds: anaphoric, cataphoric, or esphoric. Anaphoric reference occurs when the referent precedes the cohesive device. Whereas the referent follows the cohesive device in another sentence in cataphoric reference, it follows the cohesive device within the same nominal group/noun phrase in esphoric reference.

As the text-forming resources do not only include THEME and COHESION, but also GENRE, next, I review the longstanding arguments as to whether it should be associated with mode or be treated as a distinct cultural semiotic system. Whereas the academic literacies model focuses on practices at the level of culture, SFL focuses on genres.

2.2.1.5 Genre: an aspect of register or a distinct system

Genre constitutes the rhetorical features of a text and the semiotic communicative purpose(s) it serves. When investigating international postgraduate business students' literacy and numeracy practices, it is pertinent to conduct genre analysis of their multimodal texts.

Genre poses an issue of an ongoing debate in SFL. It is debatable as to whether it should be associated with the semiotic category of mode or be treated as a distinct cultural semiotic system that correlates with texture- i.e. the three register

categories of field, tenor, and mode- when the social processes are related to each other. As Martin (1999, p. 26) states, “the debate about modelling context was always in the air (from at least 1978)”. Whereas Martin (1985; 1992, 2009, 2011) correlates genre with the context of culture, Halliday (1978) associates it with mode. As he states, genre

. . . is an aspect of what we here call the ‘mode’. The various genres of discourse, including literary genres, are the specific semiotic functions of text that have social value in the culture. A genre may have implications for other components of meaning: there are often associations between a particular genre and particular semantic features of an ideational or interpersonal kind, for example between the genre of prayer and certain selections in the mood system. (ibid, p. 145)

SFL “has always been of an evolutionary kind rather than of a revolutionary kind” (Matthiessen, 2007, p. 505) since Halliday’s theories were built on his immediate predecessors. Halliday’s association of genre with mode was influenced by Hymes’ (1967) triadic construct of mode which covers channel, key and genre. Channel refers to the medium of transmission (oral, written, telegraphic, etc), and key to the manner (gesture, wink, attire, etc) in which an act is done. Hymes (ibid, p. 25) defines genres as “categories or types of speech act and speech event”. As each discipline uses a range of genres, it is pertinent to analyse and describe the social purposes and the rhetorical structure features of postgraduate accounting students’ texts in a number of literacy events. Genre is associated with mode since Halliday views situation as an instance of a system that is realised by language, as shown in

Figure 2.1 (cf. page 14).

On the other hand, Martin (2009, p. 13) defines genre as “a recurrent configuration of meanings and a culture as a system of genres”. Rather than being conceived as an aspect of ‘mode’, it is treated as a distinct cultural semiotic system that correlates with texture. Influenced by Malinowski, Martin associates genre with the context of culture. According to him, a given culture organises the “meaning potential into recurrent configurations of meaning, and phases meaning through stages in each genre” (ibid p. 12). One of Martin’s key contributions to educational linguistics is the Sydney School genre-based approach to language education. Influenced by Michael Gregory, Martin and Rothery (1980) and Martin

(1999) initially used the nomenclature ‘functional tenor’ to refer to genre, but then it was renamed genre to avoid confusion with personal tenor and to consolidate the association with text structure. Since the realisation of genre spread not only to personal tenor but across the three metafunctions of field, tenor and mode, it was reconceptualised at a more abstract level of context. Martin (1985; 1992, 1999, 2009, 2011) posits that the ‘higher level’ of genre coordinates the three register variables in relation to social purpose. The elements of a generic (or schematic) structure are thus generated by genre networks, which in turn preselect particular values of field, tenor and mode in a given culture. Genre is “a staged, goal-oriented social process realized through register” (Martin, 1992, p. 505). Martin adopts Halliday’s co-tangential circles imaging to exemplify the Sydney School’s stratified model of language and context.

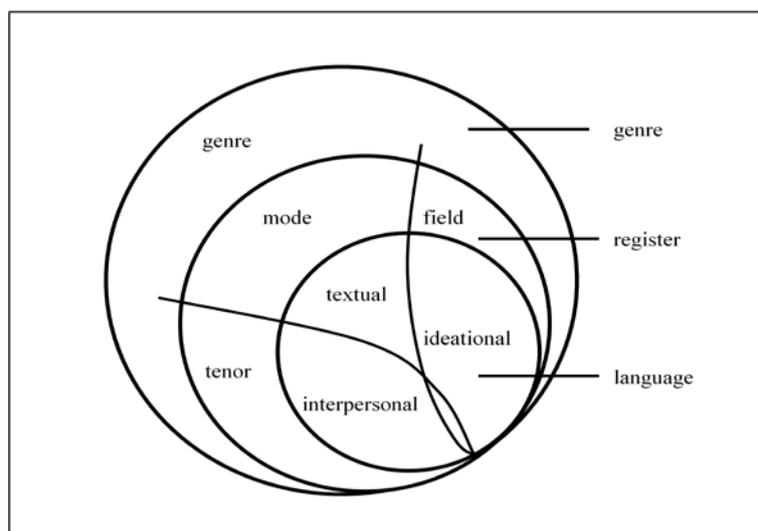


Figure 2.3 Metafunction in relation to language, register and genre (Martin, 2009, p. 12)

Language in the figure above functions as the expression plane of the social semiotic system of register, which in turn functions as the expression plane of genre. A genre is realised through register which in turn is realised through language, i.e. “genre metaredundants with register which in turn metaredundants with language” (Martin, 1999, p. 38). The notion of metaredundancy means that register is a pattern of linguistic choices, and genre a pattern of register choices (i.e. more abstract levels are interpreted as patterns of less abstract ones).

Martin extended the Hjelmslevian modelling of language and context, with “genre and register as layered connotative semiotic systems” (ibid, p. 30) whose expression plane was the denotative system (i.e. language). In a debate over “context, instantiation and stratification” in Sys-Func’s list server, Martin (17 Aug 2012) seems to have decided to give up the terms context of culture and context of situation since they are confusing. He argues that context as a stratum of meaning in a stratified model is “formalised in genre networks realised through register (field, tenor and mode) networks”, while in an unstratified model it is “formalised as field, tenor and mode networks”. Yang (2010, p. 26) doubts the feasibility of relating the schematic structure of a genre to field, tenor and mode “if they are two strata of context realising each other”.

Following Halliday (1978), Hasan (1977), and Lukin *et al.* (2011), though, I resist the stratification of context as genre and register, and prefer to associate genre with mode, since mode weaves the ideational and interpersonal meanings into a textual whole, i.e. the recurrent configurations (or structure features) of meaning in any text are construed by the three register variables. As Lukin *et al.* (ibid, p. 189) argue, since language interfaces with the sociosemiotic environment, Halliday’s notion of register is “particularly well geared to describing language variation and consistency without making such language variation isomorphic with social variation”. Halliday’s model of language highly regards the dynamics of social change as it does not stratify the relation of genre and register, and situation is regarded as an instance of a system that is realised by language. Register acts as a mediator since it connects a text with its socio semiotic environment (or context). As Halliday (1978, p. 145) argues “there are often associations between a particular genre and particular semantic features of an ideational or interpersonal kind”. Since the choices and decisions writers make are based not only on the given culture but also the situational social purpose of the text, mode includes not only the systems of Theme and cohesion but also genre. The choices are related to the contextual configuration (CC) at the level of register in Hasan’s (1977) discourse structure theory, which can predict the Generic Structure Potential (GSP) of a given genre. Some CCs in the language system will be obligatory, functioning as realisations of a given generic potential, while others

are optional. Context thus organises the meaning potential into recurrent configurations of meaning.

The literature review in Section 2.2 showed that SFL provides tools for describing the multimodal semiotic register variables of tertiary business discourse. Whereas academic literacies approaches are concerned with practices in context and SFL with texts in context, they appear incommensurable in academic literacies research. In Section 8.4.1, I further discuss the issue surrounding their relationship, i.e. whether the two are compatible or incommensurable.

As one of the aims of this research project is investigating the literacy and numeracy practices of business students in a wiki, next I attempt to determine which of the following learning theory best suit the wiki's collaborative learning activities: the socio-constructivist model of learning or the socio-cultural theory of learning (represented by the academic literacies approaches and Halliday's social semiotic theory).

The second part (2.3-2.4) of the literature review is devoted to a review of the use of wiki as a socio-cultural model of learning and metadiscourse analysis models.

2.3 Wiki: a socio-cultural or a socio-constructivist model for learning

The majority of research (Bruns & Humphreys, 2005; Cole, 2009; Cress & Kimmerle, 2008; Judd et al., 2010; Kimmerle et al., 2009; Luo, 2009; Moskaliuk et al., 2009; Pusey & Meiselwitz, 2009) on the use of wikis in education has been conducted within the neo-Vygotskian constructivist model of learning which is based on the socio-cognitive theory, as opposed to the socio-cultural theory adopted in my research case study project. This trend is not surprising as it extends curriculum theorising views that were predominant throughout the twentieth century (Christie, 2007). A key tenet of this model is that knowledge is individually constructed and socially co-constructed by learners based on their interpretations of experiences in the world (Jonassen, 1998).

This model has a number of major components. First, learning often results from hypothesis-testing experience by an individual. Accordingly, inference is used when a learner comes across something that is not understood. According to Lin and Hsieh (2001, p. 379), “learning occurs as individuals exercise, verify, solidify, and improve their mental models through discussion and information sharing”. Whereas this model and the socio-cultural model of learning emphasise the importance of social processes (collaborative learning), the former views knowledge as static rather than contested and, as a result, terms like strategies, assimilation, retention, internalisation, externalisation, and construction of knowledge are more frequent (often appear) in this kind of research. Second, learning is not viewed as a social event but rather as a by-product of the integration of active mental processes with existing knowledge. Third, “learning can often take place without any external, noticeable indicators” (Tracey & Morrow, 2012, p. 58). Thus the internal learning mechanisms of an individual learner are unobservable to the external viewer.

Cress and Kimmerle (2008) use the dichotomy social/cognitive systems to describe learning in the wiki as interplay between these two systems. Both systems develop through time in a dynamic way and become more and more complex. A question that poses itself here is how one can tap the intangible cognitive structures that facilitate the process of learning. As these aspects cannot be operationalised in practice, they are not dealt with in the socio-cultural model for literacy learning. As a result, it is fair to argue that wikis support the socio-cultural theory for literacy learning, as knowledge is the product of the ongoing situated social literacy practices that are contested around the meaning making processes. This theory does not deny the cognitive aspect but it deals with concrete instances of the system, texts and practices, represented by the context (Halliday, 1978, 1985). Each individual reader possesses an independent interpretation of a text since learners utilise their experiences when making meaning from the information in the text. As Au (1997, p. 184) states, “even reading a book alone can be considered a social activity, because the reader is engaged with the author” and the reader’s experiences are elicited “from the thinking of others and result from previous social interactions”. Lin and Hsieh (2001, p. 380) erroneously claim that “the major implication of the socio-cultural

model is that students should participate on their own terms”, rather than within their communities of practice. For this reason, some scholars adopt the constructivist view of text comprehension and the socio-cultural perspective for the analysis of texts in their research (e.g. Riazi, 1997; Roebuck, 1999).

To sum up, wikis support Halliday’s socio-cultural-oriented pedagogical approaches to learning. Wikis provide active social learning environments and technologies through which learners use language as the main source for making meaning, as they engage in collaborative meaning-making processes. Bruns and Humphreys (2005) contend that a team’s social interaction with other students’ viewpoints and experiences provide a rich environment for learning. Thus no effort is made in this research project to describe the intangible cognition processes through which learners construct knowledge as other studies do, but rather to document learners’ socialisation experiences and analyse concrete instances of their language use.

As one of the aims of this research project is investigating the nature of business students’ engagement in a collaborative wiki task, I used Hyland and Tse (2004) and Hyland’s (2005a, 2010) metadiscourse analysis models to explore the interactive and interactional interpersonal features that constitute an aspect of knowledge structures in socio-cultural theory. Although these features can be explored through the robust appraisal systems, I decided to use these models since they complement Martin and White’s (2005) engagement system, which is a vast and complicated system network that requires a dedicated monograph. Whereas the engagement system is “a useful analytical and explanatory framework to support pedagogy”, Hyland’s models are “useful pedagogical” tools (Chang, 2012, p 218). The next section is, therefore, devoted to a review of metadiscourse analysis models.

2.4 Metadiscourse analysis models²

Metadiscourse analysis reveals the way students engage with different writing genres and communicate with each other. As Hyland (2010, p. 127) states,

² Alyousef & Picard (2011, pp. 465-466).

through metadiscourse analysis we can "access the ways that writers and speakers take up positions and align themselves with their readers in a particular context".

Hyland and Tse (2004) and Hyland's (2005a, 2010) models assume two main categories for metadiscourse, interactive and interactional, that recognise the organisational and evaluative features of interaction respectively (Table 2.5).

While interactive discourse refer to "the writer's management of information flow" to help guide the reader through the text, interactional markers refer to the writer's "explicit interventions to comment on and evaluate material" (Hyland & Tse, 2004, p. 168) in order to involve the reader in the argument.

Table 2.5 Hyland and Tse (2004) and Hyland's (2005a, 2010) models of metadiscourse

Category	Function	Examples
Interactive	Help to guide reader through text	Resources
Transitions	Express semantic relation between main clauses	In addition/ thus/ but/ and/ therefore/ however/ still
Frame markers	Refer to discourse acts, sequences, or text stages	First, second/ finally/ to conclude/ my purpose here is/ now, let's turn to
Endophoric markers	Refer to information in other parts of the text	Noted above/ see figure/ in section
Evidential markers	Refer to sources of information from other texts	According to X/(Y, 1990)/ Z states
Code glosses	Signal the restatement of ideational information	Namely/ e.g. / such as/ in other words/ that is
Interactional	Involve the reader in the argument	Resources
Hedges	Withhold writer's full commitment to present propositional information categorically	Might/ perhaps/ possible/ about/ may/ would/ could/ normally/ it appears that/ in many cases/ I think
Boosters	Emphasise force or writer's certainty in proposition	In fact/ definitely/ highly/ it is clear that/ of course/ obvious
Attitude markers	Express writer's affective attitude to propositions	Unfortunately/ hopefully/I agree/ surprisingly/ honestly/ appropriate/ remarkable/ to tell the truth
Engagement markers	Explicitly refer to or build relationship with reader (personal pronouns, questions and commands)	Consider/ note that/ you can see that
Self-mentions	Explicitly refer to authors	I/ me/ mine/ we/ our/ ours

The interactive categories include transitions (to express semantic relations between clauses), frame markers (to refer to discourse acts, sequences, or text stages), endophoric markers (to refer to information in other parts of the text), evidential markers (to refer to the sourcing of information from other texts), and code glosses (for restatement of the ideational information). On the interactional

side, metadiscourse markers include hedges (to withhold writer's full commitment to proposition), boosters (to emphasise writer's certainty in proposition), attitude markers (to express writer's attitude to proposition), engagement markers (to explicitly refer to or build the relationship with reader), and self mentions (explicit reference to authors).

Having provided in the previous two sections an overview of the theories and the models framing my investigation in Chapter 7 of the participants' collaborative literacy and numeracy practices in a wiki, what follows is a review of the previous research studies on students' academic literacy practices, including the use of wikis, the use of metadiscourse, academic socialisation and students' experiences, business literacy in tertiary settings, textual cohesion, and multimodal representation with an SFL slant.

2.5 Research studies on academic literacies

In this section I look at how the academic literacy of higher education has been researched in the literature, specifically I review socio-cultural and socio-linguistic studies that have investigated tertiary students' writing, their practices and literacy experiences.

Haggis (2009) conducted content analysis to investigate how student learning has been conceptualised and researched in three UK academic higher education journals since the 1970s. She finds that researchers have taken a surface approach to student learning in higher education, such as that characterised by cognitive psychology. Researchers have taken a social approach only recently and to a limited extent, as little research attempted to document different types of dynamic

interaction and process through time. As Jones (2006) states, the majority of research in multimodal texts focussed on primary or secondary school contexts. Haggis (*ibid*) suggests that we would need to rethink the frame within which we research and talk about writing. For example, Pardoe (2000b) argues that students' writing difficulties can be investigated by studying the link between

their social experiences and their practices through genre analysis rather than in terms of their lack of skills and knowledge. This socio-cultural perspective is adopted in my research project since it examines the multimodal socio-linguistic aspects that guide students' texts, thereby revealing the practices they need to engage with to make their writing more successful.

What follows is an overview of research on students' academic literacies in higher education, which is presented in terms of six categories: research on wikis in collaborative learning tasks, the use of metadiscourse, academic socialisation and students' experiences, the literacy and numeracy practices of Business program students, textual cohesion, and SFL-based multimodal discourse representation.

As one of the aims of this research study is investigating the collaborative nature of wikis in ESL/EFL business students' assessment tasks, I review in the next section the literature investigating the use of wikis in collaborative learning tasks.

2.5.1 Research on the use of wikis in collaborative learning tasks³

The increasing numbers of students in higher education worldwide and the move towards student-centred and self-directed learning have created interest in Web 2.0 technology. However, sporadic case studies explored tertiary ESL/EFL students' perceptions and perspectives on the adoption of Web 2.0 technology in education (Bruns & Humphreys, 2005; Choy & Ng, 2007; Cole, 2009; De Pedro, 2007; De Pedro et al., 2006; Giannoukos et al., 2008; Judd et al., 2010; Krebs & Ludwig, 2009; Krebs et al., 2010; Luo, 2009; Mirk et al., 2010; Pusey & Meiselwitz, 2009; Weaver et al., 2010; Zorko, 2009) and its effect on students' writing skills (Kuteeva, 2010; Miyazoe & Anderson, 2010; Ramanau & Geng, 2009; Wheeler & Wheeler, 2007).

A number of research studies (Bruns & Humphreys, 2005; Choy & Ng, 2007; De Pedro et al., 2006; Ramanau & Geng, 2009; Robertson, 2008) demonstrated that

³ Alyousef & Picard (2011, pp. 463-464).

students' success in the use of wiki was dependent on their previous training and the tutor's motivation. Difficulties in accessing or using the wiki were reported by few students in Judd, Kennedy and Cropper's (2010) study ; yet, the findings revealed that while overall participation was high (90%), a relatively small proportion of students did the bulk of the work and many students' contributions were superficial. Students made little use of the wiki's commenting feature, and 69% of the contributions were made very late in the task, making the possibility of extensive collaboration unlikely.

Giannoukos et al. (2008) reported that the majority of students that actively participated achieved higher grades. This finding was also reported in Weaver et al. (2010) and Wheeler and Wheeler's (2007) research studies. Whereas some students in the latter study tactfully avoided potential conflict with passive peers or moderated their opinions to minimize the potential to offend, others were of the opinion that "they would take the risk of offending" them "as a trade off to expressing their full opinions" (ibid, p. 4). Giannoukos *et al.* (2008) did not take into account the reliability of students' final grades since it is the student coordinator who was responsible for composing a summary of the group's findings and incorporating the tutor's suggestions to the final group conclusion before uploading it to the wiki platform. The researchers did not provide reasons why some students' participation was minimal and how can we overcome this problem. As unresponsive team members may disrupt the team processes, students are expected to consult tutors more on how they could deal with their recalcitrant colleagues.

Other problems were reported in Wheeler and Wheeler (2007) and Krebs and Ludwig's (2009) research studies, such as delayed start and dividing up the work to individuals to work on, rather than working collaboratively. Interestingly, Cole (2009) overlooked the difference between cooperative learning and collaborative learning in her study. To overcome delayed start by some group members, Krebs, Ludwig, and Müller (2010) presented an approach which included a kickoff 2-hour meeting in order to discuss how the groups could use wiki effectively to support project work and to develop guidelines and rules. As 10 out of the 17 participating students attended, the researchers reported that missing group rules

was responsible for the problems some groups had in using the wiki, such as delayed project start. Pusey and Meiselwitz (2009, p. 510) reviewed the studies that used wikis as a supporting tool in higher education and found that their limitations included lack of active participation, hesitance to edit each other's pages, inconsistent formatting of pages, etc.

Among the technical difficulties the students reported in the few sporadic studies were the lack of synchronous communication tool in wikis and the provision of support resources. Mirk, Burkiewicz, and Komperda (2010) argue that educators may be able to eliminate the potential barriers when a clear purpose is set out before incorporating this technology into the classroom. Although the number of these studies provided invaluable insights into the use of Web 2.0 technology as a collaborative tool in education, they raise a number of issues that require further investigation, namely the collaborative nature of wikis in ESL/EFL business students' assessment tasks and the impact of this collaborative software on tertiary students' writing.

Few research studies (Kuteeva, 2010; Miyazoe & Anderson, 2010; Ramanau & Geng, 2009; Wheeler & Wheeler, 2007) investigated the effect of wiki on students' writing skills. The studies reported that the use of the wiki improved academic writing skills. As the participants in Romanau and Geng's (2009) study were native speakers, the findings are not transferable to other learning contexts. These studies, however, did not conduct a linguistic analysis of the interpersonal metadiscourse markers in the collaborative texts, but they provided invaluable insights into teamwork strategies, group selection methods, and challenges occurring within the student groups.

ESL/EFL Business students' use of metadiscourse markers in wikis remains an under researched area of enquiry. To the best of knowledge, only one study, Kuteeva (2010), explored the use of metadiscourse markers in wikis by investigating students' literacy practices in the *Effective Communication* module. The researcher investigated the impact of wiki on the writer-reader relationship and its use in teaching writing for academic and professional purposes in *Effective Communication* module. More than half of the respondents (57%) to the self-

report questionnaire reported that writing on the wiki made them consider their audience, and little less than half (43%) tried to adapt their writing to the reader. These findings were further confirmed by the high use of interactional resources in the argumentative texts, and in greater variety.

With the lack of studies investigating whether wikis provide greater opportunities for wider participation in tertiary business programs, it is pertinent for me to study the epistemologies and business students' perceptions and experiences of the wiki group work.

As one of the aims of this research study is investigating the nature of ESL/EFL business students' engagement in a wiki task, what follows is a review of the research studies investigating an aspect of academic literacies, namely the interactive and interactional interpersonal resources writers employ to express their positions and connect with readers.

2.5.2 Research on the use of metadiscourse

Researchers have investigated the effect of metadiscourse on the language skills and its use in good and poor essays. Whereas a number of researchers studied its effect on ESL/EAL learner's reading comprehension skill (e.g. Jalilifar and Alipour, 2007; Pérez and Macià, 2002; Tavakoli, Dabaghi, & Khorvash, 2010), others studied its effect on improving students' writing (Intaraprawat & Steffensen, 1995; Johns, 1986). The findings in Pérez and Macià's study showed that less proficient students who were exposed to metadiscourse in lectures performed better than those who were not. A number of cross-disciplinary and cross-linguistic studies on metadiscourse explored students' writing in Master's and doctoral dissertations (e.g. Hyland, 2005a, Samraj, 2008) and in project reports and research articles (e.g. Hyland, 2005b).

Hyland (2005a) studied the use of metadiscourse by EFL postgraduate students in Hong Kong. The researcher analysed the corpus data of 240 Master's and doctoral dissertations from six disciplines. The findings showed that doctoral texts contained 10% more interactive than interactional forms and the Master's texts

exhibited more interactional uses. Hedges and transitions were the most frequent devices, followed by engagement markers and evidentials. Along similar lines, Hyland (2005b) analysed the interpersonal resources used in 64 final-year undergraduate students' project reports and 240 research articles comprising three papers from each ten leading journals in business studies and other disciplines. The findings showed that while 'expert writers' used personal pronouns and interjections to claim affinity with audience, students tended to underuse these features. These studies, however, did not provide a broader ethnographic account of the production and interpretation of metadiscourse in literacies. It is pertinent for me to investigate the nature of ESL/EFL business students' engagement in a wiki task.

Having reviewed in the previous two sections research studies on the use of wikis and the use of metadiscourse in tertiary settings, I review in the next four sections previous research studies related to the main aims of my research project, namely academic socialisation and ESL/EFL students' literacy experiences, the literacy and numeracy practices of Business program students, textual cohesion, and multimodal representation research studies with an SFL slant.

2.5.3 Research on academic socialisation and students' experiences

A number of studies have researched tertiary ESL/EFL students' literacy practices from the perspectives of socialisation strategies, expectations and learning goals, literacy experiences, and conceptions of writing. Whereas a plethora of research studies investigated language learning in terms of knowledge replication, learning strategies, or the study skills model (Fageeh, 2003; Ferenz, 2005; Leki, 1995; McCune, 2004; Osailan, 2009; Riazi, 1997; Smith et al., 1999), socialisation research studies (Mickan, 2006a, 2006b; Mickan & Slater, 2003; Okawa, 2008) showed that students make meaning through the socialisation processes in the semiotic environment. The former research studies adopted a surface approach to ESL/EFL learning, and overlooked deep language, literacy and discourse issues. Language learning is viewed as a cognitive skill rather than a social act encompassing whole range of meanings that are contested. Alternatively, knowledge is viewed as something static that can be "acquired and mentally

stored” (Ferenz, 2005, p. 348). These studies conceptualised writing tasks in terms of the study skills model and replication of a number of strategies, including the retention of knowledge. On the other hand, academic socialisation studies provided “adequate account of language and social practice” (Potter, 2010, p. 693) as they addressed learning at the level of epistemology and identities. Discipline-specific knowledge is acquired through socialisation into a particular graphic or phonic communicative literacy event.

Examples of the former type of studies include Osailan (2009) and McCune (2004), who employed interviews to investigate ESL/EFL students’ experiences and conceptions. As a result, the themes that emerged did not arise straightforwardly from the students’ essay writing. Students’ talk was the primary source of information. McCune suggests extending the approach across a range of contexts by including a detailed analysis of the content of students’ essays since students are “unlikely to have full insight into their learning and its development” (ibid, p. 261), i.e. interviews per se may not account for the varied literacy practices. Theme categorization was complemented with class observation and document analysis of the course epistemologies and the students’ writing in Fageeh’s (2003) research study to explicate the idiosyncratic nature of the development of students’ writing. The findings showed that Saudi EFL college students’ writing difficulties were related to the little opportunities they received, the study skills-based instruction, and their lack of awareness in a number of writing strategies. Fageeh, however, adopted the study skills approach in his analysis, focusing on discrete aspects of language learning, such as grammar, wording, transition, coherence, style, etc. Along similar lines, Smith, Campbell and Brooker (1999), Riazi (1997), and Leki (1995) documented students’ learning strategies, such as the strategy of looking for models. Students replicated knowledge to accomplish their writing tasks. Riazi, however, did not attend the seminars nor did he meet with teachers and advisors in the course of the study. As a result this may have invalidated the study since it did not provide a complete picture of language use and the rich and changing social literate practices.

As the present research case study is framed by the academic literacies approaches and Halliday’s social semiotic theory of language and learning, I emphasise the

functional aspect of language learning and view knowledge as the product of the ongoing situated social practices. A useful study taking this approach by Mican and Slater (2003) examined ESL/EFL students' interpretations of the writing tasks in light of the epistemologies. Both students' essays and the recorded verbal accounts of their actions were analysed from an SFL perspective to distinguish linguistic features that constituted successful argument texts. The findings of the interview revealed that the ESL/EFL speakers of English, unlike the native speakers, had writing difficulties related to the purpose of the task, topic knowledge, the nature of the task, adopting a point of view, and commenting. The researchers argued that time and pressure constraints for the ESL/EFL speakers of English added to "the complex interplay of task purpose, topic knowledge and point of view" (ibid, p. 69) which comprised the authorship of texts. The themes in this study did not only arise from students' talk as in the studies above but also from their essay writing. This approach suits the context of my research study since interviews per se may not sufficiently represent what students can do.

Having provided an overview of research studies on academic socialisation and students' experiences, next I review the meagre studies investigating the literacy and numeracy practices of business studies students.

2.5.4 The literacy and numeracy practices of Business program students⁴

As the present research study aims to investigate the literacy and numeracy practices of ESL/EFL business students, I review in this section the relevant literature. Numeracy practices are conceived as "literacy practices involving 'numerate' texts" (Barwell, 2004, p. 21), a sub-set of literacy practice, since they are social processes of making meaning with numerate texts. Accounting literacy and numeracy are key capabilities expected of the increasing number of international ESL/EFL Business students in Australia and elsewhere. Zhang (2007, p. 406) points out that insights gained from ESP and business discourse studies "give us the necessary information for defining Business English, developing Business English curricula, and designing course syllabuses".

⁴ Alyousef (2013, p. 19)

Accounting literacy research has been directed at the empirical studies of readability of accounting narratives in financial accounting textbooks over the past years, as measured by word and sentence length (Davidson, 2005) and lexical choices as measured by word choice and frequency of use (Conaway & Wardrope, 2010; Hyland, 1998a; Rutherford, 2005). Similarly, research studies in finance have investigated major and non-major students' performance in *Principles of Finance* courses (Sen, Joyce, Farrell, & Toutant, 1997) and the effect of class attendance on students' performance (Chan, Shum, & Wright, 1997).

Employing SFL and Vygotsky's socio-cultural theory of learning as a research framework, Shrestha (2011) examined the ideational and the textual aspects to track the development of marketing texts written by six undergraduate business studies students. Although the study was complemented by student interviews and subject tutors' written comments, it neither described the epistemologies of the course nor investigated the use of cohesive and the interpersonal devices. In contrast, Chandrasoma (2007) investigated the epistemological difficulties business postgraduate students face in academic interdisciplinarity in their research-based writings. The researcher proposes a critical interdisciplinarity framework for investigating how students are implicated by the three dimensional epistemological framework (disciplinary, interdisciplinary, extra-disciplinary) and by the power structures. Chandrasoma conducted interviews with both students and assessors in order to extract information related to assignment tasks, completed assignments, and pedagogic practices. Micro-disciplinary approach to data analysis was employed to analyse students' texts in terms of their intertextual/interdiscursive links, and also on the basis of how their texts met pedagogic expectation. The findings revealed the difficulties associated with interdisciplinarity both from pedagogical and learning perspectives. Students' prior exposure to a particular text type facilitated their performance on a given task. No class observations or analyses of student's tests were undertaken in this study. Above all, Chandrasoma's (p. 199) claim that investigations of discursive texts fall within the realm of the proposed critical interdisciplinarity theory cannot be taken for granted, as demonstrated in the literature and in the present research case study. The researcher's focus on the rhetorical and structural dimensions of

texts could have been complemented by the use of SFL in order to provide a detailed description of the salient representation of the linguistic and conceptual business postgraduate students' academic writings.

Students' perceptions and perspectives are invaluable means for revealing learning challenges. For example, Grey (2002) examined three international undergraduate students' previous expectations and learning goals in a *Business Communication* class in Australia. The researcher employed the multiliteracies framework in this critical ethnographic case study. The findings showed that the students not only had a pragmatic view of their education, but also had special expectations and goals which in many cases were not being met. Student drawings were used as tools for addressing learning at the level of identities and discourse. Unlike interviews, this communication approach may be valued by international students who are insecure about their command of English.

An example of a business study that views language learning as a cognitive skill rather than a social act is Carroll's (2008) research study, which investigated factors affecting the retention and progression of postgraduate external business program students. The findings indicated a combination of factors that impacted upon the retention and progression of postgraduate students: situational (students' employment status, workload, and family commitments), institutional (distance education program design), and dispositional (students' motivation to continue study).

Whereas most of these business studies are quantitative and/or cognitive, they did not provide a multidimensional account of the multimodal and multisemiotic literacy and numeracy practices.

What follows is a review of the literature investigating cohesion in business discourse and Arab ESL/EFL students' academic writing since it constitutes one of the main textual features in academic reading and writing through which students make meaning.

2.5.5 Research on textual cohesion

Constellations of cohesive features in business discourse are important to the maintenance of style and thread texts. Whereas few research studies have investigated the use of cohesive devices in tertiary business discourse (Fazelimanie, 2004; Johns, 1980; Nga, 2012), a dearth of research studies explored its use in academic texts written by Arab ESL/EFL students (Abusharkh, 2012; Al Jarf, 2001; Alharbi, 2011; Aljabr, 2011; Alshammari, 2011; Hinkel, 2001; Kamal, 1995; Khalil, 1989; Mohamed-Sayidina, 2010; Mohamed & Omer, 2000).

Johns (1980), Fazelimanie (2004), and Nga (2012) employed Halliday and Hasan's (1976) scheme to investigate the use of cohesive devices in business texts. The findings showed that the most frequent cohesive device was lexical cohesion. Whereas conjunction was the second most common category in Fazelimanie's study, in Johns' study it was reference. Substitution and ellipsis occurred very infrequently in the two studies. Johns suggests further study of English for the Business and Economics (EBE) discourse modes and features.

A number of studies found cohesion anomalies in ESL/EFL Arab students' texts were caused by difficulties in organizing the meaning-making processes due to their limited knowledge of the lexico-grammatical resources and the transfer of Arabic L1 rhetorical organization when writing in English (Abusharkh, 2012; Al Jarf, 2001; Aljabr, 2011; Alshammari, 2011; Hinkel, 2001; Kamal, 1995; Khalil, 1989; Mohamed-Sayidina, 2010; Mohamed & Omer, 2000).

The preponderance of cohesive devices is not always an indicator of a contextualised cohesive text. As cohesion is part of the system of a language, it depends on both the selection of the cohesive devices and on "the presence of some other element which resolves the presupposition that this sets up" (Halliday & Hasan, 1976, p. 5). For example, Hinkel (2001) found that NNS employed sentence transitions and demonstrative pronouns in L2 texts at significantly higher median frequency rates than did NSs; yet, these transitions did not necessarily mark a contextualised flow of information. L2 writers employed demonstrative

pronouns in ways that could make the text somewhat confusing (e.g. using referential ‘this’ at the very beginning of an essay). The preponderance of sentence transitions and demonstratives in L2 texts “often reflects NNS writers’ attempts to construct a unified idea flow within the constraints of a limited syntactic and lexical range” (ibid, p. 128) of accessible linguistic means. Along similar lines, AlJarf (2001) found that cohesion anomalies were caused by poor linguistic competence, especially poor syntactic and semantic awareness, and poor or inaccurate knowledge of the cohesion rules. The researcher ascribed the causes of cohesion errors in EFL students’ texts to their inability to make the logical connections between the ideas presented in the text. AlJarf pointed out that future ESL research needs to investigate cohesive density since it may have added to the difficulty of the task. As the present study aims to investigate the representation of business discourse in higher education, it is pertinent to explore the complexity factor (or lexical density) in key topics in each module by dividing the total number of content words by the total word count and then multiplying the result by one hundred.

Some ESL/EFL students resort to the rhetorical organization of their L1 when facing difficulties related to organizing the meaning-making processes due to their L2 limited lexico-grammatical resources and prior experiences of required texts. A number of studies (Abusharkh, 2012; Aljabr, 2011; Alshammari, 2011; Kamal, 1995; Khalil, 1989; Mohamed-Sayidina, 2010; Mohamed & Omer, 2000) found that Arab ESL/EFL learners transferred to English some features of their L1, such as lexical repetition, and underused other lexical and grammatical cohesive devices. Alshammari’s (2011) study showed that lexical repetition constituted 75% of lexical cohesion uses in the Nano technology students’ reports. The data revealed that both repetition and collocation were used instead of reference items. Khalil (1989) erroneously uses the frequency count rather than the percentage when comparing instances of lexical cohesion and grammatical cohesive devices. As a result the number of lexical cohesive ties was reported to be “twice the number of grammatical ones” (Khalil, 1989, p. 363), rather than four times higher than the frequency of the grammatical ones. Khalil argues that the result is not surprising since the tendency to repeat words and phrases is one of the main

stylistic features that characterize Quran and literary Arab prose. As Khalil (ibid, pp. 267-268) explains:

Lexical and ideational repetition is a stylistic feature that characterizes some Qur'anic and literary Arabic prose. Koch (1983a) analyses Arabic persuasive texts and shows how they are “. . . characterized by elaborate and persuasive patterns of lexical, morphological and syntactic repetition and paraphrase” (p. 47). The researcher believes that repetition in Arabic is one of the signs of the inimitability of the Qur'an. In some contexts, repetition is achieved through succinctness, in others through verbosity. This unique stylistic feature creates the persuasive function of the text. In literary texts, repetition is sometimes used as a means of creating “rhythm” in the text.

Repetition of lexical cohesive ties is a key feature in Quran and Arab literary texts. As regards grammatical cohesion, the compositions had comparatively high percentages of conjunction (18%) and reference (15.3%), with a smaller percentage of substitution (1.1%) and no occurrences of ellipsis. The conjunctive co-ordinators ‘and’ and ‘also’ were frequently used by the Arab students. This finding may either indicate students’ lack of awareness of the use and function of these grammatical ties that require advanced knowledge of grammar or awareness that these ties are used in ‘informal’ texts.

Another study looked at the cohesive devices in English texts and their Arabic counterparts is Kamal’s (1995) investigation of the types and sub-types of devices that are the most frequent in English and Arabic texts. It was found that in spite of the apparent one-to-one correspondences (86%) between the two languages in most of the cohesive instances there were many discrepancies. Kamal argues that despite the claim made by researchers that Arabic prefers repetition, it resorts to this for cohesion purposes instead of reference items only in cases of potential ambiguity as to which NP a reference item refers. Similarly, some Arabic equivalents of the English elliptical forms (e.g. all, both, such, etc.) become lexical or reference because they must be annexed to a noun or a pronoun. These findings were confirmed by Mohammed and Omar’s (2000, p. 53) study which revealed four cultural differences that are responsible for the different use of cohesive devices in English and Arabic: while “Arabic cohesion is described as context-based, generalised, repetition-oriented, and additive, English cohesion is characterised as text-based, specified, change-oriented, and non-additive”

(adversative, temporal, and causative). The researchers mention five contrastive cultural differences that influence the types of cohesive devices used in texts produced by the Arabic-speaking community and the English-speaking community: 1) oralised v. literate, 2) collectivist v. individualist, 3) high-contact v. low-contact, 4) high-context v. low-context and 5) reader-responsible v. writer-responsible. To test their claims, the researchers analysed twelve narrative texts written in the two languages: six translationally-equivalent parallel texts and six contextually-equivalent (unrelated by translation) parallel texts. This finding, however, cannot be generalised to all Arabian cultures, and in particular the Saudi (as will be discussed in Chapter 7 and in 8.3.5).

Mohamed and Omar argue that the students transfer the rhetorical organisation used in native Arabic texts when writing in English. They state that the Arabic culture allows greater amount of oral residue in its written texts than the English culture due to three main factors: 1) the influence of the Quran, classical Arabic poetry and oratory, 2) the role of oral tradition in the transmission of knowledge, and 3) the literacy policies involved in the teaching of Arabic writing within the Arabic educational system. Erroneously, the researchers argue (ibid, p. 48) that “teaching of Arabic writing has been entrusted to the Islamic clergy whose main aim in the educational process is to preserve the Qur’anic **high poetry**, and classical oratory”. Characterising Allah’s discourse as ‘high poetry’ is a long standing, unacceptable, and refuted claim that I will not elaborate here as it falls beyond the aims of this research study.

Along similar lines, Mohamed-Sayidina’s (2010) study aimed to test her hypothesis that ESL Arab students transfer the rhetorical strategies used in native Arabic texts when writing in English. The findings showed the predominance of repetition of the same noun and additive transitions, the lack of substitution or ellipsis, the apparent deficiency in the use of adversative transitions, and the use of two sub-types of reference: personal reference (85%) and demonstrative reference (15%). The researcher attributes the lack of adversative transitions to collectivist nature of the Arabian culture that does not tolerate “dissent and adversative opinions” (ibid, p. 264). She ascribes the use of the above mentioned rhetorical strategies to “the persistent influence of the *Qurān*, traditional poetry,

and the educational systems that still rely heavily on memorizing and rote learning” (ibid, p. 264). These findings supported the researcher’s hypothesis that the participants’ L2 texts revealed striking similarities to the rhetorical organisation of their Arabic texts which were influenced by the Arabic ‘oral’ mode of discourse which, as she suggests, still converge with the written one. As Mohamed-Sayidina (ibid, p. 264) argues

a notable separation between oral and written modes of discourse has not yet been established. Arabic written texts still retain elements of oral communication. This state of affairs is largely due to the influence of the *Qurān*, the Holy Book of the Arabs and Muslims. Even today, Arab writers consider the *Qurānic* style as the model to be imitated. The *Qurān* is essentially an ‘oral’ text, first revealed to prophet Mohamed orally and only written down years later in its oral format. It is therefore natural that its style contains several features of oral communication.

This claim is refuted as the researcher neither specified the ‘oral communication’ features that she claims exist in the Quran, nor provided excerpts from the data. Second, she erroneously assumes that the textual features of the Quran resemble those of the Arabic ‘aural’ colloquial discourse since it was initially revealed to Prophet Mohammed, Peace be Upon Him (bpuh). As the investigation of the Quran’s style falls beyond the aims of the present research study, it will suffice to say that the whole Quran was revealed in standard Arabic, which is entirely different from the colloquial oral language we use today.

Interestingly, Hinkel (2001) argues that a number of studies (e.g. Aziz, 1988; Bar-Lev, 1986) have shown that Arab ESL/EAL students’ use of parallelism and coordination of structures does not demonstrate the influence of classical (or standard) Arabic and Quranic texts but rather the transfer of the textual features of the particular ‘aural’ colloquial dialect used by the specific culture. Hinkel (2002, p. 40) states that “Bar-Lev found that texts written in Semitic languages are characterized by fluidity, that is, nonhierarchical progression of ideas in topic development, instead of the rigidly ordered topic progression commonly found in English discourse”. Fluidity is defined here as “a preference for flattening in sentence connection, distinct from subordination” (Bar-Lev, 1986, p. 235). These findings refute the claim made by some scholars (Khalil, 1989; Mohamed-

Sayidina, 2010) that Arab ESL/EFL writing is influenced by the Quranic discourse.

The reviewed literature above reveals the lack of research investigating the use of cohesive devices by ESL/EFL postgraduate Master of Commerce Accounting program students. The textual features of business writing will be studied in the present research project by (a) identifying the frequency of cohesive devices and (b) comparing their use among L2 writers/groups.

What follows is a review of research studies investigating multimodal representations with an SFL slant. This is vital since business students engage in multimodal practices and events.

2.5.6 Research on multimodal communication and representation with an SFL lineage

Much of the populous SFL-based research in multimodal communication and representation has been confined to school and workplace contexts. In her book *The Handbook of Business Discourse*, Bargiela-Chiappini (2009) reviews a range of business discourse studies in workplace settings. Thomas (1997), for example, investigated the linguistic structures in a series of management messages in the annual reports of a company, employing Halliday's (1985) systems of TRANSITIVITY, thematic structure, cohesion and condensations. The transitivity analysis showed the prevalence of relational process types (37.80%) which often suggest objectivity and a predictable increase in passive constructions as the profits decrease.

Lea and Street (2006) argue that multimodal analysis reveals the range of meanings expressed in learners' activities and genres. As they put it, multimodal analysis aids in theorizing "the multimodal nature of literacy, and thus of different genres, that students needed to master in order to represent different types of curriculum content for different purposes, and therefore to participate in different activities" (ibid, p. 373). Similarly, Pauwels (2012, p. 250) argues "multimodal analysis not only takes different modes into account but also has a strong focus on

the effects of their interplay” between images and texts. This is pertinent for my research case study since the literature shows a lack of studies investigating the semantic relations between accounting texts and graphs/tables.

Halliday’s (1978, 1985) social semiotic theory of language, SFL, provides a wide range of resources for handling and interpreting the interplay between the different modes. Largely based on SFL, social semiotic accounts of multimodality have emerged over the past decade. These have been enriched by accounts of the grammar of multisemiotic mathematical symbolism (Guo, 2004; O’Halloran, 1996, 1999a, 1999b, 2000, 2004, 2005, 2008; 2009), images (Kress & van Leeuwen, 1998, 2006; Martinec & Salway, 2005; O’Halloran, 2005; O’Toole, 1994; Van Leeuwen, 2011), music and sound (Van Leeuwen, 1999) and action (Martinec, 1998, 2000). Michael O’Toole (1994) was the first to utilise SFL in multimodal discourse analysis; in his book *The Language of Displayed Art*. As Martinec and Salway (2005, p. 339) state, systemic functional semiotics is “the one theoretical framework whose followers have concerned themselves with [intersemiotic] relations between images and texts”. It was Kress and van Leeuwen (2006) who first developed a model for the analysis of textual organization within images and layout. They have applied Halliday’s theory of language in interpreting the multisemiotics that contribute to meaning making. Bateman (2011, p. 52) argues, “more empirically grounded analysis of a broader range of multimodal documents is essential” in order to verify or disprove Kress and van Leeuwen’s functional interpretations of given/new and ideal/real in particular contexts of use. It is pertinent in the present research case study to investigate whether Kress and van Leeuwen’s analysis of visual artefact in terms of compositional zones is applicable to accounting tables and graphs.

Along similar lines, O’Halloran (1996, 1999a, 1999b, 2000, 2004, 2005, 2008; 2009) developed an SF-MDA framework for unpacking the multimodal/multisemiotic construction of mathematical images and symbolism. In her study of oral mathematical classroom discourse, O’Halloran (1996, 1999b, 2005, 2008) contends that semantic extensions of the experiential meaning in mathematical symbolism are characterised by ‘condensatory’ lexico-grammatical strategies, such as ellipsis, the introduction of multiple levels of rankshift, new ‘Operative’

processes with multiple mediums, metaphorical shifts between material and mental processes, and the deletion of the human agent. The new ‘Operative’ process encompasses algebraic mathematical operations and the four arithmetic operations of addition, subtraction, multiplication, and division. As she states,

Mathematics is concerned with descriptive statements involving a restricted variety of processes (Relational, Existential, and Operative) and, as a direct result, fewer participant functions which include Token and Value, Carrier and Attribute, Existent and Operative participants. (O'Halloran, 1999b, p. 6)

Circumstantial elements are not usually relevant. The textual aspects of mathematical discourse include the spatial arrangement of sequential mathematical statements and the ordering of participant functions. A number of scholars used digital technology in the multimodal analysis of interactive multimodal texts. Martin and Rose (2008, p. 322) argue that the field of MDA is “in its infancy and is wide open for innovative research”.

A number of other researchers (AlHuthali, 2007; Drury, O' Carroll, & Langrish, 2006; Jones, 2006; Okawa, 2008; Wake, 2006) investigated multimodal communication and representation in tertiary contexts. The analysis of cybergenre within Halliday's social semiotic theory of language, SFL, has received significant attention recently. For example, Jones (2006) investigated the multimodal and multisemiotic meaning in first year undergraduate science textbook and computer-based teaching and learning resources at an Australian university. The corpus comprised online and CD-ROM learning resources in biology, physics and chemistry. The researcher employed two types of analyses: a Multimodal Content Analysis (MCA) carried out according to format (page or screen) and discipline, followed by an SF-MDA of multimodality and intersemiosis of a selection of the texts. The findings of stage 1 of the analysis showed that visuals in the biology textbook were generally allocated less space (0.39 %) than text blocks (75 %). The visual content was related more to the experiential metafunction in the textbooks, while the visual content in the screen texts was related more to navigation, the organisation of the on-screen activity, and therefore to the textual metafunction. Similarly, in the verbal content analysis,

the main function of the text block content in the screen texts was again, to orient the user to the organisation of the content, while the textbooks were more concerned with the presentation of the topic. Despite the theoretical progress in SF-MDA and the robust analysis of Jones, no one can deny the difficulties associated with the analysis of the dynamic web-based and CD-ROM content.

Similarly, Drury, O' Carroll and Langrish (2006) investigated the use of multimodal online program for teaching report writing in the third-year chemical engineering. The researchers employed the genre based literacy pedagogy in teaching the generic structure of a laboratory report. The macro-design of the program was created by using typical stages of a laboratory report, in addition to an Overview, which addressed issues such as the structure of the report as a whole and typical problem area in report writing. The stages comprised explanations, examples of a range of reports, and interactive exercise screens followed by immediate feedback. The researchers used an assessment instrument, MASUS (Measuring the Academic Skills of University Students), which consists of four separate rating sheets to assess students' academic skills. Although the tool is useful for explicating the teacher/tutor's expectations of academic writing and supports assessment-for-learning, it does not provide a yardstick that assesses students' literacy achievement (Bonanno & Jones, 2007).

AlHuthali (2007) investigated the construction of socio-cultural and socio-linguistic features of learning Mechanical Engineering and Auto Mechanics. The researcher employed discourse analysis to investigate aspects of the literacy practices, the multimodal literacy events, and social practices of Saudi postgraduate students. The aim of the study was investigate whether mechanical engineering literacies are autonomous or social. The study showed that the literate practices of mechanical engineering are social and depend heavily on multimodal forms of communication. Due to the concise nature of the study, the researcher conducted only three field observations of practical sessions and seminars. He also interviewed the participant twice a week over two months. The researcher suggests further investigation of literacy requirements of mechanical engineering since they would "facilitate the improved design of mechanical engineering curricula" (AlHuthali, 2007, p. 72).

Similarly, Okawa (2008) conducted a one semester case study of a Japanese first year university student to investigate the process of constituting academic literacy practices in the discipline of nursing. Data were collected through classroom observations, interviews and documents (written assignments, learning logs, etc). Okawa employed SFL in the analysis of texts to investigate, respectively, discourse at the epistemological level and texts at the lexico-grammatical level, since “discourse analysis considers the language and contexts in which it is used” (ibid, p. 32). This in turn enabled the researcher to trace the close relationship between assignments and literacy practices in nursing. The findings showed that discipline-specific knowledge is acquired through socialisation into a particular discipline. The researcher suggests further longitudinal case studies of literacy experiences in order to “provide insights into the development of professional practice in different courses across levels” (Okawa, 2008, p. 106). Both this research study and AlHuthali’s (2007) have limitations in terms of their wider applicability due to their restricted scope. In addition, they were conducted over one semester.

Wake (2006) conducted a large scale systemic functional-based case study with a wider scope. She examined the effectiveness of dialogic negotiations in economics tutorial talk of five Chinese-Malaysian students of Engineering and Business Communication majors during the course of a semester. The findings showed that any linguistic transformations in understanding were “not at all neatly incremental as described in the literature” (Wake, 2006, p. 317) since the semiotic mediation process was largely ‘devolutionary’. This different view of semiotic mediation, Wake argues, is a process of semiotic remediation. Analysis of interactions showed significant deconstruals toward more congruent representations of economic activity before students could progress in their learning.

Whereas multimodal communication research was conducted across the fields of mathematics (Guo, 2004; O’Halloran, 1996, 1999a, 1999b, 2000, 2004, 2005, 2008; 2009), science and computer (AlHuthali, 2007; Drury, O’ Carroll, et al., 2006; Jones, 2006; Wake, 2006), and nursing (Okawa, 2008), tertiary business

discourse has not been explored. With the lack of studies investigating Master of Commerce Accounting program students' discourse, it is pertinent for me to study the key academic literacies of this field, including the use of wiki as a collaborative tool in learning.

Summary

The literature review presented in this chapter guided the construction of the overall skeleton of the present study project: research gap, the research questions, research design and the procedures of analysis. The literature review was conducted in terms of the theories and models underpinning this study project and the previous empirical research studies on academic literacies. In Section 2.1, I reviewed two academic literacy models, the academic literacies and the New London Group's multiliteracies. These social academic literacy models formed the basis of my ethnographic research case study. The investigation of academic literacies will include not only written texts, but also the participants' experiences and perspectives. In Section 2.2, I reviewed Halliday's (1978, 1985) SFL theory of language, as it provides a wide range of effective analytical tools for handling and interpreting the multimodal business discourses in my study project. In Section 2.3, I argued that the use of wiki represents a socio-cultural model for collaborative learning rather than a constructivist. Wikis provide active social learning environments and technologies through which learners use language as the main source for making meaning, as they engage in collaborative meaning-making processes. In Section 2.4, I reviewed Hyland and Tse (2004) and Hyland's (2005a, 2010) models of metadiscourse markers.

In Section 2.5, I reviewed research studies on academic literacies. As one of the aims of this research project is investigating the literacy and numeracy practices of Business program students in a wiki, I reviewed in Sections 2.5.1-2.5.2 the research studies that investigated the use of wikis in collaborative learning tasks and the use of metadiscourse markers by ESL/EFL students. The review of the research studies in Section 2.5.3 showed that much of the literature on tertiary ESL/EFL students' literacy practices tended to focus on their study skills, academic socialisation, and literacy experiences and conceptions of writing. The review of the meagre quantitative studies investigating the literacy and numeracy practices of business program ESL/EFL students in Section 2.5.4 showed the lack of multidimensional account of the multimodal and multisemiotic literacy and numeracy practices of accounting; therefore, there is a need for developing a research framework for investigating academic literacies. In Section 2.5.5, I

reviewed the literature investigating the use of cohesive devices in business discourse and in academic texts written by Arab ESL/EFL. The reviewed literature in Section 2.5.6 showed that whereas MDA research was conducted across the fields of mathematics, science and computer, and nursing, the multisemiotic tertiary business discourse has not been explored. I, therefore, intend to extend this type of investigation which is still in its ‘infancy’.

The review in this chapter suggests that there is a gap in the available studies of an integrated theoretical framework for researching multimodal academic literacies in general, and the study of the academic literacy practices of ESL/EAL business students in particular. The literature review helped me to identify and develop the theoretical framework and the research tools for my research case study project, which are presented in the next chapter.

Chapter 3: Methodology

Introduction

This ethnographic longitudinal case study research project is informed by interconnected frameworks that are drawn from ethnography, social theory, and SFL. In this chapter, I describe how these interconnected frameworks and research within the interpretative approach are pertinent to the research focus. I also describe the reasons for selecting an ethnographic longitudinal case study research design. Key tenets in sociosemiotic ethnographic research design are discussed. The research study is framed by the broad view of literacy as a situated social practice (Barton & Hamilton, 1998; Barton, Hamilton, & Ivanič, 2000; Halliday, 1978, 1985; Hasan, 1995; Hodge & Kress, 1988; Knobel & Lankshear, 2006; Lave & Wenger, 1991; Street, 1984, 1998, 2003, 2012) that encompasses multiliteracies (Cazden et al., 1996; Cope & Kalantzis, 2013; Kalantzis & Cope, 2012; New London Group, 2000). While literacy practices provide means for investigating the social literacy practices associated with the written texts and their corresponding literacy events, the SF-MDA of business discourse is based on Halliday's (1985; Halliday & Matthiessen, 2004) analytical tools of SFL, integrating with them the multisemiotic framework for the analysis of images (Kress & van Leeuwen, 1998, 2006; Martinec & Salway, 2005; O'Halloran, 2005; O'Toole, 1994; Van Leeuwen, 2011), and in particular mathematical symbolism (Guo, 2004; O'Halloran, 1996, 1999a, 1999b, 2000, 2004, 2005, 2008; 2009) and Halliday and Hasan (1976) and Halliday and Matthiessen's (2004) framework for the analysis of cohesion. Hyland and Tse's (2004) model was used for the analysis of metadiscourse markers in a collaborative business text. Data sources and collection techniques are then presented before discussing the data analysis and presentation procedures. Qualitative data management and coding tools are then presented. Consideration is given to issues related to ethics and validity and reliability, which are crucial features of all research. Finally, the chapter concludes with a description of how the pilot study helped to refine the research design and methodology.

3.1 Theoretical framework: literacy as a social and cultural situated practice

The ontological view which frames this study is that literacy is a *situated* social and cultural practice (Barton & Hamilton, 1998; Barton et al., 2000; Halliday, 1978, 1985; Hasan, 1995; Hodge & Kress, 1988; Knobel & Lankshear, 2006; Lave & Wenger, 1991; Street, 1984, 1998, 2003, 2012) and that learners engage in academic multiliteracies (Cazden et al., 1996; Cope & Kalantzis, 2013; Kalantzis & Cope, 2012; New London Group, 2000) that are mediated by the institutional discourses and practices (Gee, 2008, 2012; Hasan, 1995; Lave & Wenger, 1991).

Academic literacies are *situated* because knowledge is in part the product of an activity, context, and culture in which it is developed and used. An important strength of this theoretical framework is its ability to take into account the participants' social, cultural, and historical situatedness when studying the ways they develop literacy experiences. Context in the academic literacies model (Barton & Hamilton, 1998; Gee, 2000, 2008; Street, 1984) plays a crucial role in understanding literacies. Barton (2000, p. 167) holds that literacy practices are investigated through "a detailed examination of particular instances of social practices". Therefore this research case study explores the particular instances of Saudi postgraduate Business students acquiring multiliteracies in an Australian tertiary context. Because the reality of academic discourse "exists through language itself" (Wake, 2006, p. 41) whose different levels are linked to the contexts of a situation, "the grammar of the language transforms experience and interpersonal relationships into meaning (semantics) and then further transforms meaning into wording (lexicogrammar)" (ibid, p. 105).

Because multiliteracies can be explored through social semiotics and language, this study focuses on documenting the interrelated dimensions of multimodal and multisemiotic texts, literacy and numeracy practices, and contexts, thus drawing on Halliday's (1978) SFL theory of language, the New Literacy Studies (Barton & Hamilton, 1998; Baynham, 1995, 2000; Gee, 2000, 2002, 2008; Street, 1984) and the multiliteracies (Cazden et al., 1996; Cope & Kalantzis, 2013; Kalantzis & Cope, 2012; New London Group, 2000) models.

3.2 An analytical interpretive research approach

The choice of research paradigm is influenced by the worldview of the researcher and by the research itself. This qualitative ethnographic longitudinal research is concerned with describing and explaining socially situated academic multiliteracy and numeracy representations over an extended period of time. Halliday (2007b) argues that literacy practices refer to the participants' participation in any form of discourse within social processes, while a literacy event refers to learners' academic social activities through which meaning is constructed. Included in my research approach is a focus on literacy events, which are defined as "a bounded series of actions and reactions that people make in response to each other" (Bloome, Carter, Christian, Otto, & Shuart-Faris, 2005, p. 6). The actions and reactions are linguistic in nature since they include language and related social semiotic systems. It is through observation and interaction with the community that learners know how to speak and act in academic discourses. Conceptual knowledge is constructed under this approach through the meaning-making literacy practices that occur through both phonic and graphic communication in literacy events.

The interpretive worldview advocated in this research study views reality as consisting of our experiences of the external world. Interpretive analysts aim to inductively find out how the subjective understandings (*verstehen*) and experiences are derived from larger discourses (or speech genres) and practices that construct reality (Terre Blanche & Durrheim, 2002). Interpretive researchers maintain that these understandings vary across contexts. As McKenna (2004, p. 35) argues,

the purpose of research in the interpretive paradigm is to understand a specific context as it is. In common with the other post-positivist paradigms, this paradigm does not attempt to generalise or replicate. Another characteristic of this and other post-positivist paradigms is the belief that no research is objective or value free.

Williams (2000) argues that interpretivists can only make generalizations that are characterised as *moderatum* since they are inevitable; however, they are limited as they represent an instances of a broader recognisable set of features. While post-

positivist researchers try to discover reality, interpretivists believe that this reality can only be interpreted. At the epistemological level, interpretive researchers approach the varied worldviews with an empathetic intersubjective stance. This could be achieved by trying to understand the meaning of actions and experiences in relation to the contexts in which they occur. I have explicated participants' understandings and lived experiences by moving towards an *emic*⁵ perspective, or providing a *thick* description of data that links it back to the context of use. It was Geertz (1973, p. 16) who borrowed Gilbert Ryle's term thick description in interpretive research design, a description that aims "to uncover the conceptual structures that inform our subjects' acts". One of the key features of this design is, therefore, to provide "a thorough description of the characteristics, processes, transactions and contexts that constitute the phenomenon being studied, couched in language not alien to the phenomenon, as well as an account of the researcher's role in constructing this description" (Terre Blanche & Kelly, 2002, p. 139). This perspective seeks to explore how participants describe and understand learning tasks rather than merely explaining the literacy features of business discourse.

The strategy of enquiry of the socio-cultural aspects of the participants' literacy practices is a sociosemiotic ethnographic design since it encompasses the analytical interpretive approach, which is concerned with discourses, discursive knowledge and experiences.

3.3 Research design: a multifaceted sociosemiotic ethnography

Ethnographic research studies patterns of language use, understandings and knowledge work typically related to socio-cultural events and activities (Hall, 2002). This research design has become the major research approach of L2 teaching and learning over the past three decades. Sociosemiotic ethnography "refers to any representation of how people experience, use, practice, talk about, contest, critique, understand- and in general, interact- with polysemic meanings of semiotic resources" (Vannini, 2007, p. 125). Vannini (2007, p. 122) argues that sociosemiotic ethnography reveals the lived experiences of meaning by examining

⁵ i.e. "taking seriously what participants believe they are doing and what they think about their roles, relationships, and practices" (Hyland 2004.p. 209).

“the semiotic and exo-semiotic constraints of everyday life in thickly descriptive fashion”. Exo-semiotic constraints refer to the effect of cultural, historical, and institutional resources on a given context. Green and Bloome (2005) distinguish three approaches to ethnography in education and social sciences: doing ethnography, adopting an ethnographic perspective and using ethnographic tools. As this research study is not concerned with an in-depth and long-term study of a social or cultural group, the latter two approaches suit my research aims. First, I took “a more focused approach (i.e., do less than a comprehensive ethnography) to study particular aspects of everyday life and cultural practices” (ibid, p. 183) of my participants. Second, I used multifaceted methods and techniques associated with my enquiry.

The sociosemiotic ethnographic research design of this study is multifaceted as I do not only explore the social and cultural contexts through the text, but also delve beyond the text (Paltridge, 2001) into sociosemiotic ethnographic examination to explore insider’s views on the aspects that influenced language choices, i.e. relating the textual aspects to their social purposes. Language is interpreted within a socio-cultural context which in turn is interpreted through multisemiotic resources. The SFL analysis thus paves the ground for the sociosemiotic exploration of participants’ learning contexts and their practices and experiences. The sociosemiotic ethnography is framed by Halliday (1978), the New Literacy Studies (Barton & Hamilton, 1998; Baynham, 1995, 2000; Gee, 2000, 2002, 2008; Street, 1984) and the multiliteracies (Cazden et al., 1996; Cope & Kalantzis, 2013; Kalantzis & Cope, 2012; New London Group, 2000) framework that focus on the sociosemiotic nature of literacy, on micro-literacy events, and the practices that shape them (Barton et al., 2000).

Typically, sociosemiotic ethnographers take an interpretive stance to investigate the lived semiotic experiences, i.e. how resources are used by participants under specific circumstances. As my interpretation of data is in part be influenced by my conscious selection and perception of data, the findings do not represent the whole range of literacy and numeracy practices participants engaged with. As Denzin and Lincoln (2000, p. 14) argue, paraphrasing Guba, “reality can never be fully apprehended, only approximated”.

3.4 Methodology

This section provides an overview of the research methodology selected for this study and the rationale for the choices made. Sociosemiotic ethnography design is used to uncover and describe the social processes underlying Saudi postgraduate students' literacy practices. In addition, I used a number of linguistic tools and constructs from SFL as the main framework in this research study to analyse the multimodal Business artefacts, since language is not interpreted per se, but within a socio-cultural context which in turn is interpreted through multisemiotic resources.

3.4.1 Ethnography as methodology for literacies narratives of experience

This research holistically looks at the phenomenon in natural settings over 3-6 semesters; as such it is comparable to an ethnographic study. Lillis (2008) argues that the key features of ethnographic work is the use of multiple data sources and multiple methods of analysis (thick description, e.g. Spack's 1997 longitudinal study) for examining the complex situated meanings and practices through sustained engagement over a significant period of time (thick participation). The gap between texts and contexts is significantly narrowed by engaging in ethnography as methodology; thick description (i.e. detailed) and thick participation help move the researcher towards *emic* perspective to reveal participants' understandings and lived experiences. In order to engage in ethnography as methodology, the interviews took the form of longer conversations rather than talk around texts as writer-insider talk can only "provide minimal glimpses of writers' perspectives and understandings" (Lillis, 2008, p. 361). This engagement helped me identify emerging themes (or patterns) in order to contextualise the findings of the SF-MDA. While the *emic* perspective on context and text guides the ethnographic exploration of the lived academic literacies, the *etic* guides the SF-MDA of business discourse since understandings of written texts are facilitated through the cultural context.

3.4.2 Systemic Functional Linguistics

The main theoretical framework underpinning the discourse analysis is Systemic Functional Linguistics (SFL) (Halliday, 1985; Halliday & Hasan, 1976; Halliday & Matthiessen, 2004) since it provides a wide range of resources for handling and interpreting multimodal discourse data.

SFL postulates language as a meaning making semiotic potential that embodies three kinds of meanings (called the register): the experiential meaning expressed primarily in the TRANSITIVITY system, the interpersonal meaning represented by the MOOD and Modality systems, and the Theme/Information systems and Cohesive patterns (reference, substitution and ellipsis, and conjunction) for textual instantiation.

3.4.2.1 Language systems in SFL

Based on Halliday's *Introduction to Functional Grammar* (1994) and Martin's *English Text* (1992) the major language systems for the experiential, interpersonal and textual meanings are presented in the table below.

Table 3.1 The major language systems in SFL (Judd & O'Halloran, 2010)

Register variables	Metafunction	Lexicogrammar	Discourse Systems
Field	Experiential	TRANSITIVITY; Agency; Ideational metaphor; Tense; Lexis (clause, word group)	Ideation (Lexical strings linking message parts: repetition, hyponymy, meronymy, synonymy, and antonyms)
	Logical	Logico-semantic relations and interdependency; Logical metaphor (clause complex)	Conjunction & continuity (conjunctive relations linking messages)
Tenor	Interpersonal	MOOD ; Speech Function; Tagging; Vocation; Ellipsis; Modality; Modulation; Polarity; Interpersonal Metaphor; Attitude ; Appraisal; Comment; Lexis (clause, word group)	Exchange structure (exchange structure linking moves)
Mode	Textual	Theme; Textual metaphor; Ellipsis (clause, word group)	Identification (Reference chains linking participants: personal pronouns, demonstrative and comparatives)

The systems that realise the field, tenor and mode of discourse were overviewed in the previous chapter (cf. 2.2). Having outlined the major language systems, next I present the frameworks underlying the SF-MDA of business discourse.

3.4.3 Systemic Functional Multimodal Discourse Analysis (SF-MDA)

As the meaning-making processes within a social context include not only language but also the forms of all the semiotic systems, SFL is used as a main tool in the multidimensional framework. Borrowing O'Halloran's term, I used a Systemic Functional Multimodal Discourse Analysis (SF-MDA) technique as methodology for the linguistic analysis of the multimodal and the multisemiotic business discourse data. The SF-MDA is framed by SFL (Halliday, 1985; Halliday & Matthiessen, 2004; Hodge & Kress, 1988), the multisemiotic framework for the analysis of images (Kress & van Leeuwen, 1998, 2006; Martinec & Salway, 2005; O'Halloran, 2005; O'Toole, 1994; Van Leeuwen, 2011), including the diagram genres, and in particular mathematical symbolism (Guo, 2004; O'Halloran, 1996, 1999a, 1999b, 2000, 2004, 2005, 2008; 2009). In addition, I employed Halliday and Hasan (1976) and Halliday and Matthiessen's (2004) framework for the analysis of cohesion and Hyland and Tse's (2004) model for the analysis of metadiscourse markers in one business module (Chapter 7).

The analytical tools of SF-MDA (cf. 3.7, page 71) are used to foreground the processes through which students construct disciplinary specific knowledge in a community through academic literacies. The SF-MDA in this research study seeks to provide an explanatory account of how business discourse is typically constructed and how it relates to its context of use through the social purposes.

3.5 The social context

Investigating the social context in which literacy and numeracy events take place is essential for an ethnographic case study, since it provides the semiotic structure for the exchange of meaning in tertiary education. I first give a brief overview of

the social context which encompasses the setting (or the research site), selection of the participants, their profiles and course sequences.

3.5.1 Research setting

The setting of this study was the University of Adelaide in South Australia. It is a member of Australia's Group of Eight research-intensive universities⁶. The university enjoys a highly diverse student body which, according to Professor Taplin⁷, "greatly enriches the student experience" on the university's campuses. Following this brief overview of the research setting I describe the participants' background and the structure of their Master of Commerce program.

3.5.2 Selection of participants

To account for possible attrition of two or three participants, I recruited eight Saudi Master of Commerce Accounting students from the University of Adelaide, Australia. To enrol in the program, the students needed to achieve six or more in the IELTS, thus they have a "generally effective command of the language, despite some inaccuracies, inappropriacies and misunderstandings" (IELTS, 2011). **Table 3.2** outlines the distribution of the participants in each case study.

Table 3.2 The distribution of participants in each case study

Case study No.	Chapter No.	Participants	Saudi	Non-Saudi	Total
1	4	Abdulhadi, Abdulrahman, Omar, Abdullah, Ibrahim and Hasan	6	0	6
2	5	Group 1: Abdulhadi, Saud, Jim and Cathy Group 2: Abdulrahman and Jiang Group 3: Ibrahim, Hasan, Sharon and Tracey	5	5	10
3	6	Group 1: Abdulrahman, Abdullah & Steve Group 2: Omar and Peter	3	2	5
4	7	Group: Abdulrahman, Sun, Jiang, Edward, Tracy, and Lydia	1	5	6

⁶ <http://www.go8.edu.au/>

⁷ <http://www.adelaide.edu.au/news/news14021.html>

For the purpose of anonymity, I have used the pseudonyms Ali, Saud, Abdulhadi, Abdulrahman, Omar, Abdullah, Ibrahim, and Hasan, in addition to the tutor Janet. The total number of focal participants was seven as Ali withdrew from the course at the very beginning. Saud participated in one course, *Principles of Finance*, as he graduated on 2009.

The study also comprised 12 non-Saudi international students whose participation was not focal to the study as they only consented to the analysis of the group written assignments they did with the seven Saudi focal participants. Each participant signed a Consent Form (Appendix 1) after reading a Student Information Sheet (Appendix 2) in which I introduced myself and the research I was conducting, when I would start collecting data, and what information I was collecting for my research.

3.5.3 The participants' profiles

As the participants come from the same cultural and educational backgrounds, all of them speak and write in Arabic as their first language. Both Abdulhadi and Abdullah learned English in private schools from the age 6-18, while the other five participants studied English in public schools from the age of 12-18. All the six participants had a professional working experience in accounting prior to commencing their MA program in Australia, with the exception of Hasan whose undergraduate study program was computer sciences. Upon receiving the Certified Public Accounting (CPA) degree in 2001, Ibrahim became a basic member of the Saudi Organization for Certified Public Accountants (SOCPA), while Abdullah was appointed as a lecturer at a Saudi University upon completion his undergraduate studies.

All the participants did not have opportunities to practise their English outside the school or at the university in Saudi Arabia. As a result they had to improve their English language skills. All the seven participants enrolled in General English for Academic Purposes (GEAP) course and a Pre-Enrolment English Program (PEP) when they arrived in Australia, and which ranged between thirty-seven and fifty-five weeks. Abdulhadi started his program in semester 1, 2008, followed by Saud

the next semester at the same year, and Abdulrahman (semester 2, 2009), then Omar and Abdullah (semester 1, 2010), and, finally, Ibrahim and Hasan (semester 2, 2010).

The following table summarises participants' profiles: duration of English course, study major, and the program duration.

Table 3.3 A summary of the participants' profiles

Participant	English Course	Major	MA program	
			From	To
Saud	37 weeks	Accounting	July 2008	December 2009
Abdulhadi	45 weeks	Accounting	July 2008	July 2010
Abdulrahman	50 weeks	Accounting	July 2009	July 2011
Abdullah	55 weeks	Accounting	March 2010	December 2011
Omar	37 weeks	Accounting & Marketing	March 2010	July 2012
Ibrahim	45 weeks	Accounting	July 2010	July 2012
Hasan	40 weeks	Accounting & Finance	July 2010	July 2012

Abdulhadi graduated in July 2010 and returned back to his country in March 2011. During this period he tried to get a scholarship to continue his postgraduate study but unfortunately did not succeed. He worked in an accounting firm for a year and a half until he obtained a scholarship to pursue his doctoral studies in finance in Melbourne. Abdulrahman completed his MA in July 2011, while Abdullah graduated in December of the same year. Abdulrahman was recruited in a big company and Abdullah resumed his lecturing job at the university. Finally, Omar, Ibrahim and Hasan graduated in July 2012.

3.5.4 The participants' course sequences

Four out of the seven participants majored in accounting, while Abdulhadi and Ibrahim majored in accounting and finance but later on they decided to change their major into accounting. Omar majored in accounting and marketing. Students in this program were expected complete thirty-six units: eleven core courses and a course entitled *Business Communications* which is presented as an elective to all

EAL students. The core courses included four foundation courses and seven accounting courses, as shown in **Table 3.4**.

Table 3.4 Master of Commerce Accounting program modules

Accounting Courses (21 Units)	Foundation Courses (12 Units)
1- Auditing and Assurance Services	1- Accounting Concepts and Methods
2- Commercial Law and Information Systems	2- Economic Principles
3- Management Accounting	3- Principles of Finance
4- Corporate Law	4- Quantitative Methods
5- Intermediate Financial Reporting	Elective (3 Units)
6- Advanced Financial Accounting	Business Communications
7- Income Taxation	

The following table lists the course sequences for each participant which constituted the epistemologies of Master of Commerce Accounting program. Saud's course sequence is not listed as he participated in only one course, *Principles of Finance*.

Table 3.5 The participants' course sequences

**Prior to this study*

Module	Year	2008			2009			2010			2011			2012
	Semester	2*	1*	2	Summer	1	2	Summer	1	2	Summer	1		
Accounting Concepts & Methods		Abdulhadi		Abdulrahman		Abdaullah	Ibrahim							
						Omar	Hasan							
Business Communications		Abdulhadi		Abdulrahman		Omar	Hasan		Omar	Abdaullah				
									Ibrahim	Hasan				
Quantitative Methods		Abdulhadi				Abdulrahman	Ibrahim		Omar	Hasan				
						Abdaullah	Hasan		Ibrahim					
Principles of Finance		Abdulhadi	Abdulhadi	Abdulrahman	Abdulrahman	Abdaullah	Ibrahim	Abdaullah						
		Saud				Omar	Hasan	Omar						
Management Accounting			Abdulhadi				Abdulrahman		Ibrahim					
							Abdaullah		Hasan					
							Omar							
Commercial Law & Information Systems			Abdulhadi	Abdulhadi		Abdulrahman	Abdaullah			Ibrahim		Hasan		
				Abdulrahman			Omar							
Economic Principles			Abdulhadi				Abdulrahman		Hasan					
							Omar	Abdaullah						
								Ibrahim						
Financial Statement Analysis				Abdulhadi						Abdaullah				
Intermediate Financial Reporting				Abdulhadi		Abdulrahman	Abdaullah		Ibrahim					
							Omar		Hasan					
Corporate Law				Abdulhadi			Abdulrahman		Abdaullah		Ibrahim	Ibrahim		
									Omar			Hasan		
Advanced Financial Accounting						Abdulhadi			Abdulrahman	Ibrahim				
									Abdaullah	Hasan				
									Omar					
Intermediate Econometrics						Abdulhadi	Abdulrahman		Abdaullah					
Knowledge Management & Measurement									Abdulrahman					
Marketing Principles										Omar				
Consumer Behaviour										Omar				
Theory & Practice of International Business										Omar				
International Trade												Omar		
												Ibrahim		
International Marketing												Omar		
Integrated Marketing Communications												Omar		
International Finance										Ibrahim		Hasan		

As Abdullah and Omar started their MA program in the first semester of 2010, they were enrolled together in the *Accounting Concepts and Methods* module. Similarly, Ibrahim and Hasan were together in two courses in the following semester: *Accounting Concepts and Methods* and *Principles of Finance*. Abdulrahman enrolled in the *Management Accounting* module with Abdullah in semester two, 2011.

The next section provides an overview of the techniques and methods of data collection viz: observations, interviews and document analyses. Thereafter the data analysis and presentation procedures and qualitative data management and coding tools are discussed. Consideration is given to issues related to validity and ethics, which are crucial features of research. Finally, the chapter concludes by stating the outcomes of the pilot study.

3.6 Data sources and collection techniques

Ethnographic case studies rely on multiple methods for collecting information. I collected data through three techniques: 1- classroom observation in lectures /seminars, 2- semi-structured interviews and unstructured conversations with the participants, and 3- documents. The three techniques were used to collect data at the beginning, the middle, and the end of each module, and over 3-6 semesters, depending on the commencement of each participant's program.

3.6.1 Observation

I conducted uncontrolled field observations to document and describe students' academic literacy practices and to explore the discourse of writing. This documentation is in the form of audio digital recordings of presentations, pair and group work discussions, and field-note logs (or Observation Protocols), containing detailed descriptions of the participants' practices in the class. The recorded literacy events were transcribed in situ talk, and analysed. Depending on the commencement of each participant's program, observations lasted from 3-6 semesters. I observed lectures and/or seminars for two weeks in each semester. The field-note logs were used for recording observational information (Appendix

3). This form contains information about the time, place, and date of the observation. It also contains reflective notes (personal thoughts such as ideas, impressions, speculation, and feelings) and descriptive notes of the multimodal semiotics (physical setting, portraits of the participants, and accounts of particular events).

Since knowledge is the product of the changeable socio-cultural interaction, parts of my interpretations were elicited from my observation of the students and the lecturers (or semioticians) as they engaged in literate practices. In addition, being a member of my participants' culture facilitated my understandings of their discourses (with a capital 'D', following Gee, 1996; 2008, to refer to forms of life which integrate words, gestures, glances, attitudes, values, beliefs, insights, experiences, and social identities). Working as an EAL teacher for two decades in Saudi Arabia has influenced my approach to understanding the development of Saudi students' academic literacy and numeracy practices.

3.6.2 Interviews

The interviews aimed to elicit detailed literacies narrative descriptions (Alvermann, 2010; Baynham, 2000) of participants' lived experiences in situational academic disciplinary practices, i.e. in lectures/seminars or at home doing an assigned task, both in print or digital format. The elicited information is thus related to assignment tasks, completed written assignments, and the participants' pedagogic practices. The interpretive approach to document analysis, unlike the constructivist, treats material

as if it were of somewhat less worth than direct first-hand experience, and typically focuses on trying to reconstruct the author's motives and intentions by seeking to understand what the author really meant when she or he wrote the document. (Terre Blanche & Durrheim, 2002, p. 153)

Meaning is inductively elucidated from the author's intentions and not from the document itself. The analysis is taken beyond the text by looking at participants' experiences; their values, identities, beliefs, and interpretations of the relationship between discourse processes and social norms (Fairclough, 1989). Any community of practice has its own set of social norms concerning oral or written

discourses that text producers either engage in or resist. The analysis of the discourses used to construct texts can, with the aid of interviews, reveal these norms and processes embedded within the context in which the texts are constructed.

In this study, my subjective involvement with the participants allowed pre-reflective understanding of the phenomena to emerge. Racher and Robinson (2002, p. 466) argue, paraphrasing van Manen (1997), “researchers and participants must seek to recognize and overcome their subjective or private feelings, preferences, inclinations, and expectations”; however, since it is difficult for the ethnographic researchers to avoid the influence of their subjectivity, therefore, I attempted to clarify any *biases* I brought to the study (Creswell, 2009) in order to improve validity, particularly in the co-narrations- i.e. in the unstructured interviews which were jointly constructed by both the interviewer and the interviewee. The construct of validity is discussed in Section 3.9.

I conducted structured interviews (Appendix 4) with the participants at the beginning of their program in order to elicit face value information related to their prior knowledge of some general semiotic concepts, such as their skills in the undergraduate program, ICT, ESL/EFL writing, and in the language course they enrolled in prior to the Accounting program. The aim of these interviews was to probe the breadth and depth of participants’ previous language and academic literacy learning experiences in order to understand their current literacies. I also conducted structured and unstructured interviews (Appendix 5) with the participants over a period of 3-6 semesters. The structured interviews aimed to elicit the participants’ literacy and numeracy perceptions and experiences in each Master of Commerce module, and were guided by open-ended questions that were trialled with two academic colleagues, and refined on the basis of this trial. The unstructured interviews were guided by a list of prompts drawn from document analysis and field-note logs. The participants’ experiences in the lectures and seminars were documented during the interview process. The interviews were conducted in English, but I encouraged the participants to use their native language when they had difficulties in expressing their reflections and

experiences. All the interviews were recorded, transcribed in situ talk, and analysed.

3.6.3 Documents

Lea (2004) argues that research in academic literacies should concentrate not only on the product, the essay or similar assignment, but rather concentrate on other texts which are involved in course design: the participants' course materials (such as note books, textbooks, assignments, tests and readers), guidance notes for students, web-based resources, feedback sheets, or even policy documents concerned with quality assessment procedures. Documents consisted of secondary data drawn from 1- students' written texts (lecture/seminar notes, essays, journals, drafts), including any produced visual or multimodal texts, 2- tutors' task sheet, assessment guidelines, and feedback and 3- program specifications and the expected learning outcomes.

To sum up, the longitudinal research case study comprised mixed data types: interview transcripts, field-note logs, and learning resources, including any produced visual or multimodal texts. The documents were collected at the beginning, the middle, and the end of each program. Data were collected from the following semiotic resources: interview transcripts, classroom observation transcripts and field-note logs, lecture notes (PowerPoint slides), students' assignments, web-mediated program course description (both hypertexts and hypermedia), course outline reader, course textbooks, and the stated assessment criteria.

3.7 Data Analysis and presentation tools: a multidimensional framework for exploring literacy practices

Baynham (2000, p. 100) argues that understanding literacy practices "involves drawing on the interrelated dimensions of texts, practices, and contexts", as context plays a crucial role in the interaction of text and practice. Based on the research approach and design of this research study and my review of the literature on academic literacies, here I propose a multidimensional framework

(Alyousef, 2013) for describing and explaining the socially situated multimodal and multi-semiotic academic literacy and numeracy social practices. This framework is informed by the interconnected frameworks that are drawn from ethnography, social theory, and linguistics, as mentioned in Sections 3.1-3.4. The tripartite multidimensional framework used in this study for investigating students' literacy and numeracy social practices and proposed as a model for future studies is structured in terms of three stages: 1) the epistemologies of the course under study, 2) an SF-MDA of disciplinary discourses (with a little 'd', following Gee, 1996; 2008, to refer to the various stretches of language), and 3) the use of literacies narrative (Alvermann, 2010; Baynham, 2000) technique to describe literacy events and participants' actual practices and their experiences. Table 3.6 below summarises these stages according to the main activities undertaken and the methodology used for each one.

Table 3.6 Research design and tools

Stage	Main Activity	Methodology
Stage 1	<p>Preliminary search, classification and analysis of the literacy requirements of Business programs</p> <p>Step 1: Conduct search of the literacy and numeracy practices set by the institutions/lecturers</p> <p>Step 2: Document and describe these practices according to the graduate attributes and learning outcomes set by accounting professional bodies</p> <p>Step 3: Document and describe the multimodal semiotics of business modules (assignment task sheets, tests, lecture/seminar notes, etc)</p>	Document analysis & description of disciplinary-specific semiotics (secondary data analysis)
Stage 2	<p>Step 1: Select discourse from students' writing and textbooks</p> <p>Step 2: Conduct an SF-MDA of key texts in three business modules</p> <p>Step 3: Conduct metadiscourse analysis of an assessment task in <i>Intermediate Financial Reporting</i> module (wiki pages)</p> <p>Step 4: Identify key linguistic features across the three business modules (step 2) and discuss the findings of Step 3.</p>	SF-MDA: the social purpose of a text (or its rhetorical mode), channel of communication (spoken, written, or a combination of both), its schematic macro structure, and analysis of the rhetorical structure of the text (lexico-grammatical and logico-semantic analyses of the three language metafunctions), including metadiscourse analysis.

Stage	Main Activity	Methodology
Stage 3	<p>Step 1: Conduct semi-structured interviews with the participants to gain insights about their previous ESL/EFL and ICT literacy experiences and the Business programs course sequences</p> <p>Step 2: Observe and describe the participants' (students & the lecturers/tutors) literacy and numeracy practices in literacy and numeracy social events</p> <p>Step 3: Conduct structured and unstructured interviews with the participants to explore how they describe and understand the assessment tasks, and to gain insights about their experiences</p> <p>Step 4: Find out through observation interviews how the subjective understandings and experiences of the participants are derived from larger discourses and practices that construct reality (Stage 1).</p> <p>Step 5: Detailed analysis of the previous steps to identify themes and insights related to the ways participants engage with literacy and numeracy practices both in class and while performing the given tasks.</p>	<p>Literacies narrative as evidence of experience: describe literacy events/ describe, interpret, analyse, and understand participants' actual practices, perceptions, and experiences in order to identify themes</p>

As a basis for the detailed multimodal discourses of the textual, visual and other content of each course, the analysis is carried out in three stages: document analysis and description of the literacy requirements, an SF-MDA, and the use of literacies narrative technique to describe literacy events and participants' actual practices and their experiences to identify themes.

Stage 1: The epistemologies of the course under study

In the first stage, I investigated the epistemologies of the course under study (or the literacy and numeracy requirements) by documenting and describing the literacy and numeracy practices participants are expected to master in their program. Document analysis and description of the disciplinary-specific literacy and numeracy requirements encompass the social context, materials, graduate attributes and learning outcomes, the curriculum, overview of the conceptual demands, the literacy and numeracy practices participants are expected to engage in, and finally the requirements of their assessment tasks. As the epistemologies encompass language and the related social semiotic systems, I investigate the

documents of each module in this stage by analysing and describing the following secondary data:

- Course aims and learning outcomes (objectives)
- Assessment components and marking criteria
- The requirements of the assignment tasks
- The curriculum of each Master of Commerce module

While the first stage, the investigation of the institutional discourses, focuses on the conceptual and the linguistic knowledge and skills students required to master to meet the demands, the latter two focus on how they construct multimodal social identities and meanings: SF-MDA and the use of literacies narrative as evidence of experience. Emphasis is placed in the latter stage on the participants' talk about the literacy and numeracy practices they employ, their texts, their own explanations and experiences, whereas the primary analytical focus of the SF-MDA is the textual and linguistic patterning of business discourse.

Stage 2: SF-MDA

The second stage informs the selection of the texts. Here, I conducted an SF-MDA (Stage 2, cf. **Table 3.6** on page 72) of the key topics in accounting, finance, and management accounting. The SF-MDA seeks to provide an explanatory account of how business discourse is typically constructed and how it relates to its context of use through the social purpose. Therefore, in addition to the lexico-grammatical and the logico-semantic analyses of the three language metafunctions (form), I conducted genre analysis of key rhetorical features for both natural language and numerate financial tables, which included a description of the semiotic resources of channel of communication (phonic, graphic, etc.), medium (spoken, written, or a combination of both), and the social purpose (or the rhetorical mode) of a text, including the schematic macro structure of genre which reveals the expressed purposes and stages of the texts. As Bhatia (1993, p. 18) states, analysis of register “reveal[s] very little about the true nature of genres and about the way social purposes are accomplished in and through them in settings in

which they are used". The lexico-grammatical and the logico-semantic analyses of the texts included the TRANSITIVITY system of language, expansion of the experiential meaning in mathematical procedures and formulae, the MOOD system, modality, metadiscourse analysis, nominalisation, cohesion, theme and information structure, lexical chains, and lexical density. The metadiscourse analysis (Stage 2, cf. **Table 3.6** on page 72) of financial reporting wiki pages aimed to explore the interpersonal metadiscourse resources students employed to make their texts more cohesive, and to provide insights into the dialogic nature of the collaborative wiki. Following Hyland (1998b), parentheses and colons were treated as instances of code glosses in the analysis, since much of the reformulation and exemplification is implemented through these visual markers.

The SF-MDA is based on Halliday's analytical tools of SFL (Halliday, 1985; Halliday & Matthiessen, 2004) for the analysis of language metafunctions, integrating with them some elements for the multimodal analysis of images (Kress & van Leeuwen, 1998, 2006; Martinec & Salway, 2005; O'Halloran, 2005; O'Toole, 1994; Van Leeuwen, 2011), including the diagram genres, and in particular mathematical symbolism (Guo, 2004; O'Halloran, 1996, 1999a, 1999b, 2000, 2004, 2005, 2008; 2009). More specifically the analysis of financial tables also employed Kress and van Leeuwen's information structure analysis of visual artifacts in terms of compositional/ textual zones in order to find out whether it is applicable to financial tables. In addition, I employed Halliday and Hasan (1976) and Halliday and Matthiessen's (2004) framework for the analysis of cohesion and Hyland and Tse's (2004) model for the analysis of metadiscourse markers,

The SF-MDA of the participants' texts was conducted according to the analysis tools outlined in **Table 3.7**. On the experiential metafunction level, I analysed the multimodal texts for the TRANSITIVITY system and specialised lexis since they encode the *aboutness* of discourse. On the logical level conjunctive cohesion is captured using the three main types of elaboration, extension, and enhancement. In addition, the semantic relations between a text and a graph/financial table were investigated. On the interpersonal metafunction level, I analysed the form and function of modal auxiliaries, and looked at how modal auxiliaries combined with process types.

Table 3.7 SF-MDA tools

Metafunction	Aim: To investigate ...	Analysis Tools	
Ideational Meaning: Construing a model of experience	Experiential	(a) The nature of the Field the students construct and the logical relationships they enter into; and (b) the range of Processes and Participant types occurring in the texts and whether the range is appropriate in terms of Field that the text is trying to construct.	TRANSITIVITY system (Halliday, 1985; Halliday & Matthiessen, 2004)
			Analysis of specialised lexis (nominal groups)
			Lexical Cohesion (Halliday & Hasan, 1976): Reiteration (repetition, hyponyms, meronyms, synonyms, & antonyms)
	Logical	The “relations between external phenomenon” (Halliday & Hasan, 1976, p. 240) that express the logical relationship that they signal.	Cohesion (Halliday & Hasan, 1976; Halliday & Matthiessen, 2004): External conjunctions (C1i)
	The logical relations between a text & a graph/financial table	Multimodality (Martinec & Salway, 2005)	
Interactional ⁸ Meaning: Constructing social roles and identities	Authorial stance & engagement features: students’ relation with readers and their attitude towards the proposition in the text	MOOD system: polarity (positive or negative proposition), personal pronouns, Modality (modalisation & modulation), Mood Adjuncts & Metadiscourse analysis.	
	Relations internal to the communication situation (Propositional coherence)	Cohesion: Internal Conjunctions (Halliday & Hasan, 1976, pp. 240-243,323) (C1ii) Multimodality (Guo, 2004; O’Halloran, 1996, 1999a, 1999b, 2000, 2004, 2005, 2008; 2009)	
Textual Meaning: Creating relevance to context	The organization of the propositional content (ideational function)	Reference (anaphor): Intersentential (R1): Personal, Demonstrative & Comparative Reference (anaphor): Intrasentential (R2): Personal, Demonstrative & Comparative	
	Complexity factor	Lexical Density (Textalyser, 2004)	
	Organisation of the text	THEME (parallel & sequential themes ⁹) and INFORMATION structure systems.	
		Ellipsis/ Substitution (clause, word group), Collocations ¹⁰	
		Nominalisation analysis	
	Genre analysis (global rhetorical features of a text)	Multimodality (Guo, 2004; Kress & van Leeuwen, 1998, 2006; O’Halloran, 1999a, 1999b, 2000, 2004, 2005, 2008; O’Halloran, 1996, 2009)	
Purpose of the text Schematic macro structure (text organisation)			

⁸ Using Martinec’s (1998) term to account for both human and non-human interactants.

⁹ Following Halliday (1985) the independent clauses were considered unit of analysis for investigating Theme for textual analysis.

¹⁰ Collocations only refer to the probability of co-occurrence of lexical items, rather than to semantic relations between words. Collocations were not analysed since their occurrences take the form of lexical strings and ‘reiteration’ accompanied by ‘the’ or a demonstrative that are already accounted for in the analysis (Halliday & Hasan, 1976, pp. 287-288).

Finally, the textual level encompassed the investigation of thematic progression, nominalisation, lexical density, cohesion analysis (reference, substitution and ellipsis), and the rhetorical features of a text. While an intrasentential reference relates two parts of a single sentence, intersentential reference relates two sentences together, thereby contributing to the overall discourse organisation. Following Halliday and Hasan (1976), elliptical parts that were related by coordination were not considered instances of ellipsis-even when they are written as separate sentences- since they lack the non-structural, cohesive sense, such as *Quality Services Ltd* has the capacity to benefit from the asset *and can* deny others access to the cash.

Hasan (2001, p. 239) contends that since the text's language summons up part of a speaker's experience "what is needed is some discriminating device for calling to one's consciousness only that aspect of practical experience which bears directly on that text/context". Similarly, Alvermann (2010, p. 59) argues

opening up research agendas in literacy education to include the alternative forms of data representation and report writing typically associated with narrative inquiry can increase the variety of questions we ask about reading and writing as processes and about literacy instruction in general.

Of considerable importance, Alvermann (ibid, p. 60) argues, is the potential for narrative inquiry

to renew and regulate our ways of ordering and naming literacy practices at all levels of instruction. ... This renewal process continually provides the framework through which we act as we go about our work in search of different storylines for language research.

Though the SF-MDA provides a substantial view of participants' experiences in the production of social practices and structures, the use of literacies narrative as evidence of experience not only complements this view but also provides in-depth accounts of participants' historical activities and contexts, the meaning they bring to these, and their prospective workplace practices.

Stage 3: The use of literacies narrative as evidence of experience

Since this qualitative research-based framework is underpinned by the interpretive worldview it seeks to explore how participants describe and understand learning tasks rather than merely explain what they do (Terre Blanche & Kelly, 2002). This was achieved by employing the literacies narrative of experience technique to provide a thick description of the literacy events and the participants' actual practices, the social and temporal situated practices they engaged with, their previous conjunctures of experiences, perceptions, beliefs, values, attitudes, intuitive understandings and explanations of their texts. A focus on students' overall academic literacy experiences reveals the experiential meanings behind their texts which affect them in and beyond university. As Halliday (2007a, p. 110) states, "educational knowledge is not [sic] constructed solely out of written language" but also out of the spoken language such as learners' experiences with peers, and tutors. Similarly, Baynham (2000) states that literacy research emphasising literacy as a social practice involves the two dimensions of what is being done and the participants' experiences. While the former dimension was related to literacy events "where participants make use of written language to achieve social purposes" (ibid, p. 100), the latter relates to interviews that elicit first-hand, insider accounts about participants' own experiences. Students' experience of reality is investigated through transitivity analysis (stage 2) and interviews (stage 3).

The first three steps in this stage (cf. **Table 3.6** on page 72) are concerned with the analysis of literacies narratives elicited from the interviews with the students and from the uncontrolled field observations of the literacy and numeracy social events. The unstructured interviews with the participants in this stage aim to explore how they describe and understand the assessment tasks, i.e. assignments and tests. Baynham (2011, p. 77) treats the research interview as "a dynamic co-constructed speech event, in which narrative emerges for a range of purposes and in a range of manifestations, from full canonical narratives of personal experience to rapid shifts into performance". These three steps inform whether the literacy and numeracy practices requirements (Stage 1) conform with those of the students (Step 4), i.e. step 4 aims to investigate how the subjective understandings and

experiences of the participants are derived from larger discourses and practices that construct reality. In consequence, students' literacy and numeracy practices and insights are operationalised into components (or themes) (Step 5) related to the ways they engage with literacy and numeracy practices in class and while performing tasks. Ratner (2002, p. 6) argues that although central themes are constructions of the researcher that go beyond the subject's literal words, they represent their significance since they "objectively summarize the psychological meanings that the subject expresses in the narrative". Narratives reveal the participants' socio-cultural personal experiences.

The analysis of postgraduate students' literacy and numeracy practices in a number of business modules allowed me to identify themes, trends, patterns, or conceptual categories that were coded (Pavlenko, 2007). I have identified all instances of each theme in the documents and the frequency with which it occurs. Then themes were analysed for each case study and across different cases. The various themes were grouped into categories and sub-categories so that a core group of categories could be identified, leading to the discovery and/or verification of theories, explicit or tacit knowledge, worldview, and so on.

In analysing the participants' literacies narratives of experience, I took an interpretive stance to find out how the subjective understandings and experiences are derived from larger discourses (or speech genres) and practices that construct reality (Terre Blanche & Durrheim, 2002). Individual interviews were conducted to study how participants make meanings from their experiences with academic literacies and to listen to their stories about themselves, their language background and their educational goals. As Bynham (2000, p. 99) states, the field of the NLS research involves investigating not only what students do with literacy, but also "what they make of what they do, the values they place on it and the ideologies that surround it", i.e. the social context and what students think about what they do. These values and beliefs convey the ideational meaning behind students' texts which affect them in and beyond university. Likewise, Bloome and colleagues (2005, p. 56) argue that "it is not sufficient to analyse the structure of discourse alone since it is unlikely to yield the kind of insight into what is happening in a

classroom that has either emic validity or the potential to reveal system of power and control”.

3.8 Qualitative data management and coding tools

In case-study research, the researcher is seen as the “the primary instrument of data collection and the centre of the analytic process” (Patton, 2002, p. 461). My role involved collecting and systematically interpreting data which “is not [sic] constructed solely out of written language ... but also out of the spoken language such as learners’ experiences with peers, and tutors” (Halliday, 2007b, p. 110). Instruments were used to frame the interviews, observations, and document analysis. Following Miles and Huberman’s (1994) recommendations I engaged in three concurrent flows of activities: data reduction and coding, data display, and conclusion drawing/verification.

3.8.1 Data reduction & coding

Data reduction refers to “the process of selecting, focusing, simplifying, abstracting, and transforming the data found in fieldnotes and transcriptions” (Gerrish & Lacey, 2010, p. 432). Prior to the coding process, data were reduced through selection and summary of the contents of documents. Data coding is “the process of organizing the material into chunks or segments of text in order to develop a general meaning of each segment” (Creswell, 2009, p. 227). Each participant is assigned a pseudonym to ensure his confidentiality. Creswell (ibid, pp. 186-187) suggests analysing data for material that address the following:

- Codes on topics that readers would expect to find based on the past literature and common sense.
- Codes that were not expected at the beginning of the study
- Codes that are unusual and that are of conceptual interest to readers.

Besides allowing the codes to emerge during data analysis, the following types of codes were used as a guideline: setting and context codes, process codes, activity

codes, background experience codes, etc. The codes were interpreted in relation to the research questions.

I adopted the context-appreciative encoding and multiple co-defined categorizations, proposed by Yang (2003), since this takes into account the situational context of a text. The categories were encoded by relating them to the research questions and containing units of meaning in single segments, thereby facilitating the interpretation of each one in its context in order to easily identify patterns and interpret trends. Finally, rather than restricting ‘verbalization’ to heeded information, Yang argues that certain tasks require participants to justify their reflections and/or reasoning. Finally, emergent coding approach was used following the interviews and observations of the participants’ literacy and numeracy practices in order to incorporate new themes (or components) into the existing linguistic themes.

As for Miles and Huberman’s (1994) second activity, data display, I used NVivo 8 in order to present an extended quantity of text.

3.8.2 Data coding tools

Four data coding tools were used to display data in the research study, two types of software and two web-based tools: NVivo, *Systemics*, *Textalyser* (2004), and Chow’s (2008) web-based English Verb Process Search Tool 2.0.

I used NVivo (www.qsrinternational.com), Computer-Assisted Qualitative Data Analysis (CAQDAS) Software which helps in organizing the different types of data as well as coding memos and findings. In his study, King (2010) argues that CAQDAS is a useful tool to aid the application of Membership Categorisation Analysis (MCA), a valid method for exploring the power of categorisations in texts and talk. MCA transcription includes a limited range of conversation analytic conventions, for example: laughter and pauses; as well conversational fillers such as ‘yeah’s’, ‘hmmn’s’ and ‘uh-ha’s’.

The *Systemics* coder was used to conduct the preliminary SFL analyses for transitivity, Mood and modality, and Theme and information structure (**Figure 3.1**). The multimodal texts were manually coded as most of the business texts comprised financial tables, and the software was used only to retrieve totals of the frequency of each category in the orthographic text. A percentage was calculated by dividing the number of occurrences of each sub-category by the total number of occurrences of the category, then multiplying this number by 100. The percentage total of the sub-categories adds up to 100, as 100%. I also decided to analyse discourse cohesiveness manually by annotating reference chains and lexical and conjunctive relations.

The screenshot shows the Systemics software interface with the following components:

- Menu Bar:** Text, Clause, Interclausal, Discourse, Search, Grammar, About.
- Clause:** 23
- Text:** that they would be able to ride out the chaos [[they had created]]?
- Grid:** A grid with rows labeled S1, S1c, TH1, M1, T1, E1, LEX1 and columns for various grammatical categories. A context menu is open over the TH1 row, showing options like 'Int', 'Topic', 'Rheme', 'Limit tag', etc. The 'Int' option is selected, and a sub-menu is visible with options like 'Mod/Adj/Theme', 'Voc/Theme', 'Fin/Theme', and 'Mod-Met/Theme'.
- Summary Table:**

Text1	Theme multiple textual-1	Topic unmarked --				
Int1	SPEECH-FUNCTION Knowledge statement	Mood declarative full	MODALITY Modalization probability median	MODALITY-orientation subjective implict	MODALITY Modalization potentiality	MODALITY-orientation objective implict

Figure 3.1 Systemics interface (Judd & O'Halloran, 2010)

The text analysis web tool *Textalyser* (2004) was used in order to determine the frequency ranking of the lexical items and the complexity factor (lexical density) in a given text. To rule out pronouns, articles and prepositions, *Textalyser* was set to include only words having more than two letters. I then manually compiled acronyms, synonyms or near-synonyms together, such as annual, p.a. (per

annum), year, etc. The use of numerical/quantitative data in this qualitative research aims to make statements such as "some," "usually," and "most" more precise. Using Jean Ure's (1971) technique for calculating the complexity factor (lexical density) of a given text, the total number of content words (nouns, adjectives, verbs, adverbs) were divided by the total number of orthographic words, and then multiplied by one hundred. Halliday and Matthiessen (2004, pp. 654-655) calculate lexical density by dividing the total number of lexical items by the number of ranking clauses. I opted to use Ure's method because it was hard to manage all the clauses in the large corpus I had.

Confusing process types- or 'criteria conflict' cases, in Halliday's (2009) term- in the transitivity analysis were confirmed by member checking (or inter-annotator agreement) and using Chow's (2008) web-based English Verb Process Search Tool 2.0. Process types retrieving zero (or null) results were determined using the nearest synonym and, in case the query yields nothing, intuition was used as a last resort. However, before resorting to this I tried to seek Sysfling members' opinions in this regard by posting a query on the mailing list. Similarly, I used both the extremely laborious and time-consuming manual coding of the multimodal content and interannotator agreement for Transitivity and cohesion analyses since the level of analysis of current Word Sense Disambiguation (WSD) systems, such as WordNet and SemCor¹¹, is not satisfactory (Galley & McKeown, 2003). Implicit processes were made explicit in the annotation by having them stated and placed in parentheses. It should be noted here that I do not claim the level of manual WSD to be 100% accurate, as affirmed by the literature (Mihalcea & Moldovan, 2000). Finally, my interpretations of the themes emerging from the interviews with the participants were confirmed through member-checking by allowing them to provide further comments to elicit their perspectives on these issues.

For Miles and Huberman's (1994) third activity of conclusion drawing/ verification, I conducted a triangulation technique, which will be discussed next.

¹¹ <http://wordnet.princeton.edu/wordnet/download/>

3.8.3 A Triangulation Technique

A triangulation technique is used to combine the multiple data resources together to explain, confirm, or disconfirm one another (Brown & Rodgers, 2003).

Triangulation is defined in social sciences as the attempt to understand some aspect of human behaviour by studying it from different standpoints. The study incorporates a methodological triangulation (or crystallization) technique, where the significant issues or themes arising from the rich multiple means and sources of information are used to provide an in-depth analysis of students' situated experiences. I identified potentially significant issues by conducting reiterative readings of transcripts, field notes, and other data leading to the construction of categories and themes that can be compared and/or provide response to each of the research questions. Initially, the wording of participants is used to form codes and theme labels. In addition, I conducted a cross-case comparison to see if the results replicate the findings in other cases. The cross-case analysis focuses on identifying discipline specific and cross-disciplinary literacy practices.

3.9 Validity and Reliability

A triangulation (or crystallization) technique of the rich multiple data sources give credibility and validity to the interpretation of the data, "in the sense of making the study more objective" (Hegeland, 2005, p. 663). Objectivity here does not imply that I aimed to arrive at an objective truth but rather that the study is enriched by the various contexts and consequently less dependent on and restricted by a singular perspective. Creswell (2009, pp. 191-192) suggests eight strategies that help in assessing the accuracy of findings, thereby adding to the validity of the study:

- Triangulating different data sources so that the resultant themes emerge from converging several sources of data or perspectives from participants.
- Using member checking by allowing the participants to comment on the interpretations or reconstructions of reality (since credibility is a major trustworthiness criterion). To contradict or confirm issues that emerged in

previous interviews, the final interview contained questions to elicit participants' perspectives on these issues.

- Using rich, thick description (*emic* perspective) to convey the findings.
- Clarifying the *bias* the researcher brings to the study.
- Presenting negative or discrepant information that runs counter to the themes.
- Spending prolonged time in the field to gain more experience about the participants.
- Using peer debriefing to enhance the accuracy of the account.
- Using an external auditor to review the entire project to provide an objective assessment.

Triangulation validity was also achieved by referring to a range of relevant literature. To ensure that the discourse categories are validated I consistently followed Creswell's (ibid) eight strategies for assessing the accuracy of findings. Member checking was used to verify not only the participants' perspectives on emerging aspects, but also to verify the linguistic analysis, as stated earlier in 3.8.2. In addition, I drew on my experience of teaching Saudi students during the past twenty years and the fact that I come from the same culture as my participants.

There are several arguments related to the construct of reliability in qualitative research. Some researchers argue that reliability in qualitative research most closely corresponds to the notion of dependability which can be measured by examining the *consistency* of both the process and the product of the research, i.e. examining such items as raw data, data reduction products, and process notes to verify the steps of the research (Campbell, 1996). Creswell (2009) holds that consistency can be achieved by including several reliability procedures, such as revising transcription, and iterative cross-checking of the meaning of the codes, intercoder (or interannotator) agreement. This agreement occurs when "two or more coders agree on the codes used for the same passages" (ibid, p. 191) at least 80% of the time. Stenbacka (2001) argues that since reliability concerns measurements it has no relevance in qualitative research, whereas others (Lincoln

& Guba, 1985; Patton, 2002) argue that reliability is a natural consequence of validity in research. I agree with the latter argument because reliability procedures in qualitative research (Creswell, 2009) are similar to those that achieve validity. As a result, validity implies reliability.

3.10 Ethical Considerations

Brinkmann and Kvale (2005, p. 178) argue that “learning ethical principles is not sufficient to become an ethically responsible researcher”. In order to be ethically proficient, researchers should have the ability to perceive and judge the practical wisdom, rather than reasoning only from abstract and universal principles, since formal ethical principles and guidelines do not always help the researcher in dealing with micro- and macroethical problems that may arise during research. Ethical perception and judgment (*phronesis*) of the researcher should be the main focus during the research process. As Brinkmann and Kvale contend, being an ethical researcher “means being open to other people, acting for the sake of their good, trying to see others as they are, rather than imposing one’s own ideas and biases on them” (ibid, p. 161). Objectivity in ethics thus involves an understanding of both the social and the cultural contexts of the research. The research was approved by the University of Adelaide Human Research Ethics Committee (HREC see Appendix 6) on 17th July 2009 to protect the rights of my research participants. The research practices are in compliance with the National Statement on Ethical Conduct in Human Research (Scarcella, 2003). Following the ethical practices of qualitative research by ensuring an informed consent, I conducted the following tasks:

1. Following the approval of the research project and the granting of ethical approval in July 2009, I individually approached the modules’ lecturers and tutors at the Business School by e-mail in order to set an appointment to introduce myself. Likewise, the Saudi students were approached in person during one of the social meetings of the Saudi students Club members in Adelaide. These students helped me to approach the Chinese students who were working with them in a group assignment.

2. Prior to signing their willingness to participate in the research (Consent Form, Appendix 1), the participants were handed a Student Information Sheet (Appendix 2) or Tutor/Lecturer Information Sheet (Appendix 8) which gives a brief explanation about my research topic, its duration, aims, and data collection procedures. This handout also informs the students that their participation is kept anonymous, data is stored securely, and the project will not in any way affect their assessment in the course. The participants were also be provided with *Contacts for Information on Project and Independent Complaints Procedure* form (Appendix 7) which provides details of persons a participant may contact if anyone has any complaints and/or want to know more about the project.

Finally since the main interest of this thesis is building a focused record of some of the discourses constructing academic literacy and numeracy, I expunged all references to participants, disciplines, and courses from the quotes used in this thesis.

3.11 The Pilot Study

In order to become familiar with the research setting and to experiment with the research design, a pilot study was conducted prior to the actual implementation of the research project. Though pilot studies require greater time and efforts, in most cases, they eventually facilitate a more systematic approach to actual data collection and analysis. Pilot studies can be used in foreshadowing research problems and questions, in highlighting gaps and wastage in data collection, and to refine research instruments. Hence, the entire project consists of a pilot study and a case study comprised of four individual case studies which were conducted simultaneously.

The participants in this pilot study were two Saudi Master of Commerce students: Abdulrahman and Ali. Both were in their first semester. I followed the participants through their postgraduate seminars and lectures over a period of three months, although Ali withdrew from the program during the pilot study. The pilot study was invaluable in that it enabled me to:

- Revise the Classroom Observation Log
- Collect data that can be used in the main study
- Revise my methodology, including research questions
- Revise my interview schedules and questions

The pilot study provided me with a "clear definition of the focus of the study" (Frankland & Bloor, 1999, p. 154) in order to concentrate data collection on a narrow spectrum of projected analytical topics. The second participant, Ali, voluntarily decided to withdraw from the study and based on the research ethics conduct he was asked no further questions.

Summary

In this chapter I presented the theoretical rationale for the framing of my ethnographic longitudinal research case study project. The qualitative interpretive approach is the philosophy which informs this multidimensional research case study project, i.e. a sociosemiotic ethnographic longitudinal case study conducted within the interpretive approach. Key tenets in the interpretive design and Halliday's (1978, 1985; Halliday & Matthiessen, 2004) systemic-functional social semiotic theory were discussed. I have also presented an overview of the research methodology selected for this study and the rationale for the choices made, and the social context. Justification of the chosen sampling procedure, techniques and methods of data collection viz. observations, interviews and document analysis were then discussed. I outlined the goals of the research study and their relevant analytical tools. Thereafter the data analysis and presentation procedures were discussed. Qualitative data management and coding tools were then presented. Consideration was given to issues related to ethics and validity and reliability, which are crucial features of research. Finally, I conclude the chapter by stating the outcomes of the pilot study.

The next four chapters present the multidimensional exploration of the participants' literacy and numeracy practices in the three Master of Commerce Accounting modules: *Accounting Concepts and Methods*, *Principles of Finance*, and *Management Accounting*, in addition to a metadiscourse analysis of a key topic in *Intermediate Financial Reporting* module.

Chapter 4: Students' literacy and numeracy social practices in the *Accounting Concepts and Methods* module

Introduction

This chapter presents a case study of the literacy and numeracy practices of six Saudi postgraduate students enrolled in the Master of Commerce accounting foundation module *Accounting Concepts and Methods*: Abdulhadi, Abdulrahman, Omar, Abdullah, Ibrahim and Hasan. The study provides an account of the multimodal and multisemiotic literacy and numeracy practices construed in key literacy events: a tutorial, a mid-term test, and an individual assignment.

In the next sections I present the multidimensional exploration of the participants' academic literacy and numeracy practices in accounting, which is presented in terms of the epistemologies of the module (4.1), a description of the actual practices the English as an Additional Language (EAL) participants engaged with to complete the assignment, their experiences, and their explanations of their texts (4.2), and an SF-MDA of students' texts (4.3). The epistemologies of the module included a description of the accounting module, the graduate attributes and learning outcomes and the practices valued by professional bodies, content of the accounting module, and the literacy and numeracy activities and practices students were expected to engage with to perform the first individual assignment. In Sections 4.2 and 4.3, I describe and explore the practices EAL students engaged with to complete the assignment and their experiences, followed by the SF-MDA of participants' texts in an accounting test and five individual assignments.

4.1 The Epistemologies of the accounting module

Accounting Concepts and Methods is one of the foundation modules Master of Commerce Accounting students had to study. The Course Outline reader (The Business School, 2009a) provided students with information about: 1) course information, 2) course objectives, 3) literacy events, 4) outline of each topic (the

assigned reading, specific objectives, lecture-notes, and questions for the tutorial and the workshop), 5) consultation and communication, and 6) assessment guidelines. The genre of this reader exemplifies the macro-genre type as it contained a range of other genres: exposition (expository exercises), description (course outline), and advisable guidelines for referencing, assignments, and exams. Logico-semantic relations exist between these different genres. For example, the exercises were based on the topics stated in the course outline.

More specifically, the epistemologies of the module that will be investigated here are a description of the accounting module and assessment criteria (4.1.1), the graduate attributes and learning outcomes and the practices valued by professional bodies (4.1.2), content of the Master of Commerce accounting module (4.1.3), and the literacy and numeracy activities students were expected to engage with to perform the first individual assignment (4.1.4).

4.1.1 Description of the accounting module and assessment criteria

Accounting Concepts and Methods was a major specific 3-credit hour module for the Master of Commerce Accounting coursework program. The course information section in the Course Outline reader provided an overview of the topics of this course, the textbook, and a recommended reading. The textbook students were required to read was Hoggett *et al.*'s (2009) *Financial Accounting*, in addition to a recommended reading by Bazley *et al.*'s (2006), *Contemporary Accounting*. This module consisted of four literacy and numeracy events: 1) 2-hour lecture per week to present the topic(s), 2) 1-hour tutorial per week to give opportunity for reflection on and the application of materials covered in lectures and assignments and to discuss issues relating to course matter, 3) 1-hour workshop per week to reinforce students' application of accounting techniques, and 4) individual/group task, which refers to an occasion (or event) in which students engage in individual/ group literacy and numeracy practices before or after attending any of the three academic events. Tutorials and workshops commenced in the second week after students attended the first lecture in week one. Students had in a typical week about four contact hours with the lecturer and the tutors.

Students were expected to devote a total of twelve hours per week to their studies: four hours for attending the lecture, the tutorial and the workshop, in addition to eight hours for self-directed study per week. Students can communicate with their tutors during the assigned consultation times.

As for the assessment process in accounting, it was based on a class test (20% of the total mark), two individual assignments (20% of the total mark), and an end of semester exam (60% of the total mark). The first assignment was assigned 5% and the major second one 15%. To gain a pass in this module, a mark of at least 45% must be obtained in the examination as well as a total of at least 50% overall. The two assignments encompassed: 1) a 2-5 questions assignment consisting of numerical and language theory questions, and 2) a major assignment, which was comprised of two accounting practice sets: MYOB and *Perdisco*¹².

Having presented general information about the module's literacy and numeracy events and practices described in the accounting Course Outline reader, next I describe its graduate attributes and the learning outcomes and the practices valued by CPA/ICA Australia and employer groups.

4.1.2 Graduate attributes and learning outcomes of the accounting module and the practices valued by CPA/ICA Australia and employer groups

The graduate attributes and the learning outcomes (or capabilities) of the accounting module embody the generic skills valued by the professional bodies and employer groups. While competencies are generally associated with the requirements of professional bodies and vocational training, graduate attributes and learning outcomes are associated with university education. The graduate attributes of the Master of Commerce accounting module were stated in the Course Outline reader, as shown below:

¹² More information about MYOB and Perdisco are found at <http://myob.com.au/> and <http://www.perdisco.com/login/>

Table 4.1 The graduate attributes and the learning outcomes of the accounting module

<p>Knowledge and understanding of the basic accounting skills necessary to record the transactions of an organisation and prepare financial statements.</p>	<p><u>Learning Outcomes (objectives):</u> By the end of the course students should be able to</p> <ol style="list-style-type: none"> 1. Explain and apply the concepts that underlie the preparation of general purpose financial reports; 2. Explain the purpose of, and factors which influence the content of a statement of financial position (balance sheet), a statement of comprehensive income (income statement) and a statement of cash flows; 3. Prepare a simple statement of comprehensive income, statement of financial position and statement of cash flows; 4. Discuss the various business structures through which an entity can operate; 5. Discuss the accounting system (source documents, journals, ledgers) used to record, classify and summarise transactions; 6. Explain and apply the rules of debit and credit; 7. Record transactions using the accounting system; 8. Prepare adjusting entries and an adjusted trial balance; 9. Prepare financial statements from an adjusted trial balance or using a worksheet; 10. Record transactions and prepare a set of financial statements using the MYOB computer package; 11. Discuss and account for various assets including inventory, receivables and non-current assets; 12. Account for various organisation structures including sole proprietors, partnerships and companies; and 13. Analyse financial statements.
<p><u>Communication Skills:</u> The continuing development of good interpersonal and communication skills. The course specifically seeks to develop students' ability to write analytical short answers and to write memos to management.</p>	
<p><u>Graduate Attributes:</u> this course contributes to</p> <ol style="list-style-type: none"> 1. An understanding of the application of accounting techniques for financial planning, performance measurement and decision-making 2. The skills in identifying and solving accounting and business problems through applying technical and analytical skills 3. The development of written and oral communication skills 4. Proficiency in the use of accounting software through the application of MYOB 5. An awareness of the changing regulations that impact on accounting entities 6. An awareness of the ethical issues facing the accounting profession 7. An awareness of the cultural and social issues in the international business community. 	

Accounting Concepts & Methods Course Outline reader (The Business School, 2009a, p. 4).

The required communication skills in the accounting module were related to developing students' interpersonal and communication skills, specifically their ability to write analytical short answers and memos (or memorandum) to

management. The MEMO genre was indeed adapted from business letters by a reduction in formal language and other linguistic markers. Whereas graduate attributes 2 and 3 highly stress the importance of oral communication and analytical and problem-solving skills, the Course Outline reader, unlike the ICAA/CPAA (2009), did not provide detailed description of how these skills are developed. Students' success in the construction of accounting knowledge was measured in terms of their ability to represent the interpersonal meanings according to the following directives stated in the learning outcomes/task sheets: 'explain', 'prepare', 'discuss', 'apply', 'record', and 'analyse'. These directives required students to integrate several relevant independent aspects (or ideas) into a *relational* structure. According to Biggs' (2011, p. 385) Structure of the Observed Learning Outcomes (SOLO) taxonomy, a structural level is said to be *relational* when "most or all of the relevant data are used, and conflicts resolved by the use of a relating concept that applies to the given context of the display, which leads to a firm conclusion". The *Communications Skills Guide for Business Students* (Hancock, 2006, p. 43) listed the underlying meanings of the most frequent terms that appear in assignment and exam questions. For example, to properly 'analyse' financial statements students are required to "divide into parts and discuss each part and how they relate". Discussing an issue requires writers to give both sides of an argument and then their own opinion. Finally, 'explain' requires students to "analyse in order to show reasons, causes and effects; clarify by the use of models and examples" (ibid); however, the Guide advised students to confirm whether their lecturer intended this meaning or just required them to describe the issue. Whereas Abdulrahman obtained a hard copy of the *Communication Skills Guide* from the bulletins boards in the student Study Hubs (personal communication, October 31, 2009), Abdulhadi downloaded it from the Business School's website (personal communication, October 31, 2009).

While the *Accounting Concepts & Methods* curriculum stated 13 objectives, it did not relate each graduate quality to its corresponding objective(s) or indicator(s). For example, the Graduate Quality that underlies students' ability to "analyse financial statements" (Learning Outcome 13) is the development of their "skills in identifying and solving accounting and business problems through applying technical and analytical skills" (Graduate Quality 2). The Institute for Chartered

Accountants in Australia (ICAA) and the Certified Practising Accountants Australia (CPAA) listed the generic skills which the professional bodies and employer groups value and expect to see developed in accounting graduates (ICAA & CPAA, 2009). Table 4.2 lists the generic skills highlighted by the professional organisations (ibid) as necessary for accounting graduates in terms of behavioural skills and cognitive skills.

Table 4.2 Accounting graduates' generic skills identified by the ICAA/CPAA

ICAA/CPAA required generic skills	
<p>BEHAVIOURAL SKILLS</p> <p>Personal skills</p> <ul style="list-style-type: none"> – be flexible in new/ different situations – act strategically – think and act independently – be focused on outcomes – tolerate ambiguity – think creatively <p>Interpersonal skills</p> <ul style="list-style-type: none"> – listen effectively – present, discuss and defend views – transfer and receive knowledge – negotiate with people from different backgrounds and with different value systems – understand group dynamics – collaborate with colleagues 	<p>COGNITIVE SKILLS</p> <p>Routine skills</p> <ul style="list-style-type: none"> – report and essay writing – computer literacy <p>Analytic/design skills</p> <ul style="list-style-type: none"> – identify, find, evaluate, organise and manage information and evidence – initiate and conduct research – analyse, reason logically, conceptualise issues – solve problems and construct arguments – interpret data and reports – engage in ethical reasoning <p>Appreciative skills</p> <ul style="list-style-type: none"> – receive, evaluate and react to new ideas – adapt and respond positively to challenges – make judgments derived from one’s own value framework – think and act critically – know what questions to ask – engage in life-long learning – recognise own strengths and limitations – appreciate ethical dimensions of situations – apply disciplinary and multi-disciplinary perspectives – appreciate processes of professional adaptation and behaviour.

(ICAA & CPAA, 2009, p. 11)

Master of Commerce students may achieve the learning outcomes of the *Accounting Concepts and Methods* module when they have shown that they exhibited the required behavioural and cognitive skills (Table 4.2). For example, to ‘explain’ an issue students needed to exhibit both personal/interpersonal skills and analytic/design skills (ibid), namely, the ability to “identify, find, evaluate,

organise and manage information and evidence” and “analyse, reason logically, conceptualise issues”. These skills seem to be aligned with the module’s graduate attributes and learning outcomes stated in the Course Outline reader (Table 4.1). For example, Graduate attribute 2, the development of students’ “skills in identifying and solving accounting and business problems” is related to the analytic/design skills identified by ICAA/CPAA in the table above. Students can successfully manage these competencies when they are knowledgeable in IT skills.

To sum up, the university’s intended learning outcomes of this module seem to be congruent with the skills that ICA/CPA Australia consider necessary for a graduate entering the profession. This congruence could be the result of a joint accreditation process between the university and the ICAA/CPAA (2009).

I investigate in the next section whether the learning outcomes presented above are reflected in the content of the module’s curriculum.

4.1.3 The curriculum of the accounting module

The participants were introduced in this module to the basic principles of financial accounting, including income statement, balance sheet, cash flow statements, and depreciation. The learning content set by the School of Business for the accounting module is outlined below:

This course introduces students to the fundamentals of financial accounting practice. It develops students' understanding of key accounting concepts, recording methods and measuring and disclosing requirements. Topics include an introduction to accounting information in decision contexts, the conceptual framework (SAC 1, SAC 2, the Framework), Income Statement and Balance Sheet, recording financial transactions, adjusting entries and the accounting cycle, inventory, revaluations, cost of acquisition, depreciation, introductory financial statement analysis, organisational structures (sole proprietors, partnerships, companies, not for profit), cash flow statements, and other selected issues relating to financial reporting standards. (University of Adelaide, 2009)

The module covered twelve topics during the semester. Each week lecturers present a given topic. The thirteen learning outcomes presented in **Table 4.1** (cf.

page 94) were consistent with the content of the textbook. In the following table I map each topic onto its corresponding learning outcome(s) for the accounting module.

Table 4.3 Accounting module's topics, the semiotic resources and the learning outcomes

Topic and the reading texts		Learning Outcome and its corresponding number (See Table 4.1 above)	
1. Accounting and decision making, regulatory framework for external reports and forms of organisation.	Selected texts from chapters 1, 2 8, 9, 10, and 17.	Explain and apply the concepts that underlie the preparation of general purpose financial reports.	1
		Discuss the various business structures through which an entity can operate.	4
2. Conceptual framework and the balance sheet.	Selected texts from chapters 2, 10, and 17.	Explain the purpose of, and factors which influence the content of a statement of financial position (balance sheet), a statement of comprehensive income (income statement) and a statement of cash flows.	2
		Explain and apply the rules of debit and credit.	6
3. Measurements of profit, income statement and cash flow statement.	Selected texts from chapters 10, 17, and 18.	Prepare a simple statement of comprehensive income, statement of financial position and statement of cash flows.	3
4. Recording financial transactions.	Selected texts from chapters 2 and 3.	Discuss the accounting system (source documents, journals, ledgers) used to record, classify and summarise transactions.	5
		Prepare adjusting entries and an adjusted trial balance.	8
5. Adjusting entries, preparing financial statements and completing the accounting cycle.	Selected texts from chapters 4 and 5.	Prepare financial statements from an adjusted trial balance or using a worksheet.	9
6. Accounting for retailing.	Selected texts from chapter 6.	Record transactions using the accounting system.	7
7. Manual and computerised accounting systems.	Selected texts from chapter 7.	Record transactions and prepare a set of financial statements using the MYOB computer package.	10

Topic and the reading texts		Learning Outcome and its corresponding number (See Table 4.1 above)	
8. Cash management and control.	Selected texts from chapter 11.	Explain the purpose of, and factors which influence the content of a statement of financial position (balance sheet), a statement of comprehensive income (income statement) and a statement of cash flows.	2
9. Accounting for receivables and for inventory.	Selected texts from chapters 12-15.	Discuss and account for various assets including inventory, receivables and non-current assets.	11
10. Accounting for non-current assets.			
11. Accounting for partnerships and companies.	Selected texts from chapters 8 and 9.	Account for various organisation structures including sole proprietors, partnerships and companies.	12
12. Analysis and interpretation of financial statements.	Selected texts from chapter 19.	Analyse financial statements.	13

Adapted from the *Accounting Concepts and Methods* Course Outline reader (The Business School, 2009a)

The content of this module thus was consistent with the learning outcomes stated in the Course Outline reader. The semiotic resources were multimodal as they not only included orthographic texts but also computerised accounting systems (cf. 4.2.3).

In the next section I investigate the requirements of the first assignment by linguistically interpreting the lecturer's instructions in the task sheet and investigating whether the requirements align with the learning outcomes.

4.1.4 The literacy and numeracy activities students were expected to engage in to perform the first assignment

The assignment task sheets presented the social purpose which in turn determined the schematic structure of the participants' texts. Since not all the participants started their MA program at the same time there were discrepancies among the assignment task sheets. There were four different task sheets as Abdulhadi started

his program in semester 1, 2008, followed by Abdulrahman (semester 2, 2009), then Omar and Abdullah (semester 1, 2010), and, finally, Ibrahim and Hasan (semester 2, 2010).

Before describing the demands of the task sheet, I briefly explain the underlying meaning of accounting financial reports. The three main accounting financial reports are a statement of financial position, an income statement, and statement of cash flow. These reports aim to inform various stakeholders of the financial status of the company, and each one serves a specific purpose. The statement of financial position (or a balance sheet) reports the financial position of an entity at a specific point in time (Hoggett et al., 2009). There are two preferred visual modes (or templates) for the design of the balance sheet. While some accountants prefer to list assets in one column and liabilities and equities in another, others list all the three categories in one column. The contents of the balance sheet are discussed and analysed in Section 4.3.1 (cf. page 117). The income statement is “sometimes called profit and loss statement” (ibid, p. 38) and it reports the profit which is the excess of income over expenses for a given time. Since income and expenses do not necessarily represent cash flow, the statement of cash flows (or a cash flow statement) “is particularly useful in helping users to assess the sources and uses of an entity’s cash, and the likely ability of the entity to remain solvent” (ibid, p. 39). Having provided a brief overview of the underlying meaning of the three main accounting financial statements, next I investigate the literacy and numeracy activities students were expected to engage in to perform the first assignment.

Since the assignments shared the same social purpose, I will describe the requirements of Omar and Abdullah’s task sheet. In addition, Abdulahdi’s text was excluded from the SF-MDA of individual assignments (cf. 4.3.2) because it was mainly comprised of financial tables. Abdullah and Omar’s assignment task sheets included four similar questions and covered the first three topics outlined in Table 4.3, which are:

- Accounting and decision making,
- Conceptual framework and balance sheet, and

- Measurements of profit, income statement and cash flow statement.

Table 4.4 below outlines the tutors' expectations which are elicited from the task sheet, the weighting of marks, and the learning outcomes which are drawn from Table 4.1. The first question in Omar and Abdullah's task sheet was based on Accounting Conceptual Framework and students were expected to explain how Quality Services Ltd should account for insurance payment in the financial statements and at the time of payment. Questions 2 and 3 demanded the preparation of a financial position statement (or a balance sheet) and 'a properly' classified cash flow statement for Louise Martin's Business.

Table 4.4 Omar and Abdullah's task sheet requirements and the corresponding learning outcomes

Task no.	Mark	Requirements of the task sheet	Learning Outcome and its corresponding number (See Table 4.1 above)	
Q. 1	12	Using the appropriate <i>Framework</i> definitions and recognition criteria for assets, liabilities, revenues and expenses <u>explain</u> : A)- how the \$6 000 insurance payment on 1 May 2010 should be accounted for and B) - the effect of the transaction on the 30 June 2010 financial statements.	Explain and apply the concepts that underlie the preparation of general purpose financial reports.	1
Q. 2	10	Using the above information, <u>prepare</u> a properly classified statement of financial position (or a balance sheet) for Exit Ltd.	Prepare a statement of financial position.	3
Q. 3	11	<u>Prepare</u> a statement of cash flows for Louis Martin business for the year ended 30 June 2011.	Prepare a simple statement of cash flows.	3
Q. 4	7	A) - <u>Measure</u> the profit of Sharelow for the year ended 30 June 2010, using the "change in wealth" approach. B) - <u>Calculate</u> the profit using "revenues less expenses" approach. C) - Briefly <u>explain</u> why the profit calculated in the former approach should be equal to the latter's using the essential characteristics of revenues and expenses.	Explain and apply the concepts that underlie the preparation of general purpose financial reports.	1
			Explain the purpose of, and factors which influence the content of a statement of financial position, a statement of comprehensive income (income statement) and a statement of cash flows.	2

Question four required students to calculate the profit of Sharelow for the year ended 30 June 2010, using the “change in wealth” approach and the “revenues less expenses” approach, and to briefly ‘explain’ why the profit calculated in the former approach should be equal to the latter’s using the essential characteristics of revenues and expenses. As stated in the *Communications Skills Guide* (Hancock, 2006, p. 43), in order to fulfil this task, students were required to interpret common task words (or directives) in the table above. For example, the explanations in questions one and four required students to analyse data in order to “show reasons, causes and effects; clarify by the use of models and examples” (ibid). Question two required students to prepare a statement of financial position that is properly classified. These instructions, therefore, represent the semiotic structure through which meanings take place. Li (1963, p. 107) argues that accountancy “qualifies to be considered as a language system” since it has words and numerals as its symbols and procedures and conventions as its rules. Morgan (2006) argues that the field of discourse encompasses the mathematical problem on which students work on and their goal of achieving an acceptable solution. The discourses students were expected to produce in order to do this assignment are multisemiotic since they included natural language and mathematical symbolism.

Having described and discussed the epistemologies related to the *Accounting Concepts and Methods* module and the academic literacy and numeracy practices the participants were expected to engage with, next I investigate the second dimension for exploring the participants’ literacies, namely the actual literacy events and the participants’ practices and experiences.

4.2 A description of the actual literacy events and the participants’ practices and experiences

It is necessary to describe the sources of the participants’ rich experiences, literacy events, before describing their literacy practices. The lecture theatre was large enough to hold about hundred and fifty students. Students were required to refer to the university’s portal which presented the course outline, sample exams, lectures-notes, and video streaming of lectures. Students perform the same literacy and numeracy practices in workshops and tutorials, although tutor-student social

interaction in the latter outweighs that in workshops. Unlike tutorials, workshops are characterized by a large number of students (80+), with little interaction, comprehensive feedback, and attendance was not compulsory (Janet, personal communication, August 27, 2009), although students were advised to attend. Workshops gave students the chance to practise literacy and numeracy by participating in interactive discussions. On the other hand, tutorials used fewer teacher-centred techniques as they aimed to develop learners' communication skills through more student group work. This learning outcome was aligned with the two interpersonal skills identified by accounting professional bodies: understanding group dynamics and collaborating with colleagues (cf. page 96). However, in practice the *Accounting Concepts and Methods* tutorial was often teacher-centred, as discussed in the next section.

Students perform a number of literacy and numeracy practices in each literacy event. These practices include:

- Reading the notebook, the module's Course Outline reader, the textbook, *Communications Skills Guide*, the recommended readings, financial articles in major databases or newspapers, e-mails, and the university's Learning Management System (LMS), Blackboard (MyUni) portal, which includes partial solutions to tutorial questions, past test papers, assignment task sheets, and tutorial templates).
- Listening to the lecture through the Web-based student's portal
- Preparing answers for given exercises or assignment by taking notes, typing in a word processor, editing, working out calculations, and drawing tables.
- Speaking with classmates and with the tutor in the class or during consultation hours.

Since this module had no group assignments, students could only develop their accounting communication skills through their effective participation in the tutorials and the workshops, or through the study groups. These skills are also highly valued by professional bodies (ICAA & CPAA, 2009) as they are considered necessary for accounting graduates. As stated earlier in Section 4.1.2,

one of the main graduate attributes of this module was “the continuing development of good interpersonal and communication skills” (See Table 4.1). Students can develop their interpersonal skills by 1) listening effectively, 2) presenting, discussing and defending views, 3) transferring and receiving knowledge, 4) negotiating with students from different backgrounds, and 5) collaborating with colleagues (ICAA & CPAA, 2009, p. 11).

In lectures, students listen to the lecturer, read the reader and the textbook, participate when needed, and take notes in their notebooks or the lecture-notes in the reader. Abdullah (personal communication, August 5, 2010) argued that students fail in this course because they believe that lecture-notes are the main resource material in the final exam. As Abdullah was persistent during his undergraduate study in Saudi Arabia, he was appointed as a lecturer upon earning the degree and also received a scholarship to complete his MA and PhD studies. Indeed he (personal communication, March 19, 2011) intends to complete additional studies that will enable him to advance to the Certified Management Accountant (CMA) status.

What follows is a description of the participants’ literacy and numeracy practices in a number of accounting literacy events and their experiences in the accounting module and in the individual assignments. The events included a tutorial class, a mid-term test, and the accounting practice sets MYOB and *Perdisco*.

4.2.1 The literacy and numeracy practices in a tutorial class

In this section, I describe the literacy and numeracy practices of one of the participants, Abdulrahman, in a typical accounting tutorial class (October 13, 2009). The multimodal semiotic resources used in this tutorial were verbal and non-verbal interpersonal elements, the textbook, the notebook, diagrams, data projector to project slide show presentation, Word documents, Excel, or an internet web site, two large projector screens, and an Overhead Projector (OHP) to display, through transparencies, multimodal accounting semiotics. O’Halloran (1999a, p. 317) refers to “meaning arising from interaction and interdependence between these semiotic codes in joint construction” as a ‘semiotic metaphor’. The

primary multimodal semiotic codes that formed the ‘semiotic metaphor’ of this tutorial were the verbal texts, gestures, visual texts represented in the textbook, the notebook, projector screen, OHP, and the diagrams presented through the data projector. The context of situation is formed when a combination occurs between language selections and the other forms of semiosis through which students make meaning. The accounting tutor used various resources to represent accounting literacy practices; however, he preferred to start the tutorial by drawing students’ attention to a number of successful literacy practices.

The tutor seemed fully aware of international students’ cultural discourses (with a capital ‘D’) as he spoke very slowly and, at times, repeated what he has said two or three times. He advised students to take notes in the class, work on the tutorial questions before the class and check their answers in the tutorial. Indeed the tutor noticed that most students were not prepared, as evidenced by their reading the answers from the textbook. He informed students again that he expected all of them to prepare the tutorial’s questions, even if not all their answers are correct. Indeed the majority of the students participated silently by taking notes and paying attention to the tutor, with the exception of Abdulrahman and another three Chinese students. Most students seemed unprepared or lacking confidence to speak in the tutorial class. Students were expected to prepare given tasks beforehand and contribute to discussions, thereby ascertaining their level of understanding upon hearing complete answers or reinforcing their status quo with marked linguistic choices. This may explain the reason behind students’ reluctance to participate in interactive discussions. Above all, students’ preparedness is the key to positive classroom dynamics. Consequently, the tutorial class was teacher-centred, i.e. monolingual rather than reciprocal. As the tutor finished addressing students in regards to the successful literacy practices, he started the tutorial by using the OHP to explain the accounting equation “assets= liabilities+ owner’s equity”.

The tutor’s multimodal diagrammatic representation (**Figure 4.1**) of the accounting equation (mode: visual image) is an instance of the semiotic metaphor. The experiential and interpersonal meanings are congruently realised through speech, gesture, visual display of the accounting equation, and the labelling of

increases/decreases through the use of upward and downward arrows. The tutor drew a circle around the first part of the equation (mode: visual display) and said (mode: speech), while indicating with his fingers (mode: gesture), “when an asset increases it is recorded by debit”. Then, he added, “Remember A ↑ Dr”.

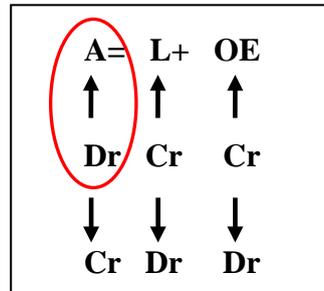


Figure 4.1 The tutor's notes on the transparency

The tutor explained that memorizing only the first part in this diagram can aid students in determining whether an increase or decrease to any of these components is to be recorded by debit or credit. All students had to do was to remember that when there is an increase to ‘A’, then it is a ‘Debit’, while the other two components are ‘Cr’. For a decrease in any of the three components students only reverse the entries. The tutor argued that practice is the key to understanding and, thereby, correctly recording transactions in financial reports. Omar argues that:

I do not need to draw these arrows in order to decide whether an increase or a decrease in an asset is to be debited or credited to an asset account. This strategy is useful for those students who did not study accounting in their undergraduate studies. It is very simple as I sort this out in my mind. Increase in assets is recorded by debit since they have increased. Also an increase in liabilities is recorded by credit since what you owe to others has increased. (personal communication, May 6, 2010)

Omar’s awareness of these rules was perhaps due to his professional experience in a private company before starting the MA program. The tutor’s strategy may assist beginning students and those learning accounting practice for the first time in acquiring the academic literacy norms though, as the tutor explained, correct accounting entry is contingent upon practice. This numeracy practice is related to learning outcome number six: “explain and apply the rules of debit and credit”

(See Table 4.1). In one of the test questions, Abdulrahman successfully managed the rules of debit and credit by recording six transactions in the General Journal. Abdulrahman was familiar with the accounting discourse procedures and conventions, as evidenced from his participation in the class and his application of debit and credit rules in the midterm test (Figure 4.2).

Required:

Record all of the above transactions in the general journal of Fast-Books.
Narrations are not required. Show all calculations.

8 marks

1) Dr Cash at bank 2 025 ✓ $1\frac{1}{2}$
 Cr unearned revenue 1850 ✓
 GST collections 185 ✓

2) Dr Cash at bank 30 000 ✓ 1
 Cr Loan payable 30 000 ✓

3) Dr prepaid rent 24 000 ✓ $1\frac{1}{2}$
 Dr GST outlays 2 400 ✓
 Cr cash at bank 26 400 ✓

4) Dr software 4 800 ✓ 1
 Dr GST outlays 480 ✓
 Cr cash at bank 5280 ✓

8) Dr office supplies 240 ✓ $1\frac{1}{2}$
 Dr GST outlays 24 ✓
 Cr Accounts payable 264 ✓

10) Dr Account receivable 5 225 ✓ $1\frac{1}{2}$
 Cr Service ✓

Good

Figure 4.2 An excerpt from Abdulrahman's mid-term test

As a result of this, Abdulrahman received 8 out of 8 in one of the questions. He relied on his past undergraduate accounting experience of debit and credit rules (personal communication, October 14, 2009). The tutor asked students to use shorthand strategy when copying from the OHP in order to save time: i.e. copying only content words and removing function (or grammatical) words, such as prepositions, pronouns, auxiliary verbs, conjunctions, and articles. The tutor's practice is in line with the socio-cultural model of learning which views knowledge as contested rather than static. Students will have the opportunity to synthesise knowledge themselves instead of reproducing it verbatim.

In the next section, I discuss the tutor's comments on the students' mid-term test papers. The tutor handed out the test papers in this tutorial class (October 13, 2009) and provided students with formative feedback during the last fifteen minutes of the tutorial.

4.2.2 Tutor's comments on the mid-term test papers

The tutor handed out the results of the mid-term test and gave students some advisable guidelines for projected tests, which included the generic constraints and the appropriateness of various literacy practices. He reminded students that they need to consider the following in the final exam when answering language theory questions:

- Exerting greater effort to the tutorial's language theory questions which accounted 40 % of the total marks;
- Giving definitions of the key accounting concepts before providing explanation; and
- Writing at least one paragraph on each section rather than just writing short answers.

The above guidelines aimed to circumscribe successful test practices. Many students lost marks on these questions which measured conceptual knowledge and generic skills. The tutor explained that the important key language theory questions the students needed to know included financial statement, cash flow statement, adjusting entries, and closing and reversing entries. This literacy relates to learning outcome eleven (cf. **Table 4.1**) which states that students should be able to "discuss and account for various assets including inventory, receivables and non-current assets". Abdulrahman's mid-term test paper had few comments related to language theory questions.

The tutor's comments on Abdulrahman's answers to the theoretical questions were "more detail required for definition" and "need to explain definitional and recognition criteria". Abdulrahman explained after the tutorial (personal communication, October 13, 2009) that he did not prepare well for language

theory questions and that those who got high marks in the exam had a copy of the previous semesters' tests. Abdulrahman's comments suggest that tutors need to make sure they change test format every semester. Hancock *et al.* (2009, p. 13) argues that since students are most likely to circumvent English language competency tests even if the proposed changes are implemented, professional accounting sectors need to identify "examples of best practice for embedding a variety of highly sought communication skills into the programs". In addition to the communication skills, most graduate employers cite English language as the area of deficiency. As Abdulrahman puts it:

I have a problem with writing short answers and the theoretical questions because I am slow in writing. In exams I make many mistakes when trying to write fast. If I were to answer these questions in Arabic I will get full mark, but I have to think how I am going to answer the question: how to start? How to follow progression of sentences? (Abdularahman, personal communication, October 13, 2009).

Abdulrahman had difficulties in composing appropriate texts. This was caused by difficulties in organizing the meaning-making processes for the task in the target language, which involved description, negotiation, and explanation.

Having described the participants' literacy and numeracy practices in a tutorial class and a mid-term test, next I describe their experiences with two accounting software packages.

4.2.3 The accounting practice sets: MYOB and *Perdisco*

The second major assessment task in the accounting module was multimodal as it included a practicum where the student cohort engaged in using two accounting software packages: MYOB (Mind Your Own Business) and *Perdisco* (Latin= '*learn thoroughly*'). The participants engaged in multiple semiotic resources (mode: verbal, visual) when they used the packages. These resources formed the 'semiotic metaphor' of the practicum literacy event. The packages enabled students to apply their learning to a wider range of situations that resembled those in the workplace. This type of task is what Chandrasoma (2007, p. 133) calls 'technocentric' since it was "characterized by the predominant appropriation of

new technologies of communication”. Non-technocentric tasks are thus based on conventional modes of written discourse.

The module’s learning outcome ten (“Prepare a set of financial statements using MYOB”, Table 4.1) is related to graduate quality 4, “proficiency in the use of accounting software through the application of MYOB”. This graduate quality is aligned with the cognitive skills (routine, appreciative and analytical) accounting professional bodies (ICAA & CPAA, 2009) identify as necessary for accounting graduates: e.g. computer literacy, apply disciplinary and multi-disciplinary perspectives, appreciate processes of professional adaptation and behaviour, report and essay writing, identify, find, evaluate, organise and manage information and evidence, analyse, reason logically, conceptualise issues, and interpret data and reports (See Table 4.2). The participants were provided with detailed instructions related to the second major assignment.

In one of the lectures students were handed out the following task sheet:

Each student completes a one month accounting cycle for a financial business which is sent to the lecturer on completion. Different online accounting practice set (available for 23 days) is available to each student. Upon completing the manual accounting practice set (*Perdisco*) students complete the computerized practice set (MYOB). The practice set aims at providing students with the practical and technical skills essential to accounting; therefore, it must be completed on an individual basis.

To do this major assignment, students were advised to:

- a. Practice the online ‘trial version’ (available for 26 days) before doing the assignment: www.perdisco.com/students;
- b. Print out the company’s details: its accounting procedures, opening balances, the subsidiary ledgers, the inventory cards and the transactions for the month;
- c. Do the calculations before entering each week’s transactions;
- d. Separate the GST component for those transactions that are subject to GST
- e. Check entries before submitting results for marking;

- f. Remember that subsidiary ledgers and inventory records are updated daily from the special journals AND 'Other accounts' are posted daily to the general ledger; and
- g. Include an account name and a Post Ref in the special journals

Students get immediate performance feedback and a final score once they submit the practice set. They made use of *Perdisco* which was available for twenty-six days before doing the second assignment. This task could be classified as extended since it was comprised of lengthy information that is crucial for managing the task. Students in this technocentric task were required to read the company's details, running into several pages, and including its accounting procedures, opening balances, the subsidiary ledgers, the inventory cards and the transactions for the month. Abdulhadi (personal communication, October 31, 2009) stated that *Perdisco* was more comprehensive since he had to record all transactions. It also had help features and gave students immediate feedback, except for the essay part of the questions. The students in Bolt and Flynn's (2009, p. 727) study indicated that they ranked 'receiving detailed immediate feedback' on their actual answers as the best feature of the e-workbook. The second most highly ranked feature was 'the ability to practice' whenever they wanted.

Perdisco executes all the financial statements after students finish recording all the transactions. Abdullah (personal communication, May 31, 2010) commented that *Perdisco* software does not let users revise their written answers before finally submitting them. Most of his mistakes were peripheral, i.e. typographical errors or entry of wrong dates. Unlike *Perdisco*, MYOB could only be accessed on campus. Abdullah argued that

Unlike *Perdisco*, MYOB allow students to revise their answers before submission. Once I enter the transaction I can check my answer in the Journal. Before I submitted the assignment I navigated 'Session Report' to check entries. Then I give my lecturer a hard copy of all my work. (personal communication, May 31, 2010)

The copy centre at the university provided students with a hard copy which explained, step-by-step, how to use MYOB software (Abdulrahman, personal

communication, October 31, 2009). Abdulhadi resisted the integrity of this task by doing it within a group. As he stated,

I practiced using the software with a group, although this contradicts with the academic integrity of the university. In MYOB, we had to do 75 transactions and some students just copy the transactions from previous students without changing the supplier's name in one of the transactions- maybe it is no. 26-, which is supposed to be their name. (Abdulhadi, personal communication, October 31, 2009).

Abdullah pointed out that collusion and cheating when using *Perdisco* were restrained since key variables were randomised through the program's mathematical model.

The use of the accounting software packages seem to enrich students' life-long skills which include managing information, taking notes, using data, analysing, and reflecting on workplace issues. These skills were amongst those valued by accounting professional organisations (cf. **Table 4.2**). As Jackson and Durkee (2007, pp. 91-92) state, "owing to the ever-changing demands on the accounting professional, the professional community considers it imperative that accounting educators incorporate into their curricula a focus on life-long learning skills". Most of the student cohort in this study, however, made use of *Perdisco* when the online assignment due date drew closer. I suggest that if this task contributes in a substantial way to the students' final grade, students will tend to be more interested and keen to practise the accounting software packages. Rather than practising the accounting sets when the due date draws closer, students will pay more attention to this major assignment task.

In the next two sections I explore the participants' practices and experiences in the accounting module and in an individual assignment.

4.2.4 The participants' experiences in the accounting module

Both academic consultations with course tutors and discipline-specific databases assist students to become more confident in developing their own learning experiences.

While many students did not attend the academic consultations, some visited the tutor only a few weeks before the final exam (Janet, personal communication, August 27, 2009). In fact, students who were reluctant to attend the academic consultations in-person at the beginning of the course could do so via e-mail or telephone. During an interview Abdulhadi talked about the reasons for not attending the consultations:

I am aware, however, that teaching methods over here are different from my country since students are only guided over here and not spoon fed. I raise my questions in the tutorials. I have never met any of my lecturers for consultation for two reasons. First, I do not have sufficient time. Secondly, my friends informed me that they did not benefit from these consultations because they only get general answers for their questions (Abdulhadi, personal communication, October 31, 2009).

Although Abdulhadi noted that he was aware of the teaching methods in Australia, he thought that academic consultations were not beneficial as his friends did not get specific answers to their queries. Rather than acting as facilitators, some students preferred the teacher-centred approach to learning in which knowledge is disseminated. For example, Abdulhadi seemed to be influenced by the generic skills' literacy model that perceives knowledge as something stable that can be transferred from one context or task to the other. Students will become successful, autonomous learners when they benefit from the academic consultations but also from the databases.

In an answer to the question which database(s) do you use to collect information about an assigned topic? Abdulhadi (personal communication, October 31, 2009) pointed out that he mostly used Business Source Complete and the E-Library. Abdulhadi learnt about Business Source Complete only after he attended a one-day library session. He also referred to the university's E-Library to search for newspapers, magazines, maps, and books. Hasan (personal communication, August 10, 2010) explained that he was not proficient in using spreadsheets as his colleagues. Since his undergraduate program was Arabic language and not Business, Hasan did not have the opportunity to improve his skills in using spreadsheet. One thing Hasan could have done was as Stoner (2009) points out,

attending help desk workshops run by the libraries or skills development centres in the university.

The findings showed that some students resisted the tutor's guidelines by doing the accounting practice sets task within a group and not attending the academic consultations. This resistance also extended to the first individual accounting assignment, as discussed in the next section.

4.2.5 The literacy and numeracy activities students engaged with to perform the first individual assignment

The following table outlines the key statistics of each participant's text. This includes start of the program, number of questions, word limit, word count, and the number of tables and graphs:

Table 4.5 A pivot table of the six participants' accounting written assignment

Participant Category	Abdulhadi Sem.1, 2008	Abdulrahman Sem.2, 2009	Abdullah Sem.1, 2010	Omar Sem.1, 2010	Ibrahim Sem.2, 2010	Hasan Sem.2, 2010
Number of questions	5	5	4	4	2	2
Word limit	n/a	n/a	n/a	n/a	n/a	n/a
Word count	2483	1304	1187	1068	918	821
Number of tables	26	3	2	2	13	9
Number of graphs	9	0	2	0	0	0

All the six participants used tables to construct financial statements. Abdulhadi's text far exceeded the other texts in terms of the number of words and tables.

Abdulhadi, Ibrahim and Hasan used more tables than the other two participants. Although their task sheet had only two questions compared with four or five for the other four participants, Ibrahim and Hasan preferred to present their findings in tabular form. Financial statements encode meaning in the most economical manner possible. As O'Halloran (2000, p. 386) states, mathematical symbolism and visual display, unlike natural language, have their "own unique lexico-grammatical systems" for encoding meaning, especially where meaning is encoded unambiguously in the most economical manner possible through grammatical strategies of structural condensation. This topic will be discussed in

detail in Chapter 5, expansion of the experiential meaning in capital budgeting formulae (cf. 5.2.1.2, page 168).

Mickan (2006b, p. 21) argues that “a focus on social practices as units of analysis provides a practical and integrated way into the study of instruction and learning”. The multimodal literacy and numeracy activities students engaged in to perform the first assignment included the following:

- Checking the university’s e-mail on a regular basis to see if there are any assignment-related updates
- Reading the assignment task sheet, the Course Outline reader, and the accounting textbook
- Using a financial calculator
- Using tables and spreadsheets (Microsoft Excel)
- Communicating with peers.

Although the participants were supposed to do the assignment individually, they resisted this prerequisite as all cooperated with their study group/peers members. Being aware of the usefulness of engaging with his community of practice, Abdulrahman (personal communication, March 24, 2010) started to build up peer networks with a number of students in order to carry out the assigned tasks through their persistent engagement with academic numeracy and literacy social practices, such as discussing topics, solving problems, and seeking clarification. Likewise, Abdullah built up a study group network and used mind maps in which the theme or the main idea was written in the centre of the page, the sub-points were written around this centred idea with the details radiating out from these sub-points. This visual representation aided students in recalling and identifying the main points. Student cohort favoured interpersonal communication with their study groups in order to achieve their goals. Bloome *et al.* (2005, p. 165) argues that these relationships exhibit power as caring relations model where students power with each other, rather than power-over, “for mutual benefit, both with regard to social relationships and with regard to other accomplishments”. The multimodal nature of this communication represents an aspect of mode, namely visual/written and oral/aural. As a result of their participation in peer and group

network, the students became socialised into the accounting discourse and used subject-specific terminology. Omar, however, held an opposite view in regards to the need to engage in social practices to do this assignment.

Omar commented on the requirements of question one (Table 4.4). He believed that this question was too simple. The following interview with Omar (personal communication, May 6, 2010) illustrates his beliefs in this regard:

- Omar: In Australia they ask me you have to say it has past events, you ha [1 seconds] it has future economic benefit, and what else? It's reliable, can be measured. And for me it's easy ... cash can be measured.. I have \$1000 so it's measured you know theeee [2 seconds] the value for that cash. They ask, ahh what else, the economic future ahh Any company or any businesses they got cash or assets to get or to obtain economic future. It's easy it's in our nature even people who has under.. full understanding about the accounting.
- Researcher: Economic future. What do you mean by economic?
- Omar: Sorry. future economic benefit.
- Researcher: Ah benefit yes.
- Omar: It's easy even for people who was not interesting in accounting
- Researcher: so you mean in the workplace after you graduate your are not going to apply this in your work?
- Omar: yes, because
- Researcher: It's known. Everyone should know this.
- Omar: Yah. It's known. You got cash to obtain its economic future benefit. The cash is easy to be measured. If you have as I told you before \$1000 that means you have \$1000. It's measured. It has a value now. No need to write it should have value, it should be measured, because it's measured, it's in our nature. That's the difference ahh, maybe it's good in Australia but it's not that important because everyone knows that.
- Researcher: o.k. thank you very much Omar
- Omar: you're welcome

Omar argued that the requirements of this question were very basic since it apparently lacked the contestation of reality that will in turn encourage discussion and debates, i.e. answers were elicited directly from chapter 10, Conceptual Framework, in the textbook (Hoggett et al., 2009, pp. 452-463). Knowledge is not subject to contestation in some parts of the task as the students were expected to follow the widely accepted accounting standards for constructing financial statements. Omar (personal communication, May 6, 2010) also reported that some

students lost marks on question four because they did not provide sufficient explanation. Question four required students to use the essential characteristics of revenues and expenses in order to briefly ‘explain’ why the profit calculated by two approaches should be equal (cf. 4.1.4). Omar’s reflections on the literacy and numeracy practices of this assignment represent first-hand, ‘insider’ account of what learners make of what they do (Baynham, 2000).

To sum up, most of the students socialised into the accounting discourse through their participation in peer and group network instead of participating on their own terms as set by the task sheet. In the next section, I document and analyse the meaning making processes through which the students successfully became full participants within their community of practice.

4.3 The SF-MDA of the accounting discourse

In this section I present the SF-MDA of two accounting texts: a mid-term test (Section 4.3.1) submitted by Abdulrahman and five assignment texts (Section 4.3.2) produced by Abdulrahman, Omar, Abdullah, Ibrahim and Hasan. Micken (2006b, pp. 10-11) argues that “each human encounter is an event with possible meanings.” Disciplinary-specific accounting knowledge is constructed in writing through the meaning-making processes that involve the interaction of the multimodal and multi-semiotic experiential, interpersonal, and textual meanings which are investigated and analysed here. The SF-MDA of these multimodal meanings attempted to provide an explanatory account of how accounting texts were typically constructed and how they related to their context of use, which was represented by the epistemologies and the social purposes.

4.3.1 The SF-MDA of the accounting test

Abdulrahman completed a one-hour mid-term accounting test in his first semester. In the next paragraphs I investigate and analyse part four of question one, a key topic in accounting, which required students to construct “a properly classified statement of financial position (balance sheet)” for Axis Ltd based on the following information:

		\$		
Cr	S	Accounts receivable	60 000	
Cr	L	Accounts payable	25 000	
Cr	S	Inventory on hand	160 000	
Cr	L	Bank overdraft	10 000	
N	Cr	S	Equipment (net of depreciation)	260 000
N	Cr	L	Loan payable (repayable in 2012)	80 000
Cr	S	Prepaid rent	7 000	
Cr	L	Wages payable	9 000	
		Owners equity - opening	?	
		Owners equity - closing	?	

Figure 4.3 An excerpt from Abdulrahman's mid-term test

The participants were required to produce a financial report called statement of financial position (or balance sheet), for Axis Ltd on a specified date, 30 June in this task. The information given in the table above represents an adjusted trial balance where students can assign each account to its respective category, *assets*, *liabilities* or *owners equity*, and the sub-categories of *current* and *non-current assets* or *liabilities*. In financial reporting, the terms *current* and *non-current* are synonymous with the terms *short-term* and *long-term*, respectively, and are used interchangeably. The learning outcome of this task was the successful construction of a financial statement from an adjusted trial balance or using a worksheet (cf. **Table 4.1**, learning outcome 9). Students were required further to verify that the accounting equation "Assets = Liabilities + Equity" is in balance: i.e. the value of the assets equals the combined value of the liabilities and owners equity. As Chambers (1995, p. 243) states, "accounting is an application of the elementary rules of addition and subtraction, the dominant rule of which is that only like quantities may be added and subtracted if the resultant is to be of the same class or kind as the components". Abdulrahman assigned each account to its respective category by jotting down the category and the sub-category's initials next to each account in the trial balance, as shown in Figure 4.3.

Abdulrahman's experience of reality was investigated through the meaningful transitivity choices: his use of participants and process types (material, mental, verbal, existential, relational and behavioural). The participants' roles in a balance sheet are realized by the disciplinary-specific abstract (or inanimate) technical lexis (or terminology). Generally speaking, some students may face, at times,

difficulties in assigning a given classification to its respective category. Halliday (1993c, p. 67) states that ambiguities in science textbooks

arise especially in two places: (1) in strings of nouns, leaving inexplicit the semantic relations (mainly transitivity relations) among them; and (2) in the relational verbs, which are often indeterminate and may face both ways (e.g., higher productivity means more supporting services: does ‘means’ mean ‘brings about,’ ‘is brought about by,’ or ‘requires’?).

Halliday points out that although the textual and the logical interconnections in academic texts are explicit, scientific language may reveal two local ambiguities: complex nominal groups and indeterminate relational verbs. To test whether these ambiguities arise in a balance sheet or not, a number of questions can be posed from Abdulrahman’s notes next to the first category in Figure 4.3 above. For example, what does the lexical string ‘accounts receivable mean? Is it a debit or a credit? Is it assigned to *assets*, *liabilities* or *owners equity*? Or, is it assigned to *current* and *non-current assets* or *liabilities*? Abdulrahman shared the specialist lexis with his reader, such as assets, current, non-current, equities, and liabilities. These specialist terms assume an “insider’s” or “expert’s” knowledge. Accounting students may experience the first local ambiguity when constructing a balance sheet. Abdulrahman successfully applied the rules of debit and credit in the trial balance. The second ambiguity, however, does not seem to arise from relational verbs but from the logical metafunction construed in the different categories and sub-categories, as will be discussed below.

Experience is reconstrued in accounting texts as discipline-specific and the successful construction of financial statements was determined by the students’ successful application of the rules of debit and credit and their understanding of the taxonomic relations that exist between assets, liabilities and equities. These relations represent the logical metafunction, which is concerned with the representation of the relations between clauses. The accounting semantic knowledge includes the taxonomies listed in the following table.

Table 4.6 Examples of the balance sheet taxonomies

Assets [L: Hyper.]	Current Assets [L: Hyp.]	Non-Current Assets [L: Hyp.]
	Cash [L: Mer.] Cash equivalents [L: Mer.] Short-term investments [L: Mer.] Inventory [L: Mer.] Prepaid expenses [L: Mer.]	Long-term investments [L: Mer.] Property, [L: Mer.] Plant, and [L: Mer.] Equipment [L: Mer.]
Liabilities [L: Hyper.]	Current Liabilities [L: Hyp.]	Non-Current Liabilities [L: Hyp.]
	Wages, [L: Mer.] Accounts, [L: Mer.] Taxes, [L: Mer.] Accounts payables, [L: Mer.] Long-term liabilities [L: Mer.]	Long-term bonds, [L: Mer.] Notes payables, [L: Mer.] Long-term leases, [L: Mer.] Pension obligations, [L: Mer.] Long-term product warranties. [L: Mer.]
Equity [L: Hyper.]	Preferred stock [L: Mer.] Share capital, [L: Mer.] Common stock [L: Mer.] Capital surplus [L: Mer.]	Stock options [L: Mer.] Retained earnings [L: Mer.] Treasury stock [L: Mer.] Reserve (accountings) [L: Mer.]

Halliday (1993b, p. 132) states that the implicit conceptual structure and internal relationships “make demands on the writer to ensure that the text provides the semantic information that the reader needs in order to construct the taxonomies, decode the metaphors, and follow the argument”. Abdulrahman then began to ‘prepare’ the balance sheet (**Figure 4.4**) by starting with the heading which indicated the name of the entity, the title of the statement and the statement date, as illustrated below:

Axis Ltd
Balance sheet
as at 30 June 2009
Assets
current asset
\$
\$

Figure 4.4 An excerpt from Abdulrahman’s mid-term test

The discourse of the balance sheet genre is highly metaphorical since its components use the implicit relationships between Token and Value to refer to the participants in a relational identifying clause, as show in the table below.

Table 4.7 Analysis of a clause in Abdulrahman's balance sheet

Clause	Accounts receivable	(is)	60.000
Experiential	[Token, Identified]	[Pr: Implicit Relational Identifying]	[Value, Identifier]
Interpersonal declarative MOOD: Give information	Subject	Finite+ (present)	Complement
MOOD Block	MOOD Block		RESIDUE
Textual	Theme	Rheme	

The implicit relational process ‘be’ is made explicit in the annotation, as I have placed it in parentheses. A relational identifying clause adds further information, and since it takes the form x equals y it has a *thematic equative* structure (Halliday, 1967). This structure type is called pseudo-cleft in formal grammar since it is reversible. It is linked by a relationship of identity, expressed by some form of the verb *be* that links the Rheme with the Theme, and has two identification functions: “a 'thing to be identified' and an 'identifier', that with which it is to be identified” (ibid, p. 224). The structure also has a thematic nominalisation in it. So, for example, the meaning of the clause “Accounts receivable 60,000” in Table 4.7 is realised semantically as “accounts receivable account is debited 60,000” or “the value of accounts receivable account is \$60,000” since this interpretation is congruent with the spoken mode of financial statements. A tutor may also elaborate by saying “to record a journal entry for a \$ 60,000 sale on account, we must debit a receivable and credit a revenue account”. Unlike the spoken mode, messages are condensed in the balance sheet through the deletion of action processes, human actors, and the sequences of clauses. The extended meanings above were brought forward by nominalisation and the cultural context.

The interpersonal function, realising the tenor of discourse, is represented in the text by the MOOD Block which signals the MOOD of a clause through the Finite verb and the Subject. The text uses only one MOOD type, declarative statements that provide information, as evidenced by the Subject^Finite ordering of the Mood elements. Finite modal operators rarely occurred in the text because it comprised

tables and theory questions that required explanation and the provision of definitions (**Figure 4.5**); yet, narrations were not required.

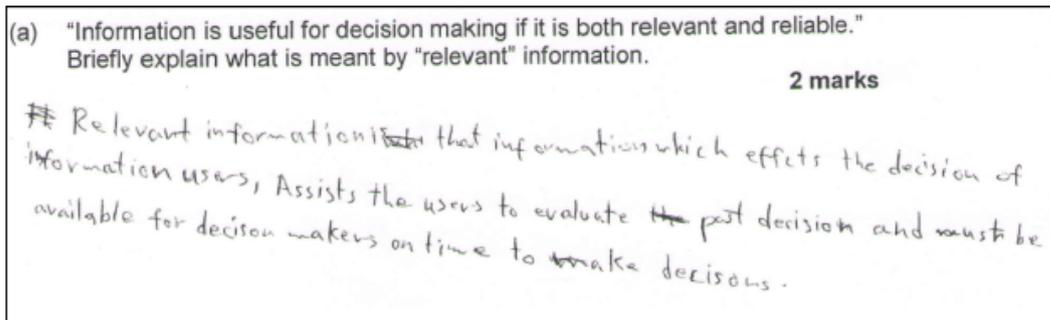


Figure 4.5 An excerpt from Abdulrahman's mid-term test

Abdulrahman utilised the peremptory obligation ‘must’ one time, as shown in the figure above. Having analysed the experiential and the interpersonal metafunctional lines of meaning, now I turn up to the third one which weaves the two into a textual whole.

The textual metafunction in a balance sheet is represented by the paradigmatic and syntagmatic sense relations, as shown in **Table 4.8** on the next page. These relations construct lexical cohesive ties between noun phrases and numeracy: hyponymy, hypernym, meronymy, repetition, antonyms and synonyms. They represent the second ambiguity referred to earlier, which some accounting students may encounter. Noun phrases represent the primary categories of ‘assets’, ‘liabilities’, and ‘equities’ and their sub-categories. As Eggins (2007, p. 193) states, paraphrasing Ferdinand de Saussure, it is “the paradigmatic and syntagmatic relations which give linguistic signs their meaning”. Paradigmatic relations are those between an element and what could have occurred in place of it (vertical), while syntagmatic relations are those between an element and what it goes together with (horizontal). The syntagmatic lexical relations in a balance sheet do not affect the grammatical metaphor since they do not occur in one row, and they do not involve members of different grammatical categories as found in orthographic text.

Table 4.8 A reproduced balance sheet from Abdulrahman's mid-term test

Axis Ltd
Balance Sheet
As at 30 June 2009

ASSETS [L: Hyper.]

Current Assets [L: Hyp.][L: Rep.]

Accounts receivable [L: Mer.]
Inventory on hand [L: Mer.]
Prepaid rent [L: Mer.]

Total Current [L: Rep.] **assets** [L: Hyp.][L: Rep.]

Non-current [L: Ant.] **assets** [L: Hyp.][L: Rep.]

Equipments [L: Mer.]

Total [L: Rep.] **non-current** [L: Rep.] **assets**

[L: Hyp.][L: Rep.]

Total [L: Rep.] **assets** [L: Hyper.] [L: Rep.]

LIABILITIES [L: Hyper.]

Current [L: Ant.] **liabilities** [L: Hyp.][L: Rep.]

Accounts [L: Rep.] payable [L: Mer.][L: Ant.]
Bank overdraft [L: Mer.]
Wages payable [L: Mer.][L: Rep.]

Total [L: Rep.] **Current** [L: Rep.] **liabilities**

[L: Hyp.][L: Rep.]

Non-current [L: Ant.] **liabilities** [L: Hyp.][L: Rep.]

Loan Payable [L: Mer.][L: Rep.]

Total [L: Rep.] **non-current** [L: Rep.] **liabilities**

[L: Hyp.][L: Rep.]

Total [L: Rep.] **liabilities** [L: Hyper.] [L: Rep.]

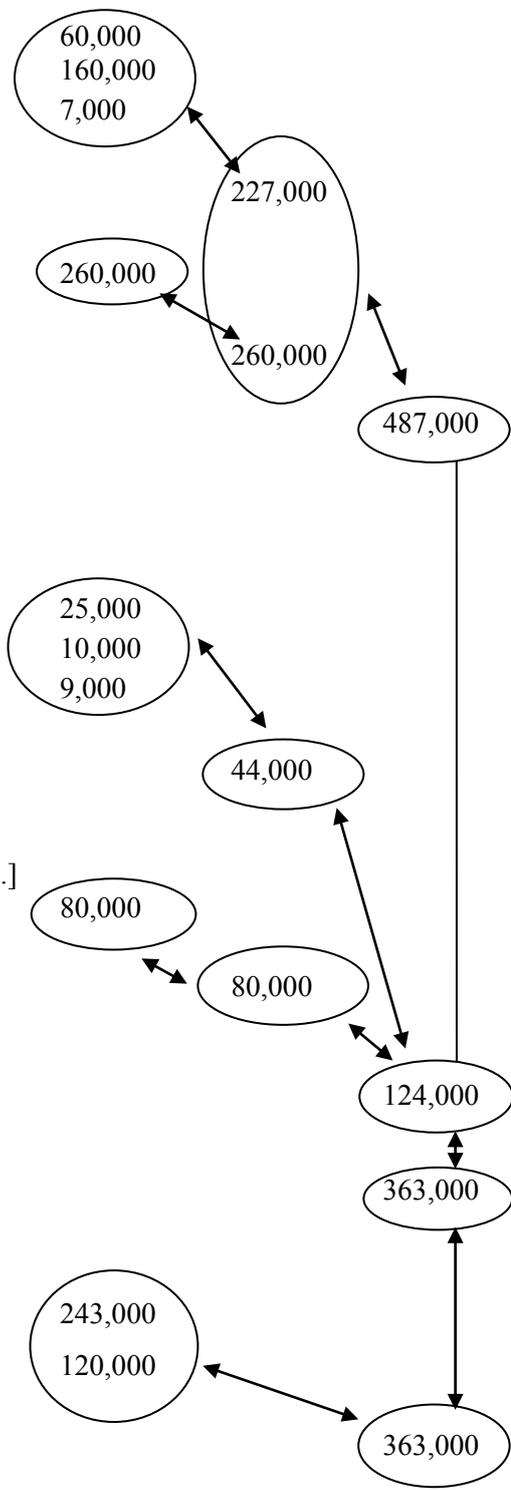
Net ASSETS [L: Hyper.] [L: Rep.]

EQUITY [L: Hyper.]

Axis capital-Beginning <missing entry> [L: Mer.]
Profit <missing entry> [L: Mer.]

Total [L: Rep.] **Owner's Equity** [L: Rep.] **-end**

[L: Hyper.] [L: Ant.]



Paradigmatic relations of hyponymy (superordination or inclusion) refer to a general class with its sub-class and meronymy refers to part-whole relations. For example, the more general (or superordinate) lexeme ‘Assets’ is a hypernym of the sub-classes ‘Current Assets’ and ‘Non-Current Assets’ which are hyponyms of their general class ‘Assets’. ‘Accounts receivable’, ‘Inventory on hand’, and ‘Prepaid Rent’ are meronyms of the sub-class ‘Current-Assets’ since the sum of these categories represent ‘Current-Assets’ which is in turn a hyponym of ‘Assets’. Similarly, the category ‘Liabilities’ is a hypernym of the sub-classes ‘Current Liabilities’ and ‘Non-Current Liabilities’ which are in turn hyponyms of their general class ‘Liabilities’. The sub-classes of ‘Current Liabilities’ and ‘Non-Current Liabilities’ are meronyms. ‘Equity’ is a hypernym and its sub-classes are meronyms. Similarly, ‘Net Assets’ is a more superordinate lexical string, a hypernym, and it is calculated by subtracting ‘Liabilities’ from ‘Assets’. As the sum of ‘Liabilities’ and ‘Equity’ equals ‘Assets’, the former two main categories are not only hypernyms of their sub-classes, but also meronyms of ‘Assets’.

Repetition is represented by the lexical Themes “assets”, “liabilities”, “total”, and “current”. There are two mentions of the lexical antonyms ‘non-current’, one of ‘current’, one of ‘payable’, and one of ‘end’. There are six lexical reiterations of ‘assets’, five of ‘total’, five of ‘liabilities’, two of ‘payable’, two of ‘current’, two of ‘non-current’, one of ‘accounts’, and one of ‘equity’. Grids 2-4 included respectively numerate values of each classification, subtotal for each classification, and subtotal for ‘assets’, ‘liabilities’, and ‘equities’. These values

encompass lexical relationships of meronymy (left to right, top-down) and hypernymy and hyponymy (right to left, bottom-up). This emphasises the importance of lexical cohesion in constructing well-formed financial statements that consist of hierarchichal lexical strings.

Abdulrahman successfully completed a “properly classified statement of financial position (balance sheet)”, though he did not show the profit of \$120.000 which was given in the task. In addition, he did not give “Owners Equity- Beginning or E1” (\$243.000) which was calculated by subtracting the profit of \$120.000 from Owners Equity- Closing (E2) of \$ 363.000, since E2 was calculated by the following mathematical formula: $E1 + \text{Profit} - \text{Drawings} = E2$ (Hoggett et al., 2009,

p. 40). Abdulrahman received a high mark in this task, 6 out of 7. Abdulrahman used the second visual mode for designing the balance sheet (cf. 4.1.4) by listing all the three primary captions of 'assets', 'liabilities', and 'equities' in one column. Assets and liabilities were classified according to their general characteristics: CURRENT or NON-CURRENT. Each category in the trial balance was reordered, in the order of liquidity, under its relevant classification.

Theme and information structure in financial statements realise the textual meanings since they reveal the way the text is organised. The thematic choices are constrained by the authoritative source of knowledge, which is derived from generally accepted principles (or ideologies) of accounting for the presentation of financial statements. Like visual images (Kress & van Leeuwen, 2006; McGoun, 2003; Van Leeuwen, 2011), the topical Given Themes in financial statements are to the left-hand side while the New key information is represented by the numerical values to the right-hand side. The topical Given Themes in a balance sheet are comprised of simple nominal groups, related either to the primary categories or to their sub-categories. New key information is represented by calculating the sum of numerical values for each of the categories or the sub-categories. Topical Themes contributed to the cohesion and coherence of the text since their development was based on the accounting principle of liquidity: the subcategories that are liquidated in a shorter time were ordered first: current assets or liabilities, unlike the non-current, can be converted into cash within a year.

Finally, Kress and van Leeuwen's (2006) opposition between 'the ideal' and 'the real' in images and text-images can be applied to the semiotics of a balance sheet. The category 'assets' represents 'the ideal' since its value does not include the 'liabilities' - it tends to be concerned with abstract or generalised possibilities - while the category 'equities' represents 'the real' since it is concerned with practical or factual details, i.e. it is calculated by deducting 'liabilities' from 'assets'. The category 'liabilities' acts as a 'mediator' since it forms a bridge between 'the ideal' and 'the real'. The analysis of the communicative function of the upper and the lower sections of a balance sheet can be applied as well when 'liabilities' and 'equities' are presented in another column, i.e. left to right.

Semiotic accounting resources are therefore stratified into discourse semantics, grammar and display.

To sum up, Abdulrahman constructed a properly classified balance sheet by using subject-specific terminology and the common features of this genre to show that they had mastered the required literacy and numeracy practices. To successfully construct the balance sheet, he engaged in a number of numeracy and literacy practices which included:

- Preparing the balance sheet by starting with the heading which indicates the name of the entity, the title of the statement and the statement date;
- Verifying that the accounting equation “Assets = Liabilities + Equity” is in balance: i.e. the value of the assets equals the combined value of the liabilities and owners equity;
- Understanding the following mathematical formula in order to calculate ending equity (E2): $E1 + \text{Profit} - \text{Drawings} = E2$ (Hoggett et al., 2009, p. 40);
- Explaining and applying the rules of debit and credit;
- Understanding the general principles underlying the construction of meaning between the sub-categories of “assets”, “liabilities”, and “owner’s equity”; and
- Understanding the implicit taxonomic relations between “Assets”, “Liabilities”, and “Owners Equity”, i.e. the ability to identify hyponymy and meronymy relations among the balance sheet categories.

The SF-MDA of the balance sheet showed that thematic choices in financial statements are constrained by the generally accepted principles of accounting for the presentation of financial statements. For example, the categories of the balance sheet are classified according to the principle of liquidity that contributes to the cohesion and coherence of the text. The cohesion analysis showed that these categories lead to the cohesiveness of a text not only through the top-down lexical relations, as in orthographic texts, but also through the bottom-up relations.

Lexical relations between these categories are organised into a network. In addition, when taking into account the meaning making processes of the general categories ‘Liabilities’ and ‘Equity’ it appeared that they are not only hypernyms of their sub-classes, but also meronyms of ‘Assets’ since the sum of numerical value for the two general categories equals ‘Assets’, i.e. part-whole relations exist.

What follows is the SF-MDA of a second accounting text type, namely the individual assignment.

4.3.2 The SF-MDA of the first assignment

In this section, I will conduct an SF-MDA of five individual assignments written by Abdulrahman, Abdullah, Hasan, Omar, and Ibrahim. As stated earlier, Abdulahdi’s text was excluded from the SF-MDA because, unlike the other five assignments, it did not include any text accompanying the financial tables. Unlike the other four participants, Abdullah preferred to use the first visual mode (or template) for the design of the balance sheet (cf. 4.1.4) by listing assets in one column and liabilities and equities in another (Appendix 11).

The experiential world the five texts reference was classifications and calculations of financial statements’ categories (or nominal groups) that were “organised in mutually exclusive and exhaustive sets” (Halliday, 1985, p. 185). Similar to the financial statement in Abdulrahman’s mid-term test paper, the experiential metafunction in the five assignment papers was represented by subject-specific accounting terminology. The six most frequently used key words in the texts were calculated, using the text analysis web tool *Textalyser* (2004). The word frequency count shown in **Table 4.9** reveals the lexical choices the participants made. The most frequent key word in the five texts that had a cohesive effect was CASH. The word ENDING was one of most six frequent words in Omar, Abdullah, Ibrahim, and Hasan’s texts, while the word ASSET(S) was reiterated in Abdulrahman, Omar, and Abdullah’s texts. This finding indicates that most of the ACTOR and the GOAL roles in the texts were occupied by abstract inanimate entities (e.g. cash, assets, liabilities, balance).

Table 4.9 Frequency count and top key words in the participants' texts

Participant	Word	Frequency	Percentage	Participant	Word	Frequency	Percentage
Abdulrahman (1304 words)	Cash	33	4.5%	Omar (1068 words)	cash	36	6.2%
	financial	17	2.3%		asset(s)	24	4.1%
	Net	13	1.8%		expenses	11	1.9%
	Assets	13	1.8%		equity	11	1.9%
	Accounting	13	1.8%		paid	23	2.4%
	Report	13	1.8%		ending	19	2.0%
Abdullah (1187 words)	cash	41	6.1%	Ibrahim (918 words)	cash	20	5.3%
	equity	26	3.9%		beginning	11	2.9%
	assets	24	3.6%		ending	11	2.9%
	expense(s)	19	2.8%		balance	11	2.9%
	liabilities	18	2.1%		liability/ies	11	2.9%
	ending	14	2.1%		services	8	2.1%
Hasan (821 words)	cash	31	7.7%				
	balance	16	4%				
	ending	11	2.7%				
	beginning	11	2.7%				
	services	10	2.5%				
	activities	10	2.5%				

Textalyser also provides information about the complexity factor (or lexical density) of a text, as shown below:

Table 4.10 Lexical density of the participants' written assignment

Participant	Abdulrahman Sem.2, 2009	Omar Sem.1, 2010	Abdullah Sem.1, 2010	Ibrahim Sem.2, 2010	Hasan Sem.2, 2010
No. of lexical items	1304	1068	1187	918	821
Total lexical density	46.9%	35.2%	29.7%	47.3%	42%

Lexical density is an index of the total number of content words to the total number of orthographic words. To avoid subjective decision across the texts, I excluded words involved in error.

Through the transitivity analysis (Appendices 9-13), I explored how the students' use of accounting language reveals their understanding of the field through the selection of the discipline's technical lexis for participants, process types, and circumstances. The following table presents the process types in the five assignments.

Table 4.11 The frequency of process types in the five accounting texts

Participant / Process Type		Abdulrahman		Omar		Abdullah		Ibrahim		Hasan	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Material	Explicit	32	21.06%	27	20.15%	21	13.46%	18	13.04%	13	9.93%
	Implicit	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	Subtotal	32	21.06%	27	20.15%	21	13.46%	18	13.04%	13	9.93%
Relational Identifying	Explicit	40	26.32%	55	41.04%	72	46.16%	9	6.52%	8	6.11%
	Implicit	44	28.95%	36	26.87%	36	23.08%	85	61.60%	91	69.46%
	Subtotal	84	55.27%	91	67.91%	108	69.24%	94	68.12%	99	75.57%
Relational Attributive		18	11.84%	13	9.70%	21	13.46%	17	12.32%	10	7.63%
Behavioural		1	0.65%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Existential		2	1.31%	0	0.00%	0	0.00%	7	5.07%	5	3.82%
Mental	Explicit	13	8.56%	3	2.24%	6	3.84%	2	1.45%	4	3.05%
	Implicit	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	Subtotal	13	8.56%	3	2.24%	6	3.84%	2	1.45%	4	3.05%
Verbal		2	1.31%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Total		152	100%	134	100%	156	100%	138	100%	131	100%

Appendices 9-13

The transitivity analysis of the experiential metafunction construed in the participants' texts revealed that over 55% (cf. 3.8.2 for percentage calculation method) of the process types in the texts were relational identifying, while material process was the second most frequently occurring type. The third one was the relational attributive process. Ibrahim and Hasan's texts had more implicit relational identifying processes (61.60% and 69.46% respectively) than the other three participants. These processes are made explicit in the annotation of process types, as I have placed them in parentheses.

Table 4.12 Examples of implicit relational identifying process type in Ibrahim and Hasan's texts

Ibrahim's Text	Rent expense	(equals)		600
Hasan's Text	Services revenue	(equals)		4720
Interpersonal declarative MOOD give information	Subject	Finite+ [present]	Predicator	Complement
MOOD Block	MOOD Block		RESIDUE	
Experiential	[Token, Identified]	[Pr: Implicit, Relational Identifying]	[Value, Identifier]	
Textual	Theme	Rheme		

This finding could be ascribed to the fact that their assignment task sheet was different from the other three participants. As stated earlier in Section 4.2.5, Ibrahim and Hasan's used more financial tables, i.e. 13 and 9 tables respectively compared with 2 or 3 for the other three participants. The two clauses in the table are analysed according to Mood, transitivity and Theme constituents. As stated in the previous section, an implicit relational identifying clause in financial tables is characterised by the *thematic equative* structure (Halliday, 1967) that has a thematic nominalisation in it. Ibrahim and Hasan's texts had more instances of this structure than the other three participants (Appendices 9-13). Interpersonally, each clause is made up of a Subject, Finite, and Complement. Since the Subject preceded the Finite, the Mood element is realised by the indicative declarative clause.

The five participants enhanced the description of accounting terms-e.g. 'entity', 'company', 'cash'- through Circumstantial clauses like "for the current year", "from past events", and "from the asset". Relational identifying processes were used to assign a new Value (or function) to a known Token or a Token for a known Value. Interestingly, there were instances in which material processes were relational identifying due to the existence of modality and the explicit marker of the Value 'as', as shown below:

Table 4.13 Examples of relational identifying processes used to assign a function to the participant

Abdulrahman's text	3. and	it	is working	as a market operator, supervisor, central counterparty clearer and payments system facilitator.		
		Token: Identifier	Pr: Rel, Ident	Value: Identified		
	90. because	the framework	defines	the assets	as a resource	
		Assigner: Agent	Pr: Rel, Ident	Token: Identifier	Value: Identified	
Omar's text	25.	The Quality Services Ltd's income statement	must contain	\$1000	as insurance expense	
		Assigner: Agent	Pr: Rel, Ident	Token: Identifier	Value: Identified	
	27.	\$5000	must be appeared <sic> in	the statement of financial position of Quality Services Ltd	as an asset (prepaid insurance)	below the current assets part
		Assigner: Agent	Pr: Rel, Ident	Token: Identifier	Value: Identified	Circ.: Location
Abdullah's text	28. According to accrual basis assumption,	\$1000	must appear in	income statement of Quality Services Ltd	as insurance expense	
		Assigner: Agent	Pr: Rel, Ident	Token: Identifier	Value: Identified	
	<u>30. Second.</u>	the rest of the amount (\$5000)	must appear in	balance statement of Quality Services Ltd	as an asset (prepaid insurance)(under current assets section)	
		Assigner: Agent	Pr: Rel, Ident	Token: Identifier	Value: Identified	
Ibrahim's text	2.	The accounting service payment on 1 May 2010	should be treated	as liability ("Unearned revenue").		
		Token: Identifier	Pr: Rel, Ident	Value: Identified		
Hasan's text	2.	The \$10 000 received on 1 May 2010	should be treated	as a liability ("revenue received in advance").		
		Token: Identifier	Pr: Rel, Ident	Value: Identified		
	38. In addition,	Alicia's Pet Grooming Services	might loss<sic>	some future receivable	as a Default debit.	
		Assigner: Agent	Pr: Rel, Ident	Token: Identifier	Value: Identified	

“As” in the examples above acts as an explicit marker for the identified (or the Value). With the exception of 2 in Ibrahim and Hasan’s texts, these processes were used to assign a Value to the non-nuclear participant (or the identifier), while the nuclear participant represented the role of the agent (the Assigner). The Assigner was unspecified in the first sentence in Ibrahim and Hasan’s text since it was passive. The clause “of Quality Services Ltd” acts as a qualifier of “balance statement” in the excerpts taken from Omar and Abdullah’s texts. The Circumstantial temporal clause “on 1 May 2010” in Ibrahim and Hasan’s texts aims to orient the reader to the time the action took place.

There was also a relatively low frequency of passive voice in the five texts, as in “This general purpose Financial Report has been prepared” in which the goal “general purpose Financial Report” was foregrounded. This seems to be a characteristic feature of accounting discourse since the aim is to emphasise the process rather than the agent who is performing the action, as in the examples below.

Table 4.14 Examples of passive voice clauses in the participants' texts

53.	Abdulrahman’s text	(IX) This general purpose Financial Report	has been	prepared		
29.	Omar’s text	cash	was	received		
30.	Abdullah’s text	Past event-cash	was	paid.		
59.	Ibrahim’s text	The assets expansion	was	covered	by the cash	
18.	Hasan’s text	(revenue)	received	in advance’		by the same amount.
Interpersonal declarative MOOD: Give information		Subject	Finite+ [past]	Predicator	Adjunct	
MOOD Block		MOOD Block		RESIDUE		
Experiential		Goal	Pr: Mat.		Actor	Circ: Man. (means)
Textual		Theme	Rheme			

Appendices 9-13

As ‘assets expansion’ and ‘revenue’ in sentences 59 and 18 were given the statuses of the nub of the arguments, the Actors bringing about the change, ‘cash’ and ‘same amount’ respectively, were given the lower statuses of Adjunct and thus can be left out. The most common circumstance types in the five texts were temporal (e.g. at the end of 30 June 2009, during the 3 months period) and spatial (e.g. in my answer, in income statement, from long-term mortgage). This suggests their importance in accounting discourse, as they specify the temporal/spatial circumstance of the process.

Morgan (2006, p. 220) states that every instance of mathematical communication is “conceived to involve not only signification of mathematical concepts and relationships but also interpersonal meanings, attitudes and beliefs”. The participants’ attitudes and beliefs towards propositions were expressed by Finite modal operators, modalisation and modulation. The Finite carries tense that expresses propositional information through the temporal Finite verbal operators. Modalisation relates to the writer’s judgement of the validity of the proposition, and it involves the expression of two kinds of meanings: probability (likelihood) and usuality (the frequency). Modulation relates to how confident the writer can be in the eventual success of proposals, and it involves the expressions of obligation or inclination (Eggins, 2007). Both modal operators and Mood Adjuncts can be classified according to the degree of certainty or usuality they express: i.e. low (might, possibly, sometimes), median (may, probably, usually), high (must, certainly, always). The participants’ use of verbs expressing modality in the accounting texts was analysed in Appendices 14-18. **Table 4.15** outlines the frequency of occurrence of modalisation and modulation in the five texts. The use of modality to argue about the obligation of proposals was more frequent in Abdullah’s text than the other four participants, as in

Quality Services Ltd has the capacity to benefit from the asset.

It can be used to settle a liability.

The future economic benefits will eventuate– greater than 50% probability.

Insurance expense for year 2010 should be determined.

According to accrual basis assumption, \$1000 must appear in income statement of Quality Services Ltd as insurance expense.

The ending equity should be worked out as following. (Appendix 16)

Table 4.15 The frequency of occurrence of modalisation and modulation in the participants' texts

	Modalisation			Modulation					Total	Percentage
	Must= probability	May Might= option, choice	Should= recommendation	Should= Obligation,	Can, could= it is possible	Will	Must=Obligation, requirement	Has/ Have to		
Abdulrahman	0	0	1	0	3	3	0	0	7	0.53%
Omar	0	2	2	0	6	1	2	3	16	1.50%
Abdullah	0	0	2	0	7	2	3	3	17	1.44%
Ibrahim	0	2	2	0	4	3	1	0	12	1.30%
Hasan	0	1	2	0	6	1	0	0	10	1.22%

Only Omar, Ibrahim and Hasan used the modal ‘may’ to argue about probability of propositions. Omar, Abdullah and Ibrahim employed the modulated peremptory obligation ‘must’ to show their affirmative attitude towards the experiential meanings and the propositions they have worked out (**Table 4.16**). They confidently used high value congruent subjective modulation of the modal verb ‘must’ to signal their authority and viewpoints on accounting procedures which are based on their use of the generally accepted procedures and conventions, or as Li (1963) calls it, the accounting ‘rules’. Mood Adjuncts that are used to express the writer’s attitude were minimally used by Abdulrahman and Ibrahim, only two and three times respectively: “an auditor’s report is considered an essential tool when it is *probable* ...”/ “... and the revenue can be *reliably* measured” (Appendix 14) and “it is *probable* that the future sacrifice of economic benefits is greater than 50%”, “the revenue can be recognised because it is *probable*”, “second, it is *essential* to have more information..” (Appendix 17). As this text deals with numbers, Abdulrahman used the comment Adjunct ‘many’ which expresses affirmation rather than usuality or probability. Abdulrahman used the nominalised form of the modal verbs ‘need’, which is a subjectively congruent realisation of modulation: the company *needs* an accounting policy for this item/ is *needed* to be compared with the revenue of the company/ which *needs* to be clear for information users (Appendix 9).

Table 4.16 Instances of the peremptory obligation 'must' in Omar, Abdullah, and Ibrahim's texts

	Subject	Finite: modulated	Predicator	Complement	Adjunct
	MOOD		RESIDUE		
Omar	25. The Quality Services Ltd's income statement	must	contain	\$1000	as insurance expense
	27. \$5000	must be <sic>	appeared <sic>	in the statement of financial position of Quality Services Ltd	as an asset (prepaid insurance)
Abdullah	15. (cash account	must be	reduced	\$6000).	
	26. According to accrual basis assumption, \$1000	must	appear	in income statement of Quality Services Ltd	as insurance expense
	28. Second, the rest of the amount (\$5000)	must	appear	in balance statement of Quality Services Ltd	as an asset
Ibrahim	9. Quality Services Ltd	must	provide	its customer	by an accounting service.

Appendices 15-17

Similarly, Ibrahim and Hasan used the modal verb 'indicate' as in,

This indicates a satisfactory cash position. The investment and financing activities indicate [[that average capital expansion for freehold property and purchase fixtures were funded by cash outlays of \$60 400]]. (Ibrahim's text, Appendix 12, no. 56-58)

The company has generated cash from operating activities "\$90,800" [[which indicates a good position]]. (Hasan's text, Appendix 13, no. 47-48)

Ibrahim and Hasan used the congruent realisation of modulation, 'indicate', as a means to objectively express their opinion. To sum up, the participants employed a variety of interpersonal resources, and in particular the subjective (must, should, need) and the objective (is considered, indicate) modulation. Whereas the former metaphorical realisation of command is used to raise a writer's voice, the latter is

used to highlight writers' attitude towards given information while remaining in the background.

The textual function, realising the mode of discourse, is represented in the texts by the thematic and the cohesive structures which, with the aid of the experiential and the interpersonal choices, organise the informational structure of this socio-cultural event. The cohesive devices used in the five texts were analysed and compared (Appendices 19-23). The table on the next page presents the numbers and percentages of the different subcategories of grammatical and lexical cohesive ties identified in the five accounting texts.

The frequency of occurrence of the lexical and grammatical cohesive devices in the five texts was almost equal. This is not surprising since the texts shared a common field. Over 70% of the total cohesive devices in the texts were lexical, and in particular repetition of the same lexical items. Reference was the second most common category in the texts, though pronouns, possessives, demonstratives and comparatives were minimally used. On the other hand, the greater use of reference devices in the accounting texts found in this research project might be due to the fact that the definite article 'the' was calculated and integrated into reference devices since it acts as a specifying agent. As seen in the table above, Abdulrahman used more conjunctive devices (6.27%) than the other four participants whose use was below 4.86% of the total cohesive devices.

The most frequent discourse conjunctive devices were the extension sub-component additive (<2.98%) and the enhancement sub-component causal (<1.85%), with the exception of Abdullah who used more manner (1.05%) and clarification and temporal (each 0.92%) devices, as in:

First, [C: Enhancement: Temp.] this [R: Dem.] transaction affected cash account. (Abdullah's Text, Appendix 21, no. 3)

According to [C: Enhancement: Man.] accrual basis assumption, \$1000 must appear in income statement. (Abdullah's Text, Appendix 21, no. 23)

Table 4.17 Types of cohesive ties in the five texts

Category	Sub-Category	Type of tie	Abdulrahman		Omar		Abdullah		Ibrahim		Hasan	
			Frequency	Percentage								
Conjunctives ¹³	Elb	Apposition	3	0.49%	0	0.00%	2	0.26%	1	0.23%	2	0.51%
		Clarification	2	0.33%	3	0.44%	7	0.92%	0	0.00%	1	0.25%
	Ext.	Addition	18	2.97%	6	0.88%	5	0.66%	8	1.84%	10	2.56%
		Variation	1	0.17%	2	0.29%	2	0.26%	0	0.00%	0	0.00%
	Enhanc.	Temporal	1	0.17%	0	0.00%	7	0.92%	2	0.45%	0	0.00%
		Manner/comparative	4	0.66%	4	0.59%	8	1.05%	0	0.00%	0	0.00%
		Causal	9	1.48%	8	1.16%	5	0.66%	8	1.84%	6	1.53%
		Concessive/conditional	0	0.00%	1	0.14%	0	0.00%	0	0.00%	0	0.00%
	Subtotal	38	6.27%	24	3.50%	36	4.73%	19	4.36%	19	4.85%	
Subs. & Ellip.	Substitution	0	0.00%	2	0.29%	0	0.00%	0	0.00%	1	0.25%	
	Ellipsis	15	2.47%	15	2.19%	12	1.58%	0	0.00%	0	0.00%	
	Subtotal	15	2.47%	17	2.48%	12	1.58%	0	0.00%	1	0.25%	
Lexical Cohesion	Repetition	322	53.14%	396	57.81%	492	64.73%	251	57.70%	211	53.83%	
	Synonym	7	1.15%	2	0.29%	3	0.39%	2	0.46%	1	0.25%	
	Hyponym	30	4.96%	50	7.30%	51	6.72%	33	7.58%	41	10.47%	
	Hypernym	10	1.65%	11	1.61%	6	0.79%	10	2.30%	8	2.04%	
	Meronym	49	8.08%	66	9.64%	76	10.00%	55	12.65%	60	15.30%	
	Antonym	12	1.98%	23	3.36%	19	2.51%	20	4.60%	18	4.59%	
		Subtotal	430	70.96%	548	80.01%	647	85.14%	371	85.29%	339	86.48%
	Reference	Demonstrative	11	1.81%	10	1.45%	4	0.52%	2	0.46%	0	0.00%
Definite		86	14.20%	55	8.03%	38	5.00%	33	7.60%	26	6.64%	
Comparative		1	0.17%	5	0.73%	3	0.39%	0	0.00%	0	0.00%	
Pronouns		11	1.81%	5	0.73%	2	0.26%	0	0.00%	0	0.00%	
Possessive		4	0.66%	2	0.29%	5	0.66%	3	0.69%	0	0.00%	
Anaphoric		1	0.17%	0	0.00%	1	0.14%	0	0.00%	0	0.00%	
Cataphoric		9	1.48%	19	2.78%	12	1.58%	7	1.60%	7	1.78%	
		Subtotal	123	20.30%	96	14.01%	65	8.55%	45	10.35%	33	8.42%
	Total	606	100%	685	100%	760	100%	435	100%	392	100%	

¹³ Enhanc.= Enhancement, Ext.= Extension, Elb.= Elaboration

So [C: Elaboration: Appos.], the difference between Ending Equity and beginning Equity is \$17000 Or [C: Elaboration: Clari.] ending equity= Beginning Equity+Profit-Withdrawals by owners. (Abdullah's Text, Appendix 21, no. 81-82)

The profit according to [C: Enhancement: Man.] revenues less expenses approach Income –expenses (Abdullah's Text, Appendix 21, no. 87)

So [C: Elaboration: Appos.], profit is equal in both approaches as [C: Enhancement: Man.] profit is a part of ending equity. (Abdullah's Text, Appendix 21, no. 95)

The enhancement sub-component temporal conjunctions (*first, second, etc*) were minimally used by the participants to order the sequential structure of events (<0.93%). Whereas these devices expand the utterance by providing circumstantial details such as time, place, manner, cause or condition, elaboration devices expand an utterance by reformulating the message to provide focus on the content (e.g. more specifically, in fact, etc). For example, the apposition device 'so' in the main clause in the fifth example above presents information of interest. The clause is hypotactically qualified by a manner clause that develops the proposition. All the five participants used more additive devices than the other extension sub-component variation devices. Whereas additive conjunctions had the highest frequency in Abdulrahman and Hasan's texts, causal conjunctions were the highest in Ibrahim and Omar's texts, as in:

Since [C: Enhancement: Caus.] many third-party users prefer the financial information to be certified by an independent external auditor, many auditees rely on auditor reports to certify their information in order to [C: Enhancement: Caus.] attract investors, obtain loans, and [C: Extension: Add.] improve public appearance. (Abdulrahman's Text, Appendix 19, no. 19)

As a result of [C: Enhancement: Caus.] paying \$6000 from the cash account, that account decrease by the same amount and [C: Extension: Add.] that affects it. (Omar's Text, Appendix 20, no. 11)

Hence [C: Enhancement: Caus.], profit can be calculated from balance sheet (equity section), as long as [C: Enhancement: Temp.] distributions and contributions are known. (Abdullah's Text, Appendix 21, no. 93)

In addition [C: Extension: Add.] the recognition criteria for a liability are satisfied because [C: Enhancement: Caus.]: (Ibrahim's Text, Appendix 22, no. 7)

Moreover, [C: Extension: Add.] financing and investment activities illustrate that there is a great increase in the asset '\$60,400' of the company. However, [C: Extension: Add.] cash position is very risky because [C: Enhancement: Caus.] company cannot pay back the current liabilities (Hasan's Text, Appendix 23, no. 34)

The communicative function of accounting discourse was partly reflected by the choice of conjunctives: to inform by explaining information (e.g. Thus, [C: Enhancement: Caus.] if [C: Enhancement: Cond.] contributions and distributions are known then...), to culminate in a positive result (e.g. Hence [C: Enhancement: Caus.], profit can be calculated from balance sheet), and to provide further related information (e.g. Also [C: Extension: Add.], the profit is the same in part A and B). Substitution and ellipsis were minimally used by Abdulrahman, Omar, Hasan, and Abdullah, while Ibrahim's text lacked the occurrence of these devices. A point of interest here is that ellipsis was used in accounting discourse calculations to avoid repetition, thereby serving economical purposes. A whole sentence can be replaced with an empty slot instead of repeating it in the calculations, as shown in the example below from Abdulrahman's text:

Cash paid to suppliers and employees
[Ellip.: Cl.] (equals) Cash generated from operations- cash collected from customers
[Ellip.: Cl.] = 480000 - 1400000 = -920000 (Appendix 19, Sentences 40-42)

Two clausal ellipses were found in the example above. The elided Modal element *Cash paid to suppliers and employees* was presupposed from the preceding sentence. This element consisted of the Subject plus the implicit Finite, whereas the Residue was represented by the reminder of the verbal group. The use of ellipsis in accounting discourse contributes to cohesion within the text.

The total number of ties as a ratio of the total word count provided a good index of cohesive density in each discourse. The finding showed that Omar and Abdullah's texts had the highest frequency of cohesive devices (respectively, 64.13 and 64.02 ties per 100 words) than the other three.

Table 4.18 Cohesive density index in the five texts

Participant	Abdulrahman	Omar	Abdullah	Ibrahim	Hasan
Category					
Word count	1304	1068	1187	918	821
Number of ties	606	685	760	435	392
Ratio of ties/100 words	46.47%	64.13%	64.02%	47.38%	47.74%

This index revealed that the frequency of cohesive devices in the other three participants' texts was below 47.75 ties per 100 words.

Like lexical cohesion, Theme contributes to the cohesion and coherence of texts. The five texts were analysed for thematic progression patterning (Appendices 24-28). The experiential content of the Theme was divided according to the number of questions or the distinct topics (or parts) in each text. The analysis of thematic progression in the five texts revealed the frequency of two thematic progression patterns: 1)- the linear Theme pattern (the Theme follows that of the Rheme element of the preceding sentence) and 2)- the reiteration or parallel Theme pattern (identical Themes are found in a sequence of sentence). The use of linear (or 'sequential' or 'zig-zag') is expected in expository accounting genre as each sentence logically relates to what has preceded.

These patterns achieve cohesion in the text. Similarly, Theme reiteration in accounting is used to simultaneously define and/or describe the value of accounting categories and sub-categories. In the following examples we see a zig-zag pattern by which information placed in Rheme position is repackaged in a subsequent Theme.

*This report affirms with **International Financial reporting Standards and interpretations adopted by International Accounting Standard Board.** **The above mentioned bodies** regulate and instruct companies how to form their financial reports.*

*... The settlement of which is expected to result in an **outflow from the entity of resources embodying.** **And these expenses** should be clear in the financial statements notes. (Abdulrahman's text, Appendix 24)*

Both Ibrahim and Hasan used the textual Theme ‘that is’ in the subsequent sentence in order to elaborate by stating four reasons why the characteristics are satisfied:

*The accounting service payment on 1 May 2010 should be treated as **liability** ("Unearned revenue"). That is, the essential characteristics of a **liability** are satisfied for the below reasons: (Ibrahim’s text, Appendix 27)*

*The accounting service payment on 1 May 2010 should be treated as **liability** ("revenue received in advance"). That is, the essential characteristics of a **liability** are satisfied because: (Hasan’s text, Appendix 28)*

In the following paragraph, Omar extracted the Theme “contributions and distributions” from the Rheme of the two previous sentences:

*(C) **Both parts A and B** have the same profit as income leads to rising in equity that result in inflows or improvement of assets or reducing of liabilities, except the **contributions** from owners. Also **both parts A and B** have the same profit as expenses lead to reducing in equity that causes in outflows or reduction of assets or boosting of liabilities, except the **distributions** from owners. Thus, if **contributions and distributions** are known then profit can be worked out from the statement of financial position. (Appendix 25)*

Rather than using the fan pattern or multiple-theme pattern- represented in the following diagram- by stating the two reasons, Abdulrahman preferred to use Theme reiteration.

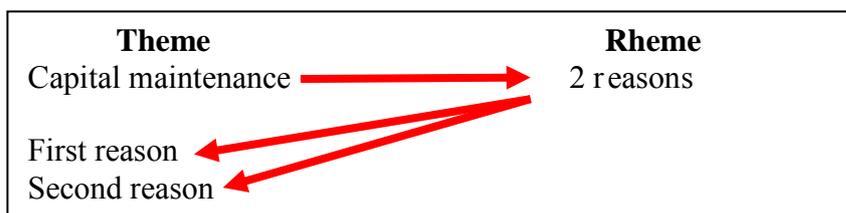


Figure 4.6 An example of multiple-theme pattern in Abdulrahman's text

Since the question required him to “briefly outline why capital maintenance is central to the measurement of profit”, he preferred to directly state the reasons:

(a) Capital maintains is central to the measurement of profit because It provides the linkage between the concepts of capital and the concepts of profit because it provides the point of reference by which profit is measured; it is a prerequisite for distinguishing between an entity's return on capital and its return of capital. (Abdulrahman's text, Appendix 24)

Like Abdulrahman, Omar also preferred to use Theme reiteration instead of the fan pattern, as he repeated the Theme “Both parts A and B” and the Rheme “have the same profit” of the first sentence. As Abdullah had the same task sheet, he used the Rheme of the previous two sentences, although he preferred to repeat the word ‘profit’ before merging the two rhemes in Theme position:

***The profit** is the same in part A and B as income leads to increasing in equity, which results in inflows or enhancement of assets or decrease of liabilities, other than the **contributions** from owners. Also, **The profit** is the same in part A and B as expenses lead to decreasing in equity, which results in outflows or depletions of assets or increase of liabilities, other than the **distributions** from owners. Hence, **profit** can be calculated from balance sheet (equity section), as long as **distributions and contributions** are known. (Appendix 26)*

Information packaging process also takes place in Theme reiteration, as in

***The consolidated Financial Report of the Group and the Financial Report of the Company** comply with International Financial Reporting Standards (IFRSs) and interpretations adopted by the International Accounting Standards Board (IASB). **All the financial reports** are constructed in accordance with Accounting Standards set by AASB. (Abdulrahman's text, Appendix 24)*

*The benefits from the asset are controlled because **Quality Services Ltd** has the capacity to gain from that asset, also **the company** has the power to prevent the others to access these benefits. (Omar's text, Appendix 25)*

Theme reiteration serves to provide additional information or make further explanation. Like lexical cohesion, Theme reiteration creates cohesion in the text as it helps in “maintaining a strong topical focus” (Egins, 2007, p. 324).

Abdulrahman used the reference item *it* to refer back to previously mentioned thematised participants. The findings showed that a statement of cash flow utilise Theme reiteration as in “*cash receipts from customers/cash paid to suppliers*” (Abdulrahman's text, Appendix 24). As mentioned earlier in 4.2.3.1, thematic choices in financial statements are constrained by the authoritative source of

knowledge, which is derived from generally accepted principles of accounting for the presentation of financial statements. The topical Given Themes along the financial statements' horizontal axes are presented to the left side by the categories and the sub-categories, whereas the New key information is represented by the numerical values to the right side.

The topical Themes in Omar and Abdullah's texts were often preceded by conjunctions linking paratactic clause complexes, though they did not fill the Theme position by themselves since their main function was relating the message to the immediate context of the preceding clause. While all the topical Themes in the 'Statement of Financial Position' were simple nominal groups (Inventories, Tax payable, Accounts payable), those in the 'Statement of Cash Flows' were lengthy nominal groups with a common noun as head (proceed from long-term mortgage, cash receipts from customers), often involving several nominalisations, linked through modification. Examples of lengthy definite nominal groups with a common noun as Head and the as Deictic are extracted from Omar and Abdullah's texts:

- 1- *The decrease in future economic benefit resulting in a decrease in assets* has occurred (more than 50% probability). (Abdullah)
- 2- *The declining in the future economic benefits* can be measured reliably. (Omar)

Eggs (2007, p. 326) argues that nominalisation "makes the Theme reiteration pattern a powerful means of creating cohesion in written text". Both gerunds and derived nominalisations were annotated (Appendices 29-33). For derived nominalisations only those with the following suffixes: -tion, -ment, -ity/ities and -ness were counted, borrowing from the studies of Baratta (2010) and Biber (1988). Abdullah employed nominalisations in subject-head position and in conjunction with the deictic *this* (e.g. "*this transaction*", Appendix 31), which are called *retrospective labels* as they do not only contribute to the organisation of the text, but also have the potential to reveal the writer's opinion or evaluation within the text (Baratta, 2010). The frequency counts of students' nominalisation usage are presented in the table below:

Table 4.19 Nominalisation frequency count of the participants' texts

Nominalisation Type	Derived								Gerunds		Total
	-tion		-ment		-ity/-ities		-ness		Frequency	%	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%			Frequency
Abdulrahman	33	28.45%	17	14.65%	28	24.14%	0	0.00%	38	32.76%	116
Omar	22	20.38%	14	12.96%	25	23.14%	0	0.00%	47	43.52%	108
Abdullah	30	24.79%	16	13.22%	33	27.28%	0	0.00%	42	34.71%	121
Ibrahim	19	21.83%	11	12.64%	17	19.55%	0	0.00%	40	45.98%	87
Hasan	18	20.23%	9	10.11%	22	24.71%	0	0.00%	40	44.95%	89

Nominalisation frequency counts in the five texts reveal that nominalisations were almost equally distributed between derived nominalisations and gerunds. All the five texts lacked instances of nominalisations with a following suffix –ness.

To sum up, the SF-MDA of the five assignments revealed that the students were constrained by the ideological conventions of accounting discourse which were derived from the generally accepted principles of accounting. First, by highly employing implicit relational identifying process types in financial reports that have an underlying ‘equative’ meaning in order to give the value of technical terms. Accounting technical lexis and presentation of numeracy in financial statements are represented in the implicit relationships between Token and Value in order to refer to the participants in a relational identifying clause. Second, the Token-Value direction of identification, from general to specific, is adopted. Third, modalisation was used to signal the participants’ viewpoints on accounting procedures which were based on their use of the generally accepted procedures and conventions, or as Li (1963) calls accounting ‘rules’, though they rarely employed the modulated peremptory obligation Finite modal operators. Fourth, fixed thematic choices are used in financial statements. The analysis of the development of thematic patterns in the assignments revealed the frequency of two patterns: Theme reiteration and the linear pattern. Finally, it was found that lexical cohesion was the most frequently occurring cohesive type in the texts, while reference was the second most common category. The cohesion analysis showed that the categories of a balance sheet are classified according to the

principle of liquidity that contributes to the cohesion and coherence of the text, not only through the top-down lexical relations, as in orthographic texts, but also through the bottom-up networked relations. In addition, when taking into account the meaning making processes of the general categories 'Liabilities' and 'Equity' it appeared that they are not only hypernyms of their sub-classes, but also meronyms of 'Assets' since the sum of numerical value for the two general categories equalled 'Assets', i.e. part-whole relations exist.

Summary

In order to explore how the Master of Commerce Saudi students represented linguistic and conceptual knowledge in key topics in accounting, I conducted a multidimensional investigation and analysis of the literacy and numeracy practices of accounting, which encompassed describing the epistemologies of the module, students' actual practices and experiences in a number of literacy events, and an SF-MDA of their texts. The findings showed that students were expected to engage in multimodal semiotic resources that required them to exhibit that they are "keen to learn and keen to share" (Burch, 2008, p. 17). The investigation of the graduate attributes and the learning outcomes revealed that they were aligned with the skills set by the accounting professional bodies and the curriculum of the module, including the topics covered in the textbook and requirements of the assignments.

An amalgam of practices and experiences of the tutor and the six Saudi students were described, in addition to a description of an accounting tutorial class and the tutor's comments on students' mid-term papers. The participants engaged in various literacy and numeracy practices in the tutorial: reading the tutorial questions in the accounting textbook, listening to the tutor's or a student's feedback, checking their prepared answers in the notebook, correcting answers, and participating by reading out the answers. The participants in this event made meaning through their engagement which could "extend and consolidate their understanding of the concepts involved" (Galbraith, Van Tassel, & Wells, 1999, p. 309), although most of the non-participant students seemed unprepared or lacking confidence to speak in the tutorial class. The participants managed to construct linguistic and conceptual knowledge through the production of texts. They successfully engaged in these practices, although the data showed that Abdulrahman and Omar needed to engage in activities that improved their communication and English language skills. The tutor's advice that students are required to copy only content words from the board reflected his awareness of the cultural practices of international learners, as most of them perceive knowledge as static and, as a result, depend on copying and rote learning. Abdulhadi, for example, thought that academic consultations were not beneficial as students did

not get specific answers to their queries. He preferred the teacher-centred approach to learning in which the tutor acts as a disseminator of knowledge rather than as a facilitator. Drawing on Halliday's (1978, 1985) systemic-functional semiotic theory, I have analysed the representational, interpersonal and textual meanings in the multimodal accounting discourses.

The analysis of the representational meaning showed that accounting discourse is represented by subject-specific lexis or terminology. It also revealed the predominance of relational identifying (over 55%), material, and relational attributive processes. Accounting financial tables utilise the implicit relational identifying process type for defining accounting technical lexis. The analysis of the interpersonal meaning revealed the predominance of declarative Mood structures. It was found that the texts had low frequency of passive voice clauses that aimed to emphasise the process rather than the agent who was performing the action. From the textual aspect, over 68% of the cohesive devices in the texts were lexical, and in particular repetition of the same lexical items. Reference was the second most common category in the texts, though pronouns, possessives, demonstratives and comparatives were minimally used. The analysis of the development of thematic patterns in the assignments showed that students used a number of Theme types to make their text more cohesive and to maintain readers' attentiveness, though financial statements were characterised by the use of Theme reiteration.

The SF-MDA of financial statements for the systems of TRANSITIVITY, THEME, and COHESION demonstrated how SFL provides tools that structure interpretation of the functioning of accounting texts. Finally, the SF-MDA of financial statements showed how accounting represents the financial world through the discourse forms.

In the following chapter, I present the multidimensional investigation and analysis of the literacy and numeracy practices of the Master of Commerce Saudi students in a key topic in the *Principles of Finance* module.

Chapter 5: Students' literacy and numeracy social practices in a key topic in the *Principles of Finance* module

Introduction

This chapter presents a case study investigating the literacy and numeracy practices of ten first year Master of Commerce Accounting international students enrolled in the foundation module *Principles of Finance*: Abdulhadi, Saud, Jim and Cathy (Group 1), Abdulrahman and Jiang (Group 2), and Ibrahim, Hasan, Sharon, and Tracey (Group 3). It provides an account of the multimodal and multisemiotic meanings that are construed in a key topic in *Principles of Finance*, capital budgeting management report.

In the next sections I present the findings of my investigation of the participants' academic literacy and numeracy practices in a key topic in finance, capital budgeting management report, employing the proposed multidimensional framework, which is structured in terms of the epistemologies of the module (5.1), an SF-MDA of the three groups' management reports (5.2 & 5.3), and a description of the actual practices EAL participants engaged with to complete the assignment, their experiences, and their talk about texts (5.4).

Next, I will describe the epistemologies of this module which include the social context, materials, an overview of capital budgeting techniques, the graduate attributes and learning outcomes of the management report assignment task, and the literacy and numeracy activities students were expected to engage in to perform this task.

5.1 The epistemologies of the *Principles of Finance* module¹⁴

Principles of Finance is one of the foundation modules Master of Commerce Accounting students have to study. The Course Outline reader (The Business

¹⁴ Alyousef (2013, pp. 20-25)

School, 2009b) provides students with information about: 1) the course, 2) the graduate attributes and learning outcomes, 3) the lectures and the tutorials' literacy events, 4) outline of each topic, 5) consultation and communication, and 6) assignment and examination guidelines. Like the accounting module's reader, the genre of this Course Outline reader exemplified the macro-genre type as it contained a range of other genres: exposition (expository exercises), description (course outline), and regulation (guidelines for referencing, participation in literacy events, assignments, and exams).

What follows is a description of the epistemologies of the Principles of Finance module which encompass the social context of the study, materials, an overview of capital budgeting techniques, the graduate attributes and learning outcomes, and the nature of the participants' management report assignment task sheets.

5.1.1 Social Context

Context encompasses the research site and the participants. The setting of this study was the University of Adelaide in South Australia. This study explored the literacy and numeracy social practices of ten first year Master of Commerce accounting international students, who worked in three groups and were given the pseudonyms: Abdulhadi, Saud, Jim and Cathy (Group 1), Abdulrahman and Jiang (Group 2), and Ibrahim, Hasan, Sharon, and Tracey (Group 3). The participation of five of these students was non-focal to the study as they only consented to the analysis of their written assignments which were completed with the other five focal Saudi participants: Abdulhadi, Saud, Abdulrahman, Ibrahim and Hasan.

5.1.2 Materials

The corpus was composed of three assignments written in English (7844 words) by the three groups in the field of business finance, capital budgeting management report genre: text 1 (2483 words), text 2 (1975 words), and text 3 (3386 words), excluding the cover sheet, table of contents and the appendices. It also includes three task sheets, the Course Outline reader (or information booklet), *Fundamentals of Financial Management* textbook (Brigham & Houston, 2009),

structured and unstructured interviews (Appendix 5) with Saud (Group 1), Abdulrahman (Group 2), and Ibrahim (Group 3) and an unstructured interview with one of the tutors, Janet (March 4, 2010). The three interviews were transcribed in situ talk (Appendices 34-36). The aim of the interview was to explore students' socio-cultural practices and experiences and their perceptions of disciplinary conventions in the *Principles of Finance* module. The structured interviews with the participants were guided by a number of open-ended questions, whereas the unstructured were guided by prompts, such as the use of capital budgeting, spreadsheets, financial calculators, and the textbooks/sites (Appendix 5). The assignment was individual/group work on a key topic in the *Principles of Finance* module, capital budgeting techniques. It is allotted 15% of the total mark for this course. The three written assignments were performed by three groups of 2-4 students. Though the three groups had different assignment task sheets, they were comparable since the main topic underlying the tasks is similar, except for the second part of the Group 1 task sheet (portfolio management) which was excluded. Henceforth, each group will be referred to by the group numbers displayed in the table below:

Table 5.1 The distribution of the three groups in the finance module

Participants	Group number
Abdulhadi, Saud, Jim and Cathy	1
Abdulrahman and Jiang	2
Ibrahim, Hasan, Sharon and Tracey	3

Before describing the requirements of each task sheet, the learning outcomes and the graduate attributes of capital budgeting management reports it is worthwhile to overview the fundamental financial theoretical aspects that underlie capital budgeting techniques.

5.1.3 An overview of capital budgeting techniques

The term capital refers to “long-term assets used in production, while a budget is a plan that outlines projected expenditures during some future period” (Brigham & Houston, 2009, p. 336). Thus, capital budgeting refers to a process in which a business determines which project is worth pursuing. In capital budgeting,

valuation techniques are used to analyse the impact of real assets instead of financial assets. As a result, future cash inflows and outflows are estimated to decide the economic feasibility of a prospective investment. Management reports therefore determine which project will yield the most return over an applicable period of time.

Mutually exclusive projects (Brigham & Houston, 2009) mean that the acceptance of a project entails rejecting the other one(s). The major Capital budgeting decision criteria are Net Present Value (NPV), Internal Rate of Return (IRR), Multiple Internal Rates of Return (MIRR) and Payback Period (PP). Payback Period (ibid) refers to the time it takes to recovering the costs of an investment. NPV and IRR are the two most widely used measures of project worth. NPV is used to determine how much value an investment adds to a company. It is equal to the Present Value (PV) of an investment in "today's dollars" of the future net cash flows discounted at the cost of capital. IRR is an estimate of the required rate of return that forces PV of inflows to equal the cost, and the NPV to equal zero; any project should be avoided if the cost of capital exceeds this rate. The analysis of mutually exclusive projects with unequal lives could be adjusted either through the Equivalent Annual Annuity (EAA) model or the Replacement Chain (common life) approach. When comparing investments with unequal lives, the one with the higher EAA should be chosen. Next, a sensitivity analysis is applied to assess riskiness of cash flows (CFs). Sensitivity analysis focuses on analyzing the effects of changes in key variables on the project's IRR or NPV.

Having introduced the mathematical demands and the financial concepts in capital budgeting techniques, in the next section I describe the graduate attributes and learning outcomes of the management report task.

5.1.4 The graduate attributes and the learning outcomes of the management report task

The purpose of the assignment was to apply into practice the theoretical framework for project valuation. Students were required to write a management

report in a group of 2-5 students. As stated in the Group 2's task sheet, the specific objectives underlying the group task were to

- Develop dynamic group skills;
- Learn to communicate and cooperate with peers;
- Develop problem-solving skills; and
- Improve interpersonal communication skills.

Indeed the Business School insists in its *Communication Skills Guide* (Hancock, 2006) on the overriding importance of communication for success during tertiary study and beyond. The module's Course Outline reader listed the objectives and the graduate attributes (or qualities) of *Principles of Finance* in terms of 1) knowledge and understanding; 2) learning outcomes; and 3) communication skills. Judging from the task sheet, it seems that the tutor placed high value on communication and problem-solving skills since these would enable students to gain disciplinary-specific knowledge in financial management, and in turn would provide them with relevant and meaningful life-long learning experiences that will most likely help them succeed in their future work. The objectives of capital budgeting task/topic and their corresponding graduate attributes are listed below:

Table 5.2 The objectives and the graduate attributes of capital budgeting management reports

Criteria	Objectives	Graduate Attributes
1) Knowledge and Understanding	<ul style="list-style-type: none"> - Applying the fundamental theoretical aspects (particularly valuation issues) of finance within the accounting profession - Understanding modern Finance theory in order to make sound financial decisions in the ever-changing field of information and communication industry. 	<ul style="list-style-type: none"> - An appreciation of basic principles and tools necessary to pursue further studies in the broad field of commerce. - An in-depth understanding of the methods of techniques applied in accounting, finance or marketing - An understanding of the underlying theories and concepts that inform alternative perspectives adopted in approaching issues and problems in accounting, finance or marketing.
2) Learning Outcomes	<ul style="list-style-type: none"> - Explaining the importance, role and techniques of capital budgeting in a firm - Understanding how to determine the cost of capital in a firm. 	<ul style="list-style-type: none"> - A commitment to high levels of academic scholarship

Criteria	Objectives	Graduate Attributes
3) Communication Skills	<ul style="list-style-type: none"> - The continuing development of good interpersonal and communication skills - Developing students' abilities to work in groups, make a group presentation, and write a group management report. 	<ul style="list-style-type: none"> - High level critical thinking and problem solving skills - Ability to evaluate and synthesise information and existing knowledge from a number of sources and experiences - Capacity to design and construct a logically compelling management report - Capacity to participate in teamwork - High level oral communication skills - High level written communication skills - The capacity to engage in life-long learning.

The *Principles of Finance* Course Outline reader (The Business School, 2009b, pp. 3-4)

Unlike that of the *Accounting Concepts and Methods*, the *Principles of Finance* curriculum related each graduate quality to its corresponding objective(s) or indicator(s). The graduate attributes of communication skills included exhibiting analytical and critical thinking, working in teamwork, and engaging in life-long learning. Based on the course objectives outlined in Table 5.2 above, the purpose of this task was to display knowledge and understanding by

- Applying the fundamental theoretical aspects of financial management within the accounting profession and
- Understanding modern finance theory in order to make sound financial decisions in the ever-changing field of information and communication industry.

In capital budgeting management reports, students were expected to engage in the interdiscursive literacy and numeracy practices resulting from the use of accounting and finance discourses. Capital budgeting literacy could be defined in terms of the objectives of the three tasks. In the next section, I investigate the literacy and numeracy requirements of the three task sheets.

5.1.5 Nature of the management report assignment task sheets

The assignment task sheets presented the social purpose which in turn determined the schematic structure of management reports. The social purpose of the three tasks was to evaluate the best investment alternative through the application of capital budgeting techniques, and to present the findings in the form of a management report.

Table 5.3 The requirements of the three assignment task sheets

Group number	Task Sheet	Scenario	Word Limit
1	1	Three investment proposals for a leading maker of electric and acoustic guitars	1500-2000 words
2	2	Two investment proposals for salon and day spa	2000 words
3	3	Three investment proposals for two manufacturing factories	2000 words

The three groups were required to evaluate the best investment alternative. They were also required not to exceed the 2000 word limit, excluding appendices. The Group 1 task sheet required students to adopt the role of the CEO of Voortco, a leading maker of electric and acoustic guitars, and decide the best choice of the three investments: continuing with business as normal, upgrading existing equipment, or discontinue using current equipment and building a new production line. The Group 2 task sheet required students to evaluate whether it is worthwhile to install tanning equipment in a full service salon and day spa and if they assess it is, they should decide which of the two types of tanning equipment, Dome Unit and Tanning Bed, is more suitable. The Group 3 task sheet included one case study. The scenario in the task was to choose one of the three alternatives: 1) the closure of one of the two factories in Australia and relocating operations to Thailand; 2) installing new IT system for the two factories; and 3) to develop new product designs and to improve quality control. Pardoe (2000a, p. 130) argues that although aspects of experience “may represent merely one set of practices among many” within the profession, explicitly attaching a particular activity or experience to a particular professional scenario is central to students’ understanding of the profession.

The task sheets stated the minimum information students are supposed to present. Since each group enrolled in this module in different semesters, the task sheets' requirements differed accordingly. Group 1 was given complete freedom with regards to the arrangement of the steps. This group's task sheet explicitly required students to be concise by using multi-semiotic texts such graphs and tables where relevant: i.e. when examining the discount rate, sales growth, machine costs, and cost of goods sold (COGS). This was repeated two times, as shown below.

You are required to complete a detailed report assessing the viability of the investment proposals. As a starting point determine the Net Present Value for the business as stands today. Then begin your analysis on the other investment proposals. In your recommendations be sure to provide relevant and concise data tables, graphs and outline any assumptions made.

In addition to the report of the above information provide a one page sensitivities analysis. Examine the discount rate, sales growth, machine costs, and COGS. You will need to make this as concise as possible so be sure to use graphs and tables where relevant. Further details of this will be made available during lectures.

Group 1 needed to be "as concise as possible" by largely providing its explanations through tables and graphs. The Group 1 task sheet included explicit semiotic processes that require action, decision, and an understanding: 'Complete a detailed report', 'Determine', 'Provide', and 'Examine'.

In contrast, Groups 2 and 3's task sheets stated the minimum information the management report should include. The requisite to include multi-semiotic texts in the report occurred only once in each task sheet as shown below:

Table 5.4 The requirements in Groups 2 and 3's task sheets

Group 2 Task Sheet	Group 3 Task Sheet
<p>1-A schedule of operating cash flow forecasts for the relevant lives of each type of tanning equipment using 100% (Best case), 70% (Most likely case), and 40% (Worst case) occupancy estimates for each tanning option.</p> <p>2- The Net Present Value (NPV), Payback Period (PP), and the Internal Rate of Return (IRR) for each tanning option under the various scenarios.</p> <p>3- An analysis of your findings, recommending which of the two units would provide the greatest economic benefits to Patsy? Why?</p> <p>4. Sensitivity analyses for both tanning options (using the most likely case – 70% occupancy estimates).</p> <p>5. What are some externalities and other relevant issues that could affect the decision?</p> <p>6. Assumptions related to your calculation and findings.</p>	<p>1. A schedule of incremental after-tax net operating cash flow for all three proposals.</p> <p>2. Use appropriate capital budgeting decision criteria to evaluate the three alternatives. However, your decision should be based on <i>at least 3</i> criteria such as the Net Present Value (NPV), Payback Period (PP) and the Internal Rate of Return (IRR).</p> <p>3. An analysis of your findings and a recommendation of which proposal would provide the greatest economic benefits to the company? Provide justifications.</p> <p>4. Sensitivity analyses for all three proposals.</p> <p>5. Other intangible or qualitative factors relevant for all three proposals.</p> <p>6. Assumptions related to your calculations and findings.</p>

Students were expected to read the scenario and engage in social communication skills with their group members in order to apply the theoretical aspects of financial management and understand modern finance theory to make sound financial decisions in the ever-changing field of information and communication industry.

Having introduced the requirements underlying the successful completion of capital budgeting management reports, I present in the next section the SF-MDA of management reports. As stated earlier in 5.1.1, the three reports were written by three groups: Group 1, Abdulhadi, Saud, Jim and Cathy, Group 2, Abdulrahman and Jiang, and Group 3, Ibrahim, Hasan, Sharon and Tracey.

5.2 The SF-MDA of capital budgeting management reports

Students construct disciplinary-specific finance knowledge through meaning-making processes which involved the interaction of the experiential, the interpersonal, and the textual meanings which are investigated and analysed here. The SF-MDA of these meanings seeks to provide an explanatory account of how capital budgeting management reports were typically constructed and how they

related to their context of use, which was represented by the epistemologies and the social purposes. The socio-cultural context of the three reports is represented in terms of the three register variables of FIELD, TENOR and MODE:

- FIELD: accounting and finance mathematical calculations of investment proposals, using specialised technical terms related to capital budgeting techniques that are only known by specialists in the field.
- TENOR: students formally engaged with an assessment genre which will only be read by the tutor (the assessor).

Type of interaction: monologue/ occasionally dialogic through the declarative Mood elements Subject[^]Finite.

- MODE: written to be assessed by a finance academic tutor.

Multimodal discourse: texts, tables and graphs: the latter two are multisemiotic since they encompass language (titles and labels) and mathematical symbolism.

Channel of communication: Graphic.

Medium: Print, accompanied by other semiotics (spreadsheets and graphs).

Site of display: Assignment submitted on A4 paper.

Frame (Genre): Informative expository report with informed opinions/arguments.

In order to successfully complete the capital budgeting management report students need to manage the expressions of FIELD, TENOR and MODE through experiential (5.2.1), interpersonal (5.2.2) and textual (5.2.3) language metafunctions that are investigated next, in addition to the realisation of these metafunctions in financial graphs (5.3).

5.2.1 The Experiential meaning in capital budgeting management reports¹⁵

In this section I investigate students' experience of reality through the transitivity choices: their use of participants and process types. I also explore the participants' intuitive interpretations of the conceptual and procedural capital budgeting

¹⁵ Alyousef (2013, pp. 26-38).

procedures (5.2.1.1) and expansion of the experiential meaning in financial graphs and capital budgeting techniques' formulae (5.2.1.2).

The analysis of the transitivity choices in the three groups' texts (Appendices 37-39) contributed to understanding how the language of finance construed participants' experience of the world through technicality (participants), process types, and circumstances. The experiential meaning was also revealed by investigating structural condensation in mathematical symbolism. The logical metafunction concerns the representation of the relations between one process and another, i.e. between clauses. This was achieved through the conjunctive relationships that were explored through the analysis of textual cohesion in Section 5.2.3.3 (cf. page 185).

The experiential world the texts reference was mathematical calculations of prospective investments. The writers assumed that they share with their readers specialist or expert knowledge, as evidenced by their use of abbreviations and acronyms of more narrowly technical terms which had technical meanings not known in the general community, such as WACC, NPV, PP, IRR, and EAA. The three texts included some terms which did not assume an expert's knowledge such profit, company, tax, bulbs, working hours, revenue, and factory.

The transitivity analysis of the experiential metafunction construed in the participants' texts revealed that the most frequently occurring process was the relational identifying, as shown in **Table 5.5**. The transitivity analysis of the experiential metafunction revealed that over 62% of the process types in the texts was relational identifying, while material process was the second most frequently occurring type. It should be noted here that the appendices in the Excel Worksheets had very high frequency of relational identifying processes in the financial tables but they were excluded from the analysis because Group 1 did not manage to save a copy of this file before submitting it. The use of relational attributive processes ranged between 3.20% and 8.28%. These processes are used for classification and description.

Table 5.5 The frequency of process types in the three groups' written assignments

Participant Process Type		Group 1		Group 2		Group 3	
		Freq.	%	Freq.	%	Freq.	%
Material	Explicit	63	12.53%	68	20.86%	108	15.04%
	Implicit	55	10.93%	0	0.00%	44	6.13%
	Subtotal	118	23.46%	68	20.86%	152	21.17%
Relational Identifying	Explicit	55	10.93%	20	6.13%	47	6.55%
	Implicit	263	52.29%	183	56.14%	440	61.28%
	Subtotal	318	63.22%	203	62.27%	487	67.83%
Relational Attributive		35	6.96%	27	8.28%	23	3.20%
Behavioural		6	1.19%	0	0.00%	1	0.14%
Existential		1	0.20%	1	0.30%	12	1.67%
Mental	Explicit	24	4.77%	22	6.75%	40	5.57%
	Implicit	0	0.00%	0	0.00%	0	0.00%
	Subtotal	24	4.77%	22	6.75%	40	5.57%
Verbal		1	0.20%	5	1.54%	3	0.42%
Total		503	100%	326	100%	718	100%

From the transitivity analysis it can also be deduced that the participant roles in Texts 1 (Appendix 37) and 3 (Appendix 39) were all occupied by inanimate entities, while the ACTOR roles in Text 2 (Appendix 38) were occupied by both humans (the writers and Patsy) and inanimate entities. Over 82% of the relational identifying processes were implicit since they are found in tables, and were used to identify the value of accounting and finance key terms. Group 1 used more relational identifying explicit processes (10.93%) than the other two groups. This shows that financial tables discourse is highly metaphorical since its components use the implicit relationships between Token and Value to refer to the participants in a relational identifying clause, examples extracted from the three texts are given below.

Table 5.6 Examples of implicit relational identifying processes in the financial tables

Text	Token- Identified	Pr: Implicit Relational, Identifying	Value- Identifier
One	Sales forecast on the basis of 10% growth rate for the year 2009	(is)	6,600,000
	Operating CFs in 2008	(are)	850,000
Two	Long-term debt (D)	(is)	200,000
	The Present Value (PV) of the Dome unit	(is)	-30588.79
Three	Incremental labour cost savings under the 30% increase from the base level	(are)	1,378,423

Appendices 37-39

This process type was used for identification, rather than location or possession. Similarly, the presentation of findings used the relationship between Token and Value to refer to the participants in a relational identifying clause; examples extracted from the three texts are given below.

Table 5.7 Examples of relational identifying processes in the three texts

Text		Token- Identified	Pr: Relational, Identifying	Value- Identifier	Circumstance
One	and	its historical cost	is	2.2 [million]	
		After tax salvage on the old machine	= [is equal to]	800,000- 0.3 (800,000- 1,200,000)	
Two		Machine and Set up Costs for Dome Unit	are	(25000 + 1500= \$26,500) and (15000 + 1500=\$16,500) for Tanning Unit.	
		Dome Unit's present value under the base case	is	\$30,589 as compared to \$20,567	under the Tanning Bed Base Case.
Three	Moreover,	current yearly revenue	is	\$ 10 million	
	and	this incremental outflow	would equal to	approximately 3.8% of Adelaide annual sales contribution.	

Appendices 37-39

The three mathematical formulae in texts 1 and 2 in the table above included a number of material processes (or Operative processes as coined by O'Halloran, 2000) since they included the arithmetical processes of adding, subtracting, dividing and multiplying. The constituents 'and' and 'moreover' do not contribute to the experiential meaning but rather express textual meanings. The clause "for Tanning Unit" in group 2's text acts as a qualifier of "(25000 + 1500= \$26,500) and (15000 + 1500=\$16,500", whereas the clause "of Adelaide annual sales contribution" in group 3's text is a qualifier of "approximately 3.8% ". There were instances in which the processes 'forecast' and 'treat' were relational identifying, rather than mental and material processes respectively, due to the existence of modality and the explicit marker of the Value 'as', as shown below:

Table 5.8 Examples of relational processes used to assign a new function to the participant

Group 1	5.	Cost of good sold	is forecasted	as percentage of sales	
		Token: Identifier	Pr: Rel, Ident	Value: Identified	
	93.	Cost of good sold	is forecasted	as percentage of the cost of good sold of proposal 1	
		Token: Identifier	Pr: Rel, Ident	Value: Identified	
	175.	Cost of good sold	is forecasted	as percentage of the cost of good sold of proposal 1	
	Token: Identifier	Pr: Rel, Ident	Value: Identified		
Group 3	46. Secondly,	discount rate 12%	should be treated	as a nominal interest rate	
		Token: Identifier	Pr: Rel, Ident	Value: Identified	
	84.	which	is treated it <sic>	as an opportunity cost \$ 4 M	by approximately 6% of Adelaide annual sales contribution.
		Token: Identifier	Pr: Rel, Ident	Value: Identified	Circ: Matter
	123. Thus,	the salvage value	could treat <sic>	as a cash inflow	at the last year in the Incomes Tax Rules
		Token: Identifier	Pr: Rel, Ident	Value: Identified	Circ: Location
	153. that	upgrade cost	should be treated	as an asset	
		Token: Identifier	Pr: Rel, Ident	Value: Identified	
	161. Consequently,	the company	need to treat	old product sales revenue	as an opportunity cost for cash outflow by \$1.7 M (after tax).
	Assigner: Agent	Pr: Rel, Ident	Token: Identifier	Value: Identified	

The nuclear participant in the last example represented the role of the agent (the Assigner), which was deleted in the remaining passive constructions. There were also instances of agentless passives where the writers deleted the ACTORS in passive clauses because their identity was known to the reader and replaced them with nominalised abstract technical terms, as in the following examples:

Table 5.9 Examples of passive clauses in the three texts

Text		Goal	Pr: Mat.	Range	Circ: Location
One		Gross profit	is calculated		
Two		Depreciation	is calculated	on a straight line basis	
		NPV	is computed		
Three	Firstly,	all cash flows	are calculated		at the end of each year.

Appendices 37-39

As mentioned in Section 4.3.2 in the previous chapter, passive clause are primarily used in accounting discourse to emphasise the process rather than the agent who is performing the action. The nominalised abstract technical terms in finance discourse are simple nominal groups. Baratta (2010, p. 1017) argues that in addition to creating textual cohesion nominalisations in academic writing “can assist in maintaining an impersonal tone, often by deleting a human agent within a given sentence”. As in the accounting texts, temporal (e.g. at the end of each year, during ten years period) and spatial (e.g. in the assignment paper, below the most likely case) circumstances were the most common types in the three finance texts. This suggests their importance in finance discourse, as they specify the temporal/spatial circumstance of the process. Using *Textalyser* (2004) the three groups’ texts were analysed for the lexical density, as shown in **Table 5.10**.

Table 5.10 Lexical density of the participants' written assignment

Participant Category	Abdulhadi, Saud, Jim and Kathy's Text 1	Abdulrahman and Jiang 's Text 2	Ibrahim, Hasan, Sharon and Tracey's Text 3
No. of lexical items	2483	1975	3386
Total lexical density	17.30%	40.2%	35.3%
No. of lexical items ¹⁶	1791	1336	2576
Total lexical density	21.1%	50.4%	31.7%

The findings showed that Group 1's text had the lowest lexical density. This implied that this group used less nominalisations and content words than the other two groups. As Eggins (2007, p. 97) states, "the highly nominalised written text allows a far greater proportion of the words in the text to be content carrying".

In the next section, I unpack the conceptual mathematical ideas compressed in capital budgeting calculations.

5.2.1.1 Participants' intuitive interpretations of the conceptual and procedural capital budgeting procedures

The experiential meaning in mathematical formulae and their underlying procedures are analysed in this section. In the table below, I unpacked the procedures Group 2 performed to successfully complete the management report. This included the procedures, mathematical clause complexes underlying the formulae, and the variables in order to show how a given technical term was calculated. This explication was elicited from Abdulrahman's (personal communication, March 24, 2010) intuitive understandings of the conceptual and procedural capital budgeting procedures, in addition to my reading of the module's textbook (Brigham & Houston, 2009).

¹⁶ Excluding tables and graphs

Table 5.11 The conceptual/procedural calculations in Group 2's management report

Technical term	Procedures	Mathematical Clause Complex (Formula)	Using the following variables
1. WACC		$\left[\frac{E}{E + D} \right] \times Re + \left[\frac{D}{E + D} \right] \times Rd$ $\times (1 - t)$	E = Equity; D= Debt; Re= Pre Tax Cost of Equity; Rd= Pre Tax Cost of Debt; t= Tax Rate; number 1
2. Total Revenue for each equipment	Number of sessions at 100% occupancy=	Working hours p. a \times no. of sessions per hour	Working hours p. a. , number of sessions per hour
	Revenue from tanning under the two options	Number of sessions at 100% occupancy \times price per visit	Number of sessions at 100% occupancy, price per visit
	Revenue from tanning lotion under the two options	Number of sessions at 100% occupancy \times no. of bottles sold	Number of sessions at 100% occupancy, number of bottles sold
	Total revenue+ 3% growth rate	Revenue from tanning + Revenue from tanning lotion +3%	Revenue from tanning, revenue from tanning lotion, growth rate
3. Total expenses for each equipment	Electricity expenses	Number of sessions at 100% occupancy \times electricity cost per session	Number of sessions at 100% occupancy, electricity cost per session
	Bulb cost per session	$\frac{\text{No. of bulbs needed} \times \text{cost per bulb}}{\text{bulb life (hrs)} \times \text{no. of sessions per hr}}$	Number of bulbs needed, cost per bulb, bulb life in hours, number of sessions per hour
	Bulb expenses	Number of sessions at 100% occupancy \times bulb cost per session	Number of sessions at 100% occupancy, bulb cost per session
	Total expenses for each equipment	Electricity expenses + bulb expenses + advertisement expenses	Electricity expenses, bulb expenses, advertisement expenses
4. Profit after tax	Profit	Total revenue for each equip. – total expense for each equip.	Total Revenue for each equipment, total expenses for each equipment
	Depreciation	$\frac{\text{Prime cost}}{\text{unit life for each option}}$	Prime cost, unit life for each option
	Net profit	Profile before tax – tax	Profit before tax, tax rate
	Add Back Depreciation	Net profit + Depreciation	Net profit, depreciation
5. Incremental Operating Cash Flows (OCF)	Determines the value of future cash in today's dollars	$FV / (1 + WACC)^{1+n}$	Future Value (Net profit after adding back depreciation), 1, WACC, 1, n= number of year

Technical term	Procedures	Mathematical Clause Complex (Formula)	Using the following variables
6. Net Present Value (NPV)	NPV determines the net value of future cash in today's dollars after deducting investment outlay	$\sum_{t=1}^T \frac{C_t}{(1+r)^t} - C_o$	Σ = sum of present values of cash flows expected from the project; t = project/ investment's duration in years; C_t = operating cash flows; r = discount rate/the required minimum rate of return on investment; and C_o = investment outlay (initial investment made).
7. Payback period (PP)		$\frac{\text{Investment outlay}}{\text{annual cash inflows}}$	Investment outlay, annual cash inflows
8. Internal rate of Return (IRR)	Similar in many ways to the NPV approach	$\frac{CF_1}{(1+r)^1} + \frac{CF_2}{(1+r)^2} + \frac{CF_3}{(1+r)^3} + \frac{CF_n}{(1+r)^n} = 0$	CF = Cash Flow generated in the specific period (the last period being 'n'); R= WACC
9. EAA ¹⁷		$\frac{R \text{ (NPV)}}{1 - (1 + R)^{-n}}$	NPV= Net Present Value of the project; r = rate of return; n = number of years
10. Sensitivity Analysis	Repeat steps 2-8 but with increase as well as decrease in revenues to the extent of 10%		

Adapted from Group 2's appendices, the textbook (Brigham & Houston, 2009) and finance formula's website <<http://www.financeformulas.net>>

The mathematical clause complexes underlying the formulae were ordered in linear sequence where each clause was dependent on the previous clause(s), forming what I call *interclausal* relations. These relations exhibited the analytical skills since both participants discern the conceptual ideas underlying the order of the steps. The *Communication Skills Guide* for Business Students (Hancock, 2006, p. 38) states that an analytical questioning approach refers to students' ability in "pulling apart the elements of the ideas and examining how they operate on each other", while critical questioning refers to their ability "in always looking for what is not obvious or for different points of view". For example, in Step 9,

¹⁷ Source: Investopedia, http://www.financeformulas.net/Equivalent_Annual_Annuity.html

critical questioning was experienced by Group 2 when it decided to use EAA model rather than the Replacement Chain approach because the longer project (Tanning Dome) did not have exactly twice the life of the shorter one (Tanning Bed). In addition, *intraclausal dependency* relations exist within mathematical clauses. For example, in Step 7 two *intraclausal dependency* relations existed between PP and ‘investment outlay’ and PP and ‘annual cash inflows’ since the calculation of PP was dependent on both ‘investment outlay’ and ‘annual cash inflows’. Students’ intuitive understanding (or the intended reading path) of the conceptual and procedural financial processes was contingent upon their analytical and critical skills to expand the meaning potential by deciphering the paradigmatic experiential codes underlying *interclausal* relations and *intraclausal dependency* relations. O'Halloran (1999b, p. 23) argues that this results in the semiotic metaphor, rather than grammatical metaphor, since movements between semiotic codes result in intersemiotic shift (or resemiotisation). As Lemke (1990, p. 164) states,

Mathematics is a creative art form ... The knowledge of mathematics consists of two parts: a practical knowledge of how to perform various manipulations of quantitative and logical relationships, and a theoretical knowledge of how those relationships fit together to form an overall system within which the manipulations make sense. It is only the first part that most people have any conceivable use for, but it is only the second part that enables you to understand why mathematical procedures work.

To successfully manage capital budgeting techniques, the students needed to have the ability to unpack the mathematical idea(s) compressed in a given formula (*intraclausal relation*) and relate it to the preceding and/or the following procedures (*interclausal relation*). To do so, they needed to exhibit both analytical and critical skills that would enable them to build logically and linearly-sequenced mathematical clause complexes, as evidenced by their intuitive expansion of the experiential meaning. For example, depreciation was deducted from revenue and then added back (Step 4) before applying PV formula (Step 5) because it is a non-cash expense. The present value (PV) is determined by discounting the future cash flow at the appropriate discount rate (the project’s cost of capital, WACC). To calculate Net Present Value (Step 6), Abdulrahman’s group added the initial investment cost (negative value) to the sum of the discounted cash flows (PVs).

The idea of Net Present Value is to determine how much value an investment adds to a company. Payback Period in Step 7 refers to the time it takes to recovering the costs of an investment; it does not take account of risk and the time value of money. Investments with shorter PP are preferable since risk is minimized and liquidity is maximized. An alternative to this approach is the Discounted Payback. The Internal rate of Return (IRR), Step 8, is the break-even discount rate and it refers to the required rate of return that forces PV of inflows equal to cost, and the NPV equals to zero; any project should be avoided if the cost of capital exceeds this rate. IRR is the break-even discount rate and it is found by trial and error. Abdulrahman's group acted as analysts by creating a given set of scenarios to determine how changes in one variable will impact the target variable. Finally, they evaluated the investments: accept if $NPV > 0$ and/or $IRR > WACC$. If IRR exceeds WACC, the difference will be the bonus which a company receives. In Step 9, Equivalent Annual Annuity (EAA) refers to the benefit from the project spread out over the life of the project. Finally, sensitivity analysis (Step 10) focuses on analyzing the effects of changes in key variables on the project's IRR or NPV. Scenario analysis (Brigham & Houston, 2009, p. 378) allows for a change in "more than one variable at a time, and it incorporates the probabilities of changes in key variables" that may be influenced by market conditions such as sales price, variable cost per unit, number of units sold, fixed operating costs, and WACC. Abdulrahman's group conducted scenario analyses for an increase as well as decrease in revenues to the extent of 10% by repeating steps 2-8.

The next section's focus is investigating how mathematical symbolism is represented and interwoven into natural language in management reports.

5.2.1.2 Expansion of the experiential meaning in capital budgeting formulae

O'Halloran (1999b) contends that semantic extensions in mathematical symbolism are characterised by the introduction of multiple levels of rankshifted configurations of new participants, new 'Operative' processes, and the deletion of the human agent. In this section I focus on the semantic extensions in financial formulae.

Students were expected to use spreadsheets to lay out data and to measure and describe financial relations through the predefined mathematical formulas for finance and accounting technical terms. The following table illustrates how the mathematical formula of NPV works in Excel.

Table 5.12 NPV's formula in Excel

A	B
1 Data	Description
2 10%	Annual discount rate
3 -10,000	Initial cost of investment one year from today
4 3,000	Return from first year
5 4,200	Return from second year
6 6,800	Return from third year
Formula	Description (Result)
=NPV(A2, A3, A4, A5, A6)	Net present value of this investment (1,188.44)

Students entered the values in the cells A2, A3, A4, A5, and A6. Excel includes a number of preset formulae that are arranged according to the field (e.g. Finance, Logic, and Math). Students tabbed the FORMULAS button and then chose FINANCIAL which includes functions such as:

Table 5.13 Financial functions in Excel

Function	Description
DB	Returns the depreciation of an asset for a specified period by using the fixed-declining balance method
DDB	Returns the depreciation of an asset for a specified period by using any method that you specify
FV	Returns the future value of an investment
IRR	Returns the internal rate of return for a series of CFs
NPV	Returns the net present value of an investment based on a series of periodic CFs and a discount rate
PMT	Returns the periodic payment for an annuity
PPMT	Returns the payment on the principal for an investment for a given period
PV	Returns the present value of an investment

O'Halloran (2005) argues that the grammar of mathematics specifies how elements of different rank can be combined. For example, Abdulrahman's group used the mathematical symbolism ' $fx=SUM(B87:B88)$ ' to calculate operating cash flows (OCFs), where B87 referred to the cell containing 'Profit after Taxes'

and B88 to ‘Depreciation’. The structure of this formula was built up from minimal components (e.g. f,x, =,SUM,B,87,88) which combined into embedded expressions (e.g. B87:B88), which combined into operations (e.g.SUM(B87:B88)) which combined into sequences of operations. O’Halloran (2000, p. 386) argues that mathematical symbolism and visual display, unlike natural language, have their “own unique lexicogrammatical systems” for encoding meaning, especially where meaning is encoded unambiguously in the most *economical* manner possible through grammatical strategies of structural condensation, one of which involves the use of multiple levels of rankshifted (or downranked) configurations of mathematical Operative processes and participants. O’Halloran (2000) argues that though these configurations are analogous to that in language, they are more sophisticated since they allows for a greater depth of clausal rankshift. The following example illustrates the structural condensation of mathematical symbolism by comparing an Excel formula with its underlying meaning:

Table 5.14 Sample Excel’s formula from the appendices of text 2

Excel formula	The formula’s underlying representation
NPV=D38/(1+\$C\$4)^A38	Net Present Value= Expected Net Cash Flow ÷ (1+Discount Rate) ⁿ
D38=C38-B38	Expected Net Cash Flow= Cash inflow- cash outflow

The symbol ‘D38’ referred to the cell containing the ‘Expected Net Cash Flow’, the symbol (1+\$C\$4) meant adding one to the discount rate located in cell C4, and the circumflex accent (caret) in ^A38 meant raised to the power of the value (the number of years) in cell A38. The participant D38 referred to an ellipsed Operative Process C38-B38. Invoking Halliday's (1985) system of TRANSITIVITY, O’Halloran (1999b) argues that semantic extensions in mathematical symbolism are represented experientially by participants’ intuitive verbal interpretations of the Operative processes which result in the semiotic metaphor since these processes lead to the creation of a Thing or entities. Operative processes are conceived as arithmetic operations performed on mathematical objects such as numbers, variable and other abstract quantities. Since Operative processes include multiple Mediums (or interact with an unlimited number of participants) Halliday’s notion of a single central Medium

(or participant) may no longer be applicable in mathematical symbolism (O'Halloran, 1996, 1999b). For example, the Excel formulae in Table 5.14 consist of the following ascending rankscale:

- Term or "atom": NPV, D38, 1, \$C\$4, A38, C38, B38 (i.e. word)
- Expression: NPV, D38, 1, \$C\$4, A38, +\$C\$4, C38, B38, -B38 (i.e., word group/phrase)
- Clause: C38-B38 and $(1+\$C\$4)^{A38}$ (i.e., clause)
- Clause complex: $NPV=D38/(1+\$C\$4)^{A38}$, where $D38= C38-B38$ (i.e., clause complex)

Expressions in mathematical statements consist of an implicit relational intensive identifying process, exemplified by the equal sign: i.e. NPV [Token: Agent, Identified] equals [Pr: Relational, Intensive identifying] $D38/(1+\$C\$4)^{A38}$ [Value: Mediums, identifier]. The Medium, $D38/(1+\$C\$4)^{A38}$, consisted of what O'Halloran (1999b, p. 5) calls "multiple Mediums connected with Operative processes as opposed to the notion of a single Medium found in the process types of natural language". Table 5.15 below shows the rankshifted nuclear configurations of mathematical processes and participants in the NPV formula $D38/(1+\$C\$4)^{A38}$

Table 5.15 Rankshifted nuclear configurations in NPV formula

Rank	Process	Participants
Rank 1 (ranking clause)	= (Relational)	NPV
		$D38/(1+\$C\$4)^{A38}$
Rank 2	- (Operative)	C38
		B38
Rank 3	+ (Operative)	1
		\$C\$4
Rank 4	^ (Operative)	$(1+\$C\$4)$
		A38
Rank 5	/ (Operative)	$D38 (=C38-B38)$
		$(1+\$C\$4)^{A38}$

In addition to the relational intensive identifying process, the above mathematical formula included Operative processes of subtraction, exponentiation, addition and division: D38 calculated by subtracting C38 from B38, \$C\$4 was added to one, raised to the power of the value (the number of years) in A38, and D38 was divided by the result of the previous two operations. The dollar sign (\$) is a flag to Excel to "lock" that part of the reference when copy/pasting the cell. The

Operative mathematical processes in the clause complex $D38/(1+\$C\$4)^{A38}$ were material, as shown below:

- 1- (1[Actor] + [Pr: Mat] $\$C\4 [Goal])
- 2- (1+ $\$C\4) [Actor] ^ [Pr: Mat] A38 [Goal]
- 3- D38 [Actor] / [Pr: Mat] (1+ $\$C\4)^{A38} [Goal]

Since the term ‘Operative’ processes did not necessarily encode meanings of doing (or action), following Halliday (1985), I preferred to annotate them as material. What is apparent in mathematical symbolism is the narrow range of processes, the multiple levels of rankshift and “the absence of a periphery realizing circumstance” (O’Halloran, 1999b, p. 10). Mathematical symbolism in financial formulas consists of material and relational identifying processes.

In conclusion, the experiential world the texts reference is that of mathematical calculations of more narrowly technical terms which assume an insider’s or expert’s knowledge. The transitivity analysis showed that the most frequently occurring processes in the texts were relational, material and mental processes. It was found that students’ intuitive understanding of the conceptual and procedural financial processes was contingent upon their ability to expand the meaning potential by deciphering the experiential codes underlying *interclausal* relations and *intraclausal dependency* relations. In order to successfully manage mathematical symbolism, students are required to encode meanings by decompressing mathematical symbols and moving between representations (i.e. mathematical symbolism and natural language). This is achieved through the use of multiple levels of rankshifted (or downranked) configurations of mathematical material and relational identifying processes. O’Halloran (ibid, p. 10) argues that “the grammar of mathematical symbolism thus functions to condense and compact experiential meaning” in the most possible *economical* manner. Mathematical formulas in finance utilise structural condensation strategies to unambiguously encode mathematical symbolism in the most economical manner. These grammatical strategies involve the use of multiple levels of rankshifted configurations of material and relational identifying processes which lead to the creation of a Thing, thereby resulting in the semiotic metaphor.

The interpersonal features of the texts were investigated through the participants' use of the MOOD system, polarity (positive or negative proposition), personal pronouns and modality (5.2.2).

5.2.2 The interpersonal features of capital budgeting management reports

Participants' control of the expressions of tenor was revealed by their use of the linguistic interpersonal resources of declarative Finite modal operators. The three texts used only one Mood type, declarative statements that provided information. All the three groups used Modality to engage the reader and/or show authorial stance (Appendices 40-42). The writers signaled reader engagement through the Mood element to indicate their attitude towards propositional information. The semantic function of the Mood is carrying the burden of the cause as an interactive event. Thus while modalisation is used to indicate the probability or frequency of a proposition, modulation is used to argue about the obligation or inclination of a proposal (Eggins, 2007). The three groups' attitudes and beliefs towards propositional information were expressed by Finite modal operators, Modalisation and modulation. The following table outlines the frequency of occurrence of modalisation and modulation in the three texts:

Table 5.16 The frequency of occurrence of modalisation and modulation in the three texts

Group	Modalisation			Modulation					Total	Percentage
	Must= probability	May/ Might =option, choice	Should= recommendation	Should= Obligation,	Can, could= it is possible	Will-would	Must= Obligation, requirement	Has/ Have to		
One	0	0	3	0	3	4	0	0	10	0.56%
Two	0	2	3	1	9	8	1	4	28	2.09%
Three	0	3	5	5	31	36	1	0	81	3.14%

All three groups used modalisation to argue about the probability or frequency of a proposition. Ibrahim Hasan, Sharon and Tracey, Group 3, constructed the proposition as possible by means of the modal verbs 'may' and 'could' 34 times, compared with only 3 and 11 times for Groups 1 and 2 respectively. It also used the future predictive modal verbs 'will' and 'would' 36 times. Group 3 positioned

itself in relation to academic knowledge in capital budgeting through the use of the Finite modal operators more than the other two groups. It used the modal verb ‘will’ to express future actions by Adelaide Factory and predictions related to financial terms such as cash outflow, revenue, NPV, incremental cost saving and correlation factor redundancy cost. Group 3 utilised the peremptory obligation (modulation) ‘should’ (not) and ‘must’ six times, compared to two in Group 2’s text and none in Group 1’s text.

Table 5.17 The use of the peremptory obligation ‘should’ and ‘must’ in texts two and three

Group	Conj. Adjunct	Adjunct: Textual	Subject- (Actor)	Finite- (Modal)	Predicator	Complement	Adjunct
		Mood Block			Residue		
Two			we		recommend		
		that	Patsy	should	accept	the Dome Unit over the Tanning Bed	
		both	projects	must be	rejected		
Three			, the company	should	accept	proposal 2	
		that	the company	should	accept	proposal 2	
		For	proposal 1 and 3	should be	rejected		
			company	should	reject	three of them	
			Rubber Man Ltd	should	accept	proposal 2	
			the company	must	pay	redundancy package \$ 2.5 M	

The majority of the subjects in these clauses are ‘non-interactants’, the projects in text 2 and the company or the proposals in text 3. The congruent realisations of Mood were exemplified here in the “shift in the realisational domain of commands from ‘imperative’ to ‘indicative’ clauses” (Halliday & Matthiessen, 2004, p. 632). The Mood element in the instances above consisted of the Subject and the Finite ‘should’/’must’. Although the second Subject ‘Patsy’ is dissociated from the Actor, it specifies the element responsible for the success of the proposition, i.e. it is “the one on which the validity of the information is made to rest” (Halliday, 1985, p. 76). Patsy can signal three basic kinds of claims about the validity of the proposition (Thompson, 2004) through the Finite: 1) Tense, 2) Polarity (positive or negative proposition), and 3) Modality (the extent to which a proposition is valid). Hence Patsy can figure in the tag “Should she?”/”Shouldn’t

she?” and the positive or negative response “Yes, she should”/”No, she shouldn’t”. Similarly, the pronoun “us” in “the calculations cause us to believe that the dome unit would yield positive contributions” (Appendix 41) functions metaphorically as adjunct to the clause”, while “the dome unit” is the grammatical Subject as evidenced by the tag test which refers back to the latter rather than “us”. The three groups used explicit high modality (i.e. the nominalised forms of the modal verbs ‘recommend’, ‘indicate’, ‘require’, and ‘need’) as a means to express obligation and to objectively disguise or mitigate their command or proposition, which is a congruent realisation of modulation.

Table 5.18 The use of modal verbs as a congruent realisation of modulation

Group No.	Line	Text					
		Conj. Adjunct	Complement	Subject	Finite- (Modal)	Predicator	Complement
			Mood Block			Residue	
1		Consequently,		it	is	<i>recommended</i>	
				that proposal 3	to be	implemented	
2	62.			the regular NPV method	may not	<i>indicate</i>	the better project,
	119	But		dome unit		<i>requires</i>	debt financing
	128.		How many	(additional) worker-hours	are	<i>needed for</i>	operating tanning facilities.
3	13.	Fourthly,		the company		<i>needs to consider</i>	about the intangible or qualitative factors in proposal 3
	19-21			This paper		<i>indicates</i>	that it is quite necessary to accept proposal 2 for Rubber Man Ltd.
	57.	In addition,		the company	is	<i>required to decide</i>	two scenarios:

Appendices 38 & 39

Only Groups 1 and 2 signaled authorial stance towards the propositional information they presented in their texts through the use of the first person pronoun, as shown in Table 5.19:

Table 5.19 The use of modalisation in the three texts

Group	Conj. Adjunct	Subject-(Actor)	Finite-(Modal)	Predicator	Complement	Adjunct
	Mood Block			Residue		
One	Nevertheless,	this figure	should	be compared	to the NPV.	
	As	<i>we</i>	see	in the table.		
Two	As	<i>we</i>		see	in the table	
		a change in revenue of the most likely case 70%		caused	the NPV	
				to change.		
	But	<i>we</i>	should not	ignore		
	Therefore,	tanning bed	may	be	preferable	
	Therefore,	NPV	should	be	more important characteristic	than IRR and payback period.
Three		It	should	be noted		
	Conversely,	the rest of the variable	may	lead	a negative NPV	
	Furthermore,	company	should	concern about	\$ 0.4 M salvage value	during the ten-year life.
	Furthermore,	leasing scenario	might	increase	the cash inflows sharply	

Though the use of the first person pronouns and personal experience is restricted with the general rules that discourage their use in academic writing, Groups 1 and 2 confidently resisted these rules in their concluding remarks to express their commitment, while Group 3 preferred to be objective as in “based on analysis, *this report would recommend* proposal 2 to the company due to three major reasons”. Mood Adjuncts that are used to express the writer’s attitude to the content of the message were minimally used by Groups 2 and 3: “since the projects would be *presumably* being repeated *indefinitely* ...”/ “the tanning

business could *very well* complement her existing salon business” (Appendix 41) and “this scenario could *still* produce cash inflows”, “the new product could *also* bring another cash inflow” (Appendix 42).

The interpersonal meaning was represented in the texts by the conceptual relations in financial calculations and by the systems of MOOD and Modality. Unlike Group 3, Groups 1 and 2 confidently used the first person pronoun to engage the reader and/or signal authorial voice.

The expression of MODE was represented by the textual features (5.2.3) of capital budgeting management reports which organised the experiential and the interpersonal meanings into whole texts through the linguistic resources of Theme, lexical chains, nominalisation, and cohesion.

5.2.3 The textual features of capital budgeting management reports

The total number of words in the Group 1 management report was 2483 words (**Table 5.20**), excluding the cover sheet, table of contents and the appendix. The Group 2 text contains 1975 words, and the Group 3 text has 3386 words. Both Groups 1 and 3 were far over the maximum word limit of 2000 words. Group 2’s mark in this report was the highest, 88 out of 100, compared with 72 and 78 for Group 1 and Group 3 respectively.

Elaboration of tables and spreadsheets involved the use of, or interpretation of, numbers or numerical information, calculations and diagrams. All the three groups therefore used tables as tools to clarify their calculations for the investment proposals and to facilitate comparability among the investment proposals. Group 1 excessively used tables and graphs compared to the other two groups. This may explain the reason why it has exceeded the required number of words by 25%.

Table 5.20 Key statistics of the three groups' management reports

Text Type	Category	Abdulhadi, Saud, Jim and Kathy's Text 1	Abdulrahman and Jiang 's Text 2	Ibrahim, Hasan, Sharon and Tracey's Text 3
Report	Word limit (excluding appendices)	1500-2000 words	2000 words	2000 words
	Word count	2483	1975	3386
	Number of tables	25	13	8
	Number of graphs	9	0	8
Excel	Number of words/numbers in the appendices (Excel file), excluding tables cited in the report	N/A	1213	1656
Total number of words in the report & the appendices		2483	3188	5043

As Group 1 presented the calculation of each investment proposal in a separate table, comparability among the proposals is not facilitated as in the other groups' texts. In addition, Group 1 also did not show calculations of some technical terms since, as Abdulhadi states, they constitute basic financial skills in accounting (personal communication, March 22, 2010), such as leasing cost.

The schematic structure of the Group 1 management report was iterative as the calculations were repeated according to the number of proposals, i.e. three times. Although the report included a conclusion, it lacked an introduction. In contrast, the schematic structure of the Group 2 management report was very clearly staged: title page, table of contents, introduction, the analysis, recommendations based on the findings of the analysis, assumptions, conclusion, and an appendix. The introduction began with a statement of the issue or problem as to whether the owner of the investment project, Patsy, should go ahead with the tanning project, and if so, she had to decide which alternative is most suitable. This brief preview was followed by a thesis statement which explained the techniques that were used to solve this problem: i.e. computing the forecasted incremental operating cash flows (PV) for the two proposals and discounting them to the present value (NPV) using the firm's risk-adjusted cost capital, called Weighted Average Capital Cost (WACC). The conclusion restated the problem, the findings of the case financial analysis, and the recommendations.

Patsy is considering expanding her business. She has two choices, a Dome Unit or a Tanning Bed. Both projects can produce the same product. She has to choose one of them as it is a mutually exclusive investment. As a result, she has to accept one project and reject another project. According to the base case financial results, we compared between the two machines, we recommend that Patsy should accept the Dome Unit over the Tanning Bed because it provides not only highest positive NPV but also provides the highest IRR that exceeds the required return (WACC) and calculated shorter payback period. (Group 2 management report, Appendix 38)

Group 2 used calculations as a supporting evidence to reinforce its recommendation. Similarly, the Group 3 management report was very clearly staged: title page, table of contents, executive summary, introduction, assumptions, the three proposals' analyses, recommendations based on the findings of the analyses, conclusion, reference list and an appendix. This group, however, exceeded the required number of words by 70%. A key characteristic of capital budgeting technique report is that conclusions are not based on the writers' primary position, as in the argumentative essay, but rather on the results of the calculations.

What follows is an analysis of the first resource for organizing the textual meaning, namely thematic progression.

5.2.3.1 Thematic progression

Thematic progression patterning organizes a text. The three texts were analysed for patterns of thematic progression (Appendices 43-45). The findings revealed that the three groups extensively employed reiteration or parallel thematic structure (cf. 2.2.1.3 for thematic progression patterns), and in particular in tables and graphs, as shown in **Table 5.21**.

Table 5.21 The frequency of thematic progression patterns in the three texts

Text	Reiteration			%	Linear		Multiple-Theme		Total Instances	
	Freq				Freq	%	Freq	%	Freq	%
	Text	Tables & Graphs	Total							
One	33	196	229	92.33%	19	7.67%	0	0.00%	248	100.00%
Two	15	88	103	89.56%	12	10.44%	0	0.00%	115	100.00%
Three	22	378	400	94.33%	22	5.19%	2	0.48%	424	100.00%

While the reiteration of a Theme in a text serves to provide a strong topical focus by presenting additional information or making further explanation, it achieves other functions in capital budgeting tables and graphs, including spotting trends and taking decisions by conducting comparative judgments of various figures that assists in drawing conclusions. For example, Group 2 used Theme reiteration to both provide a strong topical focus and to take decision as to which of the two units would provide the greatest economic benefits to Patsy.

Equivalent Annual Annuity (EEA) Base case		
	Dome Unit	Tanning Bed
Present Value (PV)	-30588.79	-20567.36
Number of Years (N)	8	5
Discount Rate (K)	14.28%	14.28%
Future Value (FV)	0	0
Annual Payment (PMT)	\$6,656	\$6,031

As we see in the table according to Equivalent Annual Annuity (EEA), investing in Dome Unit still is the best choice because its annual payments are higher than Tanning Bed annual payments.

Figure 5.1 An excerpt from Group 2 text, Appendix 44

The table above includes five instances of Theme reiteration pattern, as the Theme of each clause is taken as the Theme of the ensuing one (e.g. *Present Value* for the Dome Unit is -30588.79. *Present Value* for the Tanning Bed is -20567.36). As in financial statements in accounting, an implicit relational identifying clause in financial graphs and tables has a *thematic equative* structure (Halliday, 1967) that is imbued with thematic nominalisations (Appendices 37-39). So, for example, the meaning of the clause “Present Value Dome Unit -30588.79” is something like “the present value of the future cash flows from the Dome Unit investment [Token] is [Process; Relational Identifying] -30588.79 [Value]”. Similarly, the clause “FV Dome Unit 0” is realised semantically as “the value of the Dome Unit at the specified date [Token] is [Process; Relational Identifying] 0 [Value]”.

Kress and Van Leeuwen’s (2006) left-hand and right-hand spatial dimensions in visual texts do not always correspond to the linguistic concept of ‘the Given’ and ‘the New’ in capital budgeting tables. While the numerical values of PV, K, FV,

and PMT represented new information, the number of years (N), 8 and 5 in **Figure 5.1** above, were given in the task sheet.

Group 2 repeated ‘Patsy/She’ four times in the conclusion of the report to refer back to ‘Patsy’ in the topic sentence “Patsy is considering expanding her business”. Reiteration of lexical items is one of the aspects that leads to the cohesion of texts which will be investigated in Section 5.2.3.3. There were also few instances of the dynamic linear or ‘zig-zag’ pattern, which is mapped textually with the simultaneous message line of Given and New (**Table 5.22**). This pattern provides a powerful resource for constructing the flow of discourse (Halliday, 1993c). Typically, a Theme is *backgrounded* since it refers to something that has gone before, while Rheme refers to New information which is *foregrounded* because it triggers the subsequent Themes. The thematic complements in declarative clauses are *marked Themes* that have the potentiality of being subjects since they are nominals but have not been selected subjects; yet they are thematic since they are foregrounded as the Theme (Halliday & Matthiessen, 2004). For example, the Theme “the depreciation cost” in

Table 5.22 The development of Theme and Information structure in the three texts

Text No.	Textual Theme	Topical Theme	Rheme/New Information
One		After the derivation of cash flows	NPV is calculated
	and	it	accounted for 2,853,108
		which	are positive
	and	this	implies
	that	proposal	is creating value.
	Nevertheless,	<i>this figure</i>	should be compared to the NPV.
Two		The sensitivity analysis	is type of risk analysis.
		<i>This analysis</i>	shows us
		what	will happen
		Patsy	is considering expanding her business.
		She	has two choices, a Dome Unit or a Tanning Bed.
		Both projects	can produce the same product.
		For the both tanning options,	we perform sensitivity analysis under most likely case (70% occupancy).
	For <i>this</i>	we compute the likely scenario for an increase as well as decrease in revenues to the extent of 10%.	

Text No.	Textual Theme	Topical Theme	Rheme/New Information
Three	Firstly, according to	Australian labour law,	the company must pay redundancy package \$ 2.5 M to Adelaide Factory's employees,
	and	<i>this</i> incremental outflow	would equal to approximately 3.8%
	If	the company	sells Adelaide factory
		they	would receive \$ 4 M
		which	equals to 6 % of Adelaide annual sales contribution.
	Furthermore,	<i>this</i> scenario	still could produce cash inflow from Thailand salvage at the end year 10 with an amount of \$ 1M.
	After	analysing three proposals,	
		it	shows incremental <u>depreciation cost</u> and <u>salvage value</u>
	(except	proposal1-senerio 2)	didn't put much influence on the NPV and IRR.
		For the <u>depreciation cost</u> ,	it depends on the outlays
		which	just relates to tax effect.
		For another factor, <u>salvage value</u> ,	
	the influence on the NPV	is not apparent too.	

“For the depreciation cost” is marked as it is announced explicitly by means of the expression *for*. The deictic element *which* in text 1 is thematic as it served two functions: as a marker of some special status of the clause (i.e. textual) and as an element in the experiential structure (i.e. topical).

All the three texts included textual (Conjunctive) Adjuncts that were followed by the topical Themes (Appendices 43-45). There was only one instance of the Multiple-Theme pattern in text 3 where the Rheme in the clause “After analysing three proposals, it...” (Table 5.22 above) introduced two factors that did not affect the NPV and IRR, each of which was made Theme in subsequent clauses, as shown below:

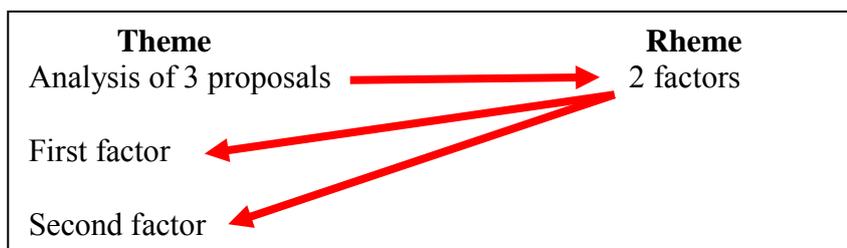


Figure 5.2 Multiple-Theme pattern in Group 3 text

The clause “After analysing three proposals...” is a non-finite hypotactic enhancing clause acting as a Circumstantial Adjunct. The realisation of the interpersonal Theme was extended to include grammatical metaphors in it-clauses with extraposed subjects **Table 5.23**. Groups 1 and 2 employed anticipatory it in Subject position with *(be to+) infinitive* to give their opinion or recommendation of the better proposal. Anticipatory ‘it’ is labelled as Subject since it occurred in its position.

Table 5.23 Examples of it-clauses in the three texts

Text	THEME			RHEME		
	THEME		RHEME		THEME	RHEME
	Textual	Topical		Struct.	Topical	
One	Furthermore,	<i>it</i>	<i>is assumed</i>	that	inflation	is incorporated in those estimates.
		<i>It</i>	<i>is suggested</i>	that	changes in WACC and the cost of the machine	do not significantly affect NPV.
		<i>It</i>	<i>is assumed</i>	that	the machine	will be sold for 0.2 million.
	Consequently,	<i>it</i>	<i>is recommended</i>	that	proposal 3	to be implemented.
Two		<i>It</i>	<i>is not clearly stated in the description</i>		how many (additional) worker-hours	are needed for operating tanning facilities.
		<i>It</i>	<i>should be noted</i>	that	capital budgeting results	are not the only evidence the manager has to rely on.
Three	Conversely,	<i>it</i>	<i>is necessary</i>		(for you)	to consider cash outflows in proposal 3
	Finally,	<i>it</i>	<i>seems clear</i>	that	proposal 2	has a shorter time of PP.

The groups employed the congruent objective modulation of passive modal verb predicator (*is assumed, is suggested, is recommended, stated, be noted*) and the incongruent objective modulation of adjectives (*necessary, clear*) and adverbs (*clearly*). This demodulated process is used to highlight writers’ attitude towards

given information while remaining in the background. While Group 1 used the interpersonal function to indicate the non-factual status of propositions by marking them as being their assumption or recommendation, Groups 2 and 3 used the emphatic interpersonal Theme to forcefully draw readers' attention to a point, "it should be noted that ...", or to express a strong conviction in the content of the extraposed subject "It seems clear that ...". Whereas Halliday treats 'necessary' in Group 3's text as part of the verbal group and hence in Rheme position, the Cardiff Grammar treats it as a Theme since it is enhanced by the experientially empty (or dummy) Subject 'it' followed by verb to be, and called extraposed construction (or extraposition) in formal grammars. This construction occurs in pseudo-clefts which are, unlike clefts, reversible. Thus the experiential meaning of "it is necessary [Complement/ Attribute] (for you) [Subject/Carrier] to consider cash outflows in proposal 3" is the same as that of "for you to consider cash outflows in proposal 3 [Subject/Carrier] is necessary [Complement/ Attribute]". In her survey of corpus studies, Robin Fawcett (2007) describes this type of construction as an evaluative enhanced Theme since the evaluative meaning is not expressed by an Adjunct. The Attribute (e.g. *necessary* here) expresses the performer's evaluation of the proposition in the semantically heavy Carrier (e.g. for you to consider cash outflows in proposal 3). She calls this type of construction as the 'referent as role in event' rather than pseudo-cleft. The Carrier is "marked explicitly as 'new' information, and so to receive the unmarked Tonic" (ibid, p. 76). As the evaluative 'necessary' has the role of 'new' or comment, it seems to me preferable to follow Halliday's logical interpretation, which builds on transformational grammars' pseudo-clefts construction, by placing it in Rheme position. Hewings and North (2006) class the non-congruent interpersonal Themes above as interpersonal Themes when clause-initial; Halliday, however, treats all such expressions of modality as topical Themes, as shown by the tag, which would be *isn't it?*

In addition to the lexico-grammatical resource of the THEME system, the discourse of capital budgeting management reports was characterized by its high use of nominalisations.

5.2.3.2 Nominalisation

As stated earlier in 5.2.1, nominalisations serve not only to maintain an impersonal tone but also to create textual cohesion, all of which have relevance in the production of quality academic texts. Both gerunds and derived nominalisations were annotated in the three texts (Appendices 46-48): e.g. inflation rate, assignment, operating costs, annual payment, sensitivity, production, calculation, and depreciation. Both Groups 2 and 3 employed nominalisations in subject-head position and in conjunction with the deictic *this* (cf. **Table 5.22** above) (“*this analysis*”, Text 2 and “*this incremental outflow*”, Text 3), which are termed *retrospective labels* as they provide cohesion, but also reveal the writer’s attitude towards a given subject within the text (Baratta, 2010). The frequency counts of students’ use of nominalisation are presented in the table below:

Table 5.24 Nominalisation frequency counts in the three texts (per 1500 words)

Nominalisation Text No.	Derived				Gerunds	Total
	-tion	-ment	-ity	-ness		
One	40	10	3	0	37	90
Two	18	8	16	0	42	84
Three	43	6	4	0	35	88

Nominalisation frequency counts in the three texts were almost equal. Though the three texts shared the same experiential field, this finding may be ascribed to a near equal academic proficiency level amongst the three groups.

5.2.3.3 Cohesion analysis

The cohesive devices used in the three assignments were analysed (Appendix 49-51) and compared. The table below presents the numbers and percentages of the different subcategories of grammatical and lexical cohesive ties identified in the three texts.

Table 5.25 Types of cohesive ties in the three texts

Category	Sub-category	Type of tie	Text 1		Text 2		Text 3	
			Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Conjunctives	Elb	Appositive	2	0.12%	0	0.00%	3	0.13%
		Clarification	12	0.76%	2	0.19%	6	0.27%
		Additive	53	3.34%	26	2.50%	52	2.37%
	Ext.	Variation	6	0.38%	4	0.38%	8	0.36%
		Temporal	9	0.57%	4	0.38%	30	1.36%
		Manner/comparative	16	1.01%	24	2.31%	12	0.55%
		Causal	26	1.63%	19	1.82%	12	0.55%
		Concessive/conditional	12	0.76%	6	0.57%	61	2.79%
	Subtotal	136	8.57%	99	8.15%	184	8.38%	
	Substitution	7	0.44%	10	0.96%	8	0.36%	
	Ellipsis	0	0.00%	2	0.19%	1	0.05%	
	Subtotal	7	0.44%	12	1.15%	9	0.41%	
Lexical Cohesion	Repetition	1104	69.57%	733	70.28%	1648	75.05%	
	Synonym	2	0.12%	2	0.19%	2	0.09%	
	Hyponym	0	0.00%	3	0.28%	1	0.05%	
	Hypernym	0	0.00%	0	0.00%	0	0.00%	
	Meronym	2	0.12%	14	1.35%	5	0.22%	
	Antonym	22	1.39%	3	0.28%	13	0.59%	
	Subtotal	1130	71.20%	755	72.38%	1669	76.00%	
Reference	Demonstrative	10	0.64%	7	0.68%	20	0.91%	
	Definite	142	8.95%	93	8.92%	208	9.48%	
	Comparative	11	0.69%	29	2.79%	17	0.77%	
	Pronouns	69	4.34%	33	3.17%	17	0.77%	
	Possessive	30	1.90%	5	0.47%	69	3.14%	
	Anaphoric	0	0.00%	8	0.76%	1	0.05%	
	Cataphoric	52	3.27%	16	1.53%	2	0.09%	
	Subtotal	314	19.79%	191	18.32%	334	15.21%	
	Total	1587	100%	1043	100%	2196	100%	

Lexical cohesion was the most frequently occurring cohesive type in the three texts (>70% of the total cohesive devices), and in particular reiteration of the same lexical items (>69%), as shown in the table above. Reference was the second most common category in the texts (>15%). The frequency of occurrence of the lexical cohesive devices in Group 3's text (76%) exceeded those in Groups 1 and 2's texts (71.20% and 72.38% respectively), though it is hard to draw any conclusions since text length was unequal in the three management reports. However, the cohesive density index showed that Group 1's use of cohesive devices was almost equal to that of Group 3, as shown below.

¹⁸ Enhanc.= Enhancement, Ext.= Extension, Elb.= Elaboration

Table 5.26 Cohesive density index in the three texts

Group	One	Two	Three
Category			
Word count	2483	1975	3386
Number of ties	1587	1043	2196
Ratio of ties/100 words	63.91 %	52.81%	64.85%

The finding of the index of cohesive density revealed that Group 1 (63.91 cohesive devices per 100 words) and Group 3 (64.85 cohesive devices per 100 words) had higher ratio than Group 2 (52.81 cohesive devices per 100 words).

Both Group 1 and Group 2 used the cataphoric reference items colon, asterisk, and ‘below’ to refer readers to a following text. Group 1 used colons thirty-six times in sub-headings as it preferred to repeat each calculation three times according to the number of projects rather than merging all in one sub-heading as the other groups did. The group also used the cataphoric reference ‘below’ six times to refer the reader to the graph. Group 2 used the asterisk three times as a cataphoric reference marker to refer to a following note. Substitution and ellipsis rarely occurred in the three texts (n=less than 1.16%).

Conjunctives “help readers interpret pragmatic connections” in relation to the writer’s thinking and “express semantic relation between clauses” (Hyland, 1998a, p. 228). All the three groups almost equally used paratactic (co-ordinating) and hypotactic (subordinating) nexuses to extend the propositions, and in particular additive conjunctions which had the highest frequency in the three texts, compared to variation conjunctions. Whereas extension adds to or varies a clause message and enhancement expands the utterance by providing circumstantial details such as time, place, manner, cause or condition, elaboration expands an utterance by reformulating the message, as in:

If [C: Enhancement: Cond.] sales price is set 30% above its expected price the NPV would be +5,000,000). (Group 1’s text, Appendix 49, Line 49)

After the derivation of cash flows NPV is calculated and [C: Extension: Add.] it accounted for 5,304,861\$ and [C: Extension: Add.] it is indeed [C: Elaboration: Clari .] massively greater than the NPV of proposal 1

which only [C: Extension: Variat.] accounts for 2,853,108\$. (Group 1's text, Appendix 49, Line 131)

Therefore [C: Enhancement: Caus.] incremental cash flows are calculated for 325,000 for the years 2009 and 2010. (Group 1's text, Appendix 49, Line 171)

Most of the conjunctive conditional devices in Groups 1 and 3's texts were found in the interpretation of graphs. In the second example above, Group 1 used the paratactic nexus 'and' to link two equally important ideas. The group also used the device 'indeed' to emphasise their point of view. This was achieved by comparing the NPV of proposal 2 to that of proposal 1. Antithesis was expressed by using the variation device 'only'. The group expanded a proposition in the third example through the use of causal conjunctive device 'therefore'. Other examples from Group 2 and 3's texts are listed below:

We then [C: Extension: Add.] compute the other income at base case [derived from sale of bottles by dividing the no of sessions by 5 (as [C: Enhancement: Man.] stated in question) and [C: Extension: Add.] multiplying by contribution of \$2 per bottle: (Group 2's text, Appendix 50, Line 16)

Firstly, [C: Enhancement: Temp.] all cash flows are calculated incremental cash flows at the end of each year. (Group 3's text, Appendix 51, Line 21)

For example, [C: Elaboration: Appos.] Incremental Adelaide factory leasing revenue and [C: Extension: Add.] incremental cost saving are obvious positive correlation factors. (Group 3's text, Appendix 51, Line 86)

Group 3 used more temporal conjunctives (firstly, secondly, thirdly, etc) to signpost the sequential structure of an argument. Although the additive device 'and' in each sentence below was annotated as an extending device, it is treated as an elaborating in sense since it was followed by 'this' to refer back to a proposition in the previous clause:

After the derivation of cash flows //NPV is calculated// and it accounted for 2,853,108// which are positive// and [C: Extension: Add.] this [R: Dem.] implies that proposal is creating value. (Group 1's text, Appendix 49, Sentence 61)

Firstly, // according to Australian labour law, // the company must pay redundancy package \$ 2.5 M to Adelaide Factory's employees, // and [C: Extension: Add.] this [R: Dem.] incremental outflow would equal to approximately 3.8% of Adelaide annual sales contribution. (Group 3's text, Appendix 51, Sentence 37)

The six most frequently used key words in each text were calculated, using the text analysis web tool *Textalyser* (2004).

Table 5.27 Frequency and top key words in the three texts

Text	Word	Instances	Frequency
One	cost	46	3.7%
	cash	38	3.1%
	net	36	2.9%
	machine	34	2.7%
	table	30	2.4%
	flows	27	2.2%
Two	year(s)/Yr(s)	62	5.8%
	tanning	40	3.7%
	unit	30	2.8%
	dome	28	2.6%
	bed	19	1.8%
	npv	16	1.5%
Three	cost	68	4.0%
	proposal	59	3.4%
	npv	40	2.3%
	company	38	2.2%
	Adelaide	33	1.9%
	incremental	33	1.9%

While the top key word in Text 1 and 3 was 'cost', it was 'year(s)/Yr(s)' in Text 2. The word NPV was one of the top 6 key words in Group 2 and 3's texts. The word 'year' in text 2 was abbreviated "Yr(s)" 55 times (5.1%) in the tables and used 7 times (0.7%) in the text. Group 1 used the phrase "first/old machine" and "new machine" to refer to each investment proposal, Group 2 used the phrase "dome unit" and "tanning bed", and Group 3 used the phrase "proposal 1", "proposal 2", and "proposal 3". Interestingly, the non-conceptual word 'table' was used 30 times in text 1. As explained earlier, Group 1 preferred to represent the findings of each investment proposal separately. Comparing these findings with six management accounting case reports written by non-native speakers of English (BAWE, 2008) revealed an overlap of the top words NPV, project, year, cost and cash. Table 5.28 illustrates lexical chains in the three texts.

Table 5.28 Examples of lexical chains in the three texts

Revenue		Cash
-an increase as well as decrease in revenues -a change in revenue -when the revenue -Revenue from sale increased	-the revenue turns out -the revenue volume -the firm's revenue -Revenue(s) from tanning	-Incremental Cash Flows -Discounted Incremental -operating cash flows -changes in its cash flows -available cash
Cost(s)		Debt
-Advertising Costs -Bulb Cost -calculating operating cash flows -Depreciation is calculated -electricity costs, -investing into a Dome Unit is higher -Machine and Set up Costs	-NPV is computed -NPV increased -NPV is negative -NPV is very sensitive with inflation -positive NPV -the prime cost -PV -variable costs	-Long-term debt (D) -Current debt (D) -Pre-tax cost of debt -Post-Tax Cost of debt -Proportion of debt -short, long term debt -debt financing
Tax		Tanning
-Pre-tax -Tax Rate -Post-Tax -Incremental after-tax -net operating Earnings before Interest & Tax (EBIT)	-before tax effect. -Inflow from tax saving -the Incomes Tax Rules	-revenue from tanning -Tanning Bed -Dome Unit -a Dome Unit or a Tanning Bed -accept the Dome Unit over the Tanning Bed
Investment		Equity
-capital budgeting -mutually exclusive investment	-Pre-tax cost of equity -Proportion of equity	Days (of the week) -Tues-Thur -Friday -Saturday

The lexical chains above indicate, as stated earlier (5.2.1), the existence of both technical and general terms in the three texts. For example, lexical sets to do with the technical term 'tax' were 'pre-tax', 'post-tax', and 'tax rate' and lexical sets to do with the general term 'days' are 'Tues', 'Wednesday', 'Thursday', 'Friday', and 'Saturday'. It should be noted here that most of the lexical chains in financial tables are thematic.

To sum up, the analysis of cohesion and word frequency count revealed respectively the differences in the relative number of cohesive ties and the most frequently used key words used by each group. The SF-MDA of register in the finance module was supplemented with cohesion analysis since the two define the text. Next, I present the findings of the SF-MDA of statistical graphs.

5.3 The SF-MDA of statistical graphs¹⁹

In this section, I present the SF-MDA findings of two statistical graphs, the Earnings before Interest or Tax (EBIT) and sensitivity analysis. First, I focused on the semantic extensions in financial graphs and the ensuing logico-semantic relation of extension, and then I conducted analyses of thematic and informational choices, transitivity, and cohesion. To do so, I utilised the Group 1's intuitive interpretation of a sensitivity analysis graph and my reading of the module's textbook (Brigham & Houston, 2009) to conduct the SF-MDA, which was primarily based on awareness of the theoretical aspects underlying the analysis of this graph. Both Group 1 and Group 3 applied their knowledge of the theoretical aspects in finance in order to construct statistical graphs that encompass a complex array of elements and processes (Monteiro & Ainley, 2006).

Graphs and financial tables can be classified as *conceptual visuals* (Kress & van Leeuwen, 2006) since they depict some kind of analysis or classification. Guo (2004, p. 201) states that a statistical graph, unlike the image, is “an abstract theoretical entity although it may have material form”, i.e. meaning elicited from the numbers. Meanings emanate from the reasoning this material form exhibit. Only Group 1 represented its findings of EBIT in a time series.

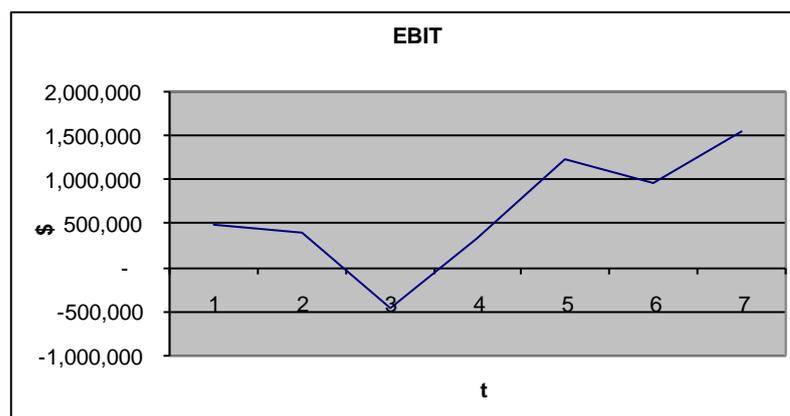


Figure 5.3 EBIT time series graph in Group 1's text (Appendix 37)

The graph was constructed in the EBIT time series by plotting COGS at different time periods. The vertical axes thus represented the value (\$), while the horizontal

¹⁹ Alyousef (2013, pp. 33-34)

one the time (t). According to Group 1's interpretation of the graph, EBIT fluctuates according to the fluctuation in COGS (Appendix 37). Implicit material processes represent the increase/decrease in EBIT. This interpretation illustrates that meaning is created in visual semiotic resources not only intra-semiotically (i.e. within the graph) but also inter-semiotically through the interaction of the graph and the accompanying linguistic text (O'Halloran, 2008). The intersemiotic relation that existed between the tables and graphs and the text accompanying them was that the latter helps in elucidating and realising the highly condensed accounting numeracy. This text was therefore subordinate to the tables or graphs through the use of endophoric markers (colon, see Figure, as in ...). The tables and the graphs were integrated in the text flow through the use of cross-references 'Figure' and 'Table'. However, since the text added new information based on the findings in tables or graphs a logico-semantic relation of *extension* (Martinec & Salway, 2005) exist between the tables/graphs and the texts accompanying them, as the latter provide new information based on the content of the former.

Both Group 1 and Group 3 used statistical graphs to present the findings of sensitivity analysis, a measure which focuses on analyzing the effects of changes in key variables (that may be influenced by market conditions) on the project's IRR or NPV.

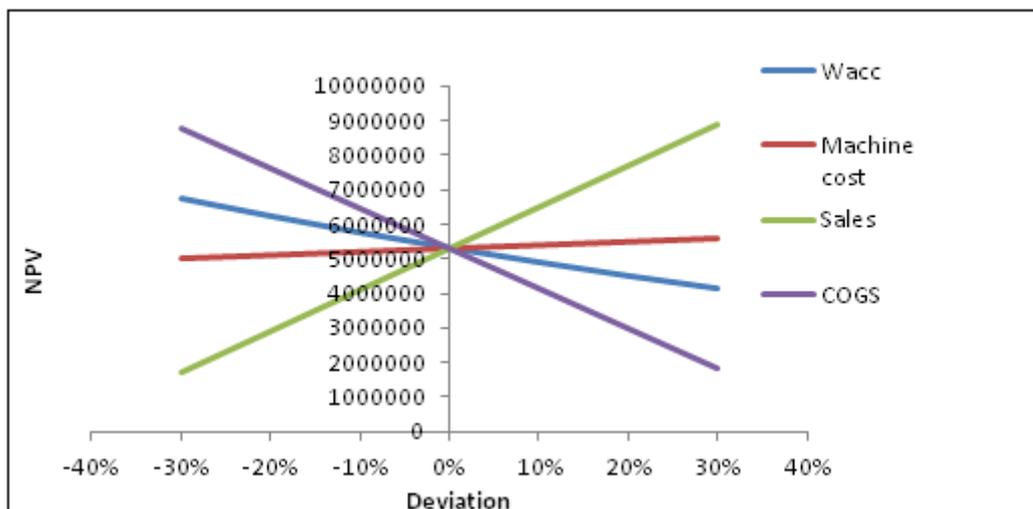


Figure 5.4 Sensitivity analysis graph in Group 1's text (Appendix 37)

The two groups used abbreviations (WACC for weighted average of capital cost and COGS for cost of goods sold) and shapes (arrows, squares and diamonds) to label the axes in graphs. In Group 1's graph above, the Net Present Value (NPV) was based on four key variables: WACC, machine cost, sales, and COGS. Royce (2002, p. 193) argues that visual semiotic systems "utilize meaning-making resources in ways that are specific to their particular mode". Group 1, for example, assumed that revenues will increase or decrease to the extent of 30%. The underlying meanings were found in the reasoning this material form exhibit. To interpret the sensitivity graph above, the participants did not only need to understand the lexicogrammar of the axes but also its relation to the intersecting axes that depicts the mathematical relation. Group 2, on the other hand, preferred to present the findings of the sensitivity analysis in tables (Appendix 38).

Theme-Rheme pattern is created between axes in statistical graphs. Inspired by O'Halloran (1996), Guo (2004) contends that statistical graphs make use of the coordinate system, where in most cases the Given information (or Theme) is represented by the horizontal *x-axis* designating the independent variable and the vertical *y-axis* designating the dependent variable, while the New (or Rheme) was found in the space circumscribed by the two axes. In terms of visual perception, the point where the horizontal and the vertical axes intersect is perceived as salient (e.g. seen first). The intersection point is characterized as having high degree of saliency since it seems to draw attention to itself in some way (Bateman, 2011). In Figure 5.4 above, the horizontal *x-axis* designating the independent variable "percent error in estimate" and the vertical *y-axis* designating the dependent variable "NPV" stand for the Given, whereas New was represented by the degree of steepness of each slope (or inanimate ACTOR). The slopes of the lines in the graph above indicate how sensitive NPV is to changes in each input: "the larger the range, the steeper the variable's slope and the more sensitive NPV is to this variable" (Brigham & Houston, 2009, p. 377). These slopes represent relational attributive processes, as each one is analysed in terms of its degree of steepness, in which steep curves indicate a higher degree of sensitivity to deviations from the original estimates (or the GOAL). The analysis showed that NPV was very sensitive to changes in Sales and COGS, fairly sensitive to changes in WACC, but not very sensitive to changes in Machine Cost. For example, Sales slope can be

intuitively interpreted in natural language as “sales will probably *deviate* highly from the original estimates” and “Machine Costs will probably not *deviate* from the original estimates”.

The analysis revealed the existence of both **marked** and **unmarked** Themes, as shown below:

Table 5.29 Theme in a management report statistical graph

Cont. Th.	Textual Th.	Topical Theme	Rheme/New Information
		(When all of the inputs	are set at their base-case levels,
		their deviations from the base	are all zero,
and		the NPV	is \$ 5,304,861.)

As stated earlier, marked Themes have the potentiality for being subjects since they are nominals but have not been selected subjects (Halliday & Matthiessen, 2004). “All of the inputs” in the first example above summarises the entire burden of the inputs in the graph- i.e. the 30% increase and decrease in WACC, machine cost, sales, and COGS.

Visual displays function to realize the ‘truth’ of mathematics which is “contextually dependent on the system within which it is constructed” (O’Halloran, 1999b, p. 15). The interpersonal meaning in the graph lacks the use strategies for engaging the viewer as it deals with abstract ‘truths’ that are connected to theoretical constructs. As O’Halloran (ibid, p. 7) puts it, since “mathematical symbolism evolved as absolute descriptive statements, whole areas of interpersonal meaning found in language disappeared” since its “discourse is imbued with a sense of absolute certainty and obligation”. However, this was not true in the case of mathematical symbolism in the sensitivity analysis graph. Since the 30% decrease or increase in the revenues was based on the participants’ prediction of the external factors that may affect the business environment, this estimate may not be always ‘true’. We can conclude that a statistical graph is imbued with the Finite and a degree of certainty or usuality when its underlying theoretical construct (or reasoning) is based on presumptions, rather than abstract ‘truths’: e.g. very sensitive, fairly sensitive, would be.

The Group 1 intuitive verbal interpretations (or readings) of the graphs were analysed for transitivity and the use of implicit cohesive devices (Appendices 37 & 49). For example, the analysis of **Figure 5.4** above (cf. page 192) is shown in the two tables below. As can be seen in **Table 5.30**, the interpretations revealed the existence of five material process types and six relational identifying processes. As in financial tables, relational identifying processes are used for identification.

Table 5.30 Transitivity analysis of the Group 1 intuitive interpretation of Figure 5.4 (Appendix 37)

	When all of the inputs	are set	at their base-case levels,	
	Recipient	Pr: Implicit, Mat	Goal	
	their deviations from the base	are	all zero	
	Token	Pr: Implicit, Rel, Ident	Value	
and	the NPV	is	\$ 5,304,861.	
	Token	Pr: Implicit, Rel, Ident	Value	
If	sales price	is set	30%	above its expected price
	Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
	the NPV	would be	+9,000,000.	
	Token	Pr: Implicit, Rel, Ident	Value	
If	WACC price	is set	30%	above its expected price
	Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
	the NPV	would be	+6,500,000.	
	Token	Pr: Implicit, Rel, Ident	Value	
If	machine cost price	is set	30%	above its expected price
	Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
	the NPV	would be	+5,500,000.	
	Token	Pr: Implicit, Rel, Ident	Value	
If	COGS price	is set	30%	above its expected price
	Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
	the NPV	would be	8,800,000.	
	Token	Pr: Implicit, Rel, Ident	Value	

The cohesion analysis of the Group 1 intuitive interpretations of this figure showed that the most frequent cohesive device was lexical cohesion (L=31), followed by reference (R=12) and conjunctions (C=5).

Table 5.31 Cohesion analysis of the Group 1 intuitive interpretation of Figure 5.4 (Appendix 49)

231.	When all of the inputs are set at their [R: Pos.] base-case levels, their [R: Poss.] deviations from the [R: Def.] base are all zero and [C: Extension: Add.] the [R: Def.] NPV [L: Rep.] is \$ 5,304,861.
232.	If [C: Enhancement: Cond.] sales [L: Rep.] price [L: Rep.] is set 30% above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be +\$9,000,000. [L: Rep.]
233.	If [C: Enhancement: Cond.] WACC [L: Rep.] price [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be +\$6,500,000. [L: Rep.]
234.	If [C: Enhancement: Cond.] machine [L: Rep.] cost [L: Rep.] price [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be +\$5,500,000. [L: Rep.]
235.	If [C: Enhancement: Cond.] COGS [L: Rep.] price [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$8,800,000. [L: Rep.]

The Group 1 interpretation of the graph employed both demonstrative (the) and possessive (their/its) determiners. The word ‘inputs’ in sentence 231 above acted as the referent of the possessive determiner ‘their’. The specific determinative Deictic ‘the’ is a reduced form of *that* as preserved its initial part (Halliday & Matthiessen, 2004). It is not surprising that the symbol ‘%’ was repeated 4 times in the interpretation of the graph since its rhetorical structure, unlike academic texts, is not bound by linearity. Finally, the conjunctive conditional relations (‘if ..., then’) contributed to the enhancement of meaning.

The SF-MDA of the financial graphs included interpreting and inferring the underlying experiential meanings, and conducting transitivity, cohesion, and thematic progression analyses of the multimodal finance semiotic resources.

In the next section I describe students’ actual literacy and numeracy practices and their experiences in the *Principles of Finance* module.

5.4 The social practices EAL participants engaged with to complete the assignment²⁰

Abdulahdi (Group 1) worked on the assignment individually, as well as with his group members Saud, Jim and Cathy in three 3-hour meetings at the business school's Study Hubs. Similarly, Abdulrahman (Group 2) attended three 2-hour meetings with Jiang, in addition to working individually. Ibrahim (Group 3) worked iteratively (personal communication, March 28, 2011) with Sharon as he met her 2-3 times per week for approximately four weeks. He stated that her undergraduate study finance background knowledge complemented his accounting and Excel knowledge. The third member, Tracey, did only 30% of the work, while Hasan withdrew from the course before the submission deadline and contributed 0%.

5.4.1 Participants' literacy and numeracy social practices

The choices Group 1 make were assessed on the basis of evidence of “complete and detailed workings/calculations (in appendixes)”. The assignment task sheet states that “answers without the evidence of workings will not be given any merit and will attract zero marks”. Similarly, the Group 3 task sheet required presenting “complete and detailed workings/calculations (attach the Excel spreadsheets with appropriate references)”, and that “answers without evidence of workings (in appendices or Excel spreadsheets) will not be given any merit and will attract zero marks”.

Unlike Group 1, Groups 2 and 3 did not face major difficulties when undertaking the assignment. Abdulrahman (Group 2) read the task sheet several times and then wrote down some notes (Appendix 52) to help him plan his representation of the task. Later on he decided to meet the tutor to enquire whether he should include the inflation rate of 3% in his calculations or not (personal communication, February 26, 2010). Although the tutor's reply was positive, Abdulrahman forgot to add this rate. He added that the Peer-Assisted Student Support (PASS) sessions helped him with understanding the module's content. These sessions were

²⁰ Alyousef (2013, pp. 38-42)

facilitated by students from diverse backgrounds who excelled in the module. As Abdulrahman was struggling with this module he sought the tutor's help who in turn assigned an assistant to work with Abdulrahman. He often consulted the financial management Arabic textbook which he brought with him from Saudi Arabia. Abdulrahman stated that he learnt how to use the financial calculator when he started his postgraduate study in Australia. He explained the steps for calculating NPV and the time value of money (TVM):

... to calculate NPV of \$3000 earned in two years: enter this amount in future value (FV) key- enter 2 for the time period (NPER/N key) - enter 10% by using the % i key for your rate because that's what you'd like to earn. TVM is the number of years it takes to receive FV, and it is calculated by entering interest rate using the i key, present value of money PV key, and future value of money, FV key.

In an answer to the question "what were the main sources you used for seeking clarifications?" Abdulhadi (personal communication, March 22, 2010) stated that he referred to his classmates in order to ask for clarification on points he did not understand. Saud (personal communication, March 29, 2010) stated that the main sources they used were the textbook and the module's Course Outline reader. When asked if Group 1 had faced difficulties in undertaking the assignment, Saud replied "Yes, everything was difficult. The calculation in general and data collection in question 2" (Appendix 34). Ibrahim (personal communication, March 28, 2011) stated that the first thing he did when he was handed the task sheet was to read the requirements before looking at the given information in order to gain insights about the topics and the required volume of work. Ibrahim and Sharon met in the Study Hubs at the business school. Interestingly, they used the whiteboard to list each step and its relevant calculations. Ibrahim argued that most of the groups faced "difficulties in decoding the scenario": i.e. "what this and that mean?" (Appendix 36). The tutor arranged a consultation meeting with the students in order to collect their enquires and then he sent an e-mail to all the students to clarify the ambiguities. Both Abdulrahman and Ibrahim utilised their professional accounting work experience when doing the assignment.

The academic social practices students performed in order to successfully complete the tasks are listed below, though they are not an exhaustive list of the

whole range of literacy and numeracy practices participants engaged with:

- Attending the *Principles of Finance* lectures and tutorial discussions regularly;
- Checking the university's e-mail on a daily basis to see if there are any assignment-related updates;
- Working with a small-size group (2-5 students) to check understanding of the task by outlining the minimum required information for each proposal, dividing roles between members, and thereby developing collaborative response to the assignment;
- Taking notes, typing in a word processor, drawing tables and graphs, using a financial calculator, and using Excel to build tables, utilise built-in formulas and to add, subtract, multiply, divide, and work out percentages;
- Reading the assignment task sheet, the module's Course Outline reader, *Principles of Finance* textbook- *Fundamentals of Financial Management* by Brigham and Houston (2009); and
- Seeking clarification from the tutor, from peers, and asking a friend to proofread the report.

In a thirty-minute unstructured interview with Group 2's tutor, Janet (personal communication, March 4, 2010), she commented that the major learning outcome the task seeks to achieve is practicing one of the two capital budgeting models- Equivalent Annual Annuities (EAA) and the Replacement Chain Model (RCM)- in order to develop their communication and problem-solving skills, thereby gaining meaningful life-long learning experience that would enable them to deal with those offering insights into their future career. She argued that most students overlooked the following aspects in their capital budgeting analysis:

- Labour ('wage expenses') and bulb costs in cash flow;
- Incorporating inflation into the capital budget;
- External factors that may affect business environment; and
- Ignoring much of the information by not reading the case study carefully.

The students needed to pay attention to the requirements of the task sheet in order to achieve the social purpose of the case study genre. The tutor also added that she did not have time to give students feedback on this task because, upon their request, they were granted one-week extension to submit the assignment which coincided with the end of the semester. Finally, the tutor commented that she assessed students' work on the basis of the procedures they used and not solely on the basis of final results, as students construct discipline-specific knowledge through these successive processes. Ibrahim (Group 3) was aware of this as he (personal communication, March 28, 2011) states "the tutor assesses the procedures and not the final numbers" which included the assumptions, calculations, the criteria used to evaluate, the decision, sensitivity analysis, and the conclusion based on the analysis. The students also needed to display cross-disciplinary knowledge in order to fulfil the social purpose of the capital budgeting management report.

5.4.2 Cross-disciplinary knowledge

The linguistic and numeracy choices the participants made are indicators of the disciplinary-specific accounting and finance knowledge they acquired and their subjective interpretation. As Baker, Street, and Tomlin (2003, p. 12) noted, numeracy events are "occasions in which a numeracy activity is integral to the nature of the participants' interactions and their interpretative processes". Cross-disciplinary knowledge was therefore required to successfully complete the capital budgeting management report. This included

- Knowledge of key technical terms and the relationships that existed between them;
- Knowledge of the literacy and numeracy skills of finance and financial accounting (e.g. gross profit, depreciations, and cash flow);
- Calculating operating cash flows, NPV, PP, IRR, and sensitivity;
- Using a financial calculator to compute basic as well as advanced financial calculations;

- Knowledge of financial spreadsheets (e.g. Excel Software) to lay out data and to measure and describe relations among theoretical aspects. This included using the function key 'fx' to set up an Excel formula;
- The ability to encode meanings by decompressing mathematical symbols and moving between representations;
- The use of multiple levels of rankshifted configurations (O'Halloran, 2000) of mathematical material and relational identifying processes;
- The ability to unpack the underlying meanings of technical terms and the mathematical ideas compressed in formulae and to translate between algebraic, numeric and geometric representations; and
- Knowledge of the procedures used in determining the financial concepts underlying capital budgeting techniques.

The students' literacy and numeracy practices in the capital budgeting management reports seem to be aligned with the graduate attributes and learning outcomes set by the Business School (5.1.4) since they engaged in the interdiscursive literacy and numeracy practices resulting from the use of accounting and finance discourses. An important aspect, though, was whether these practices were aligned with professional bodies outside the academy or not.

5.4.3 Participants' literacy social practices and future workplace and life prospects

Literacy and numeracy social practices of capital budgeting management reports required a repertoire of linguistic practices that were based on complex sets of texts. The range of the complex literacy and numeracy practices investigated in this paper lead us to enquire about the extent to which these practices resemble the functional behaviours (or 'competencies') valued in the workplace, i.e. how does what is done in this module impact upon students' perceptions of their work prospects? what are Saudi students' perceptions of the relevance of their practices to workplace situations

While groups 1 and 2 believe that they will be able to apply capital budgeting techniques in their future work, albeit minimally, Group 3 holds the opposite view. Abdulhadi (personal communication, March 22, 2010) believes that this task will not be related to his future work since he is studying Master of Commerce in accounting, and unfortunately this foundation business module is prerequisite for all Master of Commerce students. Abdulhadi initially planned to major in accounting and finance but later he decided to change his major into accounting. Abdulrahman (personal communication, March 24, 2010) argued that all capital budgeting decision criteria like NPV, IRR, and PP are analysed by computers. One of the members in Group 3, Ibrahim (personal communication, March 28, 2011) argued that capital budgeting procedures resemble 80-90% of workplace practices. As he pointed out:

I have a reason to say this. I have worked on project biddings in my company but from an accountant view and not finance. Therefore I faced the same problem in this assignment when my company wants to make biddings for four or five aircrafts. Since you're facing competitors you have to study the project biddings carefully, and the assumptions are part and parcel of this report.

The range of the complex literacy and numeracy practices showed that students seem to have benefited from this task through a number of aspects. First, as shown in Section 5.1.4, the management report task aims primarily at improving students' analytic, critical, and interpersonal communication skills through their interaction with peers. Second, students practised the schematic structure of management reports, which was elicited from the social purpose of the task sheet. Third, as Abdulrahman explained, students learnt from this course that capital budgeting requires taking into account any external factors that are difficult to quantify and may affect costs and benefits, such competition and timing. As Visscher and Stansfield (1997) argue, capital budgeting complexities arise from students' ability to recognise costs and benefits that are difficult to quantify. Fourth, they learnt the use of financial calculators and/or spreadsheets. Finally, students were apprenticed into the methods of capital budgeting techniques and their associated abstract complex technical terms. Such techniques are useful for businesses as no one can deny their practical real-world uses in assessing project expansions, funds, and portfolios at financial institutions. Moreover, students may

utilise part if not all of these techniques in their everyday practices, for example, in assessing the present value of future cash flows and whether to lease or buy a car. Since the literacy and numeracy practices students performed in order to complete the tasks resemble those valued in the workplace, they are more likely to impact upon students' work and life prospects.

Summary

In this chapter, I explored the literacy and numeracy social practices of ten ESL/EAL postgraduate students in *Principles of Finance* module, divided into three groups, encompassing five focal Saudi students and five non-focal Chinese.

The investigation of the module's graduate attributes revealed that the life-long learning skills the Business School intended to achieve include exhibiting analytical and critical thinking, high level oral/written communication skills, working in groups, and engaging in life-long learning. In order for students to develop their communication and problem-solving skills, they needed to engage in social communication skills that reflected actual workplace practices, thereby engaging in life-long learning. Group work facilitated the development of these skills as the members benefitted from each other's experiences. For example, Sharon's background knowledge in finance complemented Ibrahim's accounting and Excel knowledge. Tracey, however, preferred to work individually. Group work also gave information literate students the opportunity to learn the necessary IT skills.

The SF-MDA was used to explore the multimodal and multisemiotic language metafunctions in a key topic in the *Principles of Finance* module, capital budgeting management reports. Since management reports mostly deal with abstract, technical, non-human nouns, there were instances of agentless passives where the writers deleted the PARTICIPANTS in passive clauses because their identity was known to the reader and replaced them with nominalised abstract technical terms. The Mood choice in the reports was limited to formal declaratives. Being influenced by the general rules that prohibit the use of first person pronouns and personal experience in academic writing, the participants confidently resisted these rules in their concluding remarks to reflect their increased level of certainty. The participants' use of extraposed structures with anticipatory 'it' is in line with Hewings and Hewings' (2002) findings of similar structures in business studies research articles and students' essays.

The analysis of the experiential meaning in management reports has shown that the main processes in the three texts are implicit relational identifying processes that are factored in tables in order to identify the value of accounting and finance key terms. It was also found that the second most frequently occurring process type in the three texts is the material. A point of interest in the transitivity analysis was how the frequency of relational identifying processes changes markedly when factoring in financial tables. Most of the relational process types were used for identification, rather than location or possession. This finding indicated that for students to be considered literate in capital budgeting techniques, they needed to manage the expression of FIELD through the experiential grammar, largely represented by the implicit identifying relational processes and the structural condensations of mathematical formulae.

The discourse of financial tables' genre was highly metaphorical since its components used the implicit relationships between Token and Value to refer to the participants (technical lexis and values) in a relational identifying clause. A mental interpretation of the procedural and conceptual procedures underlying the successful completion of Group 2's capital budgeting calculations was presented and documented. The findings indicate that the experiential meaning in capital budgeting management report discourse was reconstrued as discipline-specific and the procedural and conceptual ideas are highly complex since students are required to unpack the mathematical ideas compressed in formulae and to translate between algebraic, numeric and geometric representations. This included unpacking the mathematical idea(s) compressed in a given formula (*intraclausal relation*) and relating it to the preceding and/or the following procedures (*interclausal relation*). It was also found that students' intuitive understanding of the conceptual and procedural financial processes is contingent upon their ability to expand the meaning potential by deciphering the experiential codes underlying *interclausal* relations and *intraclausal dependency* relations. The multimodal semiotic resources function both intra- and inter-semiotically to make meaning (O'Halloran, 2008). Adopting Halliday's (1985) intraclausal relations, Martinec and Salway (2005) describe this relation as being unequal since the text is dependent on the tables/graphs. Unsworth and Cléirigh (2009, p. 153) argue that the image/text data analyses of Martinec and Salway's show "a number of

inconsistencies inherent in the status systems they propose.” They question the value of determining status relations and whether this aids in the creation of coherent texts. The key features of mathematical procedures and formula in finance are the intra- and inter-semiotic meanings, the multiple levels of rankshift, the narrow range of processes (material and relational identifying), and the use of *economy* to encode meanings.

The findings of cohesion analysis showed that most of the cohesive ties in the three texts were lexical, while the second most common category was reference. This may be partly ascribed to the repetition of theoretical technical terms and mathematical procedures according to the number of proposals in each text. Logico-semantic relations of extension exist between the tables and graphs and the texts accompanying them since the latter provide new information based on the content of the former. It was also found that Kress and Van Leeuwen’s (1998, 2006) left-hand and right-hand spatial dimensions in visual texts do not always correspond to the linguistic concept of 'the Given' and 'the New' in the capital budgeting tables, as the right-hand figures can be either Given or New depending on whether they are stated in the task sheet or not.

The following chapter will present the multidimensional investigation and analysis of the literacy and numeracy practices of the Master of Commerce Saudi students in a key topic in *Management Accounting* module.

Chapter 6: Students' literacy and numeracy social practices in the *Management Accounting* module²¹

Introduction

This chapter presents a case study exploring the literacy and numeracy social practices of five students enrolled in the *Management Accounting* module, one of the accounting modules in the Master of Commerce Accounting program. While the participation of Abdulrahman, Abdullah, and Omar was focal in this study, Steve and Peter's participation was non-focal, since they were not interviewed. The main aim of this study was to investigate the *Management Accounting* graduate attributes and their practical demonstration through numeracy and literacy social events. The primary questions driving this study were: 1) to describe the *Management Accounting* literacy and numeracy practices students were expected to engage in as evidence of their successful grasp of the module, 2) to describe the literacy and numeracy practices EAL students engage with, and 3) to describe the ways in which students construct the linguistic and the conceptual *Management Accounting* knowledge, i.e. make meaning, through the production of texts.

The rest of this chapter is structured as follows: in Section 6.1, I present the epistemologies of the *Management Accounting* module. This includes a brief description of the module, the graduate attributes and learning outcomes, an overview of the curriculum of the module, and the assignment task requirements. In Section 6.2, I present the participants' experiences and their explanations of their texts and the actual practices they engaged with. In Section 6.3, I conduct an SF-MDA of the participants' texts to reveal the salient textual and linguistic patterns of management accounting discourse. This is followed by a summary of the findings.

In the sections that follow I present the multidimensional exploration and analysis of participants' academic literacy and numeracy practices in this module.

²¹ Alyousef & Mickan (forthcoming)

6.1 The Epistemologies of the *Management Accounting* module

In this section I present and discuss the epistemologies of the *Management Accounting* module which encompass a brief description of the module, the graduate attributes and learning outcomes, an overview of the curriculum of the module, and the literacy and numeracy practices students were expected to engage in to perform the assignment.

6.1.1 Description of the *Management Accounting* module

The *Management Accounting Course Profile* (*The Business School, 2010*) contained information which included 1) general course information, 2) learning objectives, 3) learning resources, 4) teaching and learning activities, 5) assessment, 6) student feedback, 7) student support, and 8) policies and guidelines. While the first seven headings relate to the descriptive genre, the last one relate to advisable rules of thumb as it deals with the university's policies and guidelines students need to read.

Course details, course staff and course timetable are presented in the General Course Information section. *Management Accounting* is a major specific 3-credit hour course for accounting students. This module introduces students to the contemporary management accounting concepts and techniques. The topics presented included 1) the role of accountants in internal decision-making, 2) tools used to design and develop costing systems, 3) preparation of budgets and their role as a planning and control tool, and 4) other decision-making tools, such as Cost-volume-profit (CVP) analysis, pricing decisions, inventory issues and costs of quality; fraud. The textbook students were required to use was *Management Accounting: Information for Creating and Managing Value* by Langfield-Smith, K., Thorne, H. and Hilton, R. (2009).

The *Management Accounting* module consisted of three literacy and numeracy events which students were expected to attend: 1) 2-hour lecture per week to provide an outline of work to be covered, 2) 1-hour tutorials per week to give opportunity for reflection on and the application of materials covered in lectures and assignments and to discuss issues relating to course matter, and 3) individual/

group assignments to provide an in-depth analysis of particular issues requiring critical thinking, self researching, problem solving, as well to enhance teamwork, social skills and written communication skills. Students were expected to devote a total of twelve hours per week to their studies: 3 hours for attending lectures and tutorials and 9 hours for self-directed study per week. Assessment in the *Management Accounting* is based on tutorials attendance (5%), mid-semester test (20%), two group assignments (20%), and an end of term exam (55%). Students need to achieve an overall minimum grade of 50% as well as at least 45% in the final exam in order to pass this course.

Having presented the module's literacy and numeracy events and practices described in the *Course Profile* in the next section, I describe its graduate attributes and learning outcomes.

6.1.2 The graduate attributes and learning outcomes of the *Management Accounting* module

The graduate attributes of the Master of Commerce *Management Accounting* module were stated in the module's *Profile*, as shown in **Table 6.1**. Unlike the *Accounting Concepts and Methods*' graduate attributes, the curriculum of this module related each graduate quality to its corresponding objective(s) or indicator(s): 1) Knowledge and Understanding, 2) Learning Outcomes and 3) Communication Skills. For example, the graduate quality that underlied students' ability to "appreciate how management accounting information can assist management in their planning, performance measurement, controlling and decision-making roles" (Learning Outcome 2.1) was the development of their skills in applying "effective, creative and innovative solutions, both independently and cooperatively, to current and future problems" (Graduate Quality 3).

The communication skills for the Master of Commerce *Management Accounting* program were stated in terms of developing students' interpersonal and communication skills, specifically students' ability to 1) examine diverse sources of information and identify which components of that information are relevant to

Table 6.1 The graduate attributes and learning outcomes of the *Management Accounting* module

Learning Objectives		Graduate Attributes
<p>1. Knowledge and Understanding: This course seeks to give an understanding of the ways in which management accountants can provide relevant information for a variety of decisions to be made in managing any organisation.</p>	<p>2. Learning Outcomes: By the end of the course students should be able to</p> <p>2.1 Appreciate how management accounting information can assist management in their planning, performance measurement, controlling and decision-making roles;</p> <p>2.2 Understand and apply the traditional (i.e., volume-based) and contemporary (i.e., ABC) approaches to product costing in a job costing environment;</p> <p>2.3 Formulate and use standards and budgets for planning and control purposes;</p> <p>2.4 Measure financial and non-financial performance in divisionalised businesses using a range of contemporary management accounting tools;</p> <p>2.5 Able to identify relevant costs for decision making purposes;</p> <p>2.6 Identify the information needs and produce financial analyses for a range of decisions—product-mix, pricing, outsourcing, special orders.</p>	<p>1. Knowledge and understanding of the content and techniques of a chosen discipline at advanced levels that are internationally recognized (Learning Objectives 1, 2, and 3).</p> <p>2. The ability to locate, analyse, evaluate and synthesise information from a wide variety of source in a planned and timely manner (Learning Objectives 2.1, 2.6, 3.1 and 3.2).</p> <p>3. An ability to apply effective, creative and innovative solutions, both independently and cooperatively, to current and future problems (Learning Objective 2.1).</p> <p>4. Skills of a high order in interpersonal, teamwork and communication (Learning Objective 3.3).</p> <p>5. A proficiency in the appropriate use of contemporary technologies (Learning Objectives 2.2, 2.3, 2.4 and 2.5).</p>
<p>3. Communication Skills: The continuing development of good interpersonal and communication skills is important for Commerce graduates. This course seeks to develop students' abilities to:</p> <p>3.1 <u>Examine</u> diverse sources of information and <u>identify</u> which components of that information are relevant to the decision to be taken.</p> <p>3.2 <u>Present</u> information pertaining to accounting, management, and social issues in a manner that will assist managers in their decision-making role.</p> <p>3.3 <u>Identify</u> and <u>discuss</u> relevant information in a group setting.</p>		

The Master of Commerce *Management Accounting Course Profile* (The Business School, 2010, pp. 2-3).

the decision to be taken; 2) present information pertaining to accounting, management, and social issues in a manner that will assist managers in their decision-making role; and 3) identify and discuss relevant information in a group setting.

Interpersonal communication skills competencies were measured in terms of students' ability to examine, identify, present, and discuss information. As stated

in Chapter 4 (Section 4.1.2), students were advised to refer to the *Communications Skills Guide for Business Students* (Hancock, 2006, p. 43) in order to know the requirements of each of these directives. For example, discussing an issue requires writers to give both sides of an argument and then their own opinion. The Guide advised students to ascertain whether their tutor intended this meaning or something else. Generally speaking, assignment task sheets usually included detailed instructions on what students were expected to do.

In the next section I investigate whether the learning outcomes presented above are reflected in the content of the module's curriculum.

6.1.3 The curriculum of the *Management Accounting* module

The Master of Commerce *Management Accounting* module covered 12 topics during the semester. Each week lecturers/tutors presented a given topic. In the following table, I map the topics onto their corresponding learning outcome(s).

Table 6.2 below shows the topics covered in the Master of Commerce *Management Accounting* module, the semiotic resources and their underlying learning outcomes

Table 6.2 Curriculum of the *Management Accounting* module

Week	Topic	Learning Outcomes (Table 6.1 above)
1.	1. Course Introduction 2. Introduction to Management Accounting	Appreciate how management accounting information can assist management in their planning, performance measurement, controlling and decision-making roles (Learning Outcome 2.1)
2.	1. Introduction to Cost Accounting 2. Cost Behaviour	Understand and apply the traditional (i.e., volume-based) and contemporary (i.e., ABC) approaches to product costing in a job costing environment. (Learning Outcome 2.2)
3.	1. Product Costing – Cost Flows & Overheads 2. Product Costing – Job Costing	
4.	1. Process & Operation Costing 2. Service Costing	
5.	1. Overhead Costs 2. Activity-Based Costing	
6.	Financial Performance Measures	
7.	Budgeting	Formulate and use standards and budgets for planning and control purposes.

Week	Topic	Learning Outcomes (Table 6.1 above)
8.	1. Standard Cost – DM & DL 2. Standard Cost – MOH	(Learning Outcome 2.3) Able to identify relevant costs for decision making purposes. (Learning Outcome 2.5)
9.	1. Financial Performance Reports & Transfer Pricing 2. Managing Suppliers & Customers	Measure financial and non-financial performance in divisionalised businesses using a range of contemporary management accounting tools. (Learning Outcome 2.4)
10.	1. Cost Volume Profit Analysis 2. Tactical Decision making	Able to identify relevant costs for decision making purposes. (Learning Outcome 2.5)
11.	1. Pricing and Product Mix 2. SELT, Exam review	Identify the information needs and produce financial analyses for a range of decisions—product-mix, pricing, outsourcing, special orders. (Learning Outcome 2.6)

Adapted from the *Management Accounting* module's Course Outline reader (The Business School, 2010, pp. 2-3)

The table shows that the six learning outcomes stated earlier (Table 6.1) seem to be addressed in the lectures/tutorials' content. I investigated in the next section the requirements of assignment one by describing the requirements in the task sheet in terms of their rhetorical structure and whether they matched the learning outcomes stated in the *Course Profile*.

6.1.4 The assignment task sheet requirements

The task sheet defined the requirements students needed to achieve in order to complete the group assignment. It consisted of four pages, excluding the task's guidelines which include notes such as the submission date, the importance of performing this task within a group of no more than three students, and signing the acknowledgement of the university's policy on plagiarism. The literacy requirements were clearly stated in the four pages in terms of three tables, seven paragraphs, and ten requirements. Students were required to provide supporting schedules 1-9 that were needed to compile a budgeted balance sheet (requirement 10), as shown in **Table 6.3**, which also lists the distribution of marks.

Table 6.3 The requirements of the assignment

No.	Supporting schedules	Marks
1.	Sales budget	4
2.	Cash receipts budget	4
3.	Production budget	6
4.	Direct material budget	10
5.	Cash disbursements budget	6
6.	Summary cash budget	6
7.	Budgeted schedule of cost of goods manufactured and sold	4
8.	Budgeted profit and loss statement	3
9.	Budgeted statement of retain earnings	3
10.	Budgeted balance sheet	4
	Total	50

The purpose for using language in this task was to construct nine supporting schedules that were needed to compile the ‘Budgeted Balance Sheet’. The three tables provided information for working out the budgets. Abdulrahman, Abdullah and Omar’s assignment task sheets covered topic seven on ‘Budgeting’. The learning outcomes (cf. **Table 6.1**) of this topic are:

- The ability to “Formulate and use standards and budgets for planning and control purposes. (Learning Outcome 2.3)”.
- The ability to identify relevant costs for decision making purposes. (Learning Outcome 2.5)

Unlike the accounting and finance assignments (Chapters 4 & 5), this task sheet did not constrain students in terms of space.

Having introduced the conceptual and the linguistic knowledge and skills students were required to master to meet the demands, next I present the actual practices students engaged with to complete the assignment and their talk around the text.

6.2 The practices EAL participants engaged with to complete the assignment and their talk around the text

The two texts were written by two groups: Group 1, Abdulrahman, Abdullah and Steve, and Group 2, Omar and Peter. Both groups received a good grade. Group 1

received 45 out of 50 marks and Group 2 received 45.50. Three structured interviews (Appendix 5) were conducted with Abdulrahman, Abdullah and Omar in order to elicit their perceptions and experiences in the *Management Accounting* module. The three interviews were transcribed (Appendices 53-55). Abdulrahman attended three 2-hour meetings with his group members. Omar organised three 3-hour meetings with Peter in order to accomplish the assignment together.

As stated earlier, the focus (or topic) of the task sheet was to produce nine schedules that lead to a budgeted balance sheet. As Abdullah (personal communication, March 19, 2011) stated, “in management we prepare next year’s budgeted balance sheets to meet expected obligations” [Appendix 54, Lines 96-98]. For examples, cash receipts compared income against expenses and as to whether a company would need to resort to funding or not. The first literacy practice the two groups engaged with was to examine and analyse language data in the task sheet. They need to exhibit their ability to “examine diverse sources of information and identify which components of that information are relevant to the decision to be taken” (**Table 6.1**). They then decided to meet in order to discuss and plan the literacy practices each one would contribute. Although not required in the task sheet, Omar (personal communication, March 13, 2011) stated that his group decided to use text to accompany the tables in order to elucidate and provide further explanations of the highly condensed accounting numeracy calculations. He added that this practice 1) shows the tutor that they fully understood the content of the tables and 2) that it relates to real life professional situations since, in addition to tables, they would be required to present textual explanations to their manager. Group 2 divided the text writing job between them so everyone would comment on seven tables, though Peter helped Omar by proofreading his comments and providing feedback where applicable. As the Group 2 text was redundant the lecturer marked only the tabulated schedules, as shown in the sample below:

Summary Cash budget					
	Q1	Cash	Q3	Q4	Total
Beginning cash balance	\$95,000	\$53,000	\$57,250	\$107,750	\$95,000
Add: cash collections	1,210,000	1,335,000	1,460,000	1,585,000	5,590,000
Total cash available	1,305,000	1,388,000	1,517,250	1,692,750	5,903,000
Less: disbursements					
Materials	(541,000)	(596,000)	(651,000)	(706,000)	(2,494,000)
Direct labour	(204,000)	(224,000)	(244,000)	(264,000)	(936,000)
Mfg. Overhead					
Indirect material	(10,200)	(11,200)	(12,200)	(13,200)	(46,800)
Indirect labor	(40,800)	(44,800)	(48,800)	(52,800)	(187,200)
Other overheads	(31,000)	(36,000)	(41,000)	(46,000)	(154,000)
Selling and admin	(100,000)	(100,000)	(100,000)	(100,000)	(400,000)
Equipment purchase	(1,000,000)	0	0	0	(1,000,000)
Dividends	(50,000)	(50,000)	(50,000)	(50,000)	(200,000)
Total disbursements	(1,977,000)	(1,062,000)	(1,147,000)	(1,232,000)	(5,418,000)
Excess(deficiency) of Cash available over disbursements	(672,000)	326,000	370,250	460,750	485,000
Financing:					
Borrowing	1,000,000	0	0	0	1,000,000
Repayments	(250,000)	(250,000)	(250,000)	(250,000)	(1,000,000)
Interest	(25,000)	(18,750)	(12,500)	(6,250)	(62,500)
Total financing	725,000	(268,750)	(262,500)	(256,250)	(62,500)
Ending cash balance	\$53,000	\$57,250	\$107,750	\$204,500	\$204,500

7



Figure 6.1 A sample from Group's 2 submitted assignment

The group received a full mark on requirement six (**Table 6.3**), i.e. constructing a Summary Cash Budget schedule. Similarly, Group 1 added a MEMO which was considered redundant as well. Abdullah (personal communication, March 19, 2011) argued that although the task sheet did not require them to write a MEMO, they strongly believed that in workplace settings they would normally attach a MEMO along with the ten budgeting schedules when presenting the findings to a manager. As he stated, "imagine you are in a company and your manager asks you to do budgeting calculations, will you give him the schedules without at least writing an introduction mentioning what you have done?" [Appendix 54, Lines 22-25]. Unfortunately, the tutor did not mark the MEMO or the footnotes in each schedule as they were not requested in the task sheet.

The analysis of data revealed all the participants were influenced by their previous literacy experiences. Chandrasoma (2007, p. 121) coins the term 'micro-disciplinary analysis' which included a focus on "how students make use of knowledge capital from diverse sources while producing a text". Abdullah practiced Excel spreadsheets when he worked in a company after he finished his undergraduate study. Abdulrahman (personal communication, March 17, 2011) argued that while doing this assignment he was influenced by his previous accounting literacy and numeracy practices when he worked in a bank after

completing undergraduate studies. Upon asking Omar if his previous literacy and numeracy practices influenced him while doing this assignment, he noted that part of the IELTS helped him write explanations to the tables. Omar here is referring to the first task in the IELTS writing component, in which students are required to write a 150-words report to describe the information or the process exemplified in the illustrative line graph, bar graph, pie chart, table or diagram. Both Abdulrahman and Omar agreed that the lecture's PowerPoint® Presentation on 'Budgeting' was very helpful for them as it included examples similar to the requirements in this task sheet. Abdulrahman stated that the module's Course Outline reader contained examples on budgeting that 90% resembled this task. The re-contextualisation of generalised and abstracted financial schedules of discourse provided the group with significant input and assistance. Historical and social connections were re-contextualised in the current discursive setting (Günthner & Knoblauch, 1995).

Abdulrahman faced some difficulties related to compounding the interest rate and using Excel spreadsheets. As he puts it, "my experience [in Excel] is rudimentary" [Appendix 53, Line 68]. Abdullah and Steve had to revise his Excel calculations and to input the required finance formulas. Abdullah (personal communication, March 19, 2011) argued that his group faced only one difficulty. Upon receiving the tutor's feedback, they realised that they had to add back the depreciation amount to their calculations. The tutor informed them that they should not include this category in the schedules since it was stated in the fourth page of the task that "costs will be paid in cash during the quarter incurred except for the depreciation charges". He sent an e-mail to the lecturer to make sure if they had to add depreciation to their calculations or not and, unfortunately, he did not receive a reply. He then decided to post his enquiry in the module's discussion forum and the tutor sent a general message to all the students. Group 2 also did not have any difficulties in undertaking the task as Omar states, "it was very easy task and the writing requirements were very clear except for one thing; we sent an e-mail to the lecturer to make sure if we had to add depreciation to our calculations or not, and he replied negatively" [Appendix 55, Lines 42-44].

In response to the question ‘what is the role of this kind of task in real life?’ Omar argues “this task was helpful both in real life and in the workplace, for example, we can predict sales based on past quarters’ performance” [Appendix 55, Lines 20-21]. Similarly, Abdulrahman stated that everyone had to frequently assess his expenses against the financial plans, though in the workplace more detailed criteria is used such as labor cost, material, etc.

While Omar agreed that this task would relate to their future workplace practices, Abdulrahman and Abdullah argued that this was not always the case, as new issues and situations may not match what they encountered in the academic context. Abdullah contended that this practice does not resemble workplace practices and, as postgraduates, “we have to follow workplace management accounting practices” [Appendix 54, Lines 64-65].

Having described the participants’ actual literacy and numeracy practices and their experiences in the *Management Accounting* module, in the next section, I conduct an SF-MDA of key topics in this module.

6.3 The SF-MDA of the *Management Accounting* discourse

Students constructed disciplinary-specific management accounting knowledge through the meaning-making processes which involved the interaction of the experiential, the interpersonal, and the textual meanings which were investigated and analysed here. The SF-MDA of these meanings sought to provide an explanatory account of how *Management Accounting* texts were typically constructed and how they related to their context of use, represented by the epistemologies and the social purposes.

The total number of words in Group 1’s (Abdulrahman, Abdullah and Steve) text was 2024 words (1416 in tables and 608 in the footnotes and the MEMO) while it was 4239 words in Group 2’s (Omar and Peter) text (1495 in tables and 2744 in the explanatory text). Tables comprised 69.96% of the discourse in Group 1’s text, in contrast to only 35.26% for Group 2, which preferred to further elucidate and provide explanations for the highly condensed accounting numeracy

calculations provided in the tables. The following table compares numeracy representations in the two groups' texts:

Table 6.4 A pivot table of numeracy representations in the participants' texts

Group	Words			Tables	Footnotes
	Tables	Text	Total		
1. Abdulrahman , Abdullah & Steve	1416	608	2024	14	26
2. Omar and Peter	1495	2744	4239	12	0

Group 1 concisely presented its findings in 14 tables, in addition to a 206-word MEMO and 402-word footnotes. The generic purpose of the business MEMO is to manage intra-organisational communication and memory. The major communicative function of this genre was to outline the information provided in the Budgeted Balance Sheet and the assumptions made in the calculations. Group 1 preferred to adopt workplace practices by submitting the typewritten MEMO, though it did not contain a subject line.

MEMO

15 October 2010

Dear Uncle George,

Please find attached the documentation to support the finance application for the purchase of the industrial robot. Included is the Budgeted Balance Sheet for the period ending 31 December 2011 and supporting schedules used in the calculations.

Purchase of the industrial robot at a cost of \$1,000,000 will occur on January 2, 2011. Financing for the proposal is assumed over a one year period, at a 10% per annum interest rate. Repayment of the financing amount is expected to occur within the year, and consists of four equal quarterly instalments. Interest payments will be quarterly as well.

Other assumptions:

Sales in the fourth quarter of 2010 are expected to be 50,000 S frames and 40,000 L frames. Sales in each product line over the next two years are predicted to grow by 5,000 units each quarter over the previous quarter.

It anticipated that dividends of \$50,000 will be declared and paid in cash each quarter of financial year 2011.

It will take most of the year to train personnel and reorganise the production process in order to gain the full benefits of the new equipment, therefore no depreciation of the asset is accounted for during FY 2011.

Best Regards,

Figure 6.2 A snapshot of Group 1's MEMO

As shown in the figure above, this genre type includes the opening salutation "Dear Uncle George", two introductory paragraphs, the heading "Other assumptions", and the closing remark "Best regards". The opening paragraphs

adhered to the guidelines set in the *Communications Skills Guide for Business Students* (Hancock, 2006, p. 25) as each one introduced an idea. The body “Other assumptions” briefly introduced the calculations needed for decision making, based on the attached Budgeted Balance Sheet and the supporting schedules.

The experiential metafunction realising the field of discourse was represented in the text by the lexical choices participants make within the TRANSITIVITY system, that is, the types of processes, the participants in those processes and the representation of actors. The transitivity analysis (Appendix 56-57) revealed the students’ use of the management accounting language and their understanding of the field through the selection of the discipline’s technical lexis for participants, process types, and circumstances. The following table presents the process types used by Abdulrahman, Abdullah and Steve (Group 1) and Omar and Peter (Group 2).

Table 6.5 The frequency of process types in the two groups’ written assignments

Process Type		Instances in Group 1 Text		Instances in Group 2 Text	
		Absolute values	Values in percentages	Absolute values	Values in percentages
Material	Explicit	55	9.67%	205	19.83%
	Implicit	0	0.00%	0	0.00%
	Subtotal	55	9.67%	205	19.83%
Relational Identifying	Explicit	19	3.34%	82	7.93%
	Implicit	476	83.66%	686	66.35%
	Subtotal	495	87.00%	768	74.28%
Relational	Attributive	7	1.23%	6	0.58%
Behavioural		2	0.35%	3	0.29%
Existential		0	0.00%	6	0.58%
Mental	Explicit	9	1.58%	45	4.35%
	Implicit	0	0.00%	0	0.00%
	Subtotal	9	1.58%	45	4.35%
Verbal		1	0.17%	1	0.09%
Total		569	100%	1034	100%

The transitivity analysis of the experiential metafunction revealed that over 74% of the process types in the two texts were relational identifying, while the second most frequently occurring process type was material. The analysis of the two texts revealed that over sixty-five per cent of the relational identifying processes were

implicitly (cf. 3.8.2 & 4.3.1) expressed in financial tables. These processes were used to identify the value of accounting key terms. The Group 2 multimodal text had more instances of material (19.83%) and mental (4.35%) process types than did Group 1, 9.67% and 1.58% respectively. As Group 1 used more relational identifying processes than Group 2, it was not surprising to see it using less material and mental processes. In addition, 7.93% of the explicit relational identifying processes in the Group 2 assignment occurred in the text, in contrast to only 3.34% for Group 1. Relational attributive processes were minimally used in the two texts. As in the accounting and finance texts, temporal and spatial circumstances were the most common types in the two groups' texts. There were instances in which processes such as 'calculate' and 'show' were relational identifying, rather than material or mental processes, due to the existence of modality and the explicit marker of Value 'as'.

Table 6.6 Examples of relational processes used to assign a new function to the participant

Group 1	5. and		are treated	as indirect materials.
		Token: Identifier	Pr: Rel, Ident	Value: Identified
	24.		M) Calculated	as 20% of 1 st quarter sales for 2011.
		Token: Identifier	Pr: Rel, Ident	Value: Identified
Group 2	51.	Beginning inventory	is shown	as the ending inventory for the previous quarter.
		Token: Identifier	Pr: Rel, Ident	Value: Identified
	58.	Beginning inventory	is shown	as the ending inventory for the previous quarter.
		Token: Identifier	Pr: Rel, Ident	Value: Identified
	86.	The beginning inventory	is calculated	as the ending inventory for the previous quarter.
		Token: Identifier	Pr: Rel, Ident	Value: Identified
	110.	The beginning inventory	is calculated	as the ending inventory for the previous quarter.
		Token: Identifier	Pr: Rel, Ident	Value: Identified
	182. For Q1,	this	is calculated	as beginning inventory - glass sheets - for both the S and L lines, multiplied by the price per sheet
		Token: Identifier	Pr: Rel, Ident	Value: Identified
	194. For Q1,	this	is calculated	as ending inventory - glass sheets- for both the S and L lines, multiplied by the price per sheet
		Token: Identifier	Pr: Rel, Ident	Value: Identified
293.	Accounts payable	is calculated	as 20% of \$717,000,	
	Token: Identifier	Pr: Rel, Ident	Value: Identified	

Appendices 56 & 57

The nuclear participant, the Assigner, is unspecified in the passive constructions above. As mentioned in Sections 4.3.2 and 5.2.1 in the previous two chapters, passive clauses are primarily used in accounting discourse to emphasise the process rather than the agent who is performing the action. The most frequently used key words in each text were calculated, using *Textalyser* (2004).

Table 6.7 Frequency count and top key words in the two texts

Group 1 Text (2024 words)			Group 2 Text (4239 words)		
Word	Instances	Frequency	Word	Instances	Frequency
Qtr/ quarter	64	7.20%	Quarter/Q1/Q2/Q3/Q4	186	10.47%
Total	27	3.1%	Total	71	4%
Inventory	21	2.4%	Cash	50	2.8%
Cost	20	2.3%	Table	48	2.7%
Sales	19	2.1%	Inventory	44	2.5%
Per	17	1.9%	Cost	40	2.3%
Production	16	1.8%	Sales	37	2.1%
Units	16	1.8%	Shown	37	2.1%
Goods	15	1.7%	Units	36	2%
Cash	15	1.7%	Per	32	1.8%

Both Groups 1 and 2 used the spelling variants Qtr and Q for the word Quarter respectively. As the two texts shared a common field, 8 out of the 10 most frequently used key words in the texts were similar, though the frequency of occurrence for each word in the Group 2's text exceeded Group 1. This was ascribed to the fact that the Group 2's text contained 2215 more words than did Group 1. The accompanying text in Group 2 writing was subordinate to the tables through the use of endophoric markers (colon, see Table, as shown in the Table). As a result, Group 2 used the words 'table' 48 times and 'shown' 37 times in contrast to none for Group 1. The transitivity analysis (Appendices 56-57) revealed that the most frequently used key words in the two texts take the participant roles of Token and Value. The participant roles in the two texts were all occupied by abstract inanimate entities (e.g. quarter, total, cash, inventory, sales, and production). Using *Textalyser* (2004) the two groups' texts were analysed for lexical density, as shown below:

Table 6.8 Lexical density in the participants' written assignment

Participant	Abdulrahman, Abdullah & Steve, Text 1	Omar and Peter, Text 2
Category		
No. of lexical items	2024	4239
Total lexical density	26.9%	19%

The analysis of the lexical load of content words in the two texts showed that Group 1's text had a higher lexical density load (26.9%) than Group 2's text (19%), though the lexical density was low in the two texts. As the presentation of the visual semiotic resources was in image format in Group 2's text, they were not included in the word count.

Morgan (2006, p. 220) states that every instance of mathematical communication is “conceived to involve not only signification of mathematical concepts and relationships but also interpersonal meanings, attitudes and beliefs”. The two texts used only one Mood type, declarative statements that provided information. A key feature of the management accounting discourse is the use of paratactic clause complexes supported by hypotactic clauses used to clarify or extend meaning, as in the example below:

For the S line, Q1 2011 sales were calculated at 55,000, // based on the instructions // where 50,000 units were budgeted in Q4 2010 // and were projected to then grow at 50,000 units per quarter. // (Appendix 57, Lines 3-6)

Two forward slashes are used here as a clause boundary to chunk the clause complex into ranking clauses. The above example shows a clause complex with one paratactic (equal status) nexus: *Q1 2011 sales were calculated at 55,000*. This clause was supported by four hypotactically related dependent clauses. The first was a verificative, used to clarify the information in the rest of the sentence. The second also clarified the bases for the calculations. The third was a continuing dependent clause that extended the meaning by presenting given information. The last one (“*and were projected ...*”) also extended the meaning through the use of a logico-semantic relation. Another finding was the use of the imperatives ADD and LESS, as in “Add: Ending finished goods inventory” (Text 1, Appendix 56) and

“Less: beginning inventory” (Text 2, Appendix 57), though their occurrence was rare. The two groups’ commitments toward the propositional information were expressed by the Finite modal operators that express probability or obligation. I outlined the frequency of occurrence of modalisation and modulation in the two texts in the following table:

Table 6.9 Modalisation and modulation in the management accounting texts

	Modalisation			Modulation					Total	Percentage
	Must= probability	May/ Might= option, choice	Should= recommendation	Should= Obligation,	Can, could= it is possible	Will	Must=Obligation, requirement	Has/ Have to		
Abdulrahman, Abdullah & Steve	0	0	0	0	0	8	0	0	8	0.89%
Omar & Peter	0	0	0	0	2	0	1	0	3	0.23%

Abdulrahman, Abdullah and Steve’s group used only the modal verbal operator ‘will’ eight times to show their confidence of the results of the management accounting schedules. While four instances occurred in the supporting schedules’ footnotes, the other four were used in the MEMO. Instances of modulation in the two groups’ texts are shown in **Table 6.10**. The modal auxiliary ‘will’ was used most frequently by Abdulrahman, Abdullah and Steve’s group to outline the information found in the management accounting schedules. Abdulrahman, Abdullah and Steve’s group used the intensifier ‘*completely*’ to express affect towards what they are talking about. Both groups used the modal verb ‘require’ as a means to disguise or mitigate their command, and which is a congruent realisation of modulation, as in, “20% of next quarter’s glass sheet production needs is required in ending raw materials inventory” (Appendix 56, Line 26) and “in order to calculate the *required* units in the production budget, sales were recorded in accordance with the calculations in Table 1” (Appendix 57, Line 46).

Table 6.10 Instances of modulation in the two groups' texts

Group	Adjunct: Textual	Subject	Adjunct: Mood	Finite: modulated	Predicator	Complement	Adjunct : circumstantial
	Mood Block			Residue			
Group 1: Abdulrahman, Abdullah & Steve	f)	Sales for each product		will	grow	by 5000 units	each quarter.
	g)	Product sales price		will	remain	constant	over 2011.
	h) ...that	the ending account receivables 2010		will	be	completely collected.	
	z)	it		will	take	most of year (2011)	to train staff and gain benefits in 2012.
		Purchase of the industrial robot at a cost of \$1,000,000		will	occur	on January 2, 2011.	
		Interest payments		will	be	Quarterly	as well.
		The dividends of \$ 50,000		will	be declared and paid	in cash	each quarter of financial year 2011
Group 2: Omar and Peter		It		will	take	most of the year	to train personnel.
		we		must then	adjust		for financing costs.
		These costs		can be	explained		as follows:
	Each of the items in the Balance Sheet		can be	explained			as follows:

Omar and Peter's group employed the Finite modal verbal operators 'must' once and 'can' two times. In addition, they used the first person pronoun which is usually used to signal authorial stance towards a proposition in order to describe their method of investigation, as in "to complete the summary cash budget, we must then adjust for financing costs" (Appendix 57, Line 158) and "to work out the cost of goods manufactured for each quarter, we simply plug in the figures calculated in the COGM schedule" (Appendix 57, Line 218).

The textual function realising the mode of discourse was represented in the two assignments by the thematic and the cohesive structures which, with the aid of the experiential and the interpersonal choices, organised this socio-cultural event. The cohesive devices used in the two texts are analysed in Appendices 58-59. **Table**

6.11 compares the numbers and percentages of the different subcategories of grammatical and lexical cohesive ties identified in the two texts.

Table 6.11 Types of cohesive ties in the two texts

Category	Sub-Category	Type of tie	Group 1's Text		Group 2's Text	
			Total	Percentage	Total	Percentage
Conjunctives	Elaboration	Appositive	1	0.11%	2	0.08%
		Clarification	2	0.22%	20	0.90%
	Extension	Additive	6	0.67%	25	1.12%
		Variation	0	0.00%	0	0.00%
	Enhancement	Temporal	1	0.11%	25	1.12%
		Manner/comparative	1	0.11%	37	1.65%
		Causal	3	0.33%	7	0.31%
Concessive/conditional		0	0.00%	2	0.08%	
	Subtotal	14	1.55%	118	5.26%	
Substitution & Ellipsis	Substitution	0	0.00%	0	0.00%	
	Ellipsis	1	0.11%	3	0.13%	
	Subtotal	1	0.11%	3	0.13%	
Lexical Cohesion		Repetition	666	74.17%	1540	68.68%
		Synonym	1	0.11%	10	0.44%
		Hyponym	65	7.23%	68	3.04%
		Hypernym	15	1.67%	11	0.49%
		Meronym	98	10.92%	125	5.58%
		Antonym	23	2.56%	36	1.61%
		Subtotal	868	96.66%	1790	79.84%
Reference		Demonstrative	0	0.00%	41	1.83%
		Definite	14	1.57%	208	9.28%
		Comparative	0	0.00%	5	0.22%
		Pronouns	1	0.11%	13	0.58%
		Possessive	0	0.00%	0	0.00%
		Anaphoric	0	0.00%	11	0.49%
		Cataphoric	0	0.00%	53	2.37%
		Subtotal	15	1.68%	331	14.77%
	Total	898	100.00%	2242	100.00%	

Lexical cohesion was the most frequently occurring cohesive type in the two texts (96.66% and 79.84% of the total cohesive devices), and in particular repetition of the same lexical items (74.17% and 68.68%), while the second most frequently occurring cohesive type was reference (1.68% and 14.77%). Most of the repetitions in text 1 occurred in tables (612 out of the 666 instances or 91.89%); while in text 2 they mostly occurred in the text (922 out of the 1540 instances or

59.87%). This is ascribed to the fact that Group 1's text, unlike Group 2, was comprised of only tables, footnotes and a 206-word MEMO. As a result this group used fewer reference cohesive devices than did Group 2, 1.68% and 14.77% respectively. Group 2's explanatory text was considered redundant as the task sheet required students "to provide supporting schedules 1-9 that are needed to compile a budgeted balance sheet" (cf. 6.1.4). It should be noted here that both groups used only one sub-component of extension devices, namely the additive conjunctives. The frequency of the extending sub-component additive conjunctions in the two groups' texts was higher than the other sub-components of elaborating and enhancing, as in:

c) Other raw materials, such as [C: Elaboration: Appos.] cardboard backing, are insignificant in cost and [C: Extension: Add.] are treated as indirect materials. (Group 1's text, Appendix 58, no. 4)

Z) No depreciation for the robot in 2011 because [C: Enhancement: Caus.] it will take most of year (2011) to train staff and [C: Extension: Add.] gain benefits in 2012. (Group 1's text, Appendix 58, no. 61)

For [C: Elaboration: Clari.] the S line, Q1 2011 sales were calculated at 55,000, based on the instructions where 50,000 units were budgeted in Q4 2010 and [C: Extension: Add.] were projected to then [C: Enhancement: Temp.] grow at 5,000 units per quarter. (Group 2's text, Appendix 59, no. 3)

In addition, [C: Extension: Add.] 20% of the credit sales from the previous quarter were included, which amounted to \$60,000. (Group 2's text, Appendix 59, no. 16)

Group 2 used more temporal and manner conjunctive devices (1.12% and 1.65% respectively) than did Group 1 (only .11% for each device type). Enhancement devices were used to expand the proposition by providing circumstantial details such as time, place, manner, cause or condition. The most frequent reference type in the two texts was the definite article (1.57% and 9.28%). Halliday and Hasan (1976, p. 74) argue that the definite article 'the' "creates a link between the sentence in which it itself occurs and that containing the referential information", though, unlike the demonstratives, it contains no specifying element of its own. Whereas Group 1's text lacked the use of demonstrative devices, they occurred 41

times in Group 2's text in order to refer to the Rheme in the previous clauses. The group employed nominalisations in subject-head position and in conjunction with the deictic *this* (e.g. “*this process*”, Appendix 59), which are called *retrospective labels* as they do not only contribute to the organisation of the text, but also have the potential to reveal the writer's opinion or evaluation within the text (Baratta, 2010): e.g. *This process* was then repeated for each of the following quarters in the 2011 year/ *This process* is repeated for each subsequent quarter.

The frequency of occurrence of the lexical and grammatical cohesive devices in text 2 exceeded text 1 by 150%. This is not surprising since the length of both texts was not comparable. In addition, rather than using the synonyms *total*, *sum*, and *added up to*, group 2 excessively repeated the word “*amount(ed) to*” forty-nine times in the text. The cohesive density index was higher in Group 2's text than in Group 1's.

Table 6.12 Cohesive density index in the two texts

Participant	Abdulrahman, Abdullah & Steve, Text 1	Omar and Peter, Text 2
Word count	2024	4239
Number of ties	898	2242
Ratio of ties/100 words	44.36%	52.88%

This index revealed that Omar and Peter's text contained higher frequency of cohesive devices (52.88 ties per 100 words) than Abdulrahman, Abdullah and Steve's text (44.36 ties per 100 words). This is not surprising when taking into consideration text length.

Theme contributes to the cohesion and coherence of the texts. The analysis of the development of Theme and Information structure in the orthographic texts (Appendix 60-61) revealed 12 instances in Text 1 compared with only 3 in Text 2. Linear (or ‘sequential’/‘zig-zag’) thematic progression pattern (the Theme follows that of the rheme element of the preceding sentence) rarely occurred in the two texts. The reiteration of a Theme serves to provide additional information or make further explanation. Its most occurrence was found in the financial tables. Like accounting and finance tables, a relational identifying clause in *Management*

Accounting schedules has a *thematic equative* structure (Halliday, 1967) that is imbued with thematic nominalisations in it. As Group 1's text was comprised of only tables, it had more instances of this structure type than Group 2 (Appendices 56-57). For example, the meaning of the clause "manufacturing overhead Qtr1 \$ 102,000.00" is something like "the sum of the manufacturing overhead expenses during the first quarter is \$ 102,000.00" (Appendix 56).

The topical Themes in the two texts were often preceded by elements derived from the textual system, the conjunctions 'then' and 'in addition', that linked paratactic clause complexes. Linear thematic progression is expected in expository accounting genre as each sentence logically relates to what has preceded. Conjunctions though did not fill the Theme position by themselves since their main function is relating the message to the immediate context of the preceding clause. Examples of thematic progression in the two texts are shown in **Table 6.13**. The Theme in the first two examples in text 1 is marked as it is announced explicitly by means of the expression *for*. The deictic element *which* in text 1 is thematic as it serves two functions: as a marker of some special status of the clause (i.e. textual) and as an element in the experiential structure (i.e. topical).

Table 6.13 Examples of thematic progression in the two groups' texts

Text	Theme	Rheme	Theme Type
One	<i>For the S line,</i>	<i>Q1 2011 sales</i> were calculated at 55,000, based on	
	<i>For the L line,</i>	<i>Q1 2011 sales</i> were calculated at 45,000, based on	Reiteration or parallel progression pattern
	These calculations	resulted in total projected sales revenue ...	Linear (or 'sequential' or 'zig-zag') progression pattern
	The results	are shown below in Table 1:	Linear (or 'sequential' or 'zig-zag') progression pattern
	40% of Q1 sales	were paid in cash, resulting in a sum of \$220,000.	Reiteration or parallel progression pattern
	In addition, 20% of the credit sales from the previous quarter	were included,	Reiteration or parallel progression pattern
	which	amounted to \$60,000.	Reiteration or parallel progression pattern
	We then	deduct interest expense,	

Text	Theme	Rheme	Theme Type
	which	is taken from the summary cash budget in Table 7.	Linear (or 'sequential' or 'zig-zag') progression pattern
	Deducting <i>these expenses</i> from gross profit	gives a quarterly net income figure	Linear (or 'sequential' or 'zig-zag') progression pattern
	We then	add the budgeted figures for the 2011 year	
	which	gives a total of \$4,691,300.	Linear (or 'sequential' or 'zig-zag') progression pattern
	We then	allow for \$200,000 of dividends to be paid, ...	Reiteration or parallel progression pattern
	Accounts payable	is calculated as 20% of \$717,000,	
	which	equals \$143,400.	Linear (or 'sequential' or 'zig-zag') progression pattern
	80% of purchases	are paid for in the quarter	
	in which	they are made,	Linear (or 'sequential' or 'zig-zag') progression pattern
	while the remaining 20%	are paid in the next quarter.	
	The figure of \$717,000	is taken from the direct materials budget ...	Linear (or 'sequential' or 'zig-zag') progression pattern
Two	Financing for the proposal	is assumed over a one year period, at a 10% per annum interest rate.	
	Repayment of the <i>financing</i> amount	is expected to occur within the year, and	Reiteration or parallel progression pattern
	Sales in the fourth quarter of 2010	are expected to be 50,000 S frames and 40,000 L frames.	
	<i>Sales</i> in each product line over the next two years	are predicted to grow by 5,000 units each quarter over the previous quarter.	Reiteration or parallel progression pattern
	f) Sales for each product	will grow by 5000 units each quarter.	
	g) <i>Product sales</i> price	will remain constant over 2011.	Reiteration or parallel progression pattern

Halliday (2005, pp. 270-271) states that New is realised by “tonic prominence” and by “what is made prominent (by the speaker) to the listener”; however, Rheme is not always associated with new in financial tables. It can be argued when the numerical value in financial tables is elicited from the task sheet both the Theme and the Rheme are associated with Given information, whereas when the Value is not mentioned in the task sheet the Rheme is associated with New.

Like the accounting discourse (Chapter 4), the topical Themes were both simple nominal groups- i.e. those in the sales budget, cash receipts budget , cash disbursements budget , summary cash budget , and the Budgeted balance sheet- and lengthy nominal groups with a common noun as head often involving several nominalisations, linked through modification. Examples of lengthy nominal groups with a common noun as head are:

3- Total Manufacturing Cost Per Unit (Text 1)

4- Add: desired end. Inventory. (Text 2)

Both gerunds and derived nominalisations (cf. 4.3.2) were annotated (Appendices 62-63). The frequency counts of students' nominalisation usage are presented in the table below:

Table 6.14 Nominalisation frequency count of the two groups' texts

Nominalisation Type		Derived								Gerunds		Total
		-tion		-ment		-ity/-ities		-ness		Frequency	%	
		Frequency	%	Frequency	%	Frequency	%	Frequency	%			Frequency
Text 1	Text	20	43.48%	13	28.27%	1	2.17%	0	0.00%	12	26.08%	46
	Tables	13	19.12%	13	19.12%	6	8.82%	0	0.00%	36	52.94%	68
	Total	33	28.95%	26	22.81%	7	6.14%	0	0.00%	48	42.10%	114
Text 2	Text	34	29.31%	25	21.55%	0	0.00%	0	0.00%	57	49.14%	116
	Tables	16	24.62%	8	12.31%	1	1.54%	0	0.00%	40	61.53%	65
	Total	50	27.63%	33	18.23%	1	0.55%	0	0.00%	97	53.59%	181

Nominalisation frequency counts in the two texts revealed that nominalisations were almost equally distributed between derived nominalisations and gerunds. The two texts lacked instances of nominalisations with a following suffix –ness. As Group 2 text contained 2215 more words than did Group1 (cf. **Table 6.8**, page 223) it is not surprising that the frequency of nominalisations in Group 2's text exceeded Group 1 by 59%. As stated earlier, the word count of the latter's text was 604 (footnotes and the MEMO) compared with 2744 words in Group 2's text. In addition, the frequency of gerunds in Group 2's text was 53.59% compared with 42.10% in Group 1's text.

Summary

The multidimensional investigation and analysis of the literacy and numeracy practices of Saudi students in the *Management Accounting* module was presented in terms of the epistemologies of the module, the actual practices the participants engaged with to complete the assignment, their experiences, and their explanations of their texts, and the SF-MDA of students' texts.

The investigation of the graduate attributes and learning outcomes of the *Management Accounting* module showed that each graduate quality was related to its corresponding learning objective(s) or indicator(s). With the exception of Hasan, the findings showed that the participants' previous professional experience in accounting facilitated their writing in the *Management Accounting* module. The previously constructed meaning-making practices of the IELTS, Excel spreadsheets, and the lecturer's PowerPoint® presentation on 'Budgeting' were re-contextualised in the *Management Accounting* group assignment. Drawing on SFL (Halliday, 1985; Halliday & Matthiessen, 2004), I conducted an SF-MDA of the management accounting texts for the systems of TRANSITIVITY, MOOD and modality, THEME, and COHESION. The present study adds to our understanding of the management accounting discourse: learners' explanations of their texts and the practices they engaged with to communicate in writing and how they employed lexical and grammatical phenomena in the management accounting discourse.

Having explored in the previous three chapters my participants' literacy and numeracy practices in key topics in accounting, finance and management accounting modules, I investigate in the next chapter the use of metadiscourse in financial reporting wiki pages in order to explore the interpersonal resources students employed to make their texts more cohesive, and to provide insights into the dialogic nature of this collaborative tool.

Chapter 7: Cooperative or collaborative literacy practices: Mapping metadiscourse in a business students' wiki group project²²

Introduction

In this chapter I investigate the use of wiki within an LMS, *Blackboard*, in an assessment task in the *Intermediate Financial Reporting* (hereafter *IFR*) module, one of the accounting modules in the Master of Commerce coursework program. While the participation of Abdulrahman was focal in this study, Sun, Jiang, Edward, Tracy, and Lydia's participation was non-focal since they were not interviewed. This research study aims to 1) investigate how ESL/EFL students experience the use of this form of wiki in the *IFR* report writing assessment task; 2) analyse the textual and the interpersonal metadiscourse features in students' collaborative assignment writing, both in the wiki discussion pages and the report; 3) analyse the summative and the formative nature of the *IFR* assessment task, and compare the use of these features in wiki discussion pages and the report; and 4) analyse the collaborative nature of this assessment task.

7.1 Methodology

The interaction of six ESL/EFL students who were studying *IFR* was identified as an appropriate case study, since the largest number of international ESL/EFL students in Australia and elsewhere are clustered in business and commerce subjects. Therefore, although the participants in this study cannot be claimed to be a representative sample, their combined efforts on the wiki provide a useful 'case' concerning the use of wikis by ESL/EFL students in an assessment task in a core business module. The participants in this case study were six first year Master of Commerce Accounting program students: five Chinese and one Saudi. A mixed-method approach was applied, including description of the assessment tasks, discourse analysis of the wiki discussion pages and the report, along with interviews.

²² Alyousef & Picard (2011, pp. 464-475).

The corpus consisted of four wiki discussion pages (3596 words) and a report (2268 words) with a total word count of 5864 words. The wiki examined in this study was integrated into the University's LMS, *Blackboard*. The tutor set a closed wiki site for each group. For anonymity, the students were assigned the pseudonyms Abdulrahman, Sun, Jiang, Edward, Tracy, and Lydia. Two reliability procedures were conducted to achieve reliability in coding of metadiscourse markers: iteratively cross-checking the meaning of the codes and revising the annotations with a fellow linguist. The discourse analysis of students' use of metadiscourse features as employed by Hyland and Tse (2004) and Hyland (2005a, 2010) was used, because it had the potential to reveal the ways participants project themselves (Hyland, 2005a) into the two different texts, the wiki discussion pages and the report.

Metadiscourse analysis revealed the way students used 1) the interactive markers to make their texts more cohesive, and 2) the interactional markers to signal their attitude towards both the propositional content and the audience of the text. Therefore an analysis of the interactional markers provided insight into the dialogic nature of the collaborative wiki. A semi-structured interview (Appendix 64) was conducted with one student, Abdulrahman, to gain a richer understanding of his experiences in the group assignment task that was completed online on a wiki over five weeks (April-May 2010). In addition, an interview with the tutor was conducted in order to gain an understanding how the groups were assessed in this work. Although experiences of only two participants cannot be claimed to be a representative sample, their reflections give some insights into the experiences of students and tutors.

7.2 Results of the study

This section presents the aims of the assignment task, a description of the task, the group's postings on the wiki, the tutor's feedback, and the results of the interviews and the metadiscourse analysis.

7.2.1 Aims of the task

The graduate attributes and the learning outcomes of the Master of Commerce *IFR* module are stated in the Course Outline reader (The Business School, 2011). The learning outcome of this assessment task was to present coherent and persuasive arguments to an employer, client, auditor, or a regulator on important matters of accounting policy. This outcome is related to the following graduate attributes which were stated in the reader:

- Skills of a higher order in interpersonal understanding, teamwork and communication;
- A commitment to the highest standards of professional endeavour and the ability to take a leadership role in the community.

In order to develop students' communication skills, they were provided with a framework for debating and resolving accounting policy issues. This assignment was a problem based learning (PBL) task as it involved online discussion postings between the six group members which should lead, in the end, to co-authoring a report. The aims of this assignment were:

- Gain knowledge and communication skills
- Demonstrate innovative thinking
- Look at issues from different angles
- Ability to collaborate and work in a team
- Be ethical
- Have leadership skills
- Demonstrate research ability

The tutor provided a clear purpose for the use of wiki. As Twu (2009, p. 18) states, "students generally need to have better understanding of how and why a wiki may support their learning". The tutor had indeed interwoven this meta-awareness of the medium into the task's scenario, in which each group of students imagine they are young employees who were required to provide their manager an informative report also show how a wiki can be used to enable communication, collaborative work practices, and knowledge sharing.

7.2.2 Nature of the task

The task was an enquiry based scenario. Upon reading this scenario, students were required to answer the following questions through the wiki's collaborative working feature, before writing the report:

- How is accounting policy made in Australia?
- What is the role of the International Accounting Standards Board (IASB). Why are the International Accounting Standards important?
- What are International Accounting Standards *Exposure Drafts* (EDs)?
- What are the current EDs and why are the accountants concerned about them?

These types of interrogatives seek explanations which foster students' capabilities to reason and to infer cause-effect relations. Students were required to engage in collaborative and individual knowledge building processes in order to present their report on a wiki which is allocated to a team of 4-6 students. In order to be comparable to a real world setting, students are informed that it does not matter if they do not know their team members in person. Notari (2006, p. 131) points out that the major difficulty in setting wiki tasks is "to formulate a 'real life case' or problem in relation to the education goal and the learners' needs and level" - i.e. a scenario requiring explanation, disagreement, etc. In this assignment, the tutor attempted to make the scenario comparable to the workplace setting: e.g. a young graduate accountant assigned to submit a report to the boss about the recent releases of International Accounting Standards *Exposure Drafts*.

The tutor regulated and instructed students in this assignment task by commenting in the criteria for marking, not only on the content of the wiki pages, but also their research skills, communication skills, and innovativeness in using the wiki as a collaborative working tool. This was achieved through co-authoring, by making contributions and changes to each other's work on the report's wiki main page, before and after being engaged in discussions on additional wiki pages to share ideas, create, edit and discuss content. A collaborative written text consists of paragraph(s) that are convincing and coherent in terms of structure and content. Language choices are based on prior experience, social contexts, and references.

Unlike traditional assignments, in this one the students were given complete freedom in regards to word limit, order of topics and format.

This freedom helped each group to build its own identity. The tutor stated that students need to follow up quotations with explanations in their own words. They had to use the Harvard referencing system. The tutor asked students to complete an online form/survey posted before the assignment's due date, which aimed to evaluate their teamwork experience and the use of the wiki as a collaborative tool. This survey required several short answers and it aimed at meeting the learning needs of future students. Students unfamiliar with wikis were advised to follow the link 'Wiki Testing Site' in the module's *Blackboard* site, which redirects them into a *YouTube* video tutorial. Rather than providing students with the traditional handouts, the tutor used another form of Web 2.0 technology, an existing *YouTube* video clip to create a more visual learning experience.

7.2.3 The group's postings on the wiki

In order to complete the wiki task the team members designed one wiki page for the Report entitled "Report to the Boss" and four wiki pages for group Discussions under four major topics (Appendix 65-68) that were based on the task sheet requirements: 1) International Standards and accounting policy in Australia, 2) IASB and AASB, 3) current Exposure Drafts (EDs), and 4) accountants' concerns about the Eds (Table 7.1).

Four separate wiki pages were created for the topic-based discussions. While the task required the students to collaborate on the report writing process, in reality, they decided to designate 1-2 members for each wiki discussion page. They agreed, however, to allow contributions from other members if desired. This illustrates that, although collaborative tools are presumed to encourage collaborative behaviours, this is not necessarily the case as they also (or alternatively) support cooperative learning (Parker & Chao, 2007).

Table 7.1 The task sheet questions and the page titles created by the group in the wiki

Wiki page	Question	Web page number and title	Main contributors
Discussion pages	1. How accounting policy is made in Australia?	1. Why international standards are important and how accounting policy is made in Australia?	Abdulrahman and Jiang
	2. The role of the IASB: why the International Standards are important?	2. The relationship between IASB and AASB, and their roles	Tracy and Sun
	3. What EDs are and the part they play in standard settings?	3. Current Exposure Drafts (EDs)	Lydia and Edward
	4. What the current EDs are and what the accountants were concerned about?	4. Why are the accountants concerned about the exposure drafts?	Abdulrahman
The report	N/A	5. Report to the Boss	All the six participants

(Alyousef & Picard, 2011, p. 468)

Collaborative learning means that the tasks are done together whereas cooperative learning means that the tasks are divided between learners. Only Lydia seemed to have collaborated with the other group members as she combined her accounting standards summary with Edward's (Appendix 67, Wiki Discussion Page 3):

After reading Edward's post (thank for ur summary, its quite good :), i have combined her summary and my summary. Here it is:

1. IAS 19 Employee Benefits:

In summary, there are three main deficiencies in current IAS19:

1. Companies are not regulated under IAS19 to recognize their defined benefit plans in time. Such 'deferred recognition' makes the amount in financial statements misleading.
2. A united and standardized option for Companies to recognize gains and losses hasn't been set. This makes effects of defined benefit plans incomparable between companies.
3. Disclosures haven't put emphasis on the risks from defined benefit plans.

In addition, Lydia posted a table which includes both her contribution and a summary of what the other members have posted on the topic *Exposure Drafts*. As she stated, "our members have already listed some EDs out :), but i will list them all in table anyway" (Appendix 67, Wiki Discussion Page 3). Students both collaborated and cooperated on these topics over a period of up to five weeks. In general, at the beginning the students faced difficulties finding the answers to this task. For example, Abdulrahman explained on Discussion Page 1 (Appendix 65) that he can't really find the underlying reasons for the significance of the international accounting standards (IAS). He then posted his ideas in order to get feedback from his group members:

It is underpinned by the global nature and the impact of all business transactions. A standardized form of reporting business transactions is required to ensure a fair and right analysis of the business performance and position, as well as allow comparison of businesses operating in different legal jurisdictions. All in all, International Accounting Standards ensure that businesses adopt similar rules/standards/policies in reporting the business activities, allowing analysis and comparison. (Appendix 65, Wiki Discussion Page 1)

Abdulrahman did not cite any references in his discussion. In response to the second question on this page "How is accounting policy made in Australia?" he listed and discussed eight procedures for making policy in Australia. He used hyperlinks three times as an evidential marker to provide fact sheets about accounting standards. The six participants referred to sections, paragraphs, or appendices in the accounting policy standards per se as evidential markers: e.g. Framework (CF) project, IAS19 , ED IAS 37, AASB 137, ED of IAS 37 Para.36C, AASB137 Para. 50, and ED of IAS 37 Appendix B13 (Appendix 67, Wiki Discussion Page 3). Lydia engaged in true collaboration by combining her summary on IAS 19 Employee Benefits with Edward's and summarising the *Exposure Drafts* in a table which, as she stated, "members have already listed some" (Appendix 66, Wiki Discussion Page 2, lines 281-282). She tried to establish intersubjective shared understanding among her group members by co-authoring what had been written so far.

Abdulrahman's use of the interactive learning environment to negotiate conceptual meaning with his fellow members contradicted the widely held view that some second language students' learning rests solely on the transmission of theoretical knowledge. Instead, as the Vygotskian social constructivist approach acknowledges, "learning develops in the dynamic of spoken interaction" (Wake, 2006, p. 6). The students fully utilised all the features of the wiki genre and used it to construct both formal and informal discourse. Emoticons were available in the wiki tools. However, because the task required the students to use the wiki to write and refine academic content iteratively, only three out of the six students chose to use this feature at the end of their postings to express their feelings or emotions. For example, Sun decided to use the emoticon 😏 (smile with a wink) and Abdulrahman, Jiang and Lydia used the emoticon 😊 or its symbol :) (smile) to contextualise their discourse and create a sense of group interaction through humour. Luo (2009, p. 39) suggested that some students use "Web 2.0 tools as social and entertainment "toys" and that this is reflected in the use of emoticons. However, in this study, students did not use emoticons as part of academic discourse, but rather preferred to use them to create close relationships with their group, which was appropriate to the discussion board genre.

7.2.4 Tutor's general and group feedback

The tutor provided a general feedback to all groups and group feedback. The general feedback included the tutor's model answer to the question. This feedback helped students to evaluate their strengths and weaknesses in relation to the model answer, acting as a summative assessment since it occurred after students have submitted their report. The group feedback included the tutor's assessment of each group. One of the aspects the tutor commented on was group participation. She noted in the group feedback that the statistics showed one team member contributed only 1% of total lines saved. This lack of participation by this team member could be explained by the fact that this kind of technology lacks non-verbal cues and it is, therefore, sometimes hard to evaluate students' online, text based communications. Twu (2009) states some learners may be influenced by their cultural perceptions that regulate the way they interact in social relationships. As a result, they perceive the act of editing and modifying content created by

others as a major offense. Therefore, these learners would be reluctant to participate in or initiate wiki activities.

Wheeler and Wheeler (2007, p. 3) argue that some students will be reluctant to participate if they perceive "the strong probability that larger audiences exist beyond that of the conventional essay audience of 'one' and that they "need to adapt their writing styles, or open themselves up to scrutiny from a hidden audience". Twu (2009) suggests using strategies that promote harmony in social interaction by building a positive social learning environment. Twu also contends that instructors need to bring to their students' attention that "editing" is not "correcting". It is the process through which ideas emerge and evolve clarification of meaning. Notari (2006, p. 131) suggests developing a 'communication and comment culture' since "involving learners in making comments about the concepts of other learners helps construct personal knowledge and enhances meta-cognitive capacities". As the group members did not know each other beforehand, they need to find some way of establishing social ties. One way to break the ice could be to conduct a face-to-face meeting in week one. Tutors may also designate marks for those students who start early and engage in co-authoring.

The tutor commented on task achievement and specific strengths and weaknesses of the content. For example, she made suggestions about content that should be added and asked the group to specify or clarify certain aspects. For example, the tutor commented on Abdulrahman's posting on Wiki Discussion Page 4:

include here who the AASB is other than it is a Government Agency.
Who are the members? How many members?

Formative continuous assessment (FCA) like this has the potential to help the students to refine their final written product once they understood how close they were to achieving the learning goals and what they had to do to reach the learning outcomes. However, in this case it was problematic as the students only received this feedback after the report had been handed in, which limited its usefulness and instead it acted as summative feedback. The tutor also provided feedback on the contributions of individual group members which was accessible to the whole

group. For example, she commented on Abdulrahman's posting on Wiki Discussion Page 4:

On the "Why the accountants are concerned about the exposure drafts?" page Abdulrahman has given a very good interpretation in his own words of why we in Australia should be concerned about EDs. This should have been in the report and if you wrote the whole report in this way, i.e. answers to the questions in your words rather than disjointed bits and pieces that you have found on the Web, you would have gotten a much better mark.

The tutor commented upon Abdulrahman's argumentation 'in his own words', which demonstrates an understanding of the topic *Exposure Drafts* and the relevant technical terms. She added that he should have applied these skills to his final report. Unfortunately, as Abdulrahman did not receive this positive feedback prior to submitting his report, he did not automatically transfer the skills developed in the wiki to the report genre.

7.2.5 Results of the interviews

In this section the results of the interviews with the tutor and one of the group members, Abdulrahman, are discussed. The tutor stated that she had been using a wiki in individual short assignments to provide students with FCA. For example, after students worked out a tutorial activity, they were required to upload a scanned copy from their notebooks in order to receive the tutor's comments. Elgort, Smith and Toland (2008) suggest using scaffolding learning through the use of 'mini wiki-tasks' in order to prepare students for the main group assessment. The tutor contended that other groups overcame the lack of the "Chat" feature within wiki by creating a wiki page entitled "Discussions". The tutor argued very few groups engaged online in co-authoring, because most were concerned with the schematic structure of the report. In addition, Abdulrahman's group only started to work on the wiki in the third week. To overcome this problem in the future and to motivate students, the tutor intended to designate marks for those who started at the very beginning.

Abdulrahman (personal communication, July 22, 2010) stated that his group members faced a number of obstacles when working on the wiki to do the

assessment task. In addition to the email, his group members held three face-to-face meetings during the six-week assignment period, in weeks two, four and six. First, students started working on the wiki before meeting face to face. Abdulrahman noted that he had taken the initiative on week two and created web pages 1 and 4 when none of the other students had participated. This was potentially problematic, as they had not developed guidelines for working and miscommunication could have occurred. However, no complications were reported as the group designated 1-2 members for each discussion page on its first face-to-face meeting. The lack of a meeting did appear to impact on students taking an initiative to start early. The second problem related to meetings was that the group had to postpone or reschedule two of their three meetings because one or more of the members could not attend due to classes. In the kickoff meeting they had agreed that each discussion page would be investigated cooperatively by 1-2 members, though each member would be free to contribute in the other pages. Thus a prolonged face-to-face meeting was one of the main reasons for delayed contributions, although the tutor clearly stated in the task sheet that, similarly to workplace situations, "it does not matter if students do not know their team members". She commented in the interview that some members in other groups started introducing themselves in the Discussion page they created. In week six, the group members met face-to-face in order to finalise the report, by deciding which bits and pieces to use in the report.

As most of the group was reluctant to engage in co-authoring, Edward was encouraged to follow the same path. As he stated on Wiki Discussion Page 3, "since there are a lot of contributions in this page, I find it hard to edit or delete any of your contributions, therefore I would like to add what I understood when I read Exposure Draft measurement of liabilities and Ed conceptual framework" (Appendix 67, lines 329-333). Edward decided to add information rather than edit or delete any of the contributions when finding all his group members were engaged in this path. The tutor suggested in the task sheet a YouTube video tutorial for students not familiar with using wikis. Abdulrahman appeared to have no difficulties using the key features of wiki. This suggested that in common with most Generation Y learners, he was familiar with the different forms of Web 2.0

technology - such as social networking sites, blogs and video sharing sites - which had become part of his life.

The wiki format also has technical limitations which may have affected the quality of the students' interactions. For example, since the wiki did not have a spell checker, either spontaneity may have been affected when students stop and spell check or grammar check using a word processing program, or errors of expression may occur if they write directly on the wiki. Abdulrahman, however, argued that spontaneity was not affected at all when switching between the word processor and wiki pages.

Another more serious issue highlighted by Abdulrahman was equality of participation. Although, as noted above, the tasks were divided up at the first meeting, two of the students contributed for the first time only a few days before the assignment's deadline when realising that they would be assessed on their wiki contributions, as well as on the final hard copy of the report. He argued that maybe they did not take this task seriously. Perhaps this was due to the fact that Web 2.0 tools are more often used as recreational "toys" than for academic purposes (Luo, 2009). Although the literature values the collaborative nature of wikis as educational tools (Bruns & Humphreys, 2005; De Pedro et al., 2006; Luo, 2009; Pusey & Meiselwitz, 2009), they are not necessarily valued by all student participants. Abdulrahman felt that he would have spent less time doing the task by himself since he does not "have to wait for the students' feedback" (personal communication, July 22, 2010). Elgort, Smith and Toland (2008) argue that this problem could be encountered by preparing students for group assessment through the introduction of 'mini wiki-tasks'. Despite the issue of time, however, Abdulrahman was aware that the quality of the text was enhanced by the group collaborative work. He suggested that each student should complete the whole task independently and then the group should meet and choose the best contributions. This indicated that although face-to-face interaction and collaboration were valued by this group, 5 out of the 6 participants resisted online collaboration by engaging in online discussions rather than co-authoring their colleagues' posts.

7.2.6 Metadiscourse analysis

The metadiscourse analysis of the wiki discussion pages and the report revealed the frequency of metadiscourse markers. Considering the text length in each genre, the metadiscourse analysis for the report (2268 words) showed a higher frequency of interactive markers (5.15 markers per 100 words) compared with interactional markers (3.2 markers per 100 words), while the frequency of these two categories in the wiki discussion pages (3596 words) was almost equal (5 markers per 100 words in each genre type). This is possibly because the wiki discussion postings occasionally digress from formal academic discourse into colloquialism and a more spoken-like pattern, to engage readers in the argument. This indicated that wiki discussion postings contained textual features that resemble the discourse of the report. Although the wiki discussion pages contained spoken-like interactional metadiscourse markers, they also combined features of written language. This movement between genres was evidenced in the dialogic question Abdulrahman initiated at the end of his contribution on Discussion Web Page 4 ("This is what I understood and hope getting feedback from you"). It emerged from the six-fold nature of his audience - the other five students who responded to his interpretation and the tutor. Although wiki discussion postings were obviously written to be read (and assessed), Abdulrahman, Edward and Jiang initiated their postings with a salutation ('Hi guys/' 'Hi All'). Similarly, interjections (e.g. 'easier for you to see/' 'do you think') were also used in order to engage participants in an argument.

The frequency of the interactive and interactional metadiscourse markers (cf. 2.4) in the four wiki discussion pages (the process) (Appendices 65-68) and the report's page (the product) (Appendix 69) are listed in Table 7.2. The metadiscourse analysis of the interactive markers revealed that transitions, evidential markers, code glosses, and endophoric markers ranked higher in the wiki discussion pages compared with the final report. Notably, the use of frame markers was about five times higher in the report than in the discussion pages.

The analysis of interactional metadiscourse markers revealed that engagement markers and self-mentions ranked higher in wiki discussion pages (27.5% and

Table 7.2 The frequency of metadiscourse markers in the wiki discussion pages and the report

Categories		Discussion pages (3596 words)		The report (2268 words)	
		Frequency	Percentage	Frequency	Percentage
Interactive	Transitions	76	42.5	49	41.9
	Evidential markers	64	35.8	37	31.6
	Code glosses	24	13.4	14	12.0
	Frame markers	4	2.2	14	12.0
	Endophoric markers	11	6.1	3	2.5
	<i>Total interactive</i>	<i>179</i>	<i>100</i>	<i>117</i>	<i>100</i>
Interactional	Engagement markers	49	27.5	6	8.3
	Self-mentions	46	25.8	1	1.4
	Hedges	52	29.2	37	51.4
	Attitude markers	30	16.9	28	38.9
	Boosters	1	0.6	0	0.0
	<i>Total interactional</i>	<i>178</i>	<i>100</i>	<i>72</i>	<i>100</i>

(Alyousef & Picard, 2011, p. 473)

25.8% respectively) than in the final report (8.3% and 1.4% respectively), while hedges (cf. 2.4) and attitude markers ranked higher in the report, 51.4% and 38.9% respectively. Hedges were the most frequently used interactional markers in the report (51.4%) and in the wiki discussion pages (29.2%).

The use of engagement markers in the wiki discussion pages was three times higher than in the report. While over 34% of the interactional devices in the wiki discussion pages were self-mentions (I/my/we/our) and 'reader pronouns (you/your), the report almost lacked these resources, reflecting the typical formal academic discourse valued by most tutors. Students used 'must', 'should' and 'will' to strongly emphasise their point of view. They also used 'may', 'could', 'would' and 'possible' to explicitly express their arguments to the readers/tutor with due caution. Self-mentions included verbs expressing mental processes (think, see, focus, suggest), relational processes (have, be), behavioural processes (suggest, found) and material processes (post, summarise, read) as in the following examples (Appendices 65-66):

- 138 This is *my* summary.
190-192 *I think* it might be easier for you to see what I posted.
195-196 *I haven't* found the exact instruction in assignment.

- 204-206 In *my opinion*, once the EDs published by the IASB are commented and modified, they will become the final form.
- 312-314 To make *our* job easy and clear, *I suggest we* focu [sic] on 4 first.
- 391-393 I did not find a certain answer for this issue. However, according to *my understanding*, I come up with the following Justification.

The wiki discussion pages combine features appropriate to an expository essay with those usual for email discussion. The hybrid genre students produced was appropriate for this occasion. The writers established rapport with the readers and show consideration for their fellow members through the use of the first person plural pronouns *we*, *our*, and *us*, as in the following (Appendix 67):

- 194-195 I am not quite sure that is it a must for *us* to list out the differences bewteen [sic] AASBs and IASs
- 196-197 Let *us* find this differences
- 198-200 This question raised in the instruction that we haven't even talked about yet...
- 208-210 So all *our* work, like finding out these differences, is to forecast in what way the current EDs will affect AASB

There were 15 instances where writers used the second person 'you' and 'your' to seek members' confirmation of a viewpoint, as in "You are right. It is worthy [sic] paying attention to that point", or to ask a member for his/her opinion as in "What do you think?" The students used commands and questions to argue or present propositional content related to accounting standards, such as in "why international accounting standards are important" and "identify technical issues". Finally, the report lacked instances of boosters, while they occurred only once in the wiki discussion pages ("Hence, it will certainly [sic] have great impacts on the AASB").

Summary

In this Chapter I have investigated how Master of Commerce IFR ESL students experienced the use of the wiki, investigated the aim and nature of this assessment task, and analysed the metdiscourse markers of the wiki discussion pages and the report. A discussion of the main findings of the four case studies (Chapter 4-7) and a conclusion will be presented in the following chapter.

Chapter 8: Discussion of the findings and conclusion

Introduction

The overall aim of this ethnographic research case study was to investigate the academic literacy and numeracy practices of international, and in particular, Saudi students in the Master of Commerce Accounting program.

In this chapter, I discuss and offer some possible explanations for the findings in the four case studies (Chapters 4-7), which are summarized in terms of the five research questions presented in Chapter 1. A multidimensional framework was used in each case study to investigate students' literacy and numeracy social practices by: 1) presenting and discussing the epistemologies of each module, 2) conducting an SF-MDA of key texts in accounting, finance, and management accounting (Chapters 4-6), and a metadiscourse analysis of a collaborative assessment task in financial reporting (Chapter 7), and 3) describing the literacy events and the participants' actual practices and their experiences in the Business Accounting program.

This chapter aims to explain the why part of the findings and to interpret the meaning of the results. Discussion of the findings reported in the four business modules is organised around three aspects: 1) the descriptive analysis of the epistemologies of the four accounting modules and 2) the linguistic features and 3) the themes that emerged during my investigation and analysis of the participants' literacy and numeracy practices and experiences. Finally, I present the theoretical and methodological implications, the pedagogical implications, the limitations of the research study, the recommendations and suggestions for future research studies, and concluding remarks.

8.1 The epistemologies of the four Master of Commerce modules

The first research question aimed to determine the key academic literacy and numeracy practices students studying in Australia were expected to engage with in the four modules during their Master of Commerce Accounting program. To

answer this question, I conducted document analyses of the epistemologies of each module, which included the social context, materials, graduate attributes and learning outcomes, and the literacy and numeracy practices participants were expected to engage in.

8.1.1. Materials

The corpus for the case study was composed of 11 assignments written in English (23,675 words) in the field of business finance: I conducted SF-MDA of a 17,811-word corpus (Chapters 4-6) and a metadiscourse analysis of a 5,864-word corpus that encompassed tables and graphs, as shown below.

Table 8.1 A pivot table of the research study's corpus

Module Categor.	Accounting (Chapter 4)	Finance (Chapter 5)	Management Accounting (Chapter 6)	Total	IFR Chapter 7	Total	Sub-total
Word count	7,781	7,844	2,186	17,811	5,864	5,864	23,675
Number of tables	55	46	26	127	1	1	1
Number of graphs	11	17	0	28	0	0	0

Materials also included the assignment task sheets in each module, course outline reader, the textbooks, field-note logs (or Observation Protocols) for recording observational information (Appendix 3), structured and unstructured interviews with the participants and an unstructured interview with the tutors. As shown in the table above, the genre of financial statements in accounting and the capital budgeting management report in finance included nearly two times as many tables as the budgeted balance sheet schedules in the *Management Accounting* module, compared to the occurrence of one table in the *IFR* module. Graphs were found only in the accounting and finance texts.

Having presented a brief overview of the materials used in my investigation of the

participants' literacy and numeracy practices in the four business modules, in the next section I attempt to compare the graduate attributes and learning outcomes with those valued by professional bodies.

8.1.2 The graduate attributes, learning outcomes, and the curriculum of the four Master of Commerce modules

The graduate attributes and learning outcomes of each business module's curriculum were analysed and compared with those valued by professional bodies, the ICAA/CPAA (2009).

The graduate attributes and learning outcomes of the *Accounting Concepts and Methods* module in Chapter 4 (4.1.2, cf. page 93) were aligned with the generic skills valued by the professional bodies and employer groups (ICAA & CPAA, 2009). Unlike the *Principles of Finance* and *Management Accounting* modules, the investigation of this module's curriculum showed that the graduate qualities were not related to their corresponding objectives. However, the curriculum of this module showed a correspondence between the textbook's content and the thirteen learning outcomes listed in **Table 4.1** (cf. page 94).

The Business School insisted in its *Communication Skills Guide* (Hancock, 2006) on the overriding importance of communication for success during tertiary study and beyond. The graduate attributes of communication skills included exhibiting analytical and critical thinking, working in teamwork, and engaging in life-long learning. Jackson and Durkee (2007, pp. 91-92) argue that "owing to the ever-changing demands on the accounting professional, the professional community considers it imperative that accounting educators incorporate into their curricula a focus on life-long learning skills". In order to succeed in their future work, students needed to engage in life-long learning skills valued by the professional community.

The use of accounting software packages in the *Accounting Concepts and Methods* module seem to have enriched students' life-long skills which included managing information, taking notes, using data, analysing, and reflecting on

workplace issues. These skills are amongst those valued by accounting professional organisations (cf. **Table 4.2**, page 96). The group task sheets in the other three modules placed high value on communication and problem-solving skills since these would enable students to gain disciplinary-specific knowledge in financial management, and in turn would provide them with relevant and meaningful life-long learning experiences. For example, students in the *Principles of Finance* module in Chapter 5 (5.3.3, cf. page 201) were expected to practice the various models financial analysts use to determine the economic feasibility of expansionary opportunities by engaging in capital budgeting techniques in order to develop their communication and problem-solving skills. This finding indicated that since the literacy and numeracy practices resembled those valued in the workplace, they were more likely to impact upon students' work and life prospects. McGoun (2003, p. 422) argues that due to the "palpable falsity" of the quantitative models in finance such as Equivalent Annual Annuities (EAA) and the Replacement Chain Model (RCM), they are in effect "best thought of as metaphors". These models are "not identities and cannot be applied literally, but do provide us with figurative knowledge—an epistemologically meaningful form that might legitimately be called a useful framework" (ibid). The participants used these models in order to identify finance relationships that were required for the completion of the capital budgeting management report.

The findings also revealed that the participants were required to possess ability to write reports, memos, e-mails, and faxes in order to develop their communication skills. The investigation of the learning outcomes in the four modules revealed that although the participants were required to practice writing memos (Chapter 4, cf. **Table 4.1**) and reports to management (Chapters 5 and 7), the e-mail was neglected and not given any attention. E-mails are one of the primary standard communication means in the workplace. In his study of the nature of the communication tasks in Hong Kong's four key services industries, Evans (2010, 2011) found that over 90% of writing in financial services was executed through the e-mail. E-mail has supplanted other communication means. Some Business programs, however, are still preoccupied with memos and letters. Businesses use the e-mail in a number of tasks, including the exchange of multimodal documents both internally and externally, delegating tasks, and filing documents in the

archive. Evans (2011) argues while some ESP Business textbooks contain a few sections on writing e-mails, they introduce only the initiator's text, or the point of departure, rather than the whole 'script' which consists of various points in a chain. Evans also found that most of the messages were simple, in point form, and to the point. It should be noted, however, the e-mail was used by the students and the tutor to enquire about ambiguous points in the task sheet and to provide extended feedback respectively (cf. 8.3.7).

In the next section I investigate the requirements of the assignments in the four modules by linguistically interpreting the lecturer's instructions in the task sheet and investigating whether the requirements align with the learning outcomes.

8.1.3 The literacy and numeracy activities EAL students were expected to engage in to perform the assignments

The language of the task sheets realised different interrelated speech functions: statements, interrogatives, directives. Students' learning outcomes were stated in the task sheets and the course outline reader for each module, and they were constructed by the discipline-specific learning activities students needed to undertake: e.g. 'explain', 'prepare', 'discuss', 'apply', 'record', and 'analyse'. O'Halloran (2005) contends that mathematical discourse, like language, is not just a resource for abstractly representing and then performing logical operations on aspects of the world, but also a way of representing interpersonal functions, for instance through its use of a linguistically coded rhetoric of unmarked commands- 'explain', 'prepare', 'measure', and 'calculate'- and of objective, impersonalized images.

These directives were not left to be variously defined by each student as the *Communications Skills Guide for Business Students* (Hancock, 2006, p. 43) listed the probable meanings of the most frequent directives that appear in assignments and exam questions (cf. 4.1.2 & 6.1.2). Students were advised to seek clarification of the requirements of these directives from their course tutor; but generally speaking, the assignment task sheets usually included detailed instructions on what students were expected to do. In the following table, I compare the speech

functions of the assignment task sheets/tests with their relevant learning outcomes listed in each module's course outline reader.

Table 8.2 Mapping the directives listed in the learning outcomes sections in the Course Outline readers in the four modules with their counterparts in the assignment task sheets/tests.

Module	Document	Learning outcomes
Accounting Concepts and Methods	Assignment task sheet	Prepare/ Determine/ Explain/ Briefly explain/ Briefly outline/ Record/ Show/ Measure/ Calculate/State/ How much was ...?/Illustrate ...
	Course Outline Reader	Prepare/ Discuss/ Explain/ Record/ Account for/ Analyse/ illustrate
Principles of Finance	Assignment task sheet	Analyse both investment proposals/ Compute NPV, the net cash flow, the total operating costs, etc/ Comment/
	Course Outline Reader	Explain the importance, role and techniques of capital budgeting in a firm
		Understand how to determine the cost of capital in a firm.
Management Accounting	Assignment task sheet	Prepare a budget/ compile the budgeted balance sheet/ provide all the supporting schedules/
	Course Outline Reader	The ability to “Formulate and use standards and budgets for planning and control purposes. (Learning Outcome 2.3)”. The ability to identify relevant costs for decision making purposes. (Learning Outcome 2.5)
Intermediate Financial Reporting	Assignment task sheet	Demonstrate innovative thinking & research ability / Look at issues from different angles/ collaborate and work in a team/ Be ethical / Have leadership skills
	Course Outline Reader	The ability to take a leadership role in the community; Demonstrate Skills of a higher order in interpersonal understanding, teamwork and communication

The tutor required students to present tables in the *Accounting Concepts and Methods* module to show their calculations by using the commands “Prepare a cash flow statement”/ “Show all calculations”/ “Illustrate how the financial report was influenced by the regulatory framework.” The following directives share the same experiential meaning: “Measure the profit” /”Calculate the profit”/ “How much was..?"/ “Determine the cash paid...”. In the *Management Accounting* Course Outline reader, the Material process ‘formulate’ in “formulate and use standards and budgets” was synonymous with “Prepare a budget/ compile the budgeted balance sheet/ provide all the supporting schedules”. Similarly, in order for students to prepare, compile and provide “all the supporting schedules”, they needed to possess the interpersonal and communication skills that would enable them to 1) examine diverse sources of information and identify which components

of that information are relevant to the decision to be taken; 2) present information pertaining to accounting, management, and social issues in a manner that will assist managers in their decision-making role; and 3) identify and discuss relevant information in a group setting (cf. 6.1.2). Interpersonal communication skills competencies were measured in terms of students' ability to examine, identify, present, and discuss information. As Chandrasoma (2007, p. 112) argues "in a business environment where globally visible diverse transactions, negotiations, and promotions are executed, business graduates should necessarily be great communicators". The skill of interpersonal communication is one of the themes that emerged in this study, and it will be presented in Section 8.3.1.

In the next section, I present the key linguistic features emerging from the SF-MDA of key texts in accounting, finance, and management accounting (Chapters 4-6), in addition to those from the metadiscourse analysis of financial reporting discourse (Chapter 7).

8.2 Emergent linguistic features across the business modules

The discussion in this section is organised around research question two:

2. How do international students and in particular Saudi students represent linguistic and conceptual notions of academic literacy and numeracy practices in the four Master of Commerce Accounting program modules?

2A. How do international students, and in particular Saudi students studying in Australia represent notions of linguistic and conceptual business knowledge (or make meaning) through the production of texts in accounting, finance, and management accounting?

2B. What are the main the textual and the interpersonal metadiscourse features in international students' collaborative *IFR* module's assessment task, both in the wiki discussion pages and the report?

The findings of the linguistic analyses of the four Master of Commerce Accounting program modules presented in Chapters 4-7 facilitated the exploration of the common linguistic features. In this section, I discuss the way participants constructed linguistic and conceptual knowledge in accounting based on these findings.

The students participated in the discourse community of accounting to construct disciplinary-specific knowledge through the interaction of the experiential, interpersonal, and textual meanings which are discussed in the next three sections.

8.2.1 The experiential meaning

The participants managed the expression of FIELD through the experiential meaning, which is represented by the TRANSITIVITY system.

8.2.1.1 The TRANSITIVITY system

The accounting and finance (Chapters 4-6) discourse was highly metaphorical since most of the processes were implicit relational identifying, and were used in tables and graphs in order to encode meanings in the most possible *economical* manner. The participant roles in the accounting and finance discourse were largely occupied by the complex disciplinary-specific abstract (or inanimate) technical lexis (e.g. IRR, NPV, PP, inventory, assets, liabilities, and production). As described by Halliday and Martin (1993) in their study of English and Chinese scientific texts, technical taxonomies are one of the difficulties characterizing scientific English. Halliday (1993d) argues that some of these taxonomies are characterized by the lack of explicit explanation, and the complication arises from the criteria on which these taxonomies are set up and the organizational layers built into them. For example, to understand the technical term NPV students needed to refer back to the textbook to read its definition, calculation method, and its relation to other technical terms.

Second, the technical terms assume an insider's or expert's knowledge and are typically modified by classifiers that "tend to be organised in mutually exclusive and exhaustive sets" (Halliday, 1985, p. 185). This organization in turn helps us

locate a given abstract technical term within its subclass: for example, in *present value* the classifier *present* puts the item *value* in a subclass of *values*, distinguishing it from *future value*.

Third, the findings of the transitivity analysis of the written assignments in three modules (Chapters 4-6) were collected in one table (Appendix 70) to provide an overview of the most common process types. The findings revealed that meaning was most represented by the relational identifying process type, and its occurrences ranged between 55.27% and 87.00% of the total process types (cf. 3.8.2 for percentage calculation method). This was caused by the inclusion of the implicit relational identifying processes in financial tables, which are used for defining the value of accounting technical lexis (cf. page 160). The second most frequently occurring process type in the accounting, finance, and management accounting texts was material. The findings showed that the most common circumstance types in three modules were temporal and spatial, which suggests their importance in business discourse, as they specify the temporal/spatial circumstance of the process. This finding is in line with a number of investigations (Biber et al., 1999; Hasselgård, 2004; Matthiessen, 1999).

The findings showed that though the mathematical Operative processes- such as calculate, work out, subtract, add- metaphorically realise processes of cognition, they congruently realise material processes since their calculation in Excel spreadsheets involves action. This finding stands in sharp contrast with O'Halloran's (1996, 1999b, 2005, 2008) generalization that mathematical discourse is characterized with the metaphorical shifts between material and mental processes like count, work out, etc. Some mental or material processes, like 'treat', 'regard', 'consider' 'show' and 'calculate', were construed by relational identifying processes due to modality and the existence of the explicit marker of the Value 'as': e.g. upgrade cost should be *treated* as an asset (Appendix 39). The event structure of doing and thinking was subsumed by relational processes. The doing process, treat, is presented here as being. Looking 'from above' the clauses, material and mental clauses are concerned with our outer and inner experiences respectively, whereas they model experience as 'being' rather than as 'doing' or 'sensing' when looking 'from below'. As a result

of this, metaphorical modality occurs through the use of the TRANSITIVITY system instead of the lexico-grammatical system of modality. Bartlett (2012, August 25) argues that such subjective-within-objective productive elusive transitive construction was noted by Boas in his *Contrastive Studies in Construction Grammar* book. Bartlett calls for the need to translate some findings from this approach into SFL terminology and the SFL framework since they have common similarities.

Financial tables and graphs utilise structural condensation to unambiguously encode mathematical symbolism in the most economical manner (O'Halloran, 2000). The students were constrained by the ideological conventions for constructing financial tables. First, implicit relational identifying processes having an underlying 'equative' meaning are used. Second, the Token-Value direction of identification, from general to specific, is adopted. As Halliday and Matthiessen (2004, p. 234) state, the Token-Value structure plays an important role in the register of commercial and scientific discourse. The transitivity analysis of the sensitivity analysis graph in Group 1 and Group 2's texts (Chapter 5) revealed the existence of three process types: one in the slopes and the other two were elicited from the participants' reading path (or processes). As relational attributive processes are used for classification and description, there were instances in the slopes in the statistical financial graph (cf. page 191). It was found that analysts analyse each slope in terms of its degree of steepness, in which steep curves indicate a higher degree of sensitivity to deviations from the original estimates (or the GOAL). Another interesting finding was that the intuitive interpretations of the graph revealed the existence of implicit relational identifying and the mental processes to be the most frequently occurring process types. This was not surprising since the graph had the same experiential meaning as the orthographic text. As in financial tables, relational identifying processes were used here for identification. O'Halloran (1999b, p. 27) contends that while "verbal discourse functions to describe commonsense reality, visual display connects our physiological perceptions to this reality and in combination with metaphorical shifts, creates new entities which are intuitively accessible". Financial graphs integrate verbal text, mathematical symbolism and visual display. For example, the sales slope graph in the *Principles of Finance* module (cf. page 191) was

intuitively interpreted in natural language as “sales will probably *deviate* highly from the original estimates” and “machine costs will probably not *deviate* from the original estimates”. The participants were required to understand both the lexicogrammar of the axes in the sensitivity graph and its relation to the intersecting axes.

The interpretation of these new entities was contingent upon the participants’ ability to apply their existing knowledge and experiences of the theoretical aspects underlying the analysis of statistical graphs that encompass a complex array of elements and processes. This would in turn facilitate the evaluation and synthesis of new information. Finally, the intuitive interpretations illustrated that meaning is created in visual semiotic resources not only intra-semiotically (i.e. within the graph) but also inter-semiotically through the interaction of the graph and the accompanying linguistic text (O’Halloran, 2008). As a result, a logico-semantic relation of extension exists between the graph and the texts accompanying it since the latter provided new information based on the content of the former.

8.2.1.2 Expansion of the experiential meaning

The participants expanded the experiential meanings in the statistical graphs and mathematical formulae in the capital budgeting management reports in finance in order to determine a firm’s cost of capital. They intuitively expanded the experiential meaning in these reports (cf. 5.2.1.2) by giving interpretations of the conceptual/procedural steps they performed and the mathematical symbolism in graphs and the Excel’s formulae. Thus the staged, goal oriented process of the diagrammatic and tabular genre is re-constructed by the participants’ reading path (or processes), rather than by the structuring of the text (Van Leeuwen, 2005). This expansion revealed that students’ intuitive understanding (or the intended reading path) of the conceptual and procedural financial processes was contingent upon their ability to expand the meaning potential by deciphering the experiential codes underlying *interclausal* and *intraclausal dependency* relations in capital budgeting techniques’ calculations.

Meanings are created in visual semiotic resources not only intra-semiotically (i.e. within the graph) but also inter-semiotically through the interaction of the graph and the accompanying linguistic text. The participants made meaning through the intersemiotic shifts (or resemiotisation) processes from diagrammatic and tabular forms to textual. The tables and the graphs were integrated in the text flow through the use of cross-references 'Figure' and 'Table'. However, since the text added new information based on the findings in tables or graphs a logico-semantic relation of *extension* (Martinec & Salway, 2005) existed between the two multimodal discourses and the text accompanying them since the latter provides new information based on the content of tables/graphs. This exemplified one of the three ideational complementarity relations, namely *augmentation*, mentioned by Unsworth (2006) and Daly and Unsworth (2011), where each of the semiotic modes (image/text) provides ideational content that is additional to and consistent with those provided in the other. The other two relations are *distribution*, where the two modes jointly construct similar content, and *divergence*, where the ideational content is opposed in the two.

The conceptual knowledge of the financial concepts was highly complex since students were required to unpack the mathematical ideas compressed in formulae and to translate between algebraic, numeric and geometric representations.

What follows is a discussion of the findings of the SF-MDA of the interpersonal meanings in the participants' texts.

8.2.2 The interpersonal meaning

The interpersonal meanings in the three modules were revealed by the analyses of MOOD and Modality systems.

8.2.2.1 The Mood structure

The analyses of the Mood structure in Chapters 4-6 revealed the high usage of formal declarative statements in the business discourse and the rare occurrence of the imperatives ADD and LESS in management accounting tables. This usage is

expected in written academic texts in order to serve the purpose of providing information related to the given task. The group members' discussions in the wiki (Chapter 7) included not only declarative statements, but also commands and questions that were used to argue or present propositional content related to accounting standards, such as in "why international accounting standards are important" and "identify technical issues". The hybrid genre students produced was appropriate for this occasion. Whereas the discourse in the report was formal, it was informal in the wiki's discussion pages.

It was reported in Chapter 5 that two of three groups confidently resisted the general rules that discourage the use of the first person pronouns and personal experience in academic writing. Groups 1 and 2 used these resources in their concluding remarks to express their commitment. This finding contrasts with Yeung's (2007, p. 177) claim that the use of first person pronouns "does not seem to be a defining characteristic of business reports as claimed". Yeung found that though the writers occasionally used this authorial presence resource in business reports, its "occurrence appears to be correlated mostly with the descriptions of methods of investigation" (ibid, p. 174) for the purpose of projecting a professionalism. Similarly, Hyland (2005b, p. 14) argues that since academic assessment genres are "influenced by the dominant ideologies of the genre they are employing", they lack the writer-reader equality found in peer-oriented research papers. The findings in Hyland's (ibid) study showed that while 'expert writers' use personal pronouns and interjections to claim affinity with audience, students tended to underuse these features. As a result, it is not surprising to find that the participants minimally used Mood Adjuncts that are used to express a writer's attitude to the content of the message. As the discourse of the discussion pages was informal, the group members extensively used interjections and the first person plural pronouns in order to establish rapport with the readers and show consideration for their fellow members.

Next, I examine the findings related to the use of modality across the three business modules.

8.2.2.2 Modality

The most frequently used modal verbal operators across the three Master of Commerce modules were ‘can’, ‘could’, and ‘will’. Though the former two value modulation operators are typically used to weaken authority since the proposal is open to disconfirmation or choice, it was found in the instances that they represented quality at the pragmatic level rather than possibility as students preferred to encode meanings in the most economical manner possible. For example, the proposal “the amount of the asset can be measured reliably” is not open to disconfirmation or choice but rather upon the ability to reliably measure a decrease or increase. The following extract from the *Accounting Concepts and Methods* textbook showed that the modal verb ‘can’ was used to express quality rather than possibility: “the framework states that expenses are recognised in the income statement when a decrease in future economic benefits related to a decrease in an asset or an increase in a liability can be measured reliably” (Hoggett et al., 2009, p. 460). Recognition of assets is thus contingent upon the ability to reliably measure a decrease or increase. Group 3’s capital budgeting management report in finance (Chapter 5) utilised the peremptory obligation (modulation) ‘should’ (not) and ‘must’ six times, compared to two in Group 2 text and none in Group 1 text.

Table 8.3 outlines the frequency of occurrence of modalisation and modulation in the three Master of Commerce modules (Chapters 4-6). The findings showed the lack in the use of Finite modal operators expressing probability in all the three modules. This may be ascribed to the fact that the discourse of accounting and finance deals with abstract ‘truths’. As a result, modal operators and Mood Adjuncts were minimally used by the participants. The participants employed the nominalised forms of the modal verbs (‘need’, ‘require’, ‘indicate’, ‘consider’, ‘recommend’, ‘suggest’) which are a congruent realisation of modulation. These forms are used as a means to express obligation and to objectively disguise or mitigate a command or proposition.

Table 8.3 Modalisation and modulation in the three Master of Commerce modules

		Modalisation			Modulation					Total	Percentage
		Must= probability	May/Might=option, choice	Should= recommendation	Should= Obligation,	Can, could= possible	Will	Must=Obligation, requirement	Has/ Have to		
Accounting	Abdulrahman	0	0	1	0	3	3	0	0	7	0.53%
	Omar	0	2	2	0	6	1	2	3	16	1.49%
	Abdullah	0	0	2	0	7	2	3	3	17	1.43%
	Ibrahim	0	2	2	0	4	3	1	0	12	1.30%
	Hasan	0	1	2	0	6	1	0	0	10	1.22%
Finance	Group One	0	0	3	0	3	4	0	0	10	0.40%
	Group Two	0	2	3	1	4	8	1	4	23	1.16%
	Group Three	0	1	5	5	31	36	1	0	79	2.33%
Management Accounting	Group One	0	0	0	0	0	8	0	0	8	0.89%
	Group Two	0	0	0	0	2	0	1	0	3	0.23%

The analysis of the interpersonal meanings in a statistical sensitivity analysis graph (cf. page 191) showed that it is imbued with a degree of certainty or usuality when its underlying theoretical construct is based on presumptions, rather than abstract truths. As the percentage of decrease or increase in the revenues is based on accountants' prediction of external factors that may affect the business environment, this estimate may not be always 'true'.

Next, I discuss the findings related to the analysis of the interpersonal metadiscourse resources international students used in a collaborative assessment task in the *IFR* module, both in the wiki discussion pages and the report.

8.2.2.3 Metadiscourse analysis of wiki postings and the report²³

This section aims to answer research question 2B, namely exploring the main metadiscourse markers in international students' collaborative *IFR* module's assessment task, both in the wiki discussion pages and the report. The international students employed the interpersonal resources to express their positions and connect with their readers.

²³ Alyousef & Picard (2011, p. 476).

The findings of the linguistic metadiscourse analysis in Chapter 7 showed that the wiki discussion pages contained spoken-like interactional metadiscourse markers (e.g. self mentions, reader pronouns and interjections) and also combined features of written language. The use of interactive markers was almost equal in both the discussion pages and the report. On the other hand, the use of frame markers in the report was about five times higher than in the discussion pages, reflecting students' awareness of the academic nature of reports and the differences between genres. However, most of the evidential markers used in the wiki discussion pages were hyperlinks, one of the features of Web 2.0 technologies. This feature is becoming widely used in online reports. In contrast, the use of endophoric markers in the wiki discussion pages was higher than in the report. The findings for interactional metadiscourse markers revealed that wiki discussion pages contained almost double the amount of these resources than the report, indicating the semi-dialogic nature of the collaborative wiki. Since students used the wiki discussion pages as a Discussion Board, self-mentions were very high (25.8%), compared to 1.4% in the report (cf. **Table 7.2**, page 246). This explains why the discourse in some parts of these pages is informal, personal, and emotive. In contrast, hedges were higher in the report (51.4%) than in the wiki discussion pages (29.2%) (cf. **Table 7.2**). This supports Hyland and Tse's (2004) finding that hedges constituted the highest frequency of occurrence amongst other interactional markers in academic writing. Only the wiki discussion pages contained personal pronouns that engaged the readers and, thereby, made the text more personal, interesting, and easy to follow. The discourse analysis showed that students used formal academic language in their report. However, in the discussion pages, formal-like academic language paralleled the spoken-like features.

To sum up, the analysis of interactive and interactional metadiscourse markers revealed, respectively, the way students anticipated readers' need to follow an argument, and to participate in a dialogue. The discourse analysis showed that students used formal academic language in their report. However, in the discussion pages formal-like academic language paralleled the spoken-like features. The use of interactive metadiscourse markers was almost equal in both the discussion pages and the report. It is clear from students' use of the various

metadiscourse markers that they have a good grasp of the various features of different genres. This indicated that the wiki task facilitated ESL/EFL business students' awareness of their audience in each genre type.

In the next section I discuss the findings of the SF-MDA of the textual meanings in the participants' texts.

8.2.3 The textual meaning

The expression of MODE is represented by the textual metafunction which organizes the experiential and the interpersonal meanings into whole texts through a number of linguistic resources, which include genre (8.2.3.1), Theme and information structure (8.2.3.2), cohesion (8.2.3.3), and nominalisation and lexical density (8.2.3.4).

8.2.3.1 Genre

The participants in the *Accounting Concepts and Methods* module were required to develop their conceptual knowledge of the principles underlying the preparation of the three main accounting financial reports (statement of financial position, income statement, and statement of cash flow) in order to successfully execute the requirements of the directives discussed in Section 8.1.3. For example, they were required to analyse data in order to clarify how an insurance payment is accounted for (cf. **Table 4.4**). They were also required to show cause and effect by explaining the effect of a given transaction on financial statements. The students followed the preferred schematic structure (or templates) when constructing an accounting financial report, as discussed in Section 4.3.1 (cf. page 117). For example, the SF-MDA of the statement of financial position (balance sheet) showed that its design has two preferred visual modes (or schematic structures). While some accountants prefer to list assets in one column and liabilities and equities in another, others list all the three categories in one column.

Similarly, the three groups in the *Principles of Finance* module (Chapter 5) developed their conceptual knowledge of financial management and modern

finance theory to assess the viability of the investment proposals when completing the detailed capital budgeting management report. They were also required to present graphs and tables where relevant. Unlike the accounting module, students here were expected to engage in social communication skills with their group members. The SF-MDA of the written reports showed the prevalence of the following schematic structure: title page, table of contents, introduction, analysis, recommendations based on the findings of the analysis, assumptions, conclusion, and an appendix. A key characteristic of capital budgeting technique reports is that the conclusions were not based on the writers' primary position, as in the argumentative essay, but rather on the results of the calculations that are either based on presumptions or abstract truths. For example, the EBIT and the sensitivity analysis statistical graphs are imbued a degree of certainty or usuality since their underlying theoretical construct is based on presumptions, rather than abstract 'truths'.

The two groups in the *Management Accounting* (Chapter 6) module assignment were required to provide nine supporting schedules that were needed to compile a budgeted balance sheet. The first group incorporated an extra generic stage into its text, a MEMO, which was considered redundant by the tutor. This genre type included the opening salutation "Dear Uncle George", two introductory paragraphs introducing different ideas, the heading "Other assumptions", and the closing remark "Best regards", though it did not include a subject line. The major communicative function of this information genre was to outline the information provided in the management accounting schedules and the assumptions made in the calculations.

Abdulrahman's group in the *IFR* task was required to engage in collaborative and individual knowledge building processes, employing Web 2.0 digital literacy technology, wiki, in order to present its final report, which needed to be coherent and persuasive. Like the *Principles of Finance* module, this task consisted of a professional scenario: a young graduate accountant assigned to submit a report to the boss about the recent releases of International Accounting Standards *Exposure Drafts*. To do so, they were required to answer the four questions before writing the report. The schematic structure was thus defined by the task sheet

requirements. The group designed one wiki page for the report and four wiki pages for group discussions under four major topics that were based on the task sheet requirements.

The participants simulated workplace practices by practicing the different types of business genre and engaging in professional scenarios that required them to adopt different roles in each module. The latter practice will be discussed in Section 8.3.3, as it was one of the themes that emerged in the research study.

In the next section I discuss the main findings related to the analysis of Theme and information structure in the participants' texts.

8.2.3.2 Theme and information structure

The SF-MDA of a balance sheet in 4.3.1 showed that Theme and information structure choices in financial statements are constrained by the generally accepted principles of accounting for the presentation of financial statements, i.e. agreements acting as invariant guides, adopting Chambers' term (1995, p. 249). For example, the categories of the balance sheet are classified according to the principle of liquidity that contributes to the cohesion and coherence of the text. As Mäkitalo (1989, p. 498) states, institutional categories "live in, and through, institutionalized forms of talk and textual practices, and they serve as powerful discursive tools". Chambers (1995, pp. 248-249) also points out that these categories are influenced by "mathematics, economics, law, judgment and choice, language and communication, metrology, and politics and ethics". These seven enquiry fields bear on the processes and products of accounting. The analysis of Theme in *Accounting Concepts and Methods*' assignments revealed the frequency of both linear and parallel thematic progression types. This is expected in expository accounting genre as each sentence logically relates to what has preceded.

The SF-MDA of the balance sheet in Chapter 4 demonstrated that Kress and van Leeuwen's (2006) approach to the analysis of grammar of visual design in terms

of compositional/textual zones is applicable to its categories. The category 'assets' represents the 'ideal' since its value does not include the 'liabilities' while the category 'equities' represents the 'real' since it is calculated by deducting 'liabilities' from 'assets'. The category 'liabilities' act as a 'mediator' since it forms a bridge between 'ideal' and 'real'. This finding corresponds with Kress and van Leeuwen's (ibid) 'information value' compositional zone layout shown below: Centred. Circular, mediator composition, horizontal given-new compositions, and vertical ideal-real compositions.

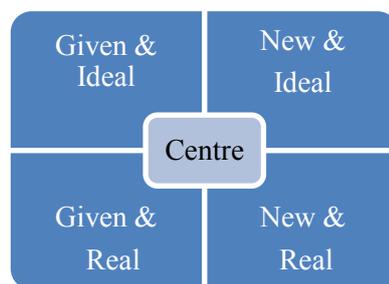


Figure 8.1 The grammar of the balance sheet in terms of compositional zones (Kress & van Leeuwen, 2006)

The positions 'ideal' and 'real' are determined according to the 'material value' of each category. Kress and van Leeuwen's (ibid) criteria for recognizing spatial configurations were reliably ascertained in the analysis of accounting statements. The role of ideal/real positioning in this instance serves to reflect high salience for the primary category 'assets'. The topical Given Themes along the financial statements' horizontal axes are presented to the left side by the categories and the sub-categories, whereas the New key information is represented by the numerical values to the right side. A relational identifying clause in a financial table has a *thematic equative* structure since it is linked by a relationship of identity, expressed by some form of the verb *be* that links the Rheme with the Theme. It also has a thematic nominalisation in it (cf. 4.3.1, 5.2.3.1, 6.3).

Kress and Van Leeuwen's (ibid) compositional zones approach, however, is not always applicable, as demonstrated in other financial tables in Chapters 5-6. The Value (Identifier) in a relational identifying process in capital budgeting tables does not always correspond with 'New' information. As a result, left-hand and

right-hand spatial dimensions do not always correspond to the linguistic concept of 'the Given' and 'the New'. Regardless of its position in the capital budgeting table, a numerical value can be either given or new information, depending on whether it is known before calculations or not, i.e. elicited from the task sheet. It is therefore argued that, unlike orthographic texts, the Rheme in financial tables can be either 'New' or 'Given'. Similarly, in Chapter 6, I demonstrated that when the numerical value in financial tables is elicited from the task sheet both the Theme and the Rheme are associated with Given information; whereas when the Value is not mentioned in the task sheet the Rheme is associated with New. These findings are in line with Jones' (2006) argument that an image or text occurring on the right side does not necessarily present new visual or verbal information.

The SF-MDA of Theme in Chapters 4-6 revealed the frequency of two patterns: Theme reiteration and the linear pattern. The findings in Chapter 5 showed that the reiteration of a Theme in a text serves not only to provide a strong topical focus by presenting additional information or making further explanation, but also achieves other functions in capital budgeting tables and graphs, including spotting trends and taking decisions by conducting comparative judgments of various statistical figures that assists in drawing conclusions. Both the thematic and the rhematic statuses are combined with either Given or New. The participants used Theme reiteration in order to provide new or given information and to draw conclusions.

The analysis of thematic choices in business discourse presented here extends Kress and van Leeuwen's (2006) approach to the analysis of visual artefact in terms of compositional zones. Semiotic accounting resources in a balance sheet are stratified into discourse semantics, grammar and display.

In the next section I will discuss the main findings of cohesion analysis.

8.2.3.3 Cohesion

The findings of cohesion analysis in accounting, finance, and management accounting discourses (Appendix 71) showed that lexical cohesion formed the largest percentage of use, and in particular reiteration of the same lexical items,

followed by reference. This is normal as topic maintenance involves talking about the same entities (or nouns). The cohesive vertical selections within the Theme system form *logogenetic chains* that contribute to the creation of meaning in the course of unfolding of a text (Halliday & Matthiessen, 2004). Halliday argues that logogenesis (or instantiation) “pertains to the entire meaning potential- all the strata and all the metafunctions” (ibid, p. 530). Conjunctions were primarily used in the three modules to signal enhancement (<5.26% of the total cohesive devices) and extension (<3.15%) relationships. Extension devices are typically used to provide further related information or to establish counterclaims (e.g. and, also, furthermore, but, however, etc). On the other hand, enhancement devices are used to provide reason (e.g. because, thus, so, etc), to illustrate the manner in which an action takes place (e.g. as, though, although, etc.), and to order the sequential structure of events (e.g. first, second, etc.). Thus whereas these devices expand the utterance by providing circumstantial details such as time, place, manner, cause or condition, elaboration devices expand an utterance by reformulating the message to provide focus on the content (e.g. more specifically, in fact, etc). Elaboration devices were minimally used in the three modules (<1.19%). The findings showed that Additive conjunctions that aim to extend the meaning, in particular ‘and’, ‘also’, and ‘in addition’, had the highest frequency (<3.35%), compared to the variation cohesive devices (on the other hand, alternatively, rather, in contrast, or, etc) whose occurrence was below 0.39%. This implies that the participants had difficulties in employing the logico-semantic resources of extension for construing the inter-clausal relations, particularly in the use of variation devices. The lack of these devices may be ascribed to the use of the rhetorical organization in L1 and the Saudi educational system that relies heavily on memorizing. The frequency of reference, though, ranged between 20.30% and as low as 1.68% across the three modules (Appendix 71). The moderate frequency of reference in the three modules is ascribed to the fact that the financial tables constitute the major part in accounting discourse.

The findings also showed that the participants underused other lexical and grammatical cohesive devices. These findings support those in other studies (Abusharkh, 2012; Alharbi, 2011; Aljabr, 2011; Alshammari, 2011; Fazelimanie, 2004; Hinkel, 2001; Johns, 1980; Kamal, 1995; Khalil, 1989; Liu & Braine, 2005;

Mohamed-Sayidina, 2010; Mohamed & Omer, 2000), which found that ESL/EAL students extensively used lexical repetition to convey the interrelationships among ideas, direct the attention of reader/listener, and show the relative *foregrounding* and *backgrounding*. For example, Johns (1980) found that lexical cohesion was the most frequently occurring cohesive type in the written business discourse (79%), while reference was the second most common category (14%). The frequency of other lexical and grammatical cohesive devices was higher in the accounting and management accounting discourses than the capital budgeting management reports in finance. This is mainly attributed to the abundance of lexical ties in financial statements, compared with their rare occurrence in orthographic texts in finance. For example, the use of meronyms (Appendix 71) in the accounting and management accounting discourses ranged between 15.30% and 5.58%, compared to their rare occurrence in the three finance texts (<1.36). As the major discourse in the two modules consisted of financial statements, taxonomic classifications contributed to the texts' cohesiveness. They led to the cohesiveness of well-formed texts not only through the top-down paradigmatic and left-to-right syntagmatic lexical relations, as in orthographic texts, but also through the bottom-up and right-to-left relations. The reiteration of the same lexical item in financial statements is also used to simultaneously define and/or describe the value of accounting categories and sub-categories. For example, the lexical strings 'Cash at bank' and 'Accounts receivable' are meronyms (part of) of the hyponym 'Current assets' (cf. 4.3.1). Hyponymy is a sign whose denotation class is properly included in the denotation class of another sign. A meronym, on the other hand, denotes a part in respect to a lexical item denoting a whole. Sense relations in financial statements occur between single lexemes but also between lexical strings. In addition, when taking into account the meaning making processes of the general categories 'Liabilities' and 'Equity' it appeared that they are not only hypernyms of their sub-classes, but also meronyms of 'Assets' since the sum of numerical value for the two general categories equals 'Assets', i.e. part-whole relations exist. A hypernym refers to the lexeme with the more general or inclusive meaning. Taxonomic classifications of synonyms, hyponyms, hypernyms, meronyms, and antonyms play a major role in the organisation of financial statements' discourse. These devices also add interest and subtlety to the text. The well-formed taxonomic lexical relations in financial statements bind the

separate lexical strings in a hierarchical networked structure, thereby constituting a tight semantic unit. Lexical relations between financial statements' categories are organised into a network.

Substitution and ellipsis rarely occurred in the three modules, as their frequency in the three accounting modules ranged between 2.48% and as low as 0.00%. The findings showed that ellipsis was used in the accounting discourse calculations as a means to avoid redundancy. The scarce occurrence of these two devices in the participants' texts has also been reported in a number of other studies (Abusharkh, 2012; Al Jarf, 2001; Fazelimanie, 2004; Hessamy & Hamed, 2013; Hinkel, 2001; Johns, 1980; Khalil, 1989; Mohamed-Sayidina, 2010). For example, Khalil (1989, p. 363) found that substitution rarely occurred (1.1%) in ESL students' texts, while ellipsis never occurred. Similarly, AlJarf's (2001) findings showed that EFL college students' difficulties in resolving substitution, reference and ellipsis relationships were due to difficulties in organizing the meaning-making processes through the use of the cohesive devices. This theme will be further investigated in Section 8.3.11 which deals with textual cohesion, one of the themes emerging across the business modules. The rare occurrence, however, seems to be natural as these ties are more characteristically found in dialogues, where the typical sequence is based on pairs or triads or longer structures that are related by interpersonal meaning. Hessamy and Hamed (2013), however, ascribe the rare occurrence in their study to the participants' limited knowledge and the influence of their L1, Persian, which permits the use of repetition of words more than English.

This study adds to our stock of knowledge as it is the first to analyse the use of cohesive devices in accounting courses, and in particular in financial tables.

In the next section I discuss the main findings related to the analysis of nominalisation and lexical density in the participants' texts.

8.2.3.4 Nominalisation and lexical density

Nominalisation is a powerful means of creating cohesion in written text and maintaining an impersonal tone. The findings in the accounting (4.3.2), finance (5.2.1) and management accounting (6.3) texts included instances of agentless passive sentence constructions where the writers deleted the ACTORS in passive clauses because their identity is known to the reader and replaced them with nominalised abstract technical terms. This seems to be a characteristic feature of business discourse since the aim is to emphasise the process rather than the agent who is performing the action. Thompson (2004) considers nominalised processes as non-finite since the truths they express are not tied to specific time or observer. The participants employed nominalisations in subject-head position and in conjunction with WH- and TH- forms in the three business modules, which are called *retrospective labels* as they do not “only provide cohesion, but have the potential to also reveal the writer’s opinion or evaluation of a given subject within the text (often the rheme of the preceding sentence)” (Baratta, 2010, p. 1020). For example, the *retrospective label* this in “this *transaction*” (Appendix 31) acts as a deictic or ‘pointing out’ function; a marker of some special status of the clause (i.e. textual) and as an element in the experiential structure (i.e. topical).

The lexical density in the five *Accounting Concepts and Methods*’ (Chapter 4) individual assignments ranged between 29.7% and 47.3%, while it was the lowest (17.3%) in Group 1’s capital budgeting management report in finance (Chapter 5), compared with the other two groups. The analysis of lexical density in the management accounting (chapter 6) texts revealed that Group 1’s text had a higher lexical density load (25.7%) than Group 2’s text (19%). As 88.51% of Group 1’s management accounting text comprised financial tables I did not conduct analysis of nominalisations in this module. The top key words NPV, project, year, cost and cash found in the three capital budgeting management reports (Table 5.27) were among the most frequent lexical items in the analytical financial sections in six management accounting case reports, drawn from the British Academic Written English Corpus (BAWE, 2008), written by non-native speakers of English. This finding revealed that the language of the case reports is characterised by the use of specific lexis related to project evaluation in finance.

To sum up, the findings of SF-MDA showed that although participants' lexicogrammatical experiences in the three modules are in principle encoded in terms of the three language metafunctions, in practice they are never independent of each other since they operate simultaneously. As Halliday and Matthiessen (2004, p. 19) state, systemic theory is "concerned with language in its entirety, so that whatever is said about one aspect is to be understood always with reference to the total picture". In order to be considered literate in capital budgeting techniques students need to manage the expressions of FIELD, TENOR and MODE through the multimodal and multi-semiotic experiential, interpersonal and textual metafunctions, i.e. participate in the discourse community of accounting.

I presented and discussed in Section 8.2 the key notions of linguistic and conceptual business knowledge represented by the international students studying in Australia, and in particular Saudi students through the production of texts in the four Master of Commerce Accounting program modules: *Accounting Concepts and Methods*, *Principles of Finance*, *Management Accounting*, and *Intermediate Financial Reporting*. In order to contextualise the findings of the SF-MDA I conducted interviews and observations.

What follows is a discussion of the key themes that emerged from the participants' experiences, perspectives and understandings related to their engagement in the academic literacy and numeracy practices in the four modules.

8.3 Emerging themes across the business modules

In this section, I summarise and discuss the findings related to research questions three to five, which seeks to

- 3A) Describe Saudi students' experiences and perceptions of their engagement in academic literacy and numeracy practices in a number of literacy events in the four Master of Commerce Accounting program modules;
- 3B) Describe their perceptions of the relevance and significance of their practices to those in workplace and in private life situations;

- 4) Find out whether wikis facilitated collaborative learning in this module's assessment task; and
- 5) Investigate the assessment approach the tutor adopted in the *IFR* task.

To answer these questions, I attempted to analyse and group the themes that appeared during the coding and memo-writing processes in each case study and across different cases.

As the participants commenced their accounting program in different semesters (cf. **Table 3.5**), data were collected over 3-6 semesters. Large amounts of data were collected from document collection, interviews, and observations. Most important are my seven EAL participants' own thoughts, perceptions, and words about their literacy and numeracy experiences in the postgraduate program in Australia. While most of these experiences were presented in Chapters 4-7, I present here the key themes that emerged from the SF-MDA, my observation of the participants in a number of literacy events, and their responses to the interview questions: i.e. their unique stories about their experiences, their problems and successes with academic literacy, and their own interpretation of how and why things happened as they did. The participants' talk showed the prevalence of two types of narratives: generic and canonical. While the former type refers to recurring (or repeated) sequence involving participants, actions, events, and outcomes, the canonical narrative of personal experience represents a sequence occurring once only (Baynham, 2000). These narratives represented the backbone of the themes that emerged from the participants' experiences and perceptions of their engagement in a number of literacy events in the four Master of Commerce Accounting program modules.

Thus what follows is a discussion of the eleven themes that appeared during the coding and memo-writing processes of Saudi postgraduate students' literacy and numeracy practices in the four business modules.

8.3.1 Interpersonal communication skills

The findings in the case study revealed that the seven participants were socialised into the accounting discourse through their participation in the tutorial classes and

in peer/ group network in the four business modules. The students contributed to tutorial discussions through their active participation.

The development of communication skills is one of the main graduate attributes set by the Business School (Hancock, 2006), as stated earlier in Section 8.1.2. The tutor emphasised the interpersonal communication skills in the *Principles of Finance* task since they would enable students to gain disciplinary-specific knowledge. Communication skills competencies in the *Management Accounting* module were measured in terms of students' ability to examine, identify, present, and discuss information in a group setting. The *IFR* tutor required students to collaborate and work in a team by looking at issues from different angles in order to demonstrate their innovative thinking and research ability. They were required to exhibit leadership skills and to "Be ethical", a requirement that is highlighted by the professional organisations (ICAA & CPAA, 2009): future accountants need to "engage in ethical reasoning" and "appreciate ethical dimensions of situations" (cf. page 96). Accountants also possess leadership skills when they are focused on outcomes and flexible in new/ different situations, can act strategically, think and act independently, think creatively and tolerate ambiguity (cf. page 96).

The participants were assessed not only on the content of the wiki pages in the *IFR* module, but also on their research skills, communication skills, and innovativeness in using the wiki as a collaborative working tool. The development of communication skills is one of the main skills tutors are required to emphasise in the participants' home country, Saudi Arabia. As the previous rector of King Saud University, Abdullah Al Othman, states, "public and private sector employers want universities to ensure their graduates have skills in using English and computers, writing reports, communication and self-improvement, in addition to their specialized knowledge" (AlHarthi & AlKhamees, 2010). In addition to conceptual and procedural business knowledge, students need to improve their communication skills in order for them to succeed in their tertiary study and beyond.

In the next two sections I discuss two themes that emerged in the present research case study, namely information literacy (IL) skills for life-long learning and students' knowledge capital and workplace practices and experiences.

8.3.2 Information Literacy (IL) skills for life-long learning

Information literacy is a key part of lifelong learning in the digital age. McTavish (2009, p. 6) defines IL as “the ability to locate, ‘read’, and manage information within a range of printed, electronic, visual texts and ICT networks; to critically evaluate information; and to communicate information clearly via spoken and written language while mediating social networks and relationships”.

Like the interpersonal communication skills, IL is also linked to graduate employability. The analysis of the epistemologies of the *Accounting Concept and Methods* module showed that the participants needed to be knowledgeable in IT skills in order to manage the range of accounting competencies identified by ICAA/CPAA (2009) in **Table 4.2** (cf. page 96), such as the ability to identify, find, evaluate, synthesise, organise and manage information and evidence. As Jackson and Durkee (2007, p. 83) put it, students “should be primed with IL skills in order to find, locate, evaluate, synthesise, and manipulate data to fulfil personal and business information needs”.

In order to develop these skills mentioned above, various semiotic resources were used in the four business modules. The lecturers and the tutors used a wide variety of multimodal texts in the classes I observed. Similarly, the participants engaged in diverse digital literacy mediums in their studies (e.g. databases, spreadsheets, E-Mail, Wiki, accounting software, and the University's Portal). Louhiala-Salminen (2009, p. 307) argues that the business environment change at the turn of the new millennium “resulted in a wider view of Business Communication as a discipline”. These changes were caused by leaps in technology, business structures, and globalisation. As a result, the participants needed a sound knowledge of IL in order for them to succeed in their learning.

The participants developed their IL competencies in the four business modules; yet, some needed to develop and enhance their skills with spreadsheet since it is a core skill for accountants. The participants in the *Accounting Concepts and Methods* module were required to have some knowledge of IT in order for them to successfully practice the ‘technocentric’ accounting software, MYOB and *Perdisco*. Some students had inadequate knowledge of Excel, as in Abdulrahman’s case who courageously confessed “my experience [in Excel] is rudimentary” [Appendix 53, Line 65],” an experience which is highly valued by accounting professional bodies, though some students lack the sufficient ‘affordances’(or skills) to cope with this demand. Stoner (2009) argues for the need for further research into the changing nature of the low levels of accounting students’ spreadsheet and database skills. In their case study, Jackson and Durkee (2007) suggest integrating a brief IL instruction class into the international accounting curriculum in order to introduce students into research skills, databases and referencing.

Rather than incorporating an IL session into the curriculum, however, I think it would be more practical if students are given freedom in attending this session. Or alternatively students can attend any of the help desk workshops run by the libraries or skills’ development centres in the university. This practice was evidenced by Abdulhadi in the *Accounting Concepts and Methods* module who improved his self research skills in the disciplinary databases, like Business Source Complete and E-Library, by attending a one-day library session. As Simon (2009, p. 249) states, “MBA programs should be preparing information literate business leaders in programs where every student is grounded in IL throughout his or her formal education”. Group work gives information literate students the opportunity to learn the necessary IT skills.

To sum up, the students were expected to engage in interdiscursive literacy and numeracy practices resulting not only from their engagement in non-technocentric tasks (the use of mathematics, accounting and finance discourses), but also in technocentric tasks (the use of accounting and spreadsheets software). It was found that the e-mail and the spreadsheets skills were neglected in classroom

instruction; however, they constitute the main tools used in professional workplaces.

In the next section I discuss how the participants have made use of the semiotic resources of their past experiences to make meaning in new communicative events.

8.3.3 Students' knowledge capital and workplace practices and experiences

In this section, I discuss how students engaged in the literacy practices that reflected actual workplace situations while at the same time made use of their previous literacy and numeracy experiences as they were producing texts.

The analysis of the epistemologies of the four business modules in Chapters 4-7 showed that the participants simulated workplace practices by adopting several roles. First, by taking the role of financial accountants in the *Accounting Concepts and Methods* module in order to construct three main financial reports: a statement of financial position, an income statement, and statement of cash flow. They also engaged in practising two accounting software packages: MYOB and *Perdisco*. Second, the participants in the *Principles of Finance* module adopted the role of financial analysts by reading a professional scenario in order to evaluate the best investment alternative through the application of capital budgeting techniques. For example, Group 1's task sheet required student writers to take the role of the CEO of a company and decide the best choice of the three investments. Third, the participants in the *Management Accounting* module adopted the role of management accountants to provide nine supporting schedules that are needed to compile a budgeted balance sheet. Finally, the participants in the *IFR* module adopted the role of a young graduate accountant assigned to submit a report to the boss on important matters of accounting policy. During their first face-to-face meeting, the group members in the IFR task divided the work into different areas and dealt with their topics on their own. It can be argued that students' engagement in this practice could resemble workplace activities since employees usually divide up tasks, conduct online discussions, report back to the manager, and then refine the work. Above all, as Duffy (2008, p. 126) states, "as

more organizations adopt the wiki for internal and external collaboration and information, work with wikis at the tertiary level builds crucial skills for the workplace". This is pertinent for ESL/EFL business students who have to operate in an English work environment.

Whereas role adoption statements were explicitly specified in the *Principles of Finance* and the *IFR* task sheets, they were implicit in the other two modules. This explains the lack of the first person pronouns in the *Accounting Concepts and Methods* discourse and their low levels in the *Management Accounting* discourse. Omar and Peter's group minimally used the first person pronoun to describe their method of investigation, as in "to complete the summary cash budget, we must then adjust for financing costs" (Appendix 57, Line 158) and "to work out the cost of goods manufactured for each quarter, we simply plug in the figures calculated in the COGM schedule" (Appendix 57, Line 218). This finding supports Yeung's (2007, p. 174) claim that though the writers in the workplace occasionally use this authorial presence resource, its "occurrence appears to be correlated mostly with the descriptions of methods of investigation" for the purpose of projecting a professionalism. The participants not only simulated workplace practices, but also made use of their knowledge capital. The interview data in Chapters 4-7 (Sections 4.2, 5.4, 6.2, & 7.2.5) showed that the participants made use of their previous literacy and numeracy experiences either during their MA program or in the workplace prior to commencing the program.

With the exception of Hasan, all the other six participants made use of their professional experiences in accounting. For example, Abdullah and Abdulrahman's previous literacy and numeracy experiences facilitated their writing in the *Management Accounting* module (6.2.1). Abdullah made use of his previous Excel Spreadsheet's skills developed during his work in a company after finishing undergraduate studies. Similarly, Abdulrahman (personal communication, March 17, 2011) reported that while doing this assignment he was influenced by his previous accounting literacy and numeracy practices when he worked in a bank after completing undergraduate studies. Besides prior professional experience, the participants' knowledge capital and experiences were also useful. Both Abdulrahman and Omar agreed that the lecturer's PowerPoint®

Presentation on 'Budgeting' was very helpful for them as it included examples similar to the requirement of the given task. Omar's previous assessment literacy and numeracy experiences facilitated his writing in this module. He noted that part of the IELTS helped him write explanations to the tables. Omar here is referring to the first task in the IELTS writing component, in which students were required to write a 150-words report to describe the information or the process exemplified in the illustrative line graph, bar graph, pie chart, table or diagram. This emphasises the vital role of students' previous knowledge capital and workplace practices in their new learning contexts. Littlejohn, Beetham, and McGill (2012, p. 554) argue that one of the learning resources is the "recognition of learners' existing knowledge practices"; although the four modules did not explicitly recognise the students' prior professional learning, this invaluable resource assisted them in achieving the goals of the course. Prior work experience is also likely to assist the students in obtaining work, as most companies prefer to recruit individuals with a few years of work experience over fresh graduates who have little or no work experience.

The participants' transfer of previously constructed meaning-making practices into this learning context showed that the social stocks of tacit knowledge are "being built up, maintained, transmitted and also modified in communicative processes" (Günthner & Knoblauch, 1995, p. 5). The transfer of previously constructed meaning-making practices into learning contexts forms what the New London Group (2000) called the 'redesigned'.

To sum up, accounting discourse encompasses not only quantitative technical calculations but also qualitative material such as cases, reports and scenarios. A point of interest is that the participants were required to comply with the generally accepted accounting principles. This raises the theme as to whether accounting knowledge is prescriptive or interpretive, which will be discussed next.

8.3.4 Accounting knowledge: prescriptive or interpretive?

The students made use of their past and current experiences to make meaning in the new communicative events. For example, Omar argued that the requirement of

the first question in the *Accounting Concepts and Methods* module was basic and did not require much effort. Similarly Abdulahdi did not show calculations of some technical terms in his *Principles of Finance* management report, which he thought constituted basic financial skills in accounting. Omar and Abdulhadi's claims seem to be true only when accounting knowledge is reduced to facts and ethical standards constructed technically by experts. According to Gill (2009, pp. 17-18) the term ethics refers to "accepted behaviour in some fairly narrowly prescribed areas, for instance with respect to money laundering, conflicts of interest, and whistle-blowing". Accounting knowledge is governed by accounting standards that are defined 'facts' in a sociological sense which requires the general agreement of the accounting profession. This argument is in line with the learning outcomes of the *Accounting Concepts and Methods* individual assignment task (Section 4.2.5). The participants were expected to follow the widely accepted accounting standards for constructing financial statements.

Accounting knowledge, however, also comprises accountants' ability to identify, find, evaluate, synthesise, and negotiate information and evidence. As Manninen (1997, p. 291) argues, the main aim of reading business texts "is not just to learn to remember the facts but to learn to engage in a critical and reflective dialogue between own personal understanding and the world view which the text opens." The same applies to literacy practices in real world professions when knowledge is put into practice. In these contexts, students need to show their capacity to learn to acquire, to interpret, and to apply information. It can be argued here that Omar and Abdulahdi's claims seem to be untrue when looking at workplace practices. Knowledge is not always prescriptive in these situations. As Gill (2009, p. 15) argues "accountants may differ not only over the precise measurement of an item but over the accounting technique most appropriate to its valuation". For example, the participants in the *Management Accounting* module (cf. 6.2) were not sure if they were required to include the depreciation amount or not. Similarly, Group 1 excessively used tables and graphs in the *Principles of Finance* module (cf. **Table 5.20**), compared to the other two groups. Accounting numeracy practices are social in nature (Baker et al., 2003). As a result, this challenges the top down approach of learning, which views numeracy as encompassing formulaic rules and procedures that are to be memorised and applied. Accountants' practices in the

social sense are situated in the knowing since knowledge is “inseparable from the circumstances of its practical use” (Sa'adeddin, 1989, p. 511). I therefore argue that accounting knowledge is mainly the product of interpretive processes, except when it is reduced to facts and ethical standards constructed technically by experts. Accounting knowledge is imbued with numerous instances that make it subject to contestation processes that are based on expectations, views, decisions, choices, treatments, and perspectives.

Although the participants' views and decisions seem to be a natural consequence of their socialisation into the accounting discourse, they may represent resistance forms of the discipline's practices. This theme will be discussed in the following section.

8.3.5 Students' resistance to disciplinary practices

The participants in the present case study resisted some of the discipline's practices. My discussion of EAL students' resistance to the discipline's practices and to the subject positions set up for them aims to provide an outline of the theoretical rationale underpinning that resistance.

The finding of the interview data related to the participants' literacy experiences revealed a number of instances where they resisted disciplinary practices. For example, the students resisted the requirement of the first individual assignment in the *Accounting Concepts and Methods* (Chapter 4) module by engaging in group work. Though this finding is in line with Hofstede (2001) and Hofstede and McCrae's (2004, p. 64) claim that “individualism prevails in developed and Western countries, while collectivism prevails in less developed”, it cannot be generalised to all Saudi students as discussed in Chapter 7. The finding of the interview with Abdulrahman in the *IFR* module (7.2.5) revealed that though he was aware that the quality of the text was enhanced by the group's collaborative work, he wished if he had the chance to resist the task's practices by working individually. Abdulrahman felt that he would have spent less time doing the task by himself since he does not "have to wait for the students' feedback" (personal communication, July 22, 2010). Elgort, Smith and Toland (2008) argue that this

problem could be encountered by preparing students for group assessment through the introduction of 'mini wiki-tasks'.

Other instances of resistance appeared in the *Management Accounting* (Chapter 6) module. Influenced by their previous workplace experiences, the participants resisted the requirement of the assignment. This was exemplified by the inclusion of footnotes and the attachment of a MEMO by Group 1 and the use of explanatory notes by Group 2. Abdullah (personal communication, March 19, 2011) argues that although the task sheet did not require them to write a MEMO, they strongly believed that in workplace settings they will normally attach an interoffice MEMO to the 10 budgeting schedules when presenting the findings to a manager. The group may be influenced by their practices in the *Principles of Finance* (Chapter 5) module when the tutor explicitly required them to provide an outline of any assumption made in the management report calculations (cf. 5.1.5). Similarly, Omar's group presented explanatory text along with each schedule although it was not required by the task because 1) this shows the tutor that they fully understand the content of tables and 2) that it relates to real life professional situations where managers are presented with textual explanations (personal communication, March 13, 2011). Although these practices may correspond with workplace practices, the tutor disregarded them when assessing the texts because they were not part of the academic task. As noted by Mckenna (2004, p. 117), "becoming fully literate in the higher education institution means coming to terms with its rituals, norms, values, language and behaviours". Contrary to what Picard (2006, pp. 112-113) argues, students' problems here are not constructed "as a result of a mismatch between their individual primary discourses, especially Islamic and Arab Discourses and Western academia", but rather as a result of students' resistance to the academic expectations set up for them which contradicted with their professional experiences and expectations.

Abdulrahman (personal communication, October 13, 2009) resisted the requirements of the accounting mid-term exam and wished if he had the chance to read previous tests. He argued that he did not revise the language theory questions before the exam and that those who got high marks in the exam had a copy of previous semesters' tests. Similarly, although students were allowed to open the

Course Outline book in one of the mid-term exams, Abdulrahman resisted the practice. As he states,

I found that the use of the course outline in the 50-minutes mid-semester exam is not effective since it wastes my time searching for information. I decided to close the booklet and write my answer based on what I know. (personal communication, Oct 29, 2009)

Abdulrahman decided to resist the practice set up for him in order to save time. As Boughey (1999, p. 54) states, students need to be made aware of the ways in which their discipline uses particular discourses to “position and construct worlds on the basis of ideologies and would [be allowed] to resist the subject positions set up for them”. To sum up, all the instances discussed above represent first-hand, insider accounts about my participants’ resistance to some of the discipline’s practices.

The discussion of EAL students’ resistance to the disciplinary practices may have either positive or negative impact upon the development of their literacy and numeracy practices. As the discussion here concentrated on the positive side, I will discuss next the negative impact of this resistance.

8.3.6 Students’ preparedness

The participants’ discourse in the *Accounting Concept and Methods* tutorial (October 13, 2009) was context-independent as it encapsulated all the features of the relevant immediate situation in which the verbal interaction was embedded. The discourse of the tutorial was monolingual rather than reciprocal as the majority of the students seemed unprepared, with the exception of Abdulrahman and another three Chinese students. Students were required to prepare for this tutorial by answering a number of accounting questions. The experienced tutor noticed that most students were not prepared beforehand, evidenced by their resistance to participate, while others were reading answers from the textbook instead from their notes. This observation was also documented in Burch’s (2008) experiences in teaching postgraduate accounting students. Many students, Burch states, are not prepared for student-centred learning approaches as “only a small

number of students actively participate in a two-way learning dialogue” (ibid, p. 16). He calls for the need to develop new strategies for dealing with international students. Since communication skills are integrated into the Master of Commerce curriculum, lecturers need to frequently draw students’ attention to this aspect. Students need to realise that since tutorials aim to develop their communication skills through classroom interaction and more student group work, teacher-centred techniques are minimally used. Although Burch identifies the problem the paper does not provide suggestions on how the learning habits international students bring with them can be substituted with progressive-learning habits that favour student-centred strategies. Indeed with the advent of blended learning the burden has “shifted from the student to a combination of the teacher and a handful of progressive students who demonstrate that they are keen to learn and keen to share” (ibid, p. 17), as demonstrated in the next two themes that emerged from the findings in Chapter 7.

8.3.7 Cooperative vs. collaborative wiki literacy practices²⁴

The description of students' postings on the wiki and the findings from the interviews showed that most of the students favoured cooperative learning over collaborative (Chapter 7). This finding is in line with a number of studies (Judd et al., 2010; Krebs & Ludwig, 2009; Weaver et al., 2010). For example, Weaver *et al.* (2010, p. 856) found in their study that few students engaged in collaboration as "most groups delegated tasks to individuals within the group". Krebs and Ludwig (2009) also found that students divided the work into different areas and dealt with their topics on their own, instead of collaboratively developing and editing content in the wiki.

Most of the students in the present research study preferred cooperative learning in order to cope with the high learning demands in tertiary studies. It can also be argued that most of their collaborations were not true since they were not engaged in co-authoring but rather providing feedback to each other. Only Lydia's contribution was collaborative as she combined her accounting standards summary with Edward's, and used a table to add her contribution and summarise

²⁴ Alyousef & Picard (2011, pp. 475-477).

what the other members had posted on the topic *Exposure Drafts*. This finding supports Judd, Kennedy and Cropper's (2010, p. 351) assertion that implementing collaborative learning activities, "or simply using 'collaborative' technologies, does not guarantee students will work together in a cohesive way."

The students' way of working was perhaps due to the nature of the task. Since the students were rewarded on the number and quality of posts in the wiki, not how well they collaborated or worked together, the task itself seem to be cooperative rather than collaborative. De Pedro et al (2006) argue that the asynchronous nature of such collaboration has been viewed as promoting cooperation rather than competition amongst students. Each student in the present study negotiated the content and the structure of the wiki with his/her peers. The use of a wiki thus contributed to the group members' communication and knowledge sharing, thereby helping to improve the quality of their writing, as Abdulrahman (personal communication, July 22, 2010) stated. Thus the participants built knowledge through the socially situated literacy practices in wiki. As Ruth and Houghton (2009, p. 146) state, "wikis blur the definition of both novice and expert as expertise is developed and constructed as part of the process". Most of the aims of the task seem to have been fulfilled, such as working in a team, gaining knowledge and communication skills, collaborating (as seen by Lydia's collaboration), demonstrating research abilities, demonstrating innovative thinking, and examining issues from different angles (when the group members negotiated with their peers).

The finding that the use of a wiki did not enable collaboration between most of the group members cannot be generalisable, as the tutor argued that a few groups engaged online in co-authoring. In addition this group's collaboration during the face-to-face meeting when they decided which bits and pieces to take was based on the contributions and the peer feedback posted on the wiki Discussion pages. Since the tutor could not track contributions on the Discussion Board, the students posted their comments on the wiki Discussion pages and created a page for the report entitled "Report to the Boss" (Appendix 69, Wiki Report). Abdulrahman's worries about the equality of participation (cf. 7.2.5) can be

tackled through the tutor's development of early intervention strategies to encourage the engagement of reluctant students (Weaver et al., 2010).

Online synchronous meetings were not conducted in this study, perhaps because the students had three face-to-face meetings, or because the LMS used in this study did not have a "Chat" service. Prolonged contributions which were mainly caused by delayed of face-to-face meeting between the group members could have been tackled by creating a separate wiki page for asynchronous discussions.

Postponed meetings were amongst the difficulties found in a study by de Pedro *et al* (2006), which also included the tutor's motivation and previous training.

Although the wiki used in this study had no spell checker, Generation Y learners switched between different software, the word processor and the wiki, in order to check if their texts had any typos.

To sum up, the wiki was used for both cooperative and collaborative teamwork. However, although some collaboration took place during the third face-to-face meeting when the group members decided which bits and pieces to take, most of the collaborations did not occur online. With the exception of Lydia, online teamwork mainly involved cooperative practice. Most of the students favoured cooperative learning over collaborative. As the tutor argued, very few groups engaged online in co-authoring. To conclude, it can be argued that although collaborative tools are presumed to encourage collaborative behaviours, this is not necessarily the case as they also (or alternatively) support cooperative learning.

Having attempted to answer research question four, namely investigating whether the wiki facilitated collaborative learning among the participants or not, the next theme attempts to answer research question five, namely the assessment approach the tutor adopted in the *IFR* task.

8.3.8 The tutor's wiki literacy practices: formative or summative feedback?²⁵

Feedback in assessment tasks helps students identify their points of strengths and weaknesses. The findings in Chapter 7 (7.2.4) showed that although the task sheet

²⁵ Alyousef & Picard (2011, pp. 471, 475-476).

implied that students will be evaluated both on the process (the wiki discussion pages) and the product (the wiki report's page), a final summative assessment was conducted after submission of the assignment. This feedback is likely to be of limited benefit as their contributions were evaluated at the end of the semester. Thus Abdulrahman's learning outcomes were affected by the lack of formative continuous assessment (FCA) that could have occurred during the process. While students in this study were informed that their assessment would depend not only on the product, but also the collaborative process represented by their contribution, most students in the case study were also reluctant to engage in altruistic acts by editing each other's pages, because they were probably concerned that such acts would either be not rewarded or their contribution would not be better than the deleted one. This may be caused by their awareness of the lack of FCA. The tutor (personal communication, October 5, 2010) argued that she used formative assessment with groups that started early in order to encourage them. However, with later-starting groups, as in this case, only summative assessment was used at the end. She added that it was the first time for her to use a wiki in assessment tasks and she has decided to provide future students with FCA.

What follows is a discussion of one of the means tutors adopt to provide students with better learning environment, another theme that emerged in this research study.

8.3.9 Tutors' empathy

The findings of the research study showed that the participants were more receptive and motivated when their tutors showed a sense of empathy towards them. This converges with Morell's (2007) finding that lecturers' sense of empathy has a positive impact on EFL students' participation and on their receptiveness. The accounting tutor was considerate towards his non-native students by speaking slowly, giving them time to participate, and repeating new information. Similarly, the finance tutor encouraged struggling students to attend PASS sessions (cf. 5.4.1). In a PASS session, higher year students or those who have excelled in their course help struggling students develop their literacy practices. The finance tutor's extended feedback via the e-mail also had a positive

impact on the students as it clarified the ambiguities of the task sheet. Most of the tutors provided an exam preparation revision sessions at the end of each semester, where all the crucial topics were revised in an extended session. Tutors in these instances viewed themselves not as transmitters of knowledge but rather as facilitators of both content and language. Such practices indicated a sense of caring for the students and, as a result, developed communal respect. In a one-hour meeting, Abdullah (personal communication, March 19, 2011) stated that the most beneficial modules in his MA program were the *Quantitative Methods* and the *Principles of Finance* because the lecturers were very clear and provided further elaborations when they felt the students needed. This shows that a better learning environment is provided to international students when tutors' efforts are more sensitive and dialogic.

What follows is an investigation of a theme that emerged from my analysis of the epistemologies of the four business modules in Chapters 4-7, i.e. whether the writing tasks are structured or uncontrolled.

8.3.10 Structured vs. uncontrolled writing tasks

The findings of the research study showed that most of the assignment task sheets included detailed instructions that controlled students' choices in the preparation of the writing: e.g. textual organization and learning to deal effectively with topics presented by instructors rather than selected by students. This is similar to Horowitz's (1986) claim that much of the writing in U.S. universities, and in the context of graduate courses in business in particular, is highly structured and instructor controlled. Similarly Canseco and Byrd (1989) found detailed, highly structured instructions in 24 of the 55 course syllabi (43.63%) that were analysed, indicating that course tutors controlled the assignments.

To sum up, business tutors seem to prefer structured writing tasks to ensure consistency and fairness amongst the students. Unlike open-ended writing tasks, structured tasks are usually based on stated criteria for assessing texts.

What follows is a discussion of the last theme that emerged from my research case study, textual cohesion.

8.3.11 Textual cohesion

The findings in Chapters 4-6 indicated that some participants had difficulties with textual cohesion. Both Abdulrahman and Omar seem to have difficulties in composing appropriate texts, as revealed in the interview in Chapter 4 (Section 4.2.6). Abdulrahman's difficulties in writing appropriate long sentences in the accounting mid-term test (Section 4.2.3) seem to be caused by difficulties in organizing the meaning-making processes for the task in the target language, which involved description, negotiation, and explanation. The two participants need to practice thematic progression in texts and the use of cohesive devices since this command is vital for their future work and life prospects. As stated earlier in 8.3.1, employers in Saudi Arabia seek graduates who "have skills in using English and computers, writing reports, communication and self-improvement, in addition to their specialized knowledge" (AlHarthi & AlKhamees, 2010).

Based on my own experience in teaching first-year Saudi EFL university students in Saudi Arabia and the related literature (Al Jarf, 2001; Fageeh, 2003; McMullen, 2009), cohesion issues have their origins in undergraduate students' writing in English. This may be ascribed to two main factors: the Saudi EFL curriculum and instructional strategies in public schools. EFL instruction in public schools is to some extent based on copying and rote learning, and students have limited writing opportunities (Fageeh, 2003). The public education sector in Saudi Arabia is currently under a development process by experts in the field (Tatweer, 2010). The Saudi Ministry of Education established partnership with the University of Oxford that aims to develop public schools' curriculum and teacher preparation programs by 2013.

Abdulrahman and Omar's difficulties with textual cohesion, however, did not seem to hinder their lexico-grammatical choices and the meaning-making

processes in their assignments. Both participants successfully completed their Master of Commerce Accounting program.

To sum up, eleven themes emerged from my participants' unique stories about their experiences, their problems and successes with academic literacy, and their own interpretation of how and why things happened as they did. Based on my multidimensional exploration of the participants' literacy practices in the Master of Commerce Accounting program, next I discuss the theoretical and the methodological implications (8.4), and then present the pedagogical implications for teaching L2 writers with respect to the findings of each business module (8.5).

8.4 Theoretical and methodological implications

The present research case study contributes to the description of the multimodal socio-cultural literacy and numeracy practices in key topics in business studies. It indicates a possible research framework for the investigation of literacy practices and a research tool for the description and analysis of financial statements from a systemic functional perspective. As Kress (1997, p. 75) states, current theories of language are inadequate to explain the interrelationships between the different modes and advocates a theory which permits "an integrated description of multimodal texts and their production". Similarly, Martin and Rose (2008, p. 322) argue that the field of MDA is "in its infancy and is wide open for innovative research".

This research study is the first of its kind to research academic literacies from multiple perspectives. A tripartite theoretical and methodological case study-based research framework (Alyousef, 2013) for investigating the multimodal academic literacies was used in this study and proposed as a model for qualitative or ethnographic case study-based research investigating and analysing students' socio-cultural multimodal literacy practices across a broad range of educational settings because it provides a systemic analytical interpretive analysis of students' texts, contexts, and practices. As Iedema (2003, p. 30) states, "multimodal analysis should be complemented with a dynamic view on semiosis" that is not confined only to reification of meanings, one that focuses not only on the written

text but also on the whole social processes. The framework is structured in terms of three stages: 1) the epistemologies of the course under study, 2) an SF-MDA of texts, and 3) the use of literacies narrative technique to describe literacy events and participants' actual practices and their experiences.

The literacy requirements are studied by identifying the epistemologies of the course under study, including the social context, materials, graduate attributes and learning outcomes, the curriculum, overview of the conceptual demands, the literacy and numeracy practices students are expected to engage in, and finally the requirements of their assessment tasks. Analyses of the way students represent linguistic and conceptual knowledge in a number of modules is not adequate if not accompanied by an investigation of the social context. Materials include discipline's manuals, the textbook, course reader, and the task sheets. This stage also includes investigating the graduate attributes and learning outcomes set by the professional bodies that exercise rights of approval and certification on academic institutions, especially in the disciplines of medicine, engineering, law, and accounting. While the first stage focuses on the conceptual and the linguistic knowledge and skills students are required to master to meet the demands, SF-MDA and the use of literacies narrative as evidence of experience focus on how they construct multimodal social identities and represent meanings. As Fairclough (1989) argues, an understanding of the multimodal discourses of the academia is achieved by studying the context of the whole academy.

The second stage of this framework, SF-MDA, is based on Halliday's (1985; Halliday & Matthiessen, 2004) analytical tools of SFL for the linguistic analysis of the three language metafunctions, possibly integrating Halliday and Hasan (1976) and Halliday and Matthiessen's (2004) frameworks for the analysis of cohesion, the multisemiotic framework for the analysis of images (Kress & van Leeuwen, 1998, 2006; Martinec & Salway, 2005; O'Halloran, 2005; O'Toole, 1994; Van Leeuwen, 2011), or mathematical symbolism (Guo, 2004; O'Halloran, 1996, 1999a, 1999b, 2000, 2004, 2005, 2008; 2009). A practices-based approach could use the powerful analytical tools of SFL to foreground the processes through which students construct disciplinary specific knowledge in a community through academic literacies. The SF-MDA seeks to provide an explanatory

account of how discourse is typically constructed and how it relates to its context of use through the social purpose. Therefore, the SF-MDA is accomplished by investigating the lexico-grammatical and the logico-semantic language features, in addition to the key rhetorical features of genre. This includes analyses of the TRANSITIVITY system, MOOD system, polarity (positive or negative proposition), personal pronouns, modality, APPRAISAL systems, nominalisation, COHESION system, Theme and INFORMATION structure systems, lexical chains, and lexical density. Researchers may also expand the experiential meaning by utilising participants' intuitive understanding (or the intended reading path) of the conceptual and procedural processes of graphs and tables to analyse their interpretations and inferences. Genre analysis of texts includes a description of the semiotic resources of channel of communication (phonic, graphic, etc.), medium (spoken, written, or a combination of both), and the social purpose (or the rhetorical mode), including the schematic macro structure of genre which reveals the expressed purposes and stages of the texts (e.g. headings and topic sentences). Alternatively, the SF-MDA can include robust techniques drawn from the Rhetorical Structure Theory (RST) to study the generic stages and rhetorical relations.

Whereas the lexico-grammatical and the logico-semantic representations of written texts is revealed by conducting an SF-MDA of disciplinary discourses (with a little 'd', to refer to the various stretches of language) under study, the socially situated multimodal literacy practices (or discourses with a capital 'D') are explored through participants' narratives. This tripartite framework focuses not only on linguistic patterns, but also provides a systemic analytical interpretive description of students' narratives and their previous conjunctures of experience. As Kress (2000a, p. 157) argues that "the single, exclusive and intensive focus on written language has dampened the full development of all kinds of human potentials". Since this qualitative case study-based research framework is underpinned by the interpretive worldview it seeks to gain insights into what participants thought about what they were doing rather than merely explaining what they did (Terre Blanche & Kelly, 2002). Interpretive analysts aim to achieve meaningful first-hand understandings (*verstehen*). At the epistemological level, interpretive researchers approach the varied worldviews with an empathetic

intersubjective stance. This could be achieved by providing a *thick* description of the narratives of experience that links it back to the context of use in order to explicate the participants' literacy practices in key literacy events, including interviews since they are speech events, their perceptions, perspectives, understandings, knowledge work and lived experiences.

Whereas classroom observation can be used to document and describe students' academic literacy practices and interactions, open-ended interview questions (Appendices 4 & 5) allow participants to reflect on their own experience and to report on what they believed or what they remembered had promoted their success. In other words, interviews corroborate the discursive practices that underlie the production of texts. Unstructured interview questions and prompts can be developed from participant observation. Typical interview questions in the unstructured interview include such inquiries as:

What does the term X mean? How is it calculated? Where did you learn to use this? Did you experience significant difficulties in undertaking the assignment task? Were there other writing contexts that influenced you while doing this assignment? How were you influenced by your lecturer?
(Appendix 5)

The narrative of experience technique aims to provide a thick description of students' 1) previous conjunctures of learning/literacy experiences, perceptions, beliefs, values, and attitudes related to this task, 2) their actual practices in a number of literacy events, including interviews, and 3) their perceptions of what they do, including their intuitive understandings and explanations of their texts, and if it is related to their future workplace and life prospects. The subjective nature of describing the participants' discursive practices and experiences involves selection. Therefore, any *biases* brought to the study need to be clarified in order to improve validity, particularly in the co-narrations, as explained earlier in Chapter 3 (Section 3.6.2). Above all, there is no research that is objective and value free.

The proposed literacy practices' research framework would attempt to answer a number of questions, examples of which are given below:

- What are the key academic literacy and numeracy practices students are expected to engage with?
- How do lecturers and students represent notions of linguistic and disciplinary conceptual knowledge (or make meaning) through the production of texts?
- What are the students' experiences of their engagement in academic literacy and numeracy practices in a number of literacy events? and
- What are the students' perceptions of the relevance and significance of their tertiary literacy and numeracy practices to those in workplace and in private life situations?

This list is not exhaustive, but provides a starting point for exploring the context of the whole academy.

8.4.1 SFL and the academic literacies approaches: Are they compatible or incommensurable

The SF-MDA of the expanded experiential meanings (8.2.1.2) in the tables and the graphs showed that SFL is a powerful resource for analysing meanings inscribed in them. This shows the need for integrating the academic literacies approaches into SFL-based academic literacy research that focuses on not only the potential of the language system but also the lived experiences of learners. As Coffin and Donohue (2012, p. 71) argue that Lillis

sees as problematic the disjunct in much academic literacies research where spoken 'talk around' texts is treated as transparent and contextual whereas students' written academic texts are treated analytically and textually as complex configurations of relationships between wordings, meanings, and intentions.

Ethnographic literacy researchers in linguistics need to see the world from both an outsider *etic* perspective and an *emic* insider's one. Even though when some researchers move beyond the text, the text remains their primary object. While the *emic* perspective is obtained from interviews with the participants and classroom observation (context), the *etic* is obtained from the linguistic analysis (text). Coffin and Donohue argue that since both SFL and the academic literacies approaches are influenced by ethnographic experience, and aim to close the gap between context and language use through discourse, there is "the potential for their complementarity" (ibid, p. 73). The contributions of SFL and the academic literacies approaches to EAP have been discussed in the *Journal of English for Academic Purposes (JEAP)* 2002 and 2012 special issues. In their final editorial for JEAP's 2012 issue, Coffin and Donohue pose a number of questions, including the following: Does complementarity lead to an accommodationist stance in EAP? Does a focus on practices marginalise the texts that are the material outputs of these practices? How can the practices-based approach use text analytical tools? The researchers conclude that there is a danger of over dichotomising the two approaches as the practices-oriented and text-oriented since this depends to a greater extent on the purpose of the research study. The tripartite theoretical and methodological framework (Alyousef, 2013) used in this research study showed that SFL and the academic literacies approaches complement each other since both focus on text and practices. It is an exemplar of the complementarity of both since the two aim to close the gap between context and language use through discourse.

8.5 Pedagogical implications²⁶

Pedagogy is an important aspect of teaching because it has bearing on the way students learn and the level to which learning objectives are achieved. An important implication for university teaching and for business academic preparation programmes is that educators need to be aware of the fact that although constituent linguistic elements of meaning making are essentially stable, texts are multifarious, proliferating and ever changing with social contexts and cross-cultural diversity. This research study was primarily framed by SFL

²⁶ Alyousef (2013, pp. 43-44)

(Halliday, 1985; Halliday & Hasan, 1976; Halliday & Matthiessen, 2004) socio-cultural theory of language and learning because it allows practical pedagogical implications to be suggested as an outcome of this research. If these implications were made explicit, student's learning and their understanding of the meaning making resources may be greatly enhanced.

Based on my investigation of the literacy and numeracy practices in accounting, finance, and management accounting (Chapters 4-6), I present some of the pedagogical implications for students (8.6.1) and for tutors, course coordinators, and EAP curriculum designers (8.6.2) at English-medium universities. Finally, I present the pedagogical implications drawn from my investigation of students' literacy and numeracy practices in the *IFR* (8.6.3).

8.5.1 Pedagogical implications for accounting, finance, and management accounting students

Accounting students were expected to possess not only accounting technical competence but also good social communication and English language skills. Thus students need to engage in activities and strategies that reflect actual workplace practices in order to develop their skills, i.e. group work, discussions, meetings, negotiations and presentations. They were also expected to make contributions in class. These contributions can be made through answering the teacher's questions or through interactions with peers in group assignments or discussions. Students can also ask questions in case they need clarifications. Positive classroom dynamics can also be enhanced by preparation of given tasks beforehand to foster classroom interaction and questioning. Students need to be aware that exam preparation starts at the beginning of the semester. Final exam preparations include reviewing lecture-notes, textbooks, assignments, and course guide. Academic individual consultations with the tutors (through in-person visits or via telephone or e-mail) are helpful for those students seeking assistance in specific course content. There are instances in which students do not understand what they have been taught or wish to get more information about concepts they have researched on their own. They may also need to consult their tutors and instructors on assignment completion.

Students can check if the course or faculty provides a list of common task words and their meanings as these constitute the semiotic structure through which meanings are derived. Parallel to literacy practices, accounting numeracy practices are also social practices as they are based on expectations, views, decisions, choices, treatments, and perspectives (Baker et al., 2003). This includes understanding the general principles underlying the construction of meaning between the balance sheet categories, recognising and interpreting the meanings underlying the prevalent implicit relational identifying processes and the implicit taxonomic lexical relations between the balance sheet categories. The numeracy practices underlying capital budgeting management reports in finance include understanding the conceptual-procedural confluence.

Students need to be in positions to write professionally in the areas of business. They can use the module's discussion board to enquire about certain topics. Writing problems can be tackled by using effective writing techniques such as brainstorming, drafting and revision. While words are vital for all writing endeavours, there are cases in which these areas of specialisation require students to use shorthand as established in a research by Kankaanranta (2000). Knowledge of writing and writing strategies such as shorthand ensures that students are in position to take notes from the whiteboard/OHP fast and in ways which can be understood by them. Students are also able to write in different contexts and for different purposes based on the situation at hand.

Students with inadequate IT skills (databases, spreadsheets, statistical packages and presentation software) can attend workshops run by libraries and development centres in universities. As mathematics is used in all areas of life today (cf. 6.2), IT skills facilitate the use of financial spreadsheets. E-learning accounting packages offer accounting students both life-long and professional practical learning experiences and skills valued by the accounting professional bodies (ICAA & CPAA, 2009). Finally, to succeed in their learning, students need to understand that practice is the key to successful accounting practices.

8.5.2 Pedagogical implications for accounting, finance, and management accounting tutors, course coordinators, and ESP/EAP curriculum designers

Drawing on the implications discussed in the previous section and the findings in Chapters 4-6, I explore in this section the pedagogical implications for tutors, course coordinators, and ESP/EAP curriculum designers at English-medium universities.

As the students' resistance to the disciplinary practices may have a positive impact upon the development of their literacy and numeracy practices (cf. 8.3.5), tutors need to give students the opportunity to challenge the dominant literacy practices. Once tutors uncover the theoretical rationale underpinning this resistance, their experience in working with students from diverse backgrounds will be improved. The challenge for tutors and course coordinators is to help these students develop their communication and language skills by giving them group assignments. As Boyce *et al.* (2001, p. 38) state, the "burgeoning technical and procedural content of accounting lends itself to passive teaching techniques that focus on the transference of a body of knowledge". The development of communication and language skills parallel conceptual-procedural accounting knowledge. This can be achieved through the formation of learning groups or active classroom participation. Teachers and instructors need to provide appropriate environments for communication and contributions from students. Students need be taught in environments which encourage contribution and interaction. Groups can be used inside classrooms or teachers can come up with outside classroom tasks which require group contribution thus encouraging communication. Most universities tackle plagiarism by drawing their students' attention to the policies in this regard at the beginning of each course and requiring them to sign the acknowledgement of the policy on plagiarism when submitting each assignment. The findings in Chapter 5 showed that group work is more dynamic when at least a member of each group has a professional working experience.

Business academics need to integrate e-mail and spreadsheet tasks into their program since they constitute a major genre in modern business communication.

This will in turn empower students with the professional skills they need. For example, tutors can devise writing group activities that require each student in the group to participate in the e-mail 'script' which consists of various points in a chain. This activity will develop students' communication and language skills. This process can be moderated by requiring students to send a Carbon Copy (CC) to the tutor. Since IT skills are essential in completing financial spreadsheets students can be provided with templates or encouraged to attend workshops that help them develop their financial spreadsheets skills. Students can be encouraged to grasp opportunities that develop their spreadsheet skills, such as using the Help function in spreadsheets.

As previously constructed meaning-making practices can be re-contextualised in other discursive writing settings, ESP/EAP instructors need to give more attention to the process of writing rather than the product. For example, tutors can design class activities that draw student's awareness into the way Theme/Rheme are used to organise the experiential and interpersonal meanings. Butt *et al.* (2009, p. 154) argue that students can consciously organise their texts more effectively once they "explore how patterns of Theme and Rheme enable the progression of different types of texts". Diversification of the thematic choices can lead to a well constructed text. Explicit instruction also helps students write cohesive texts. Bruffee (1986) believes that students may improve their writing skills by engaging in group work and conferences.

ESP/EAP tutors can encourage students to practice the various types of cohesive devices by starting from the easiest to the most difficult ones. Tutors can start first with the simplest form of clause combination, extension, and then move to enhancement and elaboration. As conjunctive devices of elaboration were minimally by the students used in the accounting, finance, and management accounting texts (<.18%), tutors can help students understand how propositions are expanded through elaboration. ESL/EFL learners can be introduced into the ways of expanding the meaning-making potential through the introduction of these devices in business ESP/EAP courses. Practising the conjunctive devices of expansion promote students' repertoire of syntactic alternatives. As variation and appositive conjunctive devices were rarely used, tutors need to help students to

recognise the various sub-components of expansion that combine with tactic relations to link one clause to another. Similarly, Business ESP/EAP learners can be introduced into the uses of substitution and ellipsis, including the use of ellipsis as a means to avoid redundancy in accounting discourse. The field of business discourse is managed through lexical strings and the relationships that exist between them (such as synonyms, antonyms, hyponyms, meronyms, etc). Tutors can introduce students to lexical strings through the use of concordances. They can implement exercises requiring students to extract these devices from business texts written by native speakers, and to expand the related meaning making potential. More attention need to be paid for teaching the other lexical cohesive devices: ‘Cash at bank’ and ‘Accounts receivable’ are meronyms (part of) of the subordinate class ‘Current assets’. The implicit relational identifying processes in the financial tables can be made explicit for new students. This helps them identify their discipline-specific semantic choices.

As conceptual-procedural literacy in finance discourse is highly valued in order to determine a firm’s cost of capital, tutors can help students expand the conceptual-procedural *interclausal* and *intraclausal* experiential dependency relations in capital budgeting techniques by devising exercises that will help them develop their analytical and critical skills. Whereas analytical skills in capital budgeting refer to students’ ability to examine the meaning potential underlying an axis within a statistical graph/mathematical formula (*intraclausal*) and relating it to the preceding/following procedures (*interclausal*), critical skills refers to the process of looking for what is not obvious or for different points of view. When students are introduced to the theoretical constructs underlying financial graphs, their ability to expand the experiential meanings in these semiotic resources is enhanced. To help promote international students’ learning experiences tutors need to consider a number of aspects that emerged in this research project.

Tutors need be aware of international students’ cultural practices by speaking slowly, giving them time to participate, repeating new information, running PASS initiatives, etc. Tutors may have to vary the language they use depending on the level of the students whom they are teaching. They need to use language that is appropriate to their students’ level. Disregarding this concept may lead to failure

in the process of learning. Struggling students need be encouraged to attend PASS sessions. Research has established the positive impact of these sessions as they assisted in developing students' "numeracy skills, creating learning contexts where students could ask questions freely without fear of embarrassment, and a friendly atmosphere where students felt supported" (Ramburuth, 2009, p. 468). International students can also be helped by providing an exam preparation revision session, where all the crucial topics are revised in an extended session. Extended feedback via e-mail can be provided to students in the form of track changes and revisions in a word processor. Such practices indicate a sense of caring for the students and, as a result, develop communal respect. Finally, I list two pedagogical implications related to *Accounting Concepts and Methods*' curriculum designers. First, each graduate quality needs to be related to its corresponding objective(s) or indicator(s) in the Course Outline reader. Second, the accounting practice sets task needs to contribute in a substantial way to students' final grade. This can be achieved by changing the weighting from 15% into a significant grade, thereby students will tend to be more interested and keen in practicing the accounting software packages.

As the study of the students' literacy and numeracy practices in the *IFR* module was conducted from the perspective of their use of metadiscourse markers in wikis, the pedagogical implications are presented next.

8.5.3 Pedagogical implications drawn from the participants' practices in the *IFR* wiki assessment task²⁷

The pedagogical implications for the use of the wiki based learning tool in a tertiary education environment are drawn from the findings and the literature. Therefore the following is necessary:

- Utilising the wiki's Quick Start Guide to familiarise students with the graphical page editor, which has a set of formatting controls as well as controls that allow users to link files or pages and add images;

²⁷ Alyousef & Picard (2011, pp. 476-477).

- Designating marks for those students who start early and engage in editing the implausible comments;
- Introducing 'mini wiki-tasks' (Elgort et al., 2008) that prepare students for group assessment;
- Encouraging students to create a separate wiki page for asynchronous discussions in order to tackle delayed face-to-face meetings between the group members;
- Improving learning by giving formative continuous assessment (FCA) equal weight with summative assessment since students will be able to understand how close they are to achieving the learning goals and what they to do to reach the learning outcomes;
- Encouraging late starters to participate in or initiate wiki activities;
- Assisting ESL/EFL students in using the spell and grammar checkers available in a word processor; and
- Giving students immediate feedback.

In fact, since students cannot work synchronously (at the same time) on one page in a wiki in order to develop ideas and initiate content-related discussions in a collaborative scenario, a BLE integrating wiki with an LMS/CMS/Groupware tool was proposed in a number of studies (De Pedro, 2007; Giannoukos et al., 2008; Krebs et al., 2010). This environment will aid students in achieving “better educational results” (Giannoukos et al., 2008, p. 4). Examples of LMS/CMS include *Moodle* (Giannoukos et al., 2008), *Tikiwiki* (De Pedro, 2007), *Blackboard* (this research study), and *Doodle* (Krebs et al., 2010). In addition, A BLE will reduce tutors’ load (Giannoukos et al., 2008) and facilitate the grading of student individual contributions in cooperative work (De Pedro, 2007), helping to detect any shortcomings that may prevent student active involvement in their learning process, allowing to conduct not only product evaluation but also process evaluation.

The pedagogical implications presented here show the vitality of language in the teaching context. Next, I discuss the limitations in this research study.

8.6 Limitations of the Study

The study was limited to representations of academic literacy and numeracy practices of Saudi Business major postgraduate students in Australia. The findings are therefore not generalizable to other disciplines or to students who speak English as their native language. The study was limited to Saudi male students due to preconceived cultural conceptions that hindered the recruitment of female students. A similar study on female Saudi students enrolled in the Master of Commerce Accounting program in Australia might reveal the similar literacy practices among Saudi male and female students.

Other limitations were related to the theoretical frameworks underpinning methodology. First, one of the aims of this research study was to investigate the way students constructed the interpersonal meaning in key topics, though the appraisal systems were unexplored. Second, the identified emergent themes are simplifications of the diverse reality. However, since the generalizations I presented in this research thesis reflect only a sub-set of the full range of the literacy and numeracy practices, they are of the *moderatum* kind (Williams, 2000), i.e. the findings are not based on a representative sample of the discipline's academia. Finally, the transcription of interviews followed the format of a dialogue and did not record conversational nuances (hand movements, eye contact, etc) because the interviews were not videotaped. Though the transcripts included conversational fillers (such as 'hmm', 'yeah', and 'uh-ha'), they did not include linguistic transcript norms (pauses, stress, etc).

8.7 Recommendations and suggestions for future research studies

This study investigated Saudi postgraduate accounting students' literacy and numeracy practices in a four business modules. Future longitudinal case studies, however, might focus on one business module, thereby involving a more detailed and illustrated description and analysis. For example, the description of the semiotic resources in an accounting tutorial class in Chapter 4 would have been enriched if complemented by illustrated description and analysis of the practices within face-to-face situations. Further research employing the appraisal systems is needed for the investigation of the interpersonal features in a wiki collaborative

business studies task. Other studies might investigate the changes in register in the wiki discussion pages (Chapter 7), which included not only spoken-like interactional metadiscourse markers, but also features of written language. Another line of enquiry is investigating the causes of and remedies for low levels of collaboration amongst students²⁸. The results also illustrated the importance of studying the effect of the lack of a spell checker in wikis on ESL/EFL students' spontaneity.

A more significant line of research that might complement this study is studying the use of wikis by local native speakers. This would be useful to ascertain whether this form of communication and co-authoring has similar effects on these different cohorts. Further research comparing ESL/EFL postgraduate students' literacy and numeracy social practices in the Master of Commerce Accounting program modules with their English speaking counterparts is needed. Finally, future studies could compare the Saudi postgraduate accounting students' literacy and numeracy social practices in an Australian university with their English speaking counterparts at a Saudi university to reveal the similar and the different literacy practices.

8.8 Concluding remarks

To reiterate the value and benefits of this research, I have provided a detailed examination of EFL/ESL business students' writing and learning activities in a number of events, taking into account the whole institutional and epistemological context. This research project contributes to our understanding of business discourse. I employed a multidimensional framework for investigating the interdiscursive literacy and numeracy practices embedded in mathematics, accounting and finance discourses. As stated earlier, this framework offers a possibility for investigating literacy practices across a broad range of educational settings. The contribution of this study to academic literacy research is the first of its kind. The SF-MDA of accounting tables and graphs showed that SFL is a powerful resource for analysing meanings inscribed in them. The analysis of thematic choices in business discourse extended Kress and van Leeuwen's (2006)

²⁸ (Alyousef & Picard, 2011)

approach to the analysis of visual artefact in terms of compositional zones. The analytical focus on the participants' overall academic literacy experiences and perceptions of those experiences revealed not only the experiential meaning behind their texts, but also whether their practices were related to future workplace and life activities.

References

- Abusharkh, B. (2012). *Cohesion and coherence in the essay writing of Palestinian college students*. Unpublished MA thesis, Hebron University, Hebron, Palestine. Retrieved from <http://elearning.hebron.edu>
- AEI. (June 2010). Monthly Summary of International Student Enrolment Data—Australia – YTD. Australia: Australian Education International (AEI).
- Al Jarf, R. S. (2001). Processing of cohesive ties by EFL Arab college students. *Foreign Language Annals*, 34(2), 141-151.
- Alharbi, A. (2011). *An investigation into the English writing of two culturally and linguistically diverse student groups in the Pre-Enrolment English Program (PEP) at Adelaide University*. Unpublished MA thesis, University of Adelaide, Adelaide, Australia.
- AlHarthi, A., & AlKhamees, A. (2010, 3 Nov.). Employers demand university graduates with diverse skills *Saudi Gazette*. Retrieved from <http://www.saudigazette.com.sa>
- AlHuthali, M. (2007). *The construction of mechanical engineering literacies: autonomous or social practices?* Unpublished MA dissertation, University of Adelaide, Australia.
- Aljabr, F. (2011). *An analysis of cohesion and thematic development in university assignments written by undergraduate English major students in one Saudi university*. Unpublished MA thesis, University of Adelaide, Adelaide, Australia.
- Alshammari, B. (2011). *A cohesion analysis of scientific papers written by Saudi students in an Australian University*. Unpublished MA thesis, University of Adelaide, Adelaide, Australia.
- Alyousef, H. S. (2013). An investigation of postgraduate Business students' multimodal literacy and numeracy practices in Finance: a multidimensional exploration. *Social Semiotics*, 23(1), 18-46. doi: 10.1080/10350330.2012.740204
- Alyousef, H. S., & Mickan, P. (forthcoming). Investigating international Business students' multimodal literacy and numeracy practices in a postgraduate management accounting course: A multidimensional approach. In A. Archer & E. Breuer (Eds.), *Multimodality in Higher Education*. Leiden and Boston: Brill Publishing.
- Alyousef, H. S., & Picard, M. Y. (2011). Cooperative or collaborative literacy practices: Mapping metadiscourse in a business students' wiki group project. *Australasian Journal of Educational Technology*, 27(3), 463-480.
- Au, K. H. (1997). A sociocultural model of reading instruction: The Kamehameha Elementary Education Program. In S. A. Stahl & D. A. Hayes (Eds.), *Instructional models in reading* (pp. 181-202). Hillsdale, NJ: Erlbaum.
- Aziz, Y. (1988). Cohesion in spoken Arabic texts. In E. Steiner & R. Veltman (Eds.), *Pragmatics, discourse and texts: Some systemically-inspired approaches* (pp. 148-157). London: Pinter (Open Linguistics Series).
- Baker, D., Street, B., & Tomlin, A. (2003). Mathematics as social: understanding relationships between home and school numeracy practices. *For the learning of mathematics*, 23(3), 11-15.
- Bar-Lev, Z. (1986). Discourse Theory and "Contrastive Rhetoric". *Discourse Processes*, 9(2), 235-246. doi: 10.1080/01638538609544641

- Baratta, A. M. (2010). Nominalization development across an undergraduate academic degree program. *Journal of pragmatics*, 42(4), 1017-1036. doi: 10.1016/j.pragma.2009.08.007
- Bargiela-Chiappini, F. (2009). *The handbook of business discourse*. Edinburgh: Edinburgh University Press.
- Bartlett, T. (2012, August 25). Regard as process type. Message posted to the Sys-Func Digest, archived at <http://listserv.uts.edu.au/mailman/listinfo/sys-func>.
- Barton, D. (2000). Researching literacy practices: learning from activities with teachers and students. In D. Barton, M. Hamilton & R. Ivani (Eds.), *Situated literacies: Reading and writing in context* (pp. 167-179). London: Routledge.
- Barton, D., & Hamilton, M. (1998). *Local literacies: Reading and writing in one community*. London & New York: Routledge.
- Barton, D., Hamilton, M., & Ivanič, R. (2000). *Situated literacies: Reading and writing in context*. London: Routledge.
- Barwell, R. (2004). What Is Numeracy? *For the learning of mathematics*, 24(1), 20-22.
- Baskin, C. (2000). *Analysing the dynamics of a textually mediated community of practice: The social construction of literacy in the business faculty*. Unpublished Ph.D. thesis, Griffith University, South Brisbane. Retrieved from <http://www4.gu.edu.au>
- Bateman, J. A. (2011). *Multimodality and genre: A foundation for the systematic analysis of multimodal documents*. New York: Palgrave Macmillan.
- BAWE. (2008). British academic written English corpus, from <http://www.ota.ox.ac.uk>
- Baynham, M. (1995). *Literacy practices: Investigating literacy in social contexts*. London: Longman
- Baynham, M. (2000). Narrative as evidence in literacy research. *Linguistics and Education*, 11(2), 99-117. doi: 10.1016/S0898-5898(00)00027-9
- Baynham, M. (2011). Narrative analysis. In K. Hyland & B. Paltridge (Eds.), *Continuum companion to discourse analysis* (pp. 69-84). London & New York: Continuum.
- Bazley, M., Hancock, P., Berry, A., & Jarvis, R. (2006). *Contemporary Accounting* (5th ed.): Nelson.
- Bhatia, V. (1993). *Analysing genre: language use in professional settings*. London: Longman.
- Biber, D. (1988). *Variation across speech and writing*. Cambridge: Cambridge University Press.
- Biber, D., Johansson, S., Leech, G., Conrad, S., Finegan, E., & Quirk, R. (1999). *Longman grammar of spoken and written English*. London: Longman.
- Bloome, D., Carter, S. P., Christian, B. M., Otto, S., & Shuart-Faris, N. (2005). *Discourse analysis and the study of classroom language and literacy events: a microethnographic perspective*. Mahwah, NJ: Lawrence Erlbaum.
- Bolt-Lee, C., & Foster, S. (2003). The core competency framework: A new element in the continuing call for accounting education change in the United States. *Accounting Education*, 12(1), 33-47. doi: 10.1080/0963928031000074486

- Bolt, S., & Flynn, S. (2009). The Customisation of Perdisco e-learning resources to enhance student learning in an accounting course in various locations using differing modes of learning. *The International Journal of Learning*, 16 (6), 721-736.
- Bonanno, H., & Jones, J. (2007). The MASUS Procedure: Measuring the Academic Skills of University Students: A diagnostic assessment. Retrieved from <http://sydney.edu.au>
- Boughey, C. (1999). *Contrasting constructions of students' literacy-related experiences at a historically black South African University*. Unpublished PhD thesis, University of the Western Cape.
- Boyce, G., Williams, S., Kelly, A., & Yee, H. (2001). Fostering deep and elaborative learning and generic (soft) skill development: the strategic use of case studies in accounting education. *Accounting Education: An International Journal*, 10(1), 37-60. doi: 10.1080/09639280110040971
- Brigham, E., & Houston, J. (2009). *Fundamentals of Financial Management* (12th ed.). South-Western: Cengage Learning.
- Brinkmann, S., & Kvale, S. (2005). Confronting the ethics of qualitative research. *Journal of constructivist psychology*, 18(2), 157-181.
- Brown, J. D., & Rodgers, T. S. (2003). *Doing second language research* (2nd ed.). U.K.: Oxford University Press.
- Bruffee, K. A. (1986). Social construction, language, and the authority of knowledge: A bibliographical essay. *College English*, 48(8), 773-790.
- Bruns, A., & Humphreys, S. (2005). Wikis in teaching and assessment: The M/Cyclopedia project *WikiSym '05 Proceedings of the 2005 international symposium on Wikis* (pp. 25-32). New York: ACM.
- Burch, T. (2008). Teaching and learning accounting with overseas students. *People and place*, 16(1), 12-20.
- Butt, D., Rhondda, F., Feez, S., Spinks, S., & Yallop, C. (2009). *Using functional grammar: An explorer's guide* (2nd ed.). Australia: Macmillan
- Campbell, T. (1996). Technology, multimedia, and qualitative research in education. *Research on Computing in Education*, 30(9), 122-133.
- Canseco, G., & Byrd, P. (1989). Writing required in graduate courses in business administration. *TESOL quarterly*, 23(2), 305-316.
- Carroll, D. (2008). *Factors affecting the retention and progression of postgraduate business distance education students*. MA dissertation University of Southern Queensland. Retrieved from <http://eprints.usq.edu.au>
- Cazden, C., Cope, B., Fairclough, N., Gee, J., Kalantzis, M., Kress, G., et al. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review*, 66(1), 60-92.
- Chan, K., Shum, C., & Wright, D. (1997). Class attendance and student performance in principles of finance. *Financial Practice and Education*, 7(2), 58-65.
- Chandrasoma, R. (2007). *Coping with interdisciplinarity: postgraduate student writing in business studies*. Unpublished PhD thesis, University of Technology, Sydney.
- Chang, P. (2012). Using a stance corpus to learn about effective authorial stance-taking: a textlinguistic approach. *ReCALL*, 24(2), 209-236. doi: 10.1017/S0958344012000079

- Chow, I. C. (2008). Systemic Functional Linguistics English Verb Process Search Tool 2.0. Retrieved April 4, 2011, from <http://wcm.cityu.edu.hk/ctian/process/index.jsp>
- Choy, S. O., & Ng, K. C. (2007). Implementing wiki software for supplementing online learning. *Australasian Journal of Educational Technology*, 23(2), 209-226.
- Christie, F. (2007). On-going dialogue: Functional linguistic and Bernsteinian sociological perspectives on education. In F. Christie & J. R. Martin (Eds.), *Language, knowledge and pedagogy: Functional linguistic and sociological perspectives* (pp. 3-13). London: Continuum.
- Coffin, C., & Donohue, J. (2012). Academic literacies and systemic functional linguistics: How do they relate? *Journal of English for Academic Purposes*, 11(1), 64-75. doi: 10.1016/j.jeap.2011.11.004
- Cole, M. (2009). Using Wiki technology to support student engagement: Lessons from the trenches. *Computers & Education*, 52(1), 141-146. doi: 10.1016/j.compedu.2008.07.003
- Conaway, R. N., & Wardrope, W. J. (2010). Do their words really matter? Thematic analysis of US and Latin American CEO letters. *Journal of Business Communication*, 47(2), 141-168. doi: 10.1177/0021943610364523
- Cope, B., & Kalantzis, M. (2013). "Multiliteracies": New literacies, new learning. In M. Hawkins (Ed.), *Framing languages and literacies: Socially situated views and perspectives* (pp. 105-135). UK: Routledge.
- Cress, U., & Kimmerle, J. (2008). A systemic and cognitive view on collaborative knowledge building with wikis. *International Journal of Computer-Supported Collaborative Learning*, 3(2), 105-122.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*: Sage Publications, Inc.
- Daly, A., & Unsworth, L. (2011). Analysis and comprehension of multimodal texts. *Australian Journal of Language and Literacy*, 34(1), 61-80.
- Daneš, F. (1974). *Papers on functional sentence perspective* (Vol. 147): Academia.
- Davidson, R. (2005). Analysis of the complexity of writing used in accounting textbooks over the past 100 years. *Accounting Education*, 14(1), 53-74.
- De Pedro, X. (2007). *New method using Wikis and forums to evaluate individual contributions in cooperative work while promoting experiential learning:: results from preliminary experience*. Paper presented at the Proceedings of the 2007 international symposium on Wikis, Montreal, Quebec, Canada.
- De Pedro, X., Rieradevall, M., López, P., Sant, D., Piñol, J., Núñez, L., et al. (2006). *Writing documents collaboratively in higher education using traditional vs. wiki methodology (I): Qualitative results from a 2-year project study*. Paper presented at the International Congress of University Teaching and Innovation, Barcelona.
- Denzin, N., & Lincoln, Y. (2000). The discipline and practice of qualitative research. *Handbook of qualitative research*, 2, 1-28.
- Drury, H., O'Carroll, P., & Langrish, T. (2006). Online approach to teaching report writing in chemical engineering: Implementation and evaluation. *International Journal of Engineering Education*, 22(4), 858-867.

- Drury, H., O' Carroll, P., & Langrish, T. (2006). Online approach to teaching report writing in chemical engineering: implementation and evaluation. *International Journal Engineering Education*, 22(4), 858-867.
- Duffy, P. (2008). Engaging the YouTube Google-eyed generation: Strategies for using Web 2.0 in teaching and learning. *The Electronic Journal of e-Learning*, 6(2), 119-130.
- Eggins, S. (2007). *An Introduction to Systemic Functional Linguistics* (2nd. ed.). London & New York: Continuum.
- Elgort, I., Smith, A. G., & Toland, J. (2008). Is wiki an effective platform for group course work? *Australasian Journal of Educational Technology*, 24(2), 195-210.
- Ellis, V., & LeCourt, D. (2002). Literacy in context: A Transatlantic conversation about the future of WAC in England. *Language and Learning Across the Disciplines*, 5(3), 28-60
- Evans, S. (2010). Business as usual: The use of English in the professional world in Hong Kong. *English for Specific Purposes*, 29(3), 153-167. doi: 10.1016/j.esp.2009.11.005
- Evans, S. (2011). *Enhancing the written communicative competence of professionals in Hong Kong's key industries*. Discourse, Communication & the Enterprise: Sixth International Conference (DICOEN VI). Unpublished conference presentation. Beijing Foreign Studies University (BFSU). Beijing.
- Fageeh, A. I. (2003). *Saudi College Students' Beliefs Regarding Their English Writing Difficulties*. Ph.D., Indiana University of Pennsylvania.
- Fairclough, N. (1989). *Language and power*. London: Longman.
- Fakhri, A. (1995). Topical Structure in Arabic-English Interlanguage *Pragmatics and Language Learning: Monograph Series 6*.
- Fawcett, R. (November 2007). *The many types of 'Theme' in English: their semantic systems and functional syntax*. Paper presented at the Research Papers in the Humanities, Cardiff.
<http://www.caerdydd.ac.uk/chri/researchpapers>
- Fazelimanie, A. (2004). *A linguistic analysis of some ESP texts used in Iranian universities with special focus on cohesion in texts of business and commerce*. Unpublished Ph.D. thesis University of Adelaide Retrieved from <http://digital.library.adelaide.edu.au>
- Ferenz, O. (2005). ESL writer's social networks: impact on advanced academic literacy development. *English for Academic Purposes*, 4(4), 339-351. doi: 10.1016/j.jeap.2005.07.002
- Fletcher, M. (2004). *Undergraduate assignment writing: An experiential account*. Unpublished Ph.D. thesis, Griffith University
- Frankland, J., & Bloor, M. (1999). Some issues arising in the systematic analysis of focus group materials. In R. Barbour & J. Kitzinger (Eds.), *Developing Focus Group Research: Politics, Theory & Practice*. London: Sage Publications Ltd.
- Fries, P. (1981). On the status of theme in English: Arguments from discourse. *Forum Linguisticum*, 6(1), 1-38. Reprinted in János Petöfi & Emel Sözer (eds.). 1983. *Micro and macro connexity of texts*, pp. 116-151. Hamburg: Helmut Buske Verlag.
- Galbraith, B., Van Tassell, M., & Wells, G. (1999). On learning with and from our students. In G. Wells (Ed.), *Dialogic inquiry: Towards a sociocultural*

- practice and theory of education* (pp. 293-312). Cambridge: Cambridge University Press.
- Galley, M., & McKeown, K. (2003). *Improving word sense disambiguation in lexical chaining*.
- Garzone, G. (2009). Multimodal analysis. In F. Bargiela-Chiappini (Ed.), *The handbook of business discourse* (pp. 155-165). Edinburgh: Edinburgh University Press.
- Gee, J. (1996). *Social linguistics and literacies: Ideology in discourse* (2nd ed.). London: Falmer Press.
- Gee, J. (2000). The new literacy studies. In D. Barton, M. Hamilton & R. Ivanič (Eds.), *Situated literacies: Reading and writing in context* (pp. 180-196). London & New York: Routledge.
- Gee, J. (2002). Literacies, identities, and discourses. In M. Schleppegrell & M. C. Colombi (Eds.), *Developing advanced literacy in first and second languages: Meaning with power* (pp. 159-175).
- Gee, J. (2008). *Social linguistics and literacies: Ideology in discourses* (3rd ed.). New York: Routledge
- Gee, J. (2012). *Social linguistics and literacies: Ideology in discourses* (4th ed.). New York: Routledge
- Geertz, C. (1973). Thick description: Toward an interpretive theory of culture. *The interpretation of cultures: selected essays* (pp. 3-30). New York: Basic Books.
- Gerrish, K., & Lacey, A. (2010). *The research process in nursing* (6th ed.): Wiley-Blackwell.
- Giannoukos, I., Lykourantzou, I., Mparadis, G., Nikolopoulos, V., Loumos, V., & Kayafas, E. (2008). *Collaborative e-learning environments enhanced by wiki technologies*. Paper presented at the PETRA '08 Proceedings of the 1st international conference on Pervasive Technologies Related to Assistive Environments, Athens, Greece.
- Gill, M. (2009). *Accountants' truth: knowledge and ethics in the financial world*. USA: Oxford University Press.
- Green, J., & Bloome, D. (2005). Ethnography and Ethnographers of and in Education: A Situated Perspective. In J. Flood, S. Heath & D. Lapp (Eds.), *Handbook of research on teaching literacy through the communicative and visual arts* (Vol. 1, pp. 181-202). Mahwah, New Jersey: Lawrence Erlbaum.
- Grey, M. (2002). Drawing with difference: Challenges faced by international students in an undergraduate business degree. *Teaching in Higher Education*, 7(2), 153-166.
- Günthner, S., & Knoblauch, H. (1995). Culturally patterned speaking practices: the analysis of communicative genres. *Pragmatics*, 5(1), 1-32.
- Guo, L. (2004). Multimodality in a biology textbook. In K. O'Halloran (Ed.), *Multimodal discourse analysis: systemic-functional perspectives* (pp. 196-219). London/ New York: Continuum.
- Haggis, T. (2009). What have we been thinking of? A critical overview of 40 years of student learning research in higher education. *Studies in higher education*, 34(4), 377-390.
- Hall, J. K. (2002). *Teaching and researching: Language and culture*. England: Pearson Education.

- Halliday, M. A. K. (1967). Notes on transitivity and theme in English: Part 2. *Journal of linguistics*, 3(2), 199-244.
- Halliday, M. A. K. (1978). *Language as social semiotic: The social interpretation of language and meaning*. London: Edward Arnold.
- Halliday, M. A. K. (1985). *An Introduction to Functional Grammar*. London: Edward Arnold.
- Halliday, M. A. K. (1993a). Towards a language-based theory of learning. *Linguistics and Education*, 5(2), 93-116.
- Halliday, M. A. K. (1993b). The analysis of scientific texts in English and Chinese. In M. A. K. Halliday & J. R. Martin (Eds.), *Writing science: Literacy and discursive power* (pp. 124-132). London: Falmer Press.
- Halliday, M. A. K. (1993c). On the language of physical science. In M. A. K. Halliday & J. R. Martin (Eds.), *Writing Science: Literacy and discursive power* (pp. 54-68). London: Falmer Press.
- Halliday, M. A. K. (1993d). Some grammatical problems in scientific English. In M. A. K. Halliday & J. R. Martin (Eds.), *Writing science: Literacy and discursive power* (pp. 69-85). London: Falmer Press.
- Halliday, M. A. K. (1994). *An introduction to functional grammar*. London/Beijing Edward Arnold/Foreign Language Teaching & Research Press.
- Halliday, M. A. K. (1998). The notion of “context” in language education. In M. Ghadessy (Ed.), *Text and context in functional linguistics* (pp. 1-24). Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Halliday, M. A. K. (2005). Dimensions of discourse analysis: grammar. In J. Webster (Ed.), *The collected works of M.A.K. Halliday: On grammar* (Vol. 1, pp. 261-286). London & New York: Continuum.
- Halliday, M. A. K. (2007a). Language across the culture. In M. A. K. Halliday & J. Webster (Eds.), *Collected Works of M.A.K.Halliday: Language and education* (Vol. 9, pp. 291-305). London: Continuum.
- Halliday, M. A. K. (2007b). Literacy and linguistics: A functional Perspective. In M. A. K. Halliday & J. Webster (Eds.), *Collected Works of M.A.K.Halliday: Language and education* (Vol. 9, pp. 97-129). London: Continuum.
- Halliday, M. (2009). Methods, Techniques, Problems. In M. Halliday & J. Webster (Eds.), *Continuum companion to systemic functional linguistics* (pp. 59-86). London: Continuum.
- Halliday, M. A. K., & Hasan, R. (1976). *Cohesion in English*. London: Longman
- Halliday, M. A. K., & Hasan, R. (1985). *Language, context, and text: Aspects of language in a social-semiotic perspective*. Victoria: Deakin University Press.
- Halliday, M. A. K., & Martin, J. R. (1993). *Writing Science: Literacy and discursive power*. London: Falmer Press.
- Halliday, M. A. K., & Matthiessen, C. (2004). *An introduction to functional grammar* (3rd revised edition of Halliday’s Introduction to Functional Grammar ed.). London: Hodder-Arnold.
- Hampel, T., Selke, H., & Vitt, S. (2005). *Deployment of simple user-centered collaborative technologies in educational institutions-experiences and requirements*. Paper presented at the 14th IEEE International Workshops on Enabling Technologies: Infrastructure for Collaborative Enterprise (WETICE’05), Linköping, Sweden.

- Hancock, J. (2006). *Communication Skills Guide for Business Students*. University of Adelaide. Adelaide. Retrieved from <http://www.business.adelaide.edu.au>
- Hancock, P., Howieson, B., Kavanagh, M., Kent, J., Tempone, I., Segal, N., et al. (2009). The roles of some key stakeholders in the future of accounting education in Australia. *Australian Accounting Review*, 19(3), 249-260.
- Hanks, W. (1991). Foreword by William F. Hanks. In J. Lave & E. Wenger (Eds.), *Situated learning: Legitimate peripheral participation* (pp. 13-24). New York: Cambridge University Press.
- Hasan, R. (1977). Text in the systemic-functional model. In W. Dressler (Ed.), *Current trends in textlinguistics* (pp. 228-246). Berlin: Walter de Gruyter.
- Hasan, R. (1995). The Conception of Context in Text1. In P. H. Fries & M. Gregory (Eds.), *Discourse in society: Systemic functional perspectives: Meaning and choice in language: Studies for Michael Halliday* (pp. 183-283). Norwood, NJ: Ablex Publishing Corporation.
- Hasselgård, H. (2004). *Temporal and spatial adjuncts as elements of texture*. Paper presented at the Proceedings from the 14th Euro-International Systemic Functional Workshop. Paris: L'Harmattan.
- Hegelund, A. (2005). Objectivity and subjectivity in the ethnographic method. *Qualitative Health Research*, 15(5), 647-668. doi: 10.1177/1049732304273933
- Hessamy, G., & Hamedi, S. (2013). A comparison of the use of cohesive devices in EFL Learners' performance on independent vs. integrated writing tasks. *Study in English Language Teaching*, 1(1), p121.
- Hewings, A., & North, S. (2006). 13 Emergent disciplinarity: a comparative study of Theme in undergraduate essays in geography and history of science. *Language and literacy: functional approaches*, 264-281.
- Hewings, M., & Hewings, A. (2002). "It is interesting to note that...": a comparative study of anticipatory 'it' in student and published writing. *English for Specific Purposes*, 21(4), 367-383.
- Hinkel, E. (2001). Matters of Cohesion in L2 Academic Texts. *Applied Language Learning*, 12(2), 111-132.
- Hinkel, E. (2002). *Second language writers' text: Linguistic and rhetorical features*. Mahwah: Lawrence Erlbaum Associates.
- Hodge, R., & Kress, G. (1988). *Social semiotics*. Ithaca: Cornell University Press.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations*: Sage Publications, Inc.
- Hofstede, G., & McCrae, R. R. (2004). Personality and Culture Revisited: Linking Traits and Dimensions of Culture. *Cross-Cultural Research*, 38(1), 52-88. doi: 10.1177/1069397103259443
- Hoggett, J., Edwards, L., Medlin, J., & TILLING, M. (2009). *Financial accounting* (7th ed.). Milton: John Wiley & sons.
- Horowitz, D. M. (1986). What professors actually require: Academic tasks for the ESL classroom. *TESOL Quarterly*, 20, 445-462.
- Hyland, K. (1998a). Exploring corporate rhetoric: metadiscourse in the CEO's letter. *Journal of Business Communication*, 35(2), 224-245.
- Hyland, K. (1998b). Persuasion and context: The pragmatics of academic metadiscourse. *Journal of pragmatics*, 30(4), 437-455.
- Hyland, K. (2005a). *Metadiscourse: Exploring interaction in writing*. London & New York: Continuum.

- Hyland, K. (2005b). Patterns of engagement: Dialogic features and L2 undergraduate writing. In L. Ravelli & R. Ellis (Eds.), *analysing academic writing: contextualized frameworks* (pp. 5-23). London: Continuum.
- Hyland, K. (2010). Metadiscourse: Mapping interactions in academic writing. *Nordic Journal of English Studies, Special Issue: Metadiscourse*, 9(2), 125-143.
- Hyland, K., & Tse, P. (2004). Metadiscourse in academic writing: A reappraisal. *Applied Linguistics*, 25(2), 156-177.
- Hymes, D. (1967). Models of the interaction of language and social setting. *Journal of Social Issues*, 23(2), 8-28. doi: 10.1111/j.1540-4560.1967.tb00572.x
- ICAA, & CPAA. (2009). Professional Accreditation Guidelines for Higher Education Programs Retrieved from <http://www.cpaaustralia.com.au>
- Iedema, R. (2003). Multimodality, resemiotization: Extending the analysis of discourse as multi-semiotic practice. *Visual communication*, 2(1), 29-57.
- IELTS. (2011). Institutions - IELTS band scores, from <http://www.ielts.org>
- Intaraprawat, P., & Steffensen, M. S. (1995). The use of metadiscourse in good and poor ESL essays. *Journal of Second Language Writing*, 4(3), 253-272.
- Ivanič, R., & Lea, M. (2006). New contexts, new challenges. In L. Ganobcsik-Williams (Ed.), *Teaching academic writing in UK higher education: theories, practices, and models*. Hampshire: Palgrave MacMillan.
- Jackson, S., & Durkee, D. (2007). Incorporating information literacy into the accounting curriculum. *Accounting Education*, 17(1), 83 -97.
- Jalilifar, A., & Alipour, M. (2007). How explicit instruction makes a difference: Metadiscourse markers and EFL learners' reading comprehension skill. *Journal of College Reading & Learning*, 38(1), 35-52.
- Johns, A. M. (1980). Cohesion in written business discourse: Some contrasts. *The ESP Journal*, 1(1), 35-43.
- Johns, A. M. (1986). Coherence and academic writing: Some definitions and suggestions for teaching. *TESOL quarterly*, 20(2), 247-265.
- Jonassen, D. H. (1998). Designing constructivist learning environments. In C. M. Reigeluth (Ed.), *Instructional theories and models* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum.
- Jones, J. (2006). *Multiliteracies for academic purposes: A metafunctional exploration of intersemiosis and multimodality in university textbook and computer-based learning resources in science*. Unpublished Doctor of EdD thesis, University of Sydney. Retrieved from <http://hdl.handle.net/2123/2259>
- Judd, K., & O'Halloran, K. (2010). Systemics (Version 1.1.6). Singapore: National University of Singapore: Multimodal Analysis Lab Interactive & Digital Media Institute (IDMI). Retrieved from <http://systemics.multimodal-analysis-lab.org/>
- Judd, T., Kennedy, G., & Cropper, S. (2010). Using wikis for collaborative learning: Assessing collaboration through contribution. *Australasian Journal of Educational Technology*, 26(3), 341-354.
- Kalantzis, M., & Cope, B. (2012). *Literacies*. Melbourne: Cambridge University Press.
- Kamal, E. (1995). *The rendition of English cohesive devices into Arabic: a study of translated texts*. Unpublished MA dissertation, King Saudi University, Saudi Arabia.

- Kankaanranta, A. (2000). *What makes the reader tick? -Business professionals' reactions to first-year business students' writing*. Helsinki: Helsinki School of Economics and Business Administration.
- Khalil, A. (1989). A study of cohesion and coherence in Arab EFL college students' writing. *System*, 17(3), 359-371.
- Kimmerle, J., Moskaliuk, J., & Cress, U. (2009, Oktober 25–27). *Understanding learning: the Wiki way*. Paper presented at the WikiSym'09, Orlando, Florida, USA.
- King, A. (2010). 'Membership matters': applying Membership Categorisation Analysis (MCA) to qualitative data using Computer-Assisted Qualitative Data Analysis (CAQDAS) Software. *International Journal of Social Research Methodology*, 13(1), 1-16. doi: 10.1080/13645570802576575
- Knobel, M., & Lankshear, C. (2006). Discussing new literacies. *Language Arts*, 84(1), 78-86.
- Krebs, M., & Ludwig, M. (2009). *Math learning with Wikis*. Paper presented at the The Ninth International Conference on Technology in Mathematics Teaching (ICTMT 9) Metz, France. <http://www.ictmt9.org>
- Krebs, M., Ludwig, M., & Muller, W. (2010). Learning Mathematics using a Wiki. *Procedia-Social and Behavioral Sciences*, 2(2), 1469-1476.
- Kress, G. (1997). Visual and verbal modes of representation in electronically mediated communication. In I. Snyder (Ed.), *Page to screen: Taking literacy into the electronic era*. Sydney: Allen and Unwin. (Reprinted from: 1998).
- Kress, G. (2000a). Design and transformation: New theories of meaning. In B. Cope & M. Kalanyzsiz (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 153-161). South Yarra: Macmillan.
- Kress, G. (2000b). Multimodality: Challenges to thinking about language. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: literacy learning and the design of social futures* (Vol. 182-202, pp. 337-340). South Yarra: Macmillan.
- Kress, G., & van Leeuwen, T. (1998). Front pages:(The critical) analysis of newspaper layout. In A. Bell & P. Garrett (Eds.), *Approaches to media discourse* (pp. 186-219). Oxford: Blackwell Publishers Oxford.
- Kress, G., & van Leeuwen, T. (2006). *Reading images: The grammar of visual design*. London: Routledge.
- Kuteeva, M. (2010). Wikis and academic writing: Changing the writer-reader relationship. *English for Specific Purposes*, 30(1), 44-57. doi: 10.1016/j.esp.2010.04.007
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. New York: Cambridge University Press.
- Lea, M. (2004). Academic literacies: a pedagogy for course design. *Studies in higher education*, 29(6), 739-756.
- Lea, M., & Street, B. (1998). Student writing in higher education: An academic literacies approach. *Studies in higher education*, 23(2), 157-172. doi: 10.1080/03075079812331380364
- Lea, M., & Street, B. (2006). The "academic literacies" model: Theory and applications. *Theory into practice*, 45(4), 368-377.
- Leki, I. (1995). Coping strategies of ESL students in writing tasks across the curriculum. *TESOL quarterly*, 29(2), 235-260.

- Leki, I. (2003). Coda: Pushing L2 Writing Research. *Journal of Second Language Writing, 12*(1), 103-105.
- Lemke, J. L. (1990). *Talking science: Language, learning, and values* (Vol. 1). London: Ablex Publishing Corporation.
- Li, D. H. (1963). The semantic aspect of communication theory and accountancy. *Journal of Accounting research, 1*(1), 102-107.
- LIHERG. Language in Higher Education Research Group Retrieved 20 July, 2011, from <http://www.kcl.ac.uk>
- Lillis, T. (2003). Student writing as 'Academic Literacies': Drawing on Bakhtin to move from critique to design. *Language and education, 17*(3), 192-207.
- Lillis, T. (2006). Moving towards an 'academic literacies' pedagogy: dialogues of participation. In L. Ganobcsik-Williams (Ed.), *Teaching academic writing in UK higher education: theories practices, and models* (Vol.). Hampshire: MacMillan.
- Lillis, T. (2008). Ethnography as method, methodology, and "deep Theorizing": closing the gap between text and context in academic writing research. *Written Communication, 25*(3), 353-388. doi: 10.1177/0741088308319229
- Lillis, T., & Scott, M. (2007). Defining academic literacies research: Issues of epistemology, ideology and strategy. *Journal of Applied Linguistics, 4*(1), 5-32.
- Lin, B., & Hsieh, C. (2001). Web-based teaching and learner control: a research review. *Computers & Education, 37*(3), 377-386.
- Lincoln, Y., & Guba, E. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage Publications, Inc.
- Littlejohn, A., Beetham, H., & McGill, L. (2012). Learning at the digital frontier: a review of digital literacies in theory and practice. *Journal of computer assisted learning, 28*, 547-556. doi: 10.1111/j.1365-2729.2011.00474.x
- Liu, M., & Braine, G. (2005). Cohesive features in argumentative writing produced by Chinese undergraduates. *System, 33*(4), 623-636.
- Louhiala-Salminen, L. (2009). Business Communication In F. Bargiela-Chiappini (Ed.), *The handbook of business discourse* (pp. 305-316). UK: Edinburgh University Press.
- Luke, A., & Freebody, P. (2000). Literate futures: Report of the literacy review for Queensland state schools
Brisbane, Australia.
- Lukin, A., R. Moore, A., Herke, M., Wegener, R., & Wu, C. (2011). Halliday's model of register revisited and explored. *Linguistics and the Human Sciences, 4*(2), 187-213. doi: 10.1558/lhs.v4i2.187
- Luo, L. (2009). Web 2.0 integration in information literacy instruction: an overview. *The Journal of Academic Librarianship, 36*(1), 32-40.
- Manninen, A. (1997). Critical reading in accounting. *Accounting Education, 6*(4), 281-294. doi: 0.1080/096392897331361
- Martin, J. R. (1985). Process and text: two aspects of human semiosis. In J. Benson & W. Greaves (Eds.), *Systemic Perspectives on Discourse* (Vol. 1: selected theoretical papers from the 9th International Systemic Workshop, pp. 248-274). Norwood: Ablex.
- Martin, J. R. (1992). *English text: System and structure*. Philadelphia/Amsterdam: John Benjamins
- Martin, J. R. (1999). Modelling context: A crooked path of progress in contextual linguistics. In M. Ghadessy (Ed.), *Text and context in functional*

- linguistics: Current issues in linguistic theory* (Vol. 169, pp. 25-62). Amsterdam/Philadelphia: John Benjamins.
- Martin, J. R. (2009). Genre and language learning: A social semiotic perspective. *Linguistics and Education*, 20(1), 10-21.
- Martin, J. R. (2011). Systemic functional linguistics. In K. Hyland & B. Paltridge (Eds.), *Continuum companion to discourse analysis* (pp. 101-119). London & New York: Continuum.
- Martin, J. R. (17 Aug 2012). Regard as process type. *Sys-Func Digest (electronic mailing list)*, 100(58).
- Martin, J. R., & Rose, D. (2008). *Working with discourse: meaning beyond the clause*. London: Continuum.
- Martin, J. R., & Rothery, J. (1980). *Writing project report*. Sydney: Linguistics Dept., University of Sydney.
- Martin, J. R., & White, P. R. (2005). *The language of evaluation*. New York: Palgrave-Macmillan.
- Martinec, R. (1998). Cohesion in action. *Semiotica*, 120(1-2), 161-180.
- Martinec, R. (2000). Construction of identity in Michael Jackson's Jam. *Social Semiotics*, 10(3), 313-329.
- Martinec, R., & Salway, A. (2005). A system for image-text relations in new (and old) media. *Visual communication*, 4(3), 337-371.
- Matthiessen, C.M.I.M. (1999). The system of TRANSITIVITY: an exploratory study of text-based profiles. *Functions of language*, 6(1), 1-51.
- Matthiessen, C.M.I.M. (2007). The "architecture" of language according to systemic functional theory: developments since the 1970s. In R. Hasan, C. Matthiessen & J. Webster (Eds.), *Continuing Discourse on Language: a functional perspective* (Vol. 2, pp. 505-562). London: Equinox.
- McCune, V. (2004). Development of first-year students' conceptions of essay writing. *Higher education*, 47(3), 257-282.
- McGoun, E. (2003). Finance models as metaphors. *International Review of Financial Analysis*, 12(4), 421-433. doi: 10.1016/S1057-5219(03)00033-4
- McKenna, S. (2004). *A critical investigation into discourses that construct academic literacy at the Durban Institute of Technology*. Unpublished PhD thesis, Rhodes University, South Africa. Retrieved from <http://eprints.ru.ac.za>
- McMullen, M. G. (2009). Using language learning strategies to improve the writing skills of Saudi EFL students: Will it really work? *System*, 37(3), 418-433.
- McTavish, M. (2009). 'I get my facts from the Internet!': A case study of the teaching and learning of information literacy in in-school and out-of-school contexts. *Journal of Early Childhood Literacy*, 9(1), 3-28.
- Mickan, P. (2006a). Socialisation through teacher talk in an Australian bilingual class. *International Journal of Bilingual Education and Bilingualism*, 9(3), 342-358.
- Mickan, P. (2006b). Socialisation, social practices and teaching. In P. Mickan, I. Petrescu & J. Timoney (Eds.), *Social practices, pedagogy and language use: studies in socialisation* (pp. 7-23). Adelaide: Lythrum Press.
- Mickan, P. (2011). Text-Based Teaching: Theory and Practice. *外国語教育ジャーナル*, 2011, 15-24.

- Mickan, P. (2013). Social semiotics and academic literacies: An epistemological approach to the study of disciplinary discourses. *The International Journal of Innovation in ELT Research (IJELTR)*, 2(1), 65-76.
- Mickan, P., & Slater, S. (2003). Text analysis and the assessment of academic writing. In R. Tulloh (Ed.), *IELTS Research Reports: English for International Opportunity* (Vol. 4): IELTS Australia.
- Mihalcea, R., & Moldovan, D. (2000). *An iterative approach to word sense disambiguation*.
- Miles, M., & Huberman, A. (1994). *Qualitative data analysis* (2nd ed.). New Bury Park, SA: Sage.
- Mirk, S., Burkiewicz, J., & Komperda, K. (2010). Student perception of a wiki in a pharmacy elective course. *Currents in Pharmacy Teaching and Learning*, 2(2), 72-78. doi: 10.1016/j.cptl.2010.01.002
- Miyazoe, T., & Anderson, T. (2010). Learning outcomes and students' perceptions of online writing: Simultaneous implementation of a forum, blog, and wiki in an EFL blended learning setting. *System*, 38(2), 185-199. doi: 10.1016/j.system.2010.03.006
- Mohamed-Sayidina, A. (2010). Transfer of L1 cohesive devices and transition words into L2 academic texts: The case of Arab students. *RELC Journal*, 41(3), 253-266. doi: 10.1177/0033688210380569
- Mohamed, A., & Omer, M. (2000). Texture and culture: cohesion as a marker of rhetorical organisation in Arabic and English narrative texts. *RELC Journal*, 31(2), 45-75. doi: 10.1177/003368820003100203
- Monteiro, C., & Ainley, J. (2006). *Student teachers interpreting media graphs*. Paper presented at the Proceedings of the Seventh International Conference on Teaching Statistics.
- Morell, T. (2007). What enhances EFL students' participation in lecture discourse? Student, lecturer and discourse perspectives. *Journal of English for Academic Purposes*, 6(3), 222-237. doi: 10.1016/j.jeap.2007.07.002
- Morgan, C. (2006). What does social semiotics have to offer mathematics education research? *Educational studies in mathematics*, 61(1), 219-245.
- Moskaliuk, J., Kimmerle, J., & Cress, U. (2009). Wiki supported learning and knowledge building: effects of incongruity between knowledge and information. *Journal of computer assisted learning*, 25(6), 549-561.
- New London Group. (2000). A pedagogy of multiliteracies: Designing social futures. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 9-38). London: Routledge.
- Nga, C. T. H. (2012). *Analysis of cohesive devices in the ESP textbook on accounting at university of labor and social affairs*. Unpublished MA thesis, University of Languages and International Studies, Vietnam.
- Notari, M. (2006). *How to use a Wiki in education: 'Wiki based effective constructive learning'*. Paper presented at the Proceedings of the 2006 international Symposium on Wikis Odense, Denmark.
- Nye, J. (2006). *The hidden transcripts of ESL writers: Four longitudinal case studies on the experiences and perceptions of ESL and Generation 1.5 students acquiring academic literacy at the community college*. Unpublished Ph.D. thesis, Indiana University of Pennsylvania.
- O'Halloran, K. (1996). *The discourses of secondary school mathematics*. Unpublished Ph.D. thesis, Murdoch University, Western Australia. Retrieved from <http://researchrepository.murdoch.edu.au>

- O'Halloran, K. (1999a). Interdependence, interaction and metaphor in multisemiotic texts. *Social Semiotics*, 9(3), 317-354.
- O'Halloran, K. (1999b). Towards a systemic functional analysis of multisemiotic mathematics texts. *Semiotica*, 124(1/2), 1-29.
- O'Halloran, K. (2000). Classroom discourse in mathematics: A multisemiotic analysis. *Linguistics and Education*, 10(3), 359-388.
- O'Halloran, K. (2004). On the effectiveness of mathematics. In E. Ventola, C. Charles & M. Kaltenbacher (Eds.), *Perspectives on multimodality* (pp. 91-118). Amsterdam: John Benjamins Publishing Company.
- O'Halloran, K. (2005). *Mathematical discourse: Language, symbolism and visual images*. London: Continuum.
- O'Halloran, K. (2008). Mathematical and scientific forms of knowledge: A systemic functional multimodal grammatical approach. In F. Christie & J. R. Martin (Eds.), *Language, knowledge and pedagogy: Functional linguistic and sociological perspectives* (pp. 205-236). London: Continuum.
- O'Halloran, K. (2009). Systemic functional multimodal discourse analysis (SF-MDA) approach to mathematics, grammar and literacy. In A. McCabe, M. O'Donnell & R. Whittaker (Eds.), *Advances in language and education* (pp. 77-102). London & New York: Continuum. (Reprinted from: 2007).
- O'Toole, M. (1994). *The language of displayed art*. London: Leicester University Press.
- Okawa, T. (2008). *Academic literacies in the Discipline of Nursing: Grammar as a resource for producing texts*. MA dissertation, University of Adelaide, Adelaide.
- Osailan, G. (2009). *The English literacy experiences of advanced Saudi EFL professionals in the United States*. Unpublished Ph.D. thesis, Indiana University of Pennsylvania, Indiana.
- Paltridge, B. (2001). *Genre and the language learning classroom*. Ann Arbor: University of Michigan Press.
- Pardoe, S. (2000a). A question of attribution: the indeterminacy of learning from experience. In M. Lea & B. Stierer (Eds.), *Student writing in higher education: New contexts* (pp. 125-146). Buckingham: SRHE and Open University Press.
- Pardoe, S. (2000b). Respect and the pursuit of 'symmetry' in researching literacy and student writing. In D. Barton, M. Hamilton & R. Ivanič (Eds.), *Situated literacies: Reading and writing in context* (pp. 149-166). London: Routledge.
- Parker, K., & Chao, J. (2007). Wiki as a teaching tool. *Interdisciplinary Journal of Knowledge and Learning Objects*, 3, 57-72.
- Patton, M. (2002). *Qualitative evaluation and research methods* (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Pauwels, L. (2012). A Multimodal Framework for Analyzing Websites as Cultural Expressions. *Journal of Computer-Mediated Communication*, 17(3), 247-265. doi: 10.1111/j.1083-6101.2012.01572.x
- Pavlenko, A. (2007). Autobiographic narratives as data in applied linguistics. *Applied Linguistics*, 28(2), 163.
- Pérez, M. A., & Macià, E. A. (2002). Metadiscourse in lecture comprehension: Does it really help foreign language learners? *Atlantis*, 7-21.

- Picard, M. (2006). *Academic literacy right from the start? A critical realist study of the way university literacy is constructed at a Gulf University*. Unpublished PhD thesis, Rhodes University, South Africa. Retrieved from <http://eprints.ru.ac.za>
- Potter, J. (2010). Disciplinarity and the application of social research. *British Journal of Social Psychology*, 49(4), 691-701.
- Pusey, P., & Meiselwitz, G. (2009). Heuristics for implementation of wiki technology in higher education learning. *Online Communities and Social Computing*, 507-514.
- Racher, F., & Robinson, S. (2002). Are Phenomenology and Postpositivism Strange Bedfellows? *Western Journal of Nursing Research*, 25(5), 464-481.
- Ramanau, R., & Geng, F. (2009). Researching the use of Wiki's to facilitate group work. *Procedia-Social and Behavioral Sciences*, 1(1), 2620-2626.
- Ramburuth, P. (2009). Diversity and the student experience in business education In J. Baxter & C. Poullaos (Eds.), *Practices, profession and pedagogy in accounting: essays in honour of Bill Birkett* (pp. 451-475). Sydney: Sydney University Press.
- Ratner, C. (2002). Subjectivity and objectivity in qualitative methodology. *Forum Qualitative Sozialforschung (Forum Qualitative Social Research)*, 3(3).
- Reder, S., & Davila, E. (2005). Context and literacy practices. *Annual Review of Applied Linguistics*, 25(1), 170-187.
- Riazi, A. (1997). Acquiring disciplinary literacy: A social-cognitive analysis of text production and learning among Iranian graduate students of education. *Journal of Second Language Writing*, 6(2), 105-137.
- Rick, J., Guzdial, M., Holloway-Attaway, K. C. L., & Walker, B. (2002). *Collaborative learning at low cost: CoWeb use in English composition*. Paper presented at the Proceedings of Computer Support for Collaborative Learning Conference, Boulder, CO, USA.
- Robertson, I. (2008). Learners' attitudes to wiki technology in problem based, blended learning for vocational teacher education. *Australasian Journal of Educational Technology*, 24(4), 425-441.
- Roebuck, R. (1999). *Reading and recall in L1 and L2: A sociocultural approach*: Ablex Publishing Corporation.
- Romano, L. (2005, December 25). Literacy of College Graduates Is on Decline, *Washington Post*. Retrieved from <http://www.washingtonpost.com/wp-dyn/content/article/2005/12/24/AR2005122400701.html>
- Royce, T. (2002). Multimodality in the TESOL classroom: Exploring visual-verbal synergy. *TESOL Quarterly* 36(2), 191-205.
- Ruth, A., & Houghton, L. (2009). The wiki way of learning. *Australasian Journal of Educational Technology*, 25(2), 135-152.
- Rutherford, B. A. (2005). Genre analysis of corporate annual report narratives: A corpus linguistic-based approach. *Journal of Business Communication*, 42(4), 349-378.
- Sa'adeddin, M. (1989). Text development and Arabic-English negative interference. *Applied Linguistics*, 10(1), 36-51. doi: 10.1093/applin/10.1.36
- Samraj, B. (2008). A discourse analysis of master's theses across disciplines with a focus on introductions. *Journal of English for Academic Purposes*, 7(1), 55-67. doi: 10.1016/j.jeap.2008.02.005

- Scarcella, R. (2003). *Academic English: A conceptual framework*. Technical Reports. Linguistic Minority Research Institute, University of California. Irvine. Retrieved from <http://escholarship.org>
- Sen, S., Joyce, P., Farrell, K., & Toutant, J. (1997). Performance in principles of finance courses by students with different specializations. *Financial Practice and Education*, 7(2), 66-73.
- Shrestha, P. N. (2011). *Dynamic assessment of academic writing for business studies*. EdD, Open University. Retrieved from <http://ethos.bl.uk> Available from British Library EThOS database.
- Simon, C. (2009). Graduate Business Students and Business Information Literacy: A Novel Approach. *Business & Finance Librarianship*, 14, 48–267. doi: 10.1080/08963560802361981
- Smith, D., Campbell, J., & Brooker, R. (1999). The impact of students' approaches to essay writing on the quality of their essays. *Assessment & Evaluation in Higher Education*, 24(3), 327-338.
- Soler, J. (1999). Past and present technocratic solutions to teaching literacy: implications for New Zealand primary teachers and literacy programmes. *Pedagogy, Culture & Society*, 7(3), 523-540.
- Spack, R. (1997). The acquisition of academic literacy in a second language: a longitudinal study. *Written Communication*, 14(1), 3–62.
- Stenbacka, C. (2001). Qualitative research requires quality concepts of its own. *Management Decision*, 39(7), 551-556.
- Stoner, G. (2009). Accounting students' IT application skills over a 10-year period. *Accounting Education*, 18(1), 7-31.
- Street, B. (1984). *Literacy in theory and practice*. Cambridge, New York & Melbourne: Cambridge University Press.
- Street, B. (1998). New literacies in theory and practice: What are the implications for Language in Education? *Linguistics and Education*, 10(1), 1-24.
- Street, B. (2003). What's "new" in New Literacy Studies? Critical approaches to literacy in theory and practice. *Current Issues in Comparative Education*, 5(2), 77-91.
- Street, B. (2012). Literacy and Multimodality: *STIS Lecture: Inter-Disciplinary Seminars O Laboratório SEMIOTEC*. Belo Horizonte: da FALE/UFMG Faculdade de Letras.
- Swales, J. (1994). From the editors. *English for Specific Purposes*, 13(3), 199-203.
- Tatweer. (2010). King Abdullah bin Abdulaziz Public Education Development Project Retrieved June 16, 2011, from <http://www.tatweer.edu.sa/>
- Tavakoli, M., Dabaghi, A., & Khorvash, Z. (2010). The effect of metadiscourse awareness on L2 reading comprehension: A case of Iranian EFL learners. *English Language Teaching*, 3(1), 92-102.
- Terre Blanche, M., & Durrheim, K. (2002). Histories of the present: social science research in context. In M. Terre Blanche & K. Durrheim (Eds.), *Research in Practice: Applied methods for the social sciences* (pp. 1-16). Cape Town: University of Cape Town Press.
- Terre Blanche, M., & Kelly, K. (2002). Interpretive Methods. In M. Terre Blanche & K. Durrheim (Eds.), *Research in practice: Applied methods for the social sciences* (pp. 123-146). Cape Town: University of Cape Town Press.
- Textalyser. (2004). Analysis Tool, Version 1.05, 2011, from <http://textalyser.net/>

- The Business School. (2009a). *Accounting Concepts and Methods Course Outline*. Adelaide, Australia: Faculty of the Professions, University of Adelaide.
- The Business School. (2009b). *Principles of Finance Course Outline*. Adelaide, Australia: Faculty of the Professions, University of Adelaide.
- The Business School. (2010). *Management Accounting Course Profile*. Adelaide, Australia: Faculty of the Professions, University of Adelaide.
- The Business School. (2011). *Intermediate Financial Reporting Course Outline*. Adelaide, Australia: Faculty of the Professions, University of Adelaide.
- Thomas, J. (1997). Discourse in the marketplace: The making of meaning in annual reports. *Journal of Business Communication*, 34(1), 47-66.
- Thompson, G. (2004). *Introducing Functional Grammar* (2nd ed.). London: Arnold.
- Tracey, D. H., & Morrow, L. M. (2012). *Lenses on reading: An introduction to theories and models* (2nd ed.). US: Guilford Press.
- Twu, H. L. (2009). Effective Wiki Strategies to Support High-Context Culture Learners. *TechTrends*, 53(5), 16-21.
- University of Adelaide. (2009). Accounting Concepts and Methods course details Retrieved 17 April 2010, from <https://access.adelaide.edu.au/courses/details.asp?year=2011&course=103259+1+3120+1>
- Unsworth, L. (2006). Towards a metalanguage for multiliteracies education: describing the meaning making resources of language-image interaction. *English Teaching: Practice and Critique*, 5(1), 55-76.
- Unsworth, L., & Clérigh, C. (2009). Multimodality and reading: the construction of meaning through image-text interaction. In C. Jewitt (Ed.), *The Routledge handbook of multimodal analysis* (pp. 151-163). London: Routledge.
- Ure, J. (1971). Lexical density and register differentiation. In G. Perren & J. L. M. Trim (Eds.), *Applications of linguistics* (pp. 443-452). London: Cambridge University Press.
- Van Leeuwen, T. (1999). *Speech, music, sound*. London: Macmillan.
- Van Leeuwen, T. (2005). Multimodality, genre and design. In S. Norris & R. Jones (Eds.), *Discourse in action: introducing mediated discourse analysis* (pp. 73-94). London: Routledge.
- Van Leeuwen, T. (2011). Multimodality and multimodal research. In E. Margolis & L. Pauwels (Eds.), *The Sage handbook of visual research methods* (pp. 549-569). London: SAGE Publications Limited.
- Van Manen, M. (1997). *Researching lived experience: Human science for an action sensitive pedagogy* (2nd ed.). London: Althouse.
- Vannini, P. (2007). Social semiotics and fieldwork: Method and analytics. *Qualitative inquiry*, 13(1), 113-140.
- Visscher, S., & Stansfield, C. (1997). Illustrating capital budgeting complexities with JIT justification data. *Financial Practice and Education*, 7, 29-34.
- Wake, B. (2006). *Dialogic learning in tutorial talk: a case study of semiotic mediation as a learning resource for second language international students*. Unpublished Ph.D. thesis, University of Adelaide, Adelaide. Retrieved from <http://digital.library.adelaide.edu.au>

- Weaver, D., Viper, S., Latter, J., & McIntosh, P. C. (2010). Off campus students' experiences collaborating online, using wikis. *Australasian Journal of Educational Technology*, 26(6), 847-860.
- Wenger, E. (1999). *Communities of practices*. Cambridge: Cambridge University Press.
- Wheeler, S., & Wheeler, D. (2007). *Evaluating Wiki as a tool to promote quality academic writing skills*. Paper presented at the Conference ICL2007, Villach, Austria
- Williams, E. (2004). Literacy Studies. In A. Davies & C. Elder (Eds.), *The Handbook of Applied Linguistics*. Oxford, UK: Blackwell Publishing Ltd.
- Williams, M. (2000). Interpretivism and generalisation. *Sociology*, 34(2), 209-224.
- Wingate, U. (2012). Using Academic Literacies and genre-based models for academic writing instruction: A 'literacy' journey. *Journal of English for Academic Purposes*, 11, 26-37. doi: 10.1016/j.jeap.2011.11.006
- Yang, S. C. (2003). Reconceptualizing think-aloud methodology: refining the encoding and categorizing techniques via contextualized perspectives. *Computers in Human Behaviour*, 19, 95-115.
- Yang, X. (2010). *Modelling text as process: a dynamic approach to EFL classroom discourse*: Continuum Int Publshing Group.
- Yeung, L. (2007). In search of commonalities: Some linguistic and rhetorical features of business reports as a genre. *English for Specific Purposes*, 26(2), 156-179.
- Zhang, Z. (2007). Towards an integrated approach to teaching Business English: A Chinese experience. *English for Specific Purposes*, 26(4), 399-410. doi: 10.1016/j.esp.2006.10.006
- Zorko, V. (2009). Factors affecting the way students collaborate in a wiki for English language learning. *Australasian Journal of Educational Technology*, 25(5), 645-665.

Appendices

Appendix 1: Consent form for the participants in the linguistics research project

1. I, (*Please print name*) consent to take part in the research project entitled: Investigating international postgraduate Business students' literacy and numeracy practices: a multidimensional exploration.
2. I acknowledge that I have read the attached Information Sheet entitled: **Linguistic Research Project**
3. I have had the project, so far as it affects me, fully explained to my satisfaction by the research worker. My consent is given freely.
4. Although I understand that the purpose of this research project is to improve knowledge and understanding about the process of acquiring academic literacies, it has also been explained that my involvement may not be of any direct benefit or prejudice to me.
5. I have been informed that, while information gained during the study may be published, I will not be identified and my results or work will not be divulged. No information which could identify me or my work will be given to any third party, and research code information will be stored separately from the data.
6. I understand that I am free to withdraw from the project at any time and that this will not directly or indirectly affect my academic results, now or in the future (National Statement on Ethical Conduct in Human Research, 2007, paragraph 2.2.19, p. 21). In case of your withdrawal from participation, however, the collected data will not be withdrawn from the research study.
7. I am aware that I should retain a copy of this Consent Form, when completed, and the attached Information Sheet.

.....
 (signature)

(date)

Researcher/Witness to complete:

I have described to
 (*Name of participant*) the nature of the research to be carried out. In my opinion she/he understood the explanation.

Hesham AlYousef - Status in Project: Researcher

.....
 (signature)

(date)

Appendix 2: Student information sheet

Linguistic Research Project Student Information Sheet

Who I am and what I am doing: my name is Hesham AlYousef and I am a Doctoral student at the University of Adelaide doing a research in Applied Linguistics entitled “Investigating international postgraduate Business students’ literacy and numeracy practices: a multidimensional exploration”. My research project involves looking at language and how it is used. I would like to collect assignments from you, observe some of your classes, and interview you during your enrolment in your courses over the period of study and analyse the language used. This will increase my knowledge of the development of postgraduate tertiary students’ writing. Depending on the results, this information may be used to assist other students in the future. My supervisors are Dr. Peter Mickan, Principal Supervisor and Coordinator of Postgraduate Applied Linguistics, School of Humanities, Discipline of Linguistics, University of Adelaide, and Dr Michelle Picard, Co-Supervisor and Director of Researcher Education, Discipline of Higher Education, School of Education, University of Adelaide.

When: I will be collecting data over 3-6 semesters in varying subjects from 27th July 2009 to July 2012.

What will happen in the project: I will collect the assessed tasks of a student over a period of 3-6 semesters. I will also record tutorials and/or lectures to see what information is given to students about assessments. I will interview the student involved in the project to ask him about the factors that have influenced his writing. The interviews will be recorded and transcribed. In addition, I will ask him to reflect on his past and current learning experiences. I will also interview the tutors and lecturers about their expectations and marking criteria for assessments. I will then analyse all this data to see what language choices students have made and why. This information will form the basis of my Doctoral thesis and any research articles related to this project. I may write papers to be presented at conferences or published in learned journals giving information about the results of the project, both during and after the period of data collection.

All information collected in the project and the details of the participant will remain confidential and this is a voluntary project. No information which could identify you or your work will be given to any third party, and research code information will be stored separately from the data.

Important information you should know about the project, with regard to you as a participant:

- This is a voluntary project. If you do not wish to participate, then do not sign the consent form and let me know by e-mail at hesham.alyousef@adelaide.edu.au
- Neither you nor the tutors and lecturers will be identified in the project. I will use a code, for example, S for student and T for tutor and/or numbers.
- You are not being assessed by me and your contribution or not as a participant in the research project will not affect your results for the course in which you are enrolled.

- Any interviews may be recorded as will tutorials and lectures, but this information will remain confidential and not given to any third party in any form which allows your identification.
- You may, at any time during the project, inform me that you do not wish to participate, and your wishes will be respected (Scarcella, 2003, p. 21, paragraph 2.2.19). In case of your withdrawal from participation, however, the collected data will not be withdrawn from the research study.
- This project has been approved by the University of Adelaide Human Research and Ethics committee.
- The attached form entitled *Contacts for Information on Project and Independent Complaints Procedure* provides details of persons you may contact if you have any complaints or want to know more about the project.

Thank you for taking the time to consider your participation in this project.

Yours sincerely,

Hesham AlYousef

hesham.alyousef@adelaide.edu.au

Mobile 0402 919 476

Appendix 4: Structured interview with the participants

Name: _____

Date: _____ Permission to record interview: Yes/No

Aim: The aim of the interview is to probe the breadth and depth of participants' previous literacy experiences, including their perceptions of academic writing and the use of information communication technology (ICT), word processors, databases, electronic dictionaries, etc.

Time: Each participant will be interviewed for about 1-2 hours.

A: Questions related to participants' background literacy experience in ESL/EFL

1. How many years have you been learning English in Saudi Arabia?
2. How many hours a week did you study English?
3. Which aspects of the English program do you find the most helpful?
4. Which aspects of the English program do you find the least helpful?
5. Did you use English outside the school? If yes, when?

B: Questions related to participants' general and/or the academic English course

1. How many weeks did you study general/academic English in Australia?
2. How many hours a week did you attend?
3. What did you learn from this course?
4. Which aspects of the program do you find the most helpful?
5. Which aspects of the program do you find the least helpful?

C: Questions related to participants' experience in Information Communication Technology (ICT)

1. What word processor do you use during your study?
2. Which features of the word processor do you use most often?
3. Do you use tables and/or visuals?
4. How do you collect information about an assigned topic? Which database(s) do you use to search for articles?
5. Do you save or print the resources you want to read?

D Questions related to participants' conceptions of academic writing

1. Do you write a plan before beginning your writing?
2. If yes, on what basis do you arrange the contents of the plan?
3. What are the most important aspects of the introduction?
4. How do you build your position (stance) in the essay?
5. How do you write your conclusion?
6. Is there a specific reference system you have to use in the discipline?

E: Questions related to the effect of participants' L1 on their L2 writing

1. Do you feel that your previous literacy experiences in Arabic adequately prepared you for the writing requirements in your postgraduate study? Why?
2. Do you translate all the new words when reading?
3. Do you translate from your L1 into your L2 when writing?
4. How do you structure/plan a text in L1?

Appendix 5: Structured & unstructured interview with the participants

Aim: to elicit the participants' literacy and numeracy experiences in each business module

Unstructured interview questions and prompts were developed from participant observation. Typical interview questions include inquiries such as: "What does the term X mean? How is it calculated? How did you learn to work this out?"

Examples for the unstructured interview's prompts: capital budgeting, Excel formulas, financial calculator, PV, WACC, EBIT, NPV, IRR, EAA, Sensitivity Analysis, PP.

The structured interview:

1. What was the purpose of the text?
2. How did you start to do the assignment?
3. How did you work out the structure (i.e. headings, tables/graphs)?
4. Where did you learn to use this? How did you learn to use Excel to make tables and calculate formulae?
5. What are your perceptions of the writing requirements of this task?
6. What were the main sources you used for seeking clarification(s)?
7. Did you experience significant difficulties in undertaking the assignment task? Were there any aspects that you found difficult in the assignment task? What are the problems that you experienced with writing at the university?
8. How were you influenced by your previous literacy and numeracy skills? Were there other writing contexts that influenced you while doing this assignment?
9. How were you influenced by your lecturer?
10. What is the role of this kind of task in real life? How do you think this task would relate to your future career?
11. Did you use/post comments in the module's forum?
12. What was your reaction to the grade you got?
13. What was wrong?

Appendix 6: Human research ethics approval

HESHAM ALYOUSEF <hesham.alyousef@gmail.com>

Ethics approval for "An interdisciplinary case study of the academic literacies of Saudi non-native English speaking postgraduate students in Australia"

Sabine Schreiber <sabine.schreiber@adelaide.edu.au>
Reply-To: sabine.schreiber@adelaide.edu.au
To: Peter MICKAN <peter.mickan@adelaide.edu.au>
Cc: hesham.alyousef@adelaide.edu.au

10 August 2009 10:55

Dear Peter

Thank you for submitting the above ethics application which has been approved and given the ethics approval number H-107-2009. There is a minor typo to correct on the interview schedule – question B:1.

I will forward you the approval documents in the internal mail.

Regards

Sabine

Sabine Schreiber
Secretary, Human Research Ethics Committee
Research Ethics and Compliance Unit
Research Branch, Level 7, 115 Grenfell St
The University of Adelaide, AUSTRALIA 5005
Ph : 8303 6028 (Mon - Thurs)
Fax : 8303 7325
e-mail: sabine.schreiber@adelaide.edu.au
<http://www.adelaide.edu.au/ethics/human/>

CRICOS Provider Number 00123M

IMPORTANT: This message may contain confidential or legally privileged information. If you think it was sent to you by mistake, please delete all copies and advise the sender. For the purposes of the SPAM Act 2003, this email is authorised by The University of Adelaide.

Think green: read on the screen.

**Appendix 7: Contacts for information on project & independent complaints
procedure statement**

HUMAN RESEARCH ETHICS COMMITTEE
Document for people who are participants in a research project

The following study has been reviewed and approved by the University of Adelaide Human Research Ethics Committee:

Project Title:	A case study of the academic literacies of Saudi non-native English speaking postgraduate students in Australia
Approval Number:	H-107-2009

The Human Research Ethics Committee (HREC) is obliged to monitor approved research projects. In conjunction with other forms of monitoring it is necessary to provide an independent and confidential reporting mechanism to assure quality assurance of the institutional ethics committee system. This is done by providing research participants with an additional avenue for raising concerns regarding the conduct of any research in which they are involved. The research project will be conducted according to the NHMRC National Statement on Ethical Conduct in Human Research²⁹.

Linguistic Research Project: To collect assignments from you and interview you during your enrolment in courses in the Accounting Program and analyse the language used. This will increase my knowledge of the changes that students' writing undergoes when becoming a University student, and the reasons that underlie these changes. Depending on the results, this information may be used to assist other students in the future.

1. if you have **questions or problems** associated with the practical aspects of your participation in the project, or wish to raise a concern or complaint about the project, then you should consult the project co-ordinators:

Dr Peter Mickan, Principal Supervisor and Coordinator of Postgraduate Applied Linguistics, School of Humanities, Discipline of Linguistics, University of Adelaide (Office: Napier Building 909), telephone: 8313 3405, e-mail: peter.mickan@adelaide.edu.au

Dr Michelle Picard, Co-Supervisor and Director of Researcher Education, Discipline of Higher Education, School of Education, University of Adelaide, telephone: 8313 3957, email: michelle.pacard@adelaide.edu.au

2. If you wish to discuss with an independent person matters related to
 - making a complaint, or
 - raising concerns on the conduct of the project, or
 - the University policy on research involving human participants, or
 - your rights as a participant

Contact the Human Research Ethics Committee's Secretary on phone 8313 6028.

²⁹ NHMRC, ACC 2007, 'National Statement on Ethical Conduct in Human Research', *NHMRC, Canberra*.

Appendix 8: Tutor/Lecturer Information Sheet

Linguistic Research Project
Tutor/Lecturer Information Sheet

Who I am and what I am doing: my name is Hesham AlYousef and I am a Doctoral student at the University of Adelaide doing a research in Applied Linguistics entitled “Investigating international postgraduate Business students’ literacy and numeracy practices: a multidimensional exploration”. My research project involves looking at language, how it is used, and developed by Saudi postgraduate students. I would like to make an interview with you in regards to the courses my participants are enrolled in. Depending on the results, this information may be used to assist other students in the future. My supervisors are Dr. Peter Mickan, Principal Supervisor and Coordinator of Postgraduate Applied Linguistics, School of Humanities, Discipline of Linguistics, University of Adelaide, and Dr Michelle Picard, Co-Supervisor and Director of Researcher Education, Discipline of Higher Education, School of Education, University of Adelaide.

When: I will be collecting data over 3-6 semesters in varying subjects from 27th July 2009 to July 2012.

What will happen in the project: I will collect the assessed tasks of a student over a period of 3-6 semesters. I will also record your tutorials and/or lectures to see what information is given to students about assessments. I will interview the student involved in the project to ask him about the emergent literacy practices and the factors that have influenced his writing. I will ask him to reflect on his past and current learning experiences. In addition, I may also interview you about your expectations and marking criteria for assessments. These interviews will be recorded and transcribed. I will then analyse all this data to see what language choices students have made and why. This information will form the basis of my Doctoral thesis and any research articles related to this project. I may write papers to be presented at conferences or published in refereed journals giving information about the results of the project, both during and after the period of data collection.

All information collected in the project and the details of the participant will remain confidential and this is a voluntary project. No information which could identify you or your work will be given to any third party, and research code information will be stored separately from the data.

Important information you should know about the project, with regard to you as a participant:

- This is a voluntary project. If you do not wish to participate, then do not sign the consent form and let me know by e-mail at hesham.alyousef@adelaide.edu.au
- Neither you nor the student will be identified in the project. I will use a code, for example, S for student and T for tutor and/or numbers.
- You are not being assessed and your contribution or not as a participant in the research project will not form part of any assessment of your teaching.
- You may, at any time during the project, inform me that you do not wish to participate, and your wishes will be respected (Scarcella, 2003, p. 21,

paragraph 2.2.19). In case of your withdrawal from participation, however, the collected data will not be withdrawn from the research study.

- This project has been approved by the University of Adelaide Human Research and Ethics committee.
- The attached form entitled *Contacts for Information on Project and Independent Complaints Procedure* provides details of persons you may contact if you have any complaints or want to know more about the project.

Thank you for taking the time to consider your participation in this project.

Yours sincerely,

Hesham AlYousef
hesham.alyousef@adelaide.edu.au
Mobile 0402 919 476

Appendix 9: Transitivity Analysis of Abdulrahman's accounting text

Title	Accounting 5-question Assignment				
Pseudonym	Abdulrahman				
Type of Analysis	Transitivity Analysis				
Program	Master of Commerce				
Module	Accounting Concepts & Methods				
Number of Words	1304				
Notes					
1.	Answer 1:				
2.		(i) Australian Stock Exchange (ASX)	is	a service company.	
		Token	Pr: Rel, Ident	Value	
3.	and	it	is working as	a market operator, supervisor, central counterparty clearer and payments system facilitator.	
		Token	Pr: Rel, Ident	Value	
4.	In particular,	its principal activities	consist of	provision of securities exchange	
		Token	Pr: Rel, Ident	Value	
5.	and			ancillary services,	
				Value	
6.				provision of derivatives exchange	
	and			ancillary services,	
				Value	
7.				provision of counterparty clearing services,	
				Value	
8.				provision of settlement	
				Value	
9.	and			clearing of financial products.	
				Value	
10.	(ii) An accounting equation at the Beginning of 2008:				
11.		Assets	=	liabilities + owner equity	
		Token	Pr: Rel, Ident	Value	
12.		9,518,463	=	6,762,079+ 2,756,384	
		Token	Pr: Rel, Ident	Value	
13.	An accounting equation at the end of 2008:				
14.		6,791,885	=	4,037,639+2,754, 246	
		Token	Pr: Rel, Ident	Value	
15.		(iii) The basis for measurement of assets and	is	the Australian dollars on the historical cost	except for available for- sale financial assets

		liabilities		basis		
		Token	Pr: Rel, Ident	Value	Circ:	Contingency
16.		which	have been recognised at	fair value.		
		Token	Pr: Rel, Ident	Value		
17.		(iv) The consolidated profit after tax for the 2008 financial year	was	\$ 365,949,000 AUD.		
		Token	Pr: Rel, Ident	Value		
18.		(v) The consolidated cash flow from operating activities for the 2008	was	\$ 349,109,000.		
		Token	Pr: Rel, Ident	Value		
19.	In 2007	the consolidated cash flow	was	313,653,000,		
	Circ: Location	Token	Pr: Rel, Ident	Value		
20.	so	there	is	increase	in 2008	by 35,456,000
			Pr: Exist.	Existent	Circ: Location	Exist ent
21.		(vi) Revenue	is	recognised		
		Carrier	Pr: Rel, Attrib	Attribute		
22.		when it	is	probable		
		Carrier	Pr: Rel, Attrib	Attribute		
23.	that	the economic benefits	will flow to	the entity		
		Actor	Pr: Mat	Goal		
24.	and	the revenue	can be .	reliably	measured	
		Carrier	Pr: Rel, Attrib	Attribute	Pr: Rel, Attrib	
25.		The entity	needs	an accounting policy	for this item	
		Actor	Pr: Mat	Goal	Circ: Cause (behalf)	
26.	because	it	allows	the users of the information		
		Actor	Pr: Mat	Range		
27.			to distinguish between	all types of the revenue		
			Pr: Mat	Goal		
28.		whether it	comes from	the operation activity		
		Value	Pr: Rel, Ident	Token		
29.	or from			another resource		
				Token		
30.		which in the end	can help to evaluate	the entity.		
		Senser	Pr: Ment	Phenomenon		
31.	Also,	it	is	a major criteria	in income statement	
		Carrier	Pr: Rel, Attrib	Attribute	Circ: Location	
32.	so;	it	is needed to be	the revenue of the	with the previous	

			compared with	company for the current year	years
		Senser	Pr: Ment	Phenomenon	Circ: Accompaniment
33.	and		compare	it	with other entities.
			Pr: Ment	Senser	Circ: Accompaniment
34.		(vii) The directors' report	is following	the accurate assumption	
		Actor	Pr: Mat	Goal	
35.	so	this report	includes		
		Value	Pr: Rel, Ident		
36.	and		explain	extensively	the financial year events
			Pr: Behav.		Phenomenon
37.	and			the important <sic>	
38.		which	needs to be	clear	for information users
		Carrier	Pr: Rel, Attrib	Attribute	Circ: Cause
39.					in terms of report on the business, environmental regulation, share information, proceedings
					Circ: Manner
40.					on behalf of the company, directors' declaration of satisfaction with independence of auditor, remuneration report.
					Circ: Cause (behalf)
41.		(vii) The auditor's report	is	a formal opinion	
		Carrier	Pr: Rel, Attrib	Attribute	
42.	as a result of	an external audit	to evaluate	the performance	on a legal entity or subdivision thereof.
		Senser	Pr: Ment	Phenomenon	Circ: Location
43.		An auditor's report	is considered	an essential tool	
		Carrier	Pr: Rel, Attrib	Attribute	
44.		when	reporting	financial information	to users.
		Sayer	Pr: Verb.	Verbiage	Receiver: Target
45.	Since	many third-party users	prefer	the financial information	
		Senser	Pr: Ment	Phenomenon	
46.			to be certified	by an independent external auditor,	
			Pr: Mat	Actor	

47.		many auditees	rely on	auditor reports	
		Actor	Pr: Mat	Client	
48.			to certify	their information	
			Pr: Mat	Goal	
49.	in order to		attract	investors,	
			Pr: Mat	Client	
50.			obtain	loans,	
			Pr: Mat	Goal	
51.	and		improve	public appearance.	
			Pr: Mat	Goal	
52.		The auditor of the ASX Company	is	KPMG.	
		Value	Pr: Rel, Ident	Token	
53.		(IX)This general purpose Financial Report	has been prepared		in accordance with Australian Accounting Standards, Australian Accounting Standards Board (AASB) pronouncements including Australian Interpretations, and the Corporations Act 2001.
		Goal	Pr: Mat		Circ: Manner (quality)
54.		The consolidated Financial Report of the Group and the Financial Report of the Company	comply with	International Financial Reporting Standards (IFRSs)	
		Senser	Pr: Ment	Phenomenon	
55.	and	interpretations	adopted by	the International Accounting Standards Board (IASB).	
		Attrib, Possd	Pr: Rel, Attrib, Poss	Carrier, Possr	
56.		All the financial reports	are constructed		in accordance with Accounting Standards
		Goal	Pr: Mat		Circ: Manner (quality)
57.			set by	AASB.	
			Pr: Mat	Actor	
58.		This report	affirms with	International Financial reporting Standards	
		Senser	Pr: Ment	Phenomenon	
59.	and	interpretations	adopted by	International Accounting	

				Standard Board.	
		Attrib, Possd	Pr: Rel, Attrib, Poss	Carrier, Possr	
60.		The above mentioned bodies	regulate and instruct	companies	
		Sayer	Pr: Verb.	Receiver: Target	
61.		how	to form	their financial reports	
		Circ: Manner	Pr: Mat	Goal	
62.		which	could be compared		at international levels.
		Phenomenon	Pr: Ment		Circ: Location
63.		It	provides	them	with the complete structure
		Actor	Pr: Mat	Recipient	Circ: Accompaniment
64.			giving	them	liberties
			Pr: Mat	Recipient	Range
65.			to amend	them slightly where required.	
			Pr: Mat	Goal	
66.	From the recognition of revenue to recognition of goodwill, for every segment of the report	there	is	a standard.	
		Circ: Manner	Pr: Exist.	Existent	
67.		Notes to the ASX financial report	refer to	the application of amended AASB 3, 101 and 123	
		Senser	Pr: Ment	Phenomenon	
68.			indicating	that need for application of amended accounting standards as well.	
		Senser	Pr: Ment	Phenomenon	
69.	However,	the Group	is	yet	
		Token	Pr: Rel, Ident	Value	
70.			to determine	the potential impact of the revised standards on the group's financial report.	
		Senser	Pr: Ment	Phenomenon	
71.	Answer 2:				
72.	Since	the wages	did be <sic> paid		at the end of 30 June 2009,
		Goal	Pr: Mat		Circ: Location (temporal)
73.		this (sic) wages	becomes <sic>	accrued expenses	
		Carrier	Pr: Rel, Attrib	Attribute	
74.		which in	<sic>	similar to current	

		accounting		liabilities	
		Carrier	Pr: Rel, Attrib	Attribute	
75.		which	is	defined	under the framework
		Carrier	Pr: Rel, Attrib	Attribute	Circ: Manner (quality)
76.	as	a present obligation of the entity	arising		from past events,
		Goal	Pr: Mat		Circ: Location
77.		the settlement of which	is expected to result in	an outflow	from the entity of resources embodying.
		Carrier	Pr: Rel, Attrib	Attribute	Circ: Location
78.	And	these expenses	should be	clear	in the financial statements notes.
		Carrier	Pr: Rel, Attrib	Attribute	Circ: Location
79.		The company	will make	a double entry	
		Actor	Pr: Mat	Goal	
80.		by	increasing	accrued wages expenses	
			Pr: Mat	Client	
81.	and		increase	expense	by this amount
			Pr: Mat	Goal	Circ: Manner
82.	and	it	is considered	expenses	
		Senser	Pr: Ment	Phenomenon	
83.	because	the expenses definition under the framework	is	that a decrease in economic benefits	during the accounting period
		Token	Pr: Rel, Ident	Value	Circ: Location (time)
84.					in the form of outflows or depletions of assets or incurrence of liabilities
					Circ: Role
85.	that		result in	decrease in equity, other than relating to distributions to equity participants.	
		Carrier	Pr: Rel, Attrib	Attribute	
86.	Then,	when the company	pays	the wages to	the employees,
		Actor	Pr: Mat	Goal	Recipient
87.		the double entry	will be reversing	the accrued expenses (liability)	to debit side
		Actor	Pr: Mat	Goal	Circ: Location
88.	and		decreasing	the cash at bank	
		Actor	Pr: Mat	Goal	
89.		which	is considered	assets	
		Senser	Pr: Ment	Phenomenon	
90.	because	the framework	defines	the assets	as a resource
		Assigner: Agent	Pr: Rel, Ident	Token: Identifier	Value: Identified
91.			controlled by	the entity	as a result of past events

	Cash and cash equivalents at beginning of period			90,000	
	Cash and cash equivalents at end of period			200,000	
		Token	Pr: Implicit, Rel, Ident (16 instances)	Value	
98.	Calculations:				
99.		Cash paid to suppliers and employees	(=)	Cash generated from operations-cash collected from customers	
		Token	Pr: Rel, Ident	Value	
100.			=	480000-1400000	
		Token	Pr: Rel, Ident	Value	
101.			=	-920000	
		Token	Pr: Rel, Ident	Value	
102.		Cash generated from operations	(=)	Net cash from operating activities+ interest paid+ income taxes paid	
			Pr: Rel, Ident	Value	
103.			=	400000+30000+50000	
		Token	Pr: Rel, Ident	Value	
104.			=	480000	
		Token	Pr: Rel, Ident	Value	
105.		Purchase of equipment	(=)	Net cash used in investing activities-Cash received from sale of land	
		Token	Pr: Rel, Ident	Value	
106.			=	300000-70000	
		Token	Pr: Rel, Ident	Value	
107.			=	370000	
		Token	Pr: Rel, Ident	Value	
108.		Net cash used in investing activities	(=)	Net increase (decrease) in cash and cash equivalent held-net cash used in financing activities-net	

				cash from operating activities	
		Token	Pr: Rel, Ident	Value	
109.			=	110000-10000-400000	
		Token	Pr: Rel, Ident	Value	
110.			=	-300000	
		Token	Pr: Rel, Ident	Value	
111.		Net cash used in financing activities	(=)	Dividends paid+ repayment of bank loan+issue of shares	
		Token	Pr: Rel, Ident	Value	
112.			=	-130000-80000+220000	
		Token	Pr: Rel, Ident	Value	
113.			=	10000	
		Token	Pr: Rel, Ident	Value	
114.	Answer 5:				
115.		Net profit of Law Services for the year ended 30 June 2009	: (equals)	^ OE + D-C	
		Token	Pr: Rel, Ident	Value	
116.			(=)	200000-346000+80000-20000	
		Token	Pr: Rel, Ident	Value	
117.			=	206000	
		Token	Pr: Rel, Ident	Value	
118.		^	=	Change	
		Token	Pr: Rel, Ident	Value	
119.		OE	=	(200000) owner equity	at the beginning of the accounting period.
		Token	Pr: Rel, Ident	Value	Circ: Location
120.			(=)	(346000) owner equity	at the end of the accounting period.
		Token	Pr: Rel, Ident	Value	Circ: Location
121.		D	=	withdrawals of capital	by owners.
		Token	Pr: Rel, Ident	Value	Circ: Matter
122.		C	=	contributions of capital	by owners.

		Token	Pr: Rel, Ident	Value	Circ: Manner (means)
123.		(a) Capital maintains	is	central to the measurement of profit.	
		Carrier	Pr: Rel, Attrib	Attribute	
124.		It	provides	the linkage	between the concepts of capital and the concepts of profit
		Actor	Pr: Mat	Goal	Circ: Extent
125.	because	it	provides	the point of reference	
		Actor	Pr: Mat	Goal	
126.		by which profit	is measured;		
		Goal	Pr: Mat		
127.		it	is	a prerequisite	for distinguishing between an entity's return on capital and its return of capital.
		Carrier	Pr: Rel, Attrib	Attribute	Circ: Cause (behalf)
128.		(b) I	have used	financial capital maintains	in my answer.
		Actor	Pr: Mat	Range	Circ: Location

Appendix 10: Transitivity Analysis of Omar's accounting text

Title	Accounting 4-question Assignment				
Pseudonym	Omar				
Type of Analysis	Transitivity Analysis				
Program	Master of Commerce				
Module	Accounting Concepts & Methods				
Number of Words	1068				
Notes					
1.		Cash account	is affected by	this transaction;	
		Pt: Goal	Pr: Mat	Pt: Actor	
2.		The cash	is	an asset	
		Token	Pr: Rel, Ident	Value	
3.	as	it	is <sic> satisfied	the essential characteristics of an asset and its recognitions criteria:	
		Senser	Pr: Ment	Phenomenon	
4.		cash	was received		
		Goal	Pr: Mat		
5.		Quality Services Ltd	has	the capacity	
		Carrier , Possr	Pr: Rel, Attrib, Poss	Attrib, Possd	
6.			to benefit	from the asset	
			Pr: Mat	Client	
7.	and		can deny	others access to the cash	
			Pr: Mat	Goal	
8.		it	can be used to settle	a liability.	
		Actor	Pr: Mat	Range	
9.		The future economic benefits	may occur	- more than fifty per cent of probability.	
		Carrier	Pr: Rel, Attrib	Attribute	
10.		It	is	obvious	
		Carrier	Pr: Rel, Attrib	Attribute	
11.	that	the cost of that asset	can be measured	reliably	
		Carrier	Pr: Rel, Attrib	Attribute	
12.		the company	has paid	\$6000	for that service.
		Actor	Pr: Mat	Range	Client
13.	As a result of	(the company's)	paying	\$6000	from the cash account,
		Actor	Pr: Mat	Range	Circ: Location
14.		that account	decrease	by the same amount	
		Actor	Pr: Mat	Goal	Circ: Role
15.	and	that (decrease)	affects	it.	
		Senser	Pr: Ment	Phenomenon	
16.		Expenses account	is affected by	the same transaction,	as expenses
		Goal	Pr: Mat	Actor	Circ: Role
17.	as	it	is <sic> satisfied	the essential characteristics of an asset and its recognitions criteria:	
		Senser	Pr: Ment	Phenomenon	

18.		Minimizing <sic> in the assets or rising in the liabilities (excluding distributions to owners) that	cause	the decrease in the assets.	
		Carrier	Pr: Rel, Attrib	Attribute	
19.		Reducing <sic> in assets without changing in liabilities	leads to reduce sic>	the Equity.	
		Actor	Pr: Mat	Range	
20.		The future economic benefits	will minimize		
		Goal	Pr: Mat		
21.	as a result of	the minimizing in assets-		more than fifty per cent	of probability.
				Attribute	Circ: Matter
22.		The declining in the future economic benefits	can be measured	reliably -	
		Carrier	Pr: Rel, Attrib	Attribute	
23.		the cost of that expense	is	recognized.	
		Carrier	Pr: Rel, Attrib	Attribute	
24.		The expenses of year 2010	should increase:		
		Goal	Pr: Mat		
25.		The Quality Services Ltd's income statement	must contain	\$1000	as insurance expense
		Assigner: Agent	Pr: Rel, Ident	Token: Identifier	Value: Identified
26.		(the essential characteristics of an expense and the recognitions criteria	are	satisfied)	
		Carrier	Pr: Rel, Attrib	Attribute	
27.		\$5000	must be appeared <sic>	in the statement of financial position of Quality Services Ltd	as an asset (prepaid insurance)
		Assigner: Agent	Pr: Rel, Ident	Token: Identifier	Value: Identified
28.					below the current assets part
					Circ: Location
29.			due to applying	the essential characteristics of an asset and its recognitions criteria:	
			Pr: Mat	Range	
30.		cash	was received		
		Goal	Pr: Mat		
31.		The benefits from the asset	are	controlled	
		Carrier	Pr: rel., attrib.	Attribute	

32.	because	Quality Services Ltd	has	the capacity																													
		Carrier , Possr	Pr: Rel, Attrib, Poss	Attrib, Possd																													
33.			to gain	from that asset,																													
			Pr: Mat	Client																													
34.	also	the company	has	the power																													
		Carrier , Possr	Pr: Rel, Attrib, Poss	Attrib, Possd																													
35.			to prevent	the <sic> others																													
			Pr: Mat	Recipient																													
36.			to access	these benefits.																													
			Pr: Mat	Range																													
37.		(It	owns	the insurance policy).																													
		Token , Possr	Pr: Rel, Ident, Poss	Value , Possd																													
38.		The next ten months of 2011	are covered	by insurance policy																													
		Range	Pr: Mat	Actor																													
39.	and	that	achieve <sic>	Future economic benefits.																													
		Actor	Pr: Mat	Range																													
40.		The future economic benefits	may occur	-more than fifty per cent	of probability.																												
		Carrier	Pr: rel., attrib.	Attribute	Circ: Matter																												
41.		It	is	obvious																													
		Carrier	Pr: rel., attrib.	Attribute																													
42.	that	the cost of that asset	can be measured	reliably																													
		Carrier	Pr: rel., attrib.	Attribute																													
43.		the amount of that assts	is	\$5000																													
		Token	Pr: Rel, Ident	Value																													
44.	<u>Question 2</u>																																
45.	<p style="text-align: center;">Exit Ltd Statement of Financial Position as at 30 June 2010</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">Accounts receivable</td> <td style="text-align: right;">20</td> </tr> <tr> <td>Inventories</td> <td style="text-align: right;">250</td> </tr> <tr> <td>Prepaid insurance</td> <td style="text-align: right;">25</td> </tr> <tr> <td>Others current assets</td> <td style="text-align: right;">15</td> </tr> <tr> <td style="text-align: right;">TOTAL CURRENT ASSETS</td> <td style="text-align: right; border-top: 1px solid black;">310</td> </tr> <tr> <td colspan="2">NON-CURRENT ASSETS</td> </tr> <tr> <td>Long term investment</td> <td style="text-align: right;">100</td> </tr> <tr> <td>Property, plant and equipment</td> <td style="text-align: right;">800</td> </tr> <tr> <td style="text-align: right;">TOTAL NONO-CURRENT ASSETS</td> <td style="text-align: right; border-top: 1px solid black;">900</td> </tr> <tr> <td style="text-align: right;">TOTAL ASSETS</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">1210</td> </tr> <tr> <td colspan="2">CURRENT LIABILITIES</td> </tr> <tr> <td>Accounts payable</td> <td style="text-align: right;">100</td> </tr> <tr> <td>Bank over draft</td> <td style="text-align: right;">10</td> </tr> <tr> <td>Loan payable due September 2010</td> <td style="text-align: right;">40</td> </tr> </table>					Accounts receivable	20	Inventories	250	Prepaid insurance	25	Others current assets	15	TOTAL CURRENT ASSETS	310	NON-CURRENT ASSETS		Long term investment	100	Property, plant and equipment	800	TOTAL NONO-CURRENT ASSETS	900	TOTAL ASSETS	1210	CURRENT LIABILITIES		Accounts payable	100	Bank over draft	10	Loan payable due September 2010	40
Accounts receivable	20																																
Inventories	250																																
Prepaid insurance	25																																
Others current assets	15																																
TOTAL CURRENT ASSETS	310																																
NON-CURRENT ASSETS																																	
Long term investment	100																																
Property, plant and equipment	800																																
TOTAL NONO-CURRENT ASSETS	900																																
TOTAL ASSETS	1210																																
CURRENT LIABILITIES																																	
Accounts payable	100																																
Bank over draft	10																																
Loan payable due September 2010	40																																

50.		Cash paid to suppliers for purchases	: (equals)	Cost of sales + ending inventory – beginning inventory + beginning account payable – ending accounts payable	
		Token	Pr: Rel, Ident	Value	
51.			(equals)	5100+6600-6000+6150-7950=\$3900	
		Token	Pr: Rel, Ident	Value	
52.		Cash paid to suppliers of service and labour	: (equals)	Accrual basis Expenses – beginning prepaid expenses + ending expenses	
		Token	Pr: Rel, Ident	Value	
53.			(equals)	6300-300+360=\$6360	
		Token	Pr: Rel, Ident	Value	
54.		Accrual basis Expenses	: (equals)	<i>expenses – depreciation for the year</i>	
		Token	Pr: Rel, Ident	Value	
55.		Accrual basis Expenses:	= (equals)	8610 - (810-1500)	
		Token	Pr: Rel, Ident	Value	
56.		Accrual basis Expenses:	= (equals)	\$6300	
		Token	Pr: Rel, Ident	Value	
57.		Cash paid to suppliers and employee	: (equals)	3900+6360	
		Token	Pr: Rel, Ident	Value	
58.		Cash paid to suppliers and employee:	= (equals)	\$10260	
		Token	Pr: Rel, Ident	Value	
59.		Cash paid to purchase of equipment:	= (equals)	ending equipment – beginning equipment	
		Token	Pr: Rel, Ident	Value	
60.		(Cash paid to purchase of equipment:)	= (equals)	25500-19200=\$6300	
		Token	Pr: Rel, Ident	Value	
61.		Cash paid to purchase of land	: (equals)	ending land – beginning land	
		Token	Pr: Rel, Ident	Value	
62.			= (equals)	24000-20400	
		Token	Pr: Rel, Ident	Value	
63.			=	\$3600	

		Token	Pr: Rel, Ident	Value	
64.		Cash paid to purchase of motor vehicles	: (equals)	ending motor vehicles – beginning motor vehicles	
		Token	Pr: Rel, Ident	Value	
65.			= (equals)	15600-14550	
		Token	Pr: Rel, Ident	Value	
66.			=	\$1050	
		Token	Pr: Rel, Ident	Value	
67.		Purchase of equipment, land and motor vehicles	: (equals)	6300+3600+1050	
		Token	Pr: Rel, Ident	Value	
68.			= (equals)	\$10950	
		Token	Pr: Rel, Ident	Value	
69.		Cash from financing activities	: (equals)	Cash proceed	from long-term mortgage:
		Token	Pr: Rel, Ident	Value	Circ: Location
70.			(equals)	ending long term mortgage - beginning long term mortgage	
		Token	Pr: Rel, Ident	Value	
71.		Cash from financing activities	: (equals)	18900-14100	
		Token	Pr: Rel, Ident	Value	
72.		Cash from financing activities	: (equals)	\$4800	
		Token	Pr: Rel, Ident	Value	
73.		Cash receipts from the owner	= (equals)	\$6000	
		Token	Pr: Rel, Ident	Value	
74.		Cash paid to the owner	: (equals)	beginning equity+ profit + contribution – ending equity	
		Token	Pr: Rel, Ident	Value	
75.		Cash paid to the owner	: (equals)	32700 + 3090 + 6000 -35100	
		Token	Pr: Rel, Ident	Value	
76.		Cash paid to the owner	: (equals)	(\$6690)	
		Token	Pr: Rel, Ident	Value	
77.		Cash from financing activities	: (equals)	4800+ 6000-6690	
		Token	Pr: Rel, Ident	Value	
78.		Cash from financing activities	: (equals)	\$4110	
		Token	Pr: Rel, Ident	Value	

79.	Question 4: (A)				
80.		The ending equity	should be worked out		as following
		Goal	Pr: Mat		Circ: Role
81.		Beginning Equity	+	Profit	
		Actor	Pr: Mat	Goal	
82.			-	Withdrawals by owners	
		Actor	Pr: Mat	Goal	
83.		Ending Equity	= (equals)	\$500000 + \$32000 - \$15000	
		Token	Pr: Rel, Ident	Value	
84.			= (equals)	\$517000	
			Pr: Rel, Ident	Value	
85.		The profit according to change in wealth approach	is	Change in net assets + drawings – contributions	from owners
		Token	Pr: Rel, Ident	Value	Circ: Location
86.		(The profit according to change in wealth approach)	= (equals)	\$17000 + \$15000 - 0	
		Token	Pr: Rel, Ident	Value	
87.		(The profit according to change in wealth approach)	= (equals)	\$32000	
		Token	Pr: Rel, Ident	Value	
88.	(B)	The profit according to revenues less expenses approach	: (equals)	Income – expenses	
		Token	Pr: Rel, Ident	Value	
89.	Dividends received from investments			\$50000	
	Interest paid on long term loan (no principal repaid)			\$(18000)	
	Profit			\$32000	
		Token	Pr: Implicit, Rel, Ident (3 instances)	Value	
90.	(C) Both	parts A and B	have	the same profit	
		Carrier , Possr	Pr: Rel, Attrib, Poss	Attrib, Possd	
91.	as	income	leads to rising	in equity	
		Actor	Pr: Mat	Goal	
92.		that	result in	inflows or improvement of assets or reducing of liabilities,	except the contributions from owners.
		Actor	Pr: Mat	Range	Circ: Contingency
93.	Also both	parts A and B	have	the same profit	
		Carrier , Possr	Pr: Rel, Attrib, Poss	Attrib, Possd	
94.	as	expenses	lead to	reducing <sic> in equity	
		Actor	Pr: Mat	Range	
95.		that	causes in	outflows or reduction of assets or	except the distributions from owners.

				boosting of liabilities,	
			Pr: Mat	Range	Circ: Contingency
96.	Thus, if	contributions and distributions	are	known	
		Carrier	Pr: Rel, Attrib	Attribute	
97.	then	profit	can be worked out		from the statement of financial position.
		Goal	Pr: Mat		Circ: Location
98.		A	= (equals)	L + E	
		Token	Pr: Rel, Ident	Value	
99.		A + EX	= (equals)	L + E + R	
		Token	Pr: Rel, Ident	Value	
100.		A	= (equals)	Assts	
		Token	Pr: Rel, Ident	Value	
101.		A + EX	= (equals)	L + E + R	
		Token	Pr: Rel, Ident	Value	
102.		L	= (equals)	Liabilities	
		Token	Pr: Rel, Ident	Value	
103.		A	= (equals)	L + E + R - EX	
		Token	Pr: Rel, Ident	Value	
104.		E	= (equals)	Equity	
		Token	Pr: Rel, Ident	Value	
105.		A	= (equals)	L + E + P	
		Token	Pr: Rel, Ident	Value	
106.		R	= (equals)	Revenue	
		Token	Pr: Rel, Ident	Value	
107.		A	= (equals)	L + (E + P)	
		Token	Pr: Rel, Ident	Value	
108.		EX	= (equals)	Expenses	
		Token	Pr: Rel, Ident	Value	
109.		A	= (equals)	L + ending equity	
		Token	Pr: Rel, Ident	Value	
110.		P	= (equals)	Profit	
		Token	Pr: Rel, Ident	Value	

Appendix 11: Transitivity Analysis of Abdullah's accounting text

Title	Accounting 4-question Assignment				
Pseudonym	Abdullah				
Type of Analysis	Transitivity Analysis				
Program	Master of Commerce				
Module	Accounting Concepts & Methods				
Number of Words	1187				
Notes					
1.	(A) First,	this transaction	affected	cash account	
		Actor	Pr: Mat	Goal	
2.		which	is	an asset	
		Carrier	Pr: Rel, Attrib	Attribute	
3.	as	it	satisfies	the essential characteristics of an asset and its recognitions criteria:	
		Senser	Pr: Ment	Phenomenon	
4.		cash	was received		
		Goal	Pr: Mat		
5.		Quality Services Ltd	has	the capacity	
		Carrier , Possr	Pr: Rel, Attrib, Poss	Attrib, Possd	
6.			to benefit	from the asset	
			Pr: Mat	Client	
7.	and		can deny	others access to the cash	
			Pr: Mat	Goal	
8.		it	can be used to settle	a liability (or other ways)	
		Actor	Pr: Mat	Range	
9.		It	is	probable	
		Carrier	Pr: Rel, Attrib	Attribute	
10.	that	the future economic benefits –	will eventuate	greater than 50% probability.	
		Goal	Pr: Mat	Range	
11.	The amount of the asset		can be measured	reliably.	
		Carrier	Pr: Rel, Attrib	Attribute	
12.		The mount <sic>	is	known (\$6000).	
		Carrier	Pr: Rel, Attrib	Attribute	
13.	As	the amount of cash	was taken out	from cash account	
		Goal	Pr: Mat	Cleint	
14.		the effected <sic> of this transaction	is	negative	
		Carrier	Pr: Rel, Attrib	Attribute	
15.		(cash account	must be reduced	\$6000).	
		Actor	Pr: Mat	Range	
16.	Second, also,	this transaction	affected	expenses account	
		Actor	Pr: Mat	Goal	
17.		which	is	an expense	
		Carrier	Pr: Rel, Attrib	Attribute	
18.	as	(it)	satisfied	with <sic> the	

				essential characteristic of an expense and its recognitions criteria:	
		Senser	Pr: Ment	Phenomenon	
19.		cash	was taken out	from cash (Reduction in an asset)	
		Goal	Pr: Mat	Client	
20.		it	is	probable	
		Carrier	Pr: Rel, Attrib	Attribute	
21.	that	the decrease in future economic benefits	resulting in	a decrease in assets	
		Carrier	Pr: Rel, Attrib	Attribute	
22.			has occurred	(greater than 50% probability).	
			Pr: Rel, Attrib	Attribute	
23.		The decrease in future economic benefits	can be measured	reliably	
		Carrier	Pr: Rel, Attrib	Attribute	
24.		the amount of the expense	is	known.	
		Carrier	Pr: Rel, Attrib	Attribute	
25.	(B) First,	insurance expense for year 2010	should be determined:		
		Phenomenon	Pr: Ment		
26.		600/12	= (equals)	\$500 per month	
		Token	Pr: Rel, Ident	Value	
27.		2010 insurance expense: 2 (May and June)*500	= (equals)	\$1000	
		Token	Pr: Rel, Ident	Value	
28.	According to accrual basis assumption	\$1000	must appear	in income statement of Quality Services Ltd	as insurance expense
	Circ: Angle (source)	Assigner: Agent	Pr: Rel, Ident	Token: Identifier	Value: Identified
29.			(satisfied	the essential characteristics of an expense and its recognitions criteria:	
			Pr: Ment	Phenomenon	
30.	<u>Second.</u>	the rest of the amount (\$5000)	must appear	in balance statement of Quality Services Ltd	as an asset (prepaid insurance) (under current assets section)
		Assigner: Agent	Pr: Rel, Ident	Token: Identifier	Value: Identified
31.	because of		satisfying	the essential characteristics of an asset an its recognitions	

				criteria:	
			Pr: Ment	Phenomenon	
32.		Past event- cash	was paid.		
		Goal	Pr: Mat		
33.		Control - Quality Services Ltd	has	the capacity	
		Carrier , Possr	Pr: Rel, Attrib, Poss	Attrib, Possd	
34.			to benefit	from the asset	
			Pr: Mat	Client	
35.	and		can deny	others access to the cash (insurance policy under its name).	
		Actor	Pr: Mat	Goal	
36.		Future economic benefits- insurance policy	covers	the next 10 months	in 2011.
		Actor	Pr: Mat	Range	Circ: Location
37.		It	is	probable	
		Carrier	Pr: Rel, Attrib	Attribute	
38.	that	the future economic benefits	will eventuate	– greater than 50% probability.	
		Actor	Pr: Mat	Goal	
39.		The amount of the asset	can be measured	reliably.	
		Carrier	Pr: Rel, Attrib	Attribute	
40.		The mount	is	known (\$5000).	
		Carrier	Pr: Rel, Attrib	Attribute	
41.	Third,	this transaction	decreases	cash account \$6000	
		Actor	Pr: Mat	Goal	
42.	as		shown	above	in part (a).
		Senser	Pr: Ment	Phenomenon	Circ: Location
43.	<i>Answer Question 2</i>				
44.	Statement of Financial Position as at 30 June 2010				
	Assets	\$000	\$000	Liabilities	\$00 0 0
	Current assets			Current liability	
	Accounts receivable	20		Accounts payable	100
	Inventories	250		Bank over draft	10
	Prepaid insurance	25		Loan payable due September 2010	40
	Others current assets	15	310	Tax payable	50 200
	Non-current assets			Non-current liabilities	
	Long term investment	100		Loan payable due September 2014	500 500
	Property, plant and equipment	800	900	Owners' equity	
				Capital	510
				Total (liabilities and owners' equity)	121
	Total assets		1210		0
	Token	Pr: Implicit, Rel, Ident		Value	

			(18 instances)																																									
45.	Calculations																																											
46.		Prepaid insurance	= (is equal to)	total assets – Accounts receivable – Inventories - Others current assets - Long term investment - Property, plant and equipment																																								
		Token	Pr: Rel, Ident	Value																																								
47.		Prepaid insurance	= (is equal to)	1210-20-250-15- 100-800																																								
		Token	Pr: Rel, Ident	Value																																								
48.		(Prepaid insurance)	= (is equal to)	\$25																																								
		Token	Pr: Rel, Ident	Value																																								
49.		Accounts payable	= (is equal to)	total liabilities - Bank over draft - Loan payable due September 2010- Tax payable - Loan payable	due September 2014																																							
		Token	Pr: Rel, Ident	Value	Circ: Location																																							
50.		Total liabilities	= (is equal to)	total assets – equity																																								
		Token	Pr: Rel, Ident	Value																																								
51.		(Total liabilities)	= (is equal to)	1210-510																																								
		Token	Pr: Rel, Ident	Value																																								
52.		(Total liabilities)	= (is equal to)	\$700																																								
		Token	Pr: Rel, Ident	Value																																								
53.		Accounts payable	= (is equal to)	700-10-40-50-500																																								
		Token	Pr: Rel, Ident	Value																																								
54.		Accounts payable	= (is equal to)	\$100																																								
		Token	Pr: Rel, Ident	Value																																								
55.	Answer Question 3																																											
56.	Exit Ltd Statement of Cash Flows for the year ended 30 June 2011 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="width: 10%; text-align: right;">\$</th> <th style="width: 10%; text-align: right;">\$</th> </tr> </thead> <tbody> <tr> <td>Cash flows from operating activities</td> <td></td> <td></td> </tr> <tr> <td>Cash receipts from customers</td> <td style="text-align: right;">17940</td> <td></td> </tr> <tr> <td>cash paid to suppliers and employee</td> <td style="text-align: right;">(10260)</td> <td></td> </tr> <tr> <td>cash generated from operations</td> <td style="text-align: right;">7680</td> <td></td> </tr> <tr> <td>Net cash from operating activities</td> <td></td> <td style="text-align: right;">7680</td> </tr> <tr> <td> cash flows from investing activities</td> <td></td> <td></td> </tr> <tr> <td>purchase of equipment, land and motor vehicles</td> <td style="text-align: right;">(10950)</td> <td></td> </tr> <tr> <td>Net cash used in investing activities</td> <td></td> <td style="text-align: right;">(10950)</td> </tr> <tr> <td> Cash from financing activities</td> <td></td> <td></td> </tr> <tr> <td>Proceed from long-term mortgage</td> <td style="text-align: right;">4800</td> <td></td> </tr> <tr> <td>proceed from the owner</td> <td style="text-align: right;">6000</td> <td></td> </tr> <tr> <td>owner withdrawing</td> <td style="text-align: right;">(6690)</td> <td></td> </tr> </tbody> </table>						\$	\$	Cash flows from operating activities			Cash receipts from customers	17940		cash paid to suppliers and employee	(10260)		cash generated from operations	7680		Net cash from operating activities		7680	 cash flows from investing activities			purchase of equipment, land and motor vehicles	(10950)		Net cash used in investing activities		(10950)	 Cash from financing activities			Proceed from long-term mortgage	4800		proceed from the owner	6000		owner withdrawing	(6690)	
	\$	\$																																										
Cash flows from operating activities																																												
Cash receipts from customers	17940																																											
cash paid to suppliers and employee	(10260)																																											
cash generated from operations	7680																																											
Net cash from operating activities		7680																																										
 cash flows from investing activities																																												
purchase of equipment, land and motor vehicles	(10950)																																											
Net cash used in investing activities		(10950)																																										
 Cash from financing activities																																												
Proceed from long-term mortgage	4800																																											
proceed from the owner	6000																																											
owner withdrawing	(6690)																																											

	Net cash used in financing activities			4110	
	Net increase (decrease) in cash and cash equivalents			840	
	cash and cash equivalents at beginning of period			(300)	
	cash and cash equivalents at end of period			540	
		Token	Pr: Implicit, Rel, Ident (13 instances)	Value	
57.		Cash receipts from customers	: (equals)	Sales + beginning accounts receivable - ending accounts receivable	
		Token	Pr: Rel, Ident	Value	
58.		(Cash receipts from customers)	: (equals)	16800+4290-3150	
		Token	Pr: Rel, Ident	Value	
59.		(Cash receipts from customers)	= (equals)	\$17940	
		Token	Pr: Rel, Ident	Value	
60.		Cash paid to suppliers for purchases:	= (equals)	Cost of sales + ending inventory - beginning inventory + beginning account payable - ending accounts payable	
		Token	Pr: Rel, Ident	Value	
61.		(Cash paid to suppliers for purchases)	: (equals)	5100+6600-6000 +6150-7950	
		Token	Pr: Rel, Ident	Value	
62.		(Cash paid to suppliers for purchases)	= (equals)	\$3900	
		Token	Pr: Rel, Ident	Value	
63.		Cash paid to suppliers of service and labour:	= (equals)	Accrual basis Expenses - beginning prepaid expenses + ending expenses	
		Token	Pr: Rel, Ident	Value	
64.		(Cash paid to suppliers of service and labour)	: (equals)	6300-300+360	
		Token	Pr: Rel, Ident	Value	
65.		(Cash paid to suppliers of service and labour)	= (equals)	\$6360	
		Token	Pr: Rel, Ident	Value	
66.		Accrual basis Expenses	: (equals)	expenses - depreciation for the year	
		Token	Pr: Rel, Ident	Value	
67.		(Accrual basis Expenses)	= (equals)	=8610 - (810-1500)	

		Token	Pr: Rel, Ident	Value	
68.		(Accrual basis Expenses)	= (equals)	\$6300	
		Token	Pr: Rel, Ident	Value	
69.		Cash paid to suppliers and employee	: (equals)	3900+6360	
		Token	Pr: Rel, Ident	Value	
70.		(Cash paid to suppliers and employee)	= (equals)	\$10260	
		Token	Pr: Rel, Ident	Value	
71.		Cash paid to purchase of equipment	: (equals)	ending equipment – beginning equipment	
		Token	Pr: Rel, Ident	Value	
72.		(Cash paid to purchase of equipment)	= (equals)	25500-19200	
		Token	Pr: Rel, Ident	Value	
73.		(Cash paid to purchase of equipment)	= (equals)	\$6300	
		Token	Pr: Rel, Ident	Value	
74.		Cash paid to purchase of land	: (equals)	ending land – beginning land	
		Token	Pr: Rel, Ident	Value	
75.		(Cash paid to purchase of land)	= (equals)	24000-20400	
		Token	Pr: Rel, Ident	Value	
76.		(Cash paid to purchase of land)	= (equals)	\$3600	
		Token	Pr: Rel, Ident	Value	
77.		Cash paid to purchase of motor vehicles	: (equals)	ending motor vehicles – beginning motor vehicles	
		Token	Pr: Rel, Ident	Value	
78.		(Cash paid to purchase of motor vehicles)	= (equals)	15600-14550	
		Token	Pr: Rel, Ident	Value	
79.		(Cash paid to purchase of motor vehicles)	= (equals)	\$1050	
		Token	Pr: Rel, Ident	Value	
80.		Purchase of equipment, land and motor vehicles	: (equals)	6300+3600+1050	
		Token	Pr: Rel, Ident	Value	
81.		(Purchase of equipment, land and motor vehicles)	= (equals)	\$10950	
		Token	Pr: Rel, Ident	Value	
82.		Cash proceed from long-term mortgage	: (equals)	ending long term mortgage – beginning long	

				term mortgage	
		Token	Pr: Rel, Ident	Value	
83.		(Cash proceed from long-term mortgage)	= (equals)	18900-14100	
		Token	Pr: Rel, Ident	Value	
84.		(Cash proceed from long-term mortgage)	= (equals)	\$4800	
		Token	Pr: Rel, Ident	Value	
85.		Cash receipts from the owner	= (equals)	\$6000	
		Token	Pr: Rel, Ident	Value	
86.		Cash paid to the owner	: (equals)	beginning equity+ profit + contribution – ending equity	
		Token	Pr: Rel, Ident	Value	
87.		(Cash paid to the owner:)	= (equals)	32700 + 3090 + 6000 -35100	
		Token	Pr: Rel, Ident	Value	
88.		(Cash paid to the owner:)	= (equals)	(\$6690)	
		Token	Pr: Rel, Ident	Value	
89.		Cash from financing activities:	= (equals)	4800+ 6000- 6690	
		Token	Pr: Rel, Ident	Value	
90.		(Cash from financing activities:)	= (equals)	\$4110	
		Token	Pr: Rel, Ident	Value	
91.	<u>Answer question 4 (A)</u>				
92.	First,	The ending equity	should be worked out		as following
		Goal	Pr: Mat		Circ: Role
93.		Beginning Equity	\$500000		
		Profit	\$32000		
		Withdrawals by owners	\$(15000)		
		Ending Equity	\$517000		
94.		Token	Pr: Implicit, Rel, Ident (4 instances)	Value	
95.	So,	the difference between Ending Equity and beginning Equity	is	\$17000	
		Token	Pr: Rel, Ident	Value	
96.	<u>Or</u>	ending equity	= (equals)	Beginning Equity + Profit - Withdrawals	by owners
		Token	Pr: Rel, Ident	Value	Circ: Manner
97.		(ending equity)	= (equals)	500000 + 32000 – 15000	
		Token	Pr: Rel, Ident	Value	
98.		(ending equity)	= (equals)	\$517000	
		Token	Pr: Rel, Ident	Value	
99.		The profit according to change in wealth	is	Change in net assets + drawings – contributions	

		approach		from owners	
		Token	Pr: Rel, Ident	Value	
100.		(The profit according to change in wealth approach)	= (equals)	\$17000 + \$15000 - 0	
		Token	Pr: Rel, Ident	Value	
101.		(The profit according to change in wealth approach)	= (equals)	\$32000	
		Token	Pr: Rel, Ident	Value	
102.	b)	The profit according to revenues less expenses approach:	= (equals)	Income – expenses	
		Token	Pr: Rel, Ident	Value	
103.	Dividends received from investments			\$50000	
	Interest paid on long term loan (no principal repaid)			\$(18000)	
	Profit			\$32000	
		Token	Pr: Implicit, Rel, Ident (1 instances)	Value	
104.	Or	(profit)	= (equals)	50000 – 18000	
		Token	Pr: Rel, Ident	Value	
105.	(c)	The profit	is	the same	in part A and B
		Token	Pr: Rel, Ident	Value	Circ: Location
106.	as	income	leads to rising	in equity	
		Actor	Pr: Mat	Range	
107.		, which	results in	inflows or enhancement of assets or decrease of liabilities, other than the contributions from owners.	
		Carrier	Pr: Rel, Attrib	Attribute	
108.	Also,	the profit	is	the same	in part A and B
		Carrier	Pr: Rel, Attrib	Attribute	Circ: Location
109.	as	expenses	lead to	decreasing in equity,	
		Actor	Pr: Mat	Range	
110.		which (equity)	results in	outflows or depletions of assets	
		Carrier	Pr: Rel, Attrib	Attribute	
111.	or			increase of liabilities, other than the distributions from owners.	
				Attribute	
112.	Hence,	profit	can be calculated		from balance sheet (equity section),
		Goal	Pr: Mat		Circ: Location
113.	as long as	distributions and contributions	are	known.	

		Carrier	Pr: Rel, Attrib	Attribute	
114.		Revenues less expenses approach	= (equals)	change in wealth approach	
		Token	Pr: Rel, Ident	Value	
115.		Assets	= (equals)	liabilities + equity1	
		Token	Pr: Rel, Ident	Value	
116.		Assets	= (equals)	liabilities + equity1- distributions+ contributions	
		Token	Pr: Rel, Ident	Value	
117.		Assets	= (equals)	liabilities + (equity1- distributions+ contributions)	
		Token	Pr: Rel, Ident	Value	
118.		Assets	= (equals)	liabilities + equity2	
		Token	Pr: Rel, Ident	Value	
119.		Assets + expenses	= (equals)	liabilities + equity2+ revenue	
		Token	Pr: Rel, Ident	Value	
120.		Assets	= (equals)	liabilities + equity2 + revenue - expenses	
		Token	Pr: Rel, Ident	Value	
121.		Assets	= (equals)	liabilities + equity 2+ profit	
		Token	Pr: Rel, Ident	Value	
122.		Assets	= (equals)	liabilities + (equity2 + profit)	
		Token	Pr: Rel, Ident	Value	
123.		Assets	= (equals)	liabilities + ending equity	
		Token	Pr: Rel, Ident	Value	
124.		Profit	= (equals)	ending equity- equity2	
		Token	Pr: Rel, Ident	Value	
125.		equity1	= (equals)	beginning equity	
		Token	Pr: Rel, Ident	Value	
126.		equity2	= (equals)	changing in equity (distributions and contributions)	
		Token	Pr: Rel, Ident	Value	
127.	So,	profit	is equal	in both approaches	
		Token	Pr: Rel, Ident	Value	
128.		as profit	is	a part of ending equity	
		Token	Pr: Rel, Ident	Value	
129.		(the amount of profit, which	appears	in income statement,	
		Attributor	Pr: Rel, Attrib	Carrier	
130.			goes	to equity section)	
			Pr: Mat	Range	

Appendix 12: Transitivity Analysis of Ibrahim's accounting text

Title	Accounting 2-question Assignment				
Pseudonym	Ibrahim				
Type of Analysis	Transitivity Analysis				
Program	Master of Commerce				
Module	Accounting Concepts & Methods				
Number of Words	918				
Notes					
1.	Question 1:				
2.	(a):	The accounting service payment on 1 May 2010	should be treated	as liability ("Unearned revenue").	
		Token: Identifier	Pr: Rel, Ident	Value: Identified	
3.	That is,	the essential characteristics of a liability	are	satisfied	for the below reasons:
		Carrier	Pr: Rel, Attrib	Attribute	Circ: Cause
4.		Past transaction / event –The service payment	has <sic> received	by Quality Services Ltd on 1 May 2010;	
		Goal	Pr: Mat	Recipient	
5.	and	Present obligation – The entity	has entered	agreement	
		Senser	Pr: Ment	Phenomenon	
6.			to provide	its customer	by accounting services in the future;
			Pr: Mat	Recipient	Circ: manner (means)
7.	and	Future sacrifice of economic benefits –	=	6,762,079+ 2,756,384	
		Token	Pr: Rel, Ident	Value	
8.	In order to		settle	the obligation,	
			Pr: Mat	Goal	
9.		Quality Services Ltd	must provide	its customer	by an accounting service.
		Actor	Pr: Mat	Recipient	Circ: manner (means)
10.	In addition	the recognition criteria for a liability	are	satisfied	
		Carrier	Pr: Rel, Attrib	Attribute	
11.	because:	It	is	probable	
		Carrier	Pr: Rel, Attrib	Attribute	
12.	that	future sacrifice of economic benefits	is	greater than 50%;	
		Carrier	Pr: Rel, Attrib	Attribute	
13.	and	The amount of the liability	can be determined	reliably –	
		Carrier	Pr: Rel, Attrib	Attribute	
14.		there	is	a payment	
			Pr: Exist.	Existent	

15.			has received	by Quality Services Ltd	
		Goal	Pr: Mat	Recipient	
16.		which	can be used to determine	the liability (\$10 000).	
		Senser	Pr: Ment	Phenomenon	
17.		(b):On 30 Jun 2010 the current liability	will be decreased	by \$4 000	
		Actor	Pr: Mat	Goal	
18.	and	"accounting services revenue" of \$4 000	will be	recognised.	
		Carrier	Pr: Rel, Attrib	Attribute	
19.	Thus,	on 30 Jun 2010 there	will be	a current liability	in the form of "Unearned revenue" of \$6 000.
			Pr: Exist.	Existent	Circ: Role
20.		On 30 Jun 2010 there	is	accounting services revenue	
			Pr: Exist.	Existent	
21.	because:	There	is	a reduction in liabilities	from non-owner resources ("Unearned revenue"); for this item
			Pr: Exist.	Existent	Circ: Location
22.	and	an increase in equity (Net assets)	has occurred		
		Goal	Pr: Mat		
23.	because	there	is	a decrease in liability	with no change in the asset.
			Pr: Exist.	Existent	Circ: Accompaniment
24.		The revenue	can be	recognised	
		Carrier	Pr: Rel, Attrib	Attribute	
25.	because	it	is	probable (greater than 50 %)	
		Carrier	Pr: Rel, Attrib	Attribute	
26.	that	there	has been	saving in outflows of future economic benefits	
			Pr: Exist.	Existent	
27.			resulting from	a decrease in liabilities.	
		Carrier	Pr: Rel, Attrib	Attribute	
28.		The saving in outflow of future economic benefits	can be measured	reliably (The amount of calculated of \$ 4,000 (Accounting services revenue \$10,000 / 5 months X 2 months).	
		Carrier	Pr: Rel, Attrib	Attribute	

29.	Question 2: Exercise (2.15): (a):																																																																															
30.	<p>ALICIA'S PET GROOMING SERVICE</p> <p>Income Statement</p> <p>For the three months ended 31 January 2010</p> <table border="0"> <tr> <td colspan="5">INCOME</td> </tr> <tr> <td>Services revenue</td> <td></td> <td></td> <td></td> <td>\$4,720</td> </tr> <tr> <td colspan="5">EXPENSES</td> </tr> <tr> <td>Rent Expense</td> <td>600</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Suppliers cost</td> <td>700</td> <td></td> <td></td> <td></td> </tr> <tr> <td>electricity expenses</td> <td>801</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Advertising expense</td> <td>216</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td><u>2,317</u></td> </tr> <tr> <td>PROFIT</td> <td></td> <td></td> <td></td> <td><u><u>\$2,403</u></u></td> </tr> </table>					INCOME					Services revenue				\$4,720	EXPENSES					Rent Expense	600				Suppliers cost	700				electricity expenses	801				Advertising expense	216								<u>2,317</u>	PROFIT				<u><u>\$2,403</u></u>																														
INCOME																																																																																
Services revenue				\$4,720																																																																												
EXPENSES																																																																																
Rent Expense	600																																																																															
Suppliers cost	700																																																																															
electricity expenses	801																																																																															
Advertising expense	216																																																																															
				<u>2,317</u>																																																																												
PROFIT				<u><u>\$2,403</u></u>																																																																												
		Token	Pr: Implicit, Rel, Ident (7 instances)	Value																																																																												
31.	(b):																																																																															
32.	<p>ALICIA'S PET GROOMING SERVICE</p> <p>Statement of financial position</p> <p>as at 31 January 2010</p> <table border="0"> <tr> <td colspan="5">CURRENT ASSETS</td> </tr> <tr> <td>Cash at bank</td> <td></td> <td></td> <td></td> <td>\$ 3,622</td> </tr> <tr> <td>Accounts receivable</td> <td></td> <td></td> <td></td> <td>800</td> </tr> <tr> <td>Prepaid rent</td> <td></td> <td></td> <td></td> <td>200</td> </tr> <tr> <td>Grooming Supplies</td> <td></td> <td></td> <td></td> <td><u>260</u></td> </tr> <tr> <td>TOTAL CURRENT ASSETS</td> <td></td> <td></td> <td></td> <td><u>4,882</u></td> </tr> <tr> <td colspan="5">NON-CURRENT ASSETS</td> </tr> <tr> <td>Property, plant and equipment</td> <td></td> <td></td> <td></td> <td><u>2,000</u></td> </tr> <tr> <td>TOTAL NON-CURRENT ASSETS</td> <td></td> <td></td> <td></td> <td><u>2,000</u></td> </tr> <tr> <td>TOTAL ASSETS</td> <td></td> <td></td> <td></td> <td><u>6,882</u></td> </tr> <tr> <td colspan="5">CURRENT LIABILITIES</td> </tr> <tr> <td>Accounts payable</td> <td></td> <td></td> <td></td> <td><u>779</u></td> </tr> <tr> <td>TOTAL CURRENT LIABILITIES</td> <td></td> <td></td> <td></td> <td><u>779</u></td> </tr> <tr> <td>TOTAL LIABILITIES</td> <td></td> <td></td> <td></td> <td><u>779</u></td> </tr> <tr> <td>NET ASSETS</td> <td></td> <td></td> <td></td> <td><u><u>6,103</u></u></td> </tr> </table>					CURRENT ASSETS					Cash at bank				\$ 3,622	Accounts receivable				800	Prepaid rent				200	Grooming Supplies				<u>260</u>	TOTAL CURRENT ASSETS				<u>4,882</u>	NON-CURRENT ASSETS					Property, plant and equipment				<u>2,000</u>	TOTAL NON-CURRENT ASSETS				<u>2,000</u>	TOTAL ASSETS				<u>6,882</u>	CURRENT LIABILITIES					Accounts payable				<u>779</u>	TOTAL CURRENT LIABILITIES				<u>779</u>	TOTAL LIABILITIES				<u>779</u>	NET ASSETS				<u><u>6,103</u></u>
CURRENT ASSETS																																																																																
Cash at bank				\$ 3,622																																																																												
Accounts receivable				800																																																																												
Prepaid rent				200																																																																												
Grooming Supplies				<u>260</u>																																																																												
TOTAL CURRENT ASSETS				<u>4,882</u>																																																																												
NON-CURRENT ASSETS																																																																																
Property, plant and equipment				<u>2,000</u>																																																																												
TOTAL NON-CURRENT ASSETS				<u>2,000</u>																																																																												
TOTAL ASSETS				<u>6,882</u>																																																																												
CURRENT LIABILITIES																																																																																
Accounts payable				<u>779</u>																																																																												
TOTAL CURRENT LIABILITIES				<u>779</u>																																																																												
TOTAL LIABILITIES				<u>779</u>																																																																												
NET ASSETS				<u><u>6,103</u></u>																																																																												

	EQUITY																						
	Owner capital			5000																			
	Owner, Retained Earnings			\$1,103																			
	TOTAL EQUITY				6,103																		
		Token	Pr: Implicit, Rel, Ident (15 instances)	Value																			
33.		(C): There	is	information																			
			Pr: Exist.	Existent																			
34.	that	still	is needed																				
		Goal	Pr: Mat																				
35.	in order to		determine	perfectly																			
		Carrier	Pr: Rel, Attrib	Attribute																			
36.	how	Alicia	had done		during the 3 months period.																		
		Circ: Manner	Actor	Pr: Mat	Goal																		
					Circ: Location (temporal)																		
37.	First,	grooming equipment depreciation	should be provided.																				
		Goal	Pr: Mat																				
38.		This factor	may affect	her net profit	during the 3 months period.																		
		Token	Pr: Rel, Ident	Value	Circ: Location (temporal)																		
39.	Second,	it	is	essential																			
		Carrier	Pr: Rel, Attrib	Attribute																			
40.			to have	more information regarding the default debit																			
		Carrier Possr	Pr: Rel, Attrib, Poss	Attrib, Possd																			
41.	in order to		reach	a propriate analysis	for the accounting receivable.																		
			Pr: Mat	Goal	Circ: Cause (behalf)																		
42.	Exercise (2.15): (a):																						
43.	<p>BRETT'S BAIT SUPPLIES</p> <p>Statement of Cash Flows for the year ended 30 June 2011</p> <table border="0" style="width: 100%;"> <tbody> <tr> <td>Cash flows from operating activities</td> <td></td> <td></td> </tr> <tr> <td>Cash receipts from customers</td> <td style="text-align: right;">964 000</td> <td></td> </tr> <tr> <td>Cash paid to suppliers</td> <td style="text-align: right;">(808 000)</td> <td></td> </tr> <tr> <td>Cash paid to suppliers for services</td> <td style="text-align: right;">(73 200)</td> <td></td> </tr> <tr> <td>Overdraft</td> <td style="text-align: right;">8 000</td> <td></td> </tr> <tr> <td>Net cash from operating activities</td> <td style="text-align: right; border-top: 1px solid black;">90 800</td> <td></td> </tr> </tbody> </table>					Cash flows from operating activities			Cash receipts from customers	964 000		Cash paid to suppliers	(808 000)		Cash paid to suppliers for services	(73 200)		Overdraft	8 000		Net cash from operating activities	90 800	
Cash flows from operating activities																							
Cash receipts from customers	964 000																						
Cash paid to suppliers	(808 000)																						
Cash paid to suppliers for services	(73 200)																						
Overdraft	8 000																						
Net cash from operating activities	90 800																						

	Cash flows from investing activities								
		New purchase freehold property						(40 000)	
		New purchase fixtures						(20 400)	
		Proceeds from sale of fixtures Sold						2400	
		Investment						(20 000)	
		Interest received						4 000	
		Net cash used in investing activities						<u>(74 000)</u>	
	Cash flows from financing activities								
		Owners drawing						(25 600)	
		Net cash used in financing activities						<u>(25 600)</u>	
		Net increase in cash and cash equivalents						(8 800)	
		Cash and cash equivalent at beginning of period						8 800	
		Cash and equivalents at end of period						<u>0</u>	
		Token						Value	
		Pr: Implicit, Rel, Ident						(16 instances)	
44.	* Calculations:								
	A - Cash flows from operating activities:								
45.	1-Cash receipt from customers:								
	Receipt from the customers	=	Sales (net)	+	Beginning accounts receivable	-	Ending accounts receivable		
	964,000		1,000,000		84,000		120,000		
			Token					Value	
			Pr: Rel, Ident					(2 instances)	
46.	2-Cash paid to suppliers for purchases:								
	Cash payments for purchases	=	Cost of sales	-	Beginning inventory	+	Ending inventory	+	Beginning accounts payable
	808,000		916,000		160,000		80,000		52,000
			Token					Value	
			Pr: Rel, Ident					(2 instances)	
47.	3- Cash paid to suppliers for services:								
	Cash paid to suppliers	=	Selling and administrative expenses	+	Off. supplies	-	Dep.		
	73,200		58,000		28,000		12,800		
			Token					Value	
			Pr: Rel, Ident					(2 instances)	
48.			*Equipments Depreciation and Offices suppliers		are			included.	
			Carrier					Attribute	
49.	Equipments Depreciation								
	Depreciation assets sold		4,400		32,000		Beginning balance		
	Ending balance		40,400		12,800		Depreciation expense (No cash outflow)		
			44,800		44,800				
			Offices suppliers						

	Beginning balance	4,000	22,000	Offices suppliers expenses
	Purchase - (Cash outflow)	28,000		
			10,000	Ending balance
		32,000	32,000	
	Overdraft			
			0	Overdraft beginning balance
			8,000	Drawings on draft
	Overdraft ending balance	8,000		
		8,000	8,000	
		Token	Pr: Implicit, Rel, Ident (17 instances)	Value
50.	B- Cash from investing activities:			
	Fixtures			
	Beginning balance	80,000	4,400	Accumulated depreciation
			4,000	Carrying amount of Fixtures sold
	Purchase - (Cash outflow)	20,400		
			92,000	Ending balance
		100,400	100,400	
	Accumulated Depreciation			
	Fixtures	4,400	32,000	Beginning balance
	Ending balance	40,400	12,800	Depreciation Expense (non-cash)
		44,800	44,800	
	Investment			
	Beginning balance	12,000		
	Investment (Cash outflow)	20,000	32,000	Ending balance
		32,000	32,000	
	Interest income			
			0	Beginning balance
			4,000	Interest received (Cash inflow)
	Ending Balance	4,000		
		4,000	4,000	
		Token	Pr: Implicit, Rel, Ident (23 instances)	Value
51.	C- Cash from financing activities			
	Equity			
	Owner's withdrew	25,600	384,800	Capital beginning balance

	(Cash outflow)		6,400	Profit
	Capital ending balance	365,600		
		391,200	391,200	
		Token	Pr: Implicit, Rel, Ident (7 instances)	Value
52.	(b):			
53.		In terms of the effect of operating activities of the company	generated	a positive cash flow of \$90 800.
		Carrier	Pr: Rel, Attrib	Attribute
54.		This	indicates	a satisfactory cash position.
		Carrier	Pr: Rel, Attrib	Attribute
55.		The investment and financing activities	indicate	
		Actor	Pr: Mat	
56.	that	average capital expansion for freehold property and purchase fixtures	were funded	by cash outlays of \$60 400.
		Goal	Pr: Mat	Actor
57.		The assets expansion	was covered	by the cash
		Goal	Pr: Mat	Actor
58.			generated	by operation activities.
			Pr: Mat	Actor
59.	However,	cash position of the company	is	in risk
		Carrier	Pr: Rel, Attrib	Attribute
60.		which	may lead	the company
		Goal	Pr: Mat	Actor
61.			to be	unable
		Carrier	Pr: Rel, Attrib	Attribute
62.			to pay	its current liabilities rustle [resulting] <sic> in bankruptcy.
			Pr: Mat	Goal

Appendix 13: Transitivity Analysis of Hasan's accounting text

Title	Accounting 2-question Assignment				
Pseudonym	Hasan				
Type of Analysis	Transitivity Analysis				
Program	Master of Commerce				
Module	Accounting Concepts & Methods				
Number of Words	821				
Notes					
1.	Question 1:				
2.	(a):	The \$10 000 received on 1 May 2010	should be treated	as a liability (“revenue received in advance”).	
		Token: Identifier	Pr: Rel, Ident	Value: Identified	
3.	That is	the essential characteristics of a liability	are	satisfied	
		Carrier	Pr: Rel, Attrib	Attribute	
4.	because:	Past transaction – receipts of cash;			
5.		Present obligation –	have	a legal obligation	
		Carrier Possr	Pr: Rel, Attrib, Poss	Attrib, Possd	
6.			(cannot avoid)		
7.			to provide	either services	
			Pr: Mat	Goal	
8.	or		repaying	the cash;	
			Pr: Mat	Goal	
9.	and	Future sacrifice of economic benefits – provision of services			
10.	(or	cash refund			
11.	if	services	<sic> not provided).		
		Goal	Pr: Mat		
12.	In addition	the recognition criteria for liability	are satisfied		
		Phenomenon	Pr: Ment		
13.	because:	It	is	probable	
		Carrier	Pr: Rel, Attrib	Attribute	
14.	that	the future sacrifice of economic benefits	will eventuate	– greater than 50% probability;	
		Actor	Pr: Mat	Goal	
15.	and,	The amount of the liability	can be used to measure	the liability.	
		Actor	Pr: Mat	Goal	
16.		b) On 30 June 2010 Quality Services Ltd	should recognise	revenue of \$ 4 000	

		Senser	Pr: Ment	Phenomenon	
17.	and		reduce	'revenue	
			Pr: Mat	Goal	
18.			received	in advance'	by the same amount.
			Pr: Mat	Goal	Circ: Manner (means)
19.		The definition of revenue	is	satisfied	
		Carrier	Pr: Rel, Attrib	Attribute	
20.	because:	there	has been	a decrease in an liability (revenue received in advance)	
			Pr: Exist.	Existent	
21.					from a non-owner contribution;
					Circ: Location
22.	and,	There	has been	an increase in net assets	
			Pr: Exist.	Existent	
23.	because	the decrease in a liability no other assets or liabilities	have changed.		
		Goal	Pr: Mat		
24.	In addition	the recognition criteria for revenue	are	satisfied	
		Carrier	Pr: Rel, Attrib	Attribute	
25.	because:	It	is	probable	
		Carrier	Pr: Rel, Attrib	Attribute	
26.	that	there	has been	an inflow of economic benefits-	
			Pr: Exist.	Existent	
27.		there	has been	an decrease in an obligation to the entity;	
			Pr: Exist.	Existent	
28.	and,	The amount of the inflow of economic benefits	can be measured	reliably –	
		Carrier	Pr: Rel, Attrib	Attribute	
29.		the amount of services provided (\$4 000)	is	known.	
		Carrier	Pr: Rel, Attrib	Attribute	
30.	Question 2a: (a):				
31.	<div style="border: 1px solid black; padding: 10px; background-color: #e0e0e0;"> <p>Alicia's Pet Grooming Services</p> <p>Income Statement</p> <p>for the three months ended 31 January 2011</p> </div>				

34.	For example,	for the equipment, knowing the depreciation	can be	useful																																																	
		Carrier	Pr: Rel, Attrib	Attribute																																																	
35.			to figure out	the depreciation cost expenses																																																	
			Pr: Mat	Goal																																																	
36.		which	affect	the profits.																																																	
		Actor	Pr: Mat	Goal																																																	
37.	In addition,	Alicia's Pet Grooming Services	might loss<sic>	some future receivable	as a Default debit.																																																
		Assigner	Pr: Rel, Ident	Token	Value																																																
38.	Question 2b: (a):																																																				
39.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #cccccc;"> <th colspan="2" style="text-align: center;">BRETT'S BAIT SUPPLIES</th> </tr> <tr> <th colspan="2" style="text-align: center;">Statement of Cash Flows</th> </tr> <tr> <th colspan="2" style="text-align: center;">year ended 30 June 2011</th> </tr> </thead> <tbody> <tr> <td colspan="2">Cash flows from operating activities</td> </tr> <tr> <td>Cash receipts from customers</td> <td style="text-align: right;">964000.00</td> </tr> <tr> <td>Cash paid to suppliers for services</td> <td style="text-align: right;">(73200.00)</td> </tr> <tr> <td>Cash paid to suppliers overdraft</td> <td style="text-align: right;">(808000.00)</td> </tr> <tr> <td></td> <td style="text-align: right; border-top: 1px solid black;">8000.00</td> </tr> <tr> <td><i>Net cash from operating activities</i></td> <td style="text-align: right;">90800.00</td> </tr> <tr> <td colspan="2">Cash flows from investing activities</td> </tr> <tr> <td>Purchase Fixtures</td> <td style="text-align: right;">(20400.00)</td> </tr> <tr> <td>New investment</td> <td style="text-align: right;">(20000.00)</td> </tr> <tr> <td>Purchase freehold property</td> <td style="text-align: right;">(40000.00)</td> </tr> <tr> <td>Proceeds from sale of fixtures sold</td> <td style="text-align: right;">2400.00</td> </tr> <tr> <td>interest received</td> <td style="text-align: right;">4000.00</td> </tr> <tr> <td></td> <td style="text-align: right; border-top: 1px solid black;">(74000.00)</td> </tr> <tr> <td><i>Net cash used in investing activities</i></td> <td style="text-align: right;">(74000.00)</td> </tr> <tr> <td colspan="2">Cash flows from financing activities</td> </tr> <tr> <td>Proceeds from issue of owner new investments</td> <td></td> </tr> <tr> <td>Owners drawing</td> <td style="text-align: right;">(25600.00)</td> </tr> <tr> <td><i>Net cash used in financing activities</i></td> <td style="text-align: right;">(25600.00)</td> </tr> <tr> <td>Net increase in cash and cash equivalents</td> <td style="text-align: right;">(8800.00)</td> </tr> <tr> <td>cash and cash equivalent at beginning of period</td> <td style="text-align: right;">8800.00</td> </tr> <tr> <td>cash and equivalents at end of period</td> <td style="text-align: right;">0.00</td> </tr> </tbody> </table>					BRETT'S BAIT SUPPLIES		Statement of Cash Flows		year ended 30 June 2011		Cash flows from operating activities		Cash receipts from customers	964000.00	Cash paid to suppliers for services	(73200.00)	Cash paid to suppliers overdraft	(808000.00)		8000.00	<i>Net cash from operating activities</i>	90800.00	Cash flows from investing activities		Purchase Fixtures	(20400.00)	New investment	(20000.00)	Purchase freehold property	(40000.00)	Proceeds from sale of fixtures sold	2400.00	interest received	4000.00		(74000.00)	<i>Net cash used in investing activities</i>	(74000.00)	Cash flows from financing activities		Proceeds from issue of owner new investments		Owners drawing	(25600.00)	<i>Net cash used in financing activities</i>	(25600.00)	Net increase in cash and cash equivalents	(8800.00)	cash and cash equivalent at beginning of period	8800.00	cash and equivalents at end of period	0.00
BRETT'S BAIT SUPPLIES																																																					
Statement of Cash Flows																																																					
year ended 30 June 2011																																																					
Cash flows from operating activities																																																					
Cash receipts from customers	964000.00																																																				
Cash paid to suppliers for services	(73200.00)																																																				
Cash paid to suppliers overdraft	(808000.00)																																																				
	8000.00																																																				
<i>Net cash from operating activities</i>	90800.00																																																				
Cash flows from investing activities																																																					
Purchase Fixtures	(20400.00)																																																				
New investment	(20000.00)																																																				
Purchase freehold property	(40000.00)																																																				
Proceeds from sale of fixtures sold	2400.00																																																				
interest received	4000.00																																																				
	(74000.00)																																																				
<i>Net cash used in investing activities</i>	(74000.00)																																																				
Cash flows from financing activities																																																					
Proceeds from issue of owner new investments																																																					
Owners drawing	(25600.00)																																																				
<i>Net cash used in financing activities</i>	(25600.00)																																																				
Net increase in cash and cash equivalents	(8800.00)																																																				
cash and cash equivalent at beginning of period	8800.00																																																				
cash and equivalents at end of period	0.00																																																				
		Token	Pr: Implicit, Rel, Ident (16 instances)	Value																																																	
40.	1-Cash receipt from customers:																																																				
	Receipt from the customers	=	Sales (net)	+	Beginning accounts receivable																																																
				-	Ending accounts receivable																																																

				receivable							
	964,000		1,000,000	84,000		120,000					
		Token	Pr: Rel, Ident (2 instances)	Value							
41.	2-Cash paid to suppliers for purchases:										
	Cash payments for purchases	=	Cost of sales	-	Beginning inventory	+	Ending inventory	+	Beginning accounts payable	-	Ending accounts payable
	808,000		916,000		160,000		80,000		52,000		80,000
		Token	Pr: Rel, Ident (2 instances)	Value							
42.	3- Cash paid to suppliers for services:										
	Cash paid to suppliers	=	Selling and administrative expenses	+	Off. supplies	-	Dep.				
	73,200		58,000		28,000		12,800				
		Token	Pr: Rel, Ident (2 instances)	Value							
43.	Equipment Dep.										
	Dep. Assets sold			4400	32000		Beginning balance				
	Ending balance			40400	12800		Dep. expense				
				44800	44800						
		Token	Pr: Implicit, Rel, Ident (6 instances)	Value							
44.	Offices supplies										
	Beginning balance			4000	22000		Offices supplies expenses				
	cash			28,000	10000		Ending balance				
				32000	32000						
		Token	Pr: Implicit, Rel, Ident (6 instances)	Value							
45.	Overdraft										
	Overdraft beginning balance										
	cash at bank			8,000	8,000		overdraft ending balance				
				8,000	8,000						
	Cash from investing activities										

Fixtures

B-balance	80,000	4,000	carrying amount of Fixtures sold
Purchase - Cash	20,400	4,400	Accum. Depreciation
		<u>92,000</u>	Ending balance
	100,400	100,400	

Accumulated Depreciation - Fixtures

Fixtures	4,400	32,000	Beginning balance
		12,800	Depreciation Expense
Ending balance	<u>40,400</u>		
	44,800	44,800	

Carrying Amount of Fixtures Sold

Fixtures	4,000	4,000	Profit and loss summary
	<u>4,000</u>	<u>4,000</u>	

Proceeds from Sale of Fixtures

Profit and loss summary	2,400	2,400	Cash
	<u>2,400</u>	<u>2,400</u>	

Freehold property

Beginning balance	120,000		
Purchase	40,000		
		160,000	Ending balance
	<u>160,000</u>	<u>160,000</u>	

Investment

beginning balance	12,000		
-------------------	--------	--	--

		New investment	20,000	32,000	ending balance
			32,000	32,000	
		Interest income			
				0	beginning balance
		interest received	4,000		
		Cash from financing activities			
		Proceeds from increase the owner's capital			
				384,800	Capital beginning balance
		withdrew	25,600	6,400	profit
		Capital ending balance	365,600		
			391,200	391,200	
		Token	Pr: Implicit, Rel, Ident (43 instances)	Value	
46.	(b):				
47.		The company	has generated	cash from operating activities "\$90,800"	
		Actor	Pr: Mat	Goal	
48.		which	indicates	a good position.	
		Carrier	Pr: Rel, Attrib	Attribute	
49.	Moreover,	financing and investment activities	illustrate		
		Actor	Pr: Mat		
50.	that	there	is	a great increase in the asset '\$60,400' of the company.	
			Pr: Exist.	Existent	
51.	However,	cash position	is	very risky	
		Carrier	Pr: Rel, Attrib	Attribute	
52.	because	company	cannot pay back	the current liabilities	
		Actor	Pr: Mat	Goal	

Appendix 14: MOOD & modality in Abdulrahman's accounting text

Title	Accounting 5-question Assignment						
Pseudonym	Abdulrahman						
Type of Analysis	Exploring the interpersonal meanings: MOOD & modality						
Program	Master of Commerce						
Module	Accounting Concepts & Methods						
Number of Words	1304						
Notes							
Conj. Adjunct	Adjunct: Textual	Subject- (Actor)	Finite- (Modal)	Mood Adjunct	Predicator	Complement	Adjunct
		Mood Block			Residue		
		An auditor's report	is		considered	an essential tool	
	when	it	is	probable			
	that	the economic benefits	will		flow		to the entity
and		the revenue	Can be	reliably	measured.		
	which in the end		can		help to evaluate	the entity.	
and					instruct	companies	how to form their financial reports
	which		could be		compared		at international levels.
		The company	will		make	a double entry	
and		these expenses	should be			clear	in the financial statements notes.
		the double entry	will be		reversing	the accrued expenses (liability)	
	many [Adjunct-Comment]	auditees			rely on	auditor reports	to certify their information
	the settlement of which		is	expected	to result in	an outflow	from the entity of resources embodying.

Appendix 15: MOOD & modality in Omar's accounting text

Title	Accounting 4-question Assignment						
Pseudonym	Omar						
Type of Analysis	Exploring the interpersonal meanings: MOOD & modality						
Program	Master of Commerce						
Module	Accounting Concepts & Methods						
Number of Words	1068						
Notes							
Conj. Adjunct	Adjunct: Textual	Subject-(Actor)	Finite-(Modal)	Mood Adjunct	Predicator	Complement	Adjunct
		Mood Block			Residue		
		Quality Services Ltd	has			the capacity	to benefit from the asset
and			can		deny	others access	to the cash.
		it	can be		used		to settle a liability.
		The future economic benefits	may		occur -		more than fifty per cent of probability.
	that	the cost of that asset	can be		measured	reliably	
		The future economic benefits	will		minimize		
		The declining in the future economic benefits	can be		measured	reliably	
		The Quality Services Ltd's income statement	must		contain	\$1000	
		\$5000	must be		appeared <sic>	in the statement of financial position	of Quality Services Ltd
		Quality Services Ltd	has			the capacity	
also		the company	has			the power	
		The future economic benefits	may		occur -		more than fifty per cent of probability.
		It	is			obvious	
	that	the cost of that asset	can be		measured	reliably	
		The ending equity	should		be worked out		as following
then		profit	can be		worked out	from the statement	of financial position.

Appendix 16: MOOD & modality in Abdullah's accounting text

Title	Accounting 4-question Assignment						
Pseudonym	Abdullah						
Type of Analysis	Exploring the interpersonal meanings: MOOD & modality						
Program	Master of Commerce						
Module	Accounting Concepts & Methods						
Number of Words	1187						
Notes							
Conj. Adjunct	Adjunct: Textual	Subject- (Actor)	Finite- (Modal)	Mood Adjunct	Predicator	Complement	Adjunct
		Mood Block			Residue		
		Quality Services Ltd	has (the capacity)		to benefit		from the asset
and		it	can can be		deny used to settle	others access a liability	to the cash.
		It	is			probable	
	that	the future economic benefits	will		eventuate –		greater than 50% probability.
		The amount of the asset	can be		measured	reliably.	
		cash account	must be		reduced	\$6000	
		It	is			probable	
	that	the decrease in future economic benefits resulting in a decrease in assets	has		occurred		(greater than 50% probability).
		The decrease in future economic benefits	can be		measured	reliably	
First,		insurance expense for year 2010	should be		determined :		
According to	accrual basis assumption	\$1000	must		appear in	income statement	of Quality Services Ltd as insurance expense
Second,		the rest of the amount (\$5000)	must		appear in	balance statement	of Quality Services Ltd
		Quality Services Ltd	has			the capacity	to benefit from the asset
and			can		deny	others access	to the cash
		It	is			probable	

Conj. Adjunct	Adjunct: Textual	Subject- (Actor)	Finite- (Modal)	Mood Adjunct	Predicator	Complement	Adjunct
		Mood Block			Residue		
	that	the future economic benefits	will		eventuate –		greater than 50% probability.
		The amount of the asset	can be		measured	reliably.	
First,		the ending equity	should be		worked out		as following
Hence,		profit	can be		calculated		from balance sheet

Appendix 17: MOOD & modality in Ibrahim's accounting text

Title	Accounting 2-question Assignment						
Pseudonym	Ibrahim						
Type of Analysis	Exploring the interpersonal meanings: MOOD & modality						
Program	Master of Commerce						
Module	Accounting Concepts & Methods						
Number of Words	918						
Notes							
Conj. Adjunct	Adjunct: Textual	Subject- (Actor)	Finite- (Modal)	Mood Adjunct	Predicator	Complement	Adjunct
		Mood Block				Residue	
		The accounting service payment on 1 May 2010	should be		treated		as liability
In order to			settle			the obligation,	
		Quality Services Ltd	must		provide	its customer	by an accounting service.
		It	is	probable			
	that	future sacrifice of economic benefits	is				greater than 50%;
		The amount of the liability	can be		determined	reliably	
		which	can be		used to determine	the liability (\$10 000).	
	On 30 Jun 2010	the current liability	will be		decreased		by \$4 000
and		"accounting services revenue" of \$4 000 .	will be		recognised		
Thus,	on 30 Jun 2010	there	will be			a current liability	
		The revenue	can be		recognised		
because		it	is	probable			
		The saving in outflow of future economic benefits	can be		measured	reliably	
First,		grooming equipment depreciation	should be		provided.		
		This factor	may		affect	her net profit	during the 3 months period.
Second,		it	is	essential	to have	more information	regarding the default debit
However		cash position of the company	is				in risk

Conj. Adjunct	Adjunct: Textual	Subject- (Actor)	Finite- (Modal)	Mood Adjunct	Predicator	Complement	Adjunct
		Mood Block			Residue		
		which	may		lead	the company	
			to be	unable	to pay	its current liabilities rustle [resulting] in <sic> bankruptcy	.

Appendix 18: MOOD & modality in Hasan's accounting text

Title	Accounting 2-question Assignment						
Pseudonym	Hasan						
Type of Analysis	Exploring the interpersonal meanings: MOOD & modality						
Program	Master of Commerce						
Module	Accounting Concepts & Methods						
Number of Words	821						
Notes							
Conj. Adjunct	Adjunct: Textual	Subject- (Actor)	Finite- (Modal)	Mood Adjunct	Predicator	Complement	Adjunct
		Mood Block			Residue		
		The \$10 000 received on 1 May 2010	should be		treated		as liability
		It	is			probable	
	that	future sacrifice of economic benefits	will		eventuate		greater than 50% probability ;
		The amount of the liability	can be		used to measure		the liability.
	On 30 June 2010	Quality Services Ltd	should		recognise	revenue	of \$ 4 000
		The amount of the inflow of economic benefits	can be		measured	reliably	
		Some information	could		assist to determine .	Alicia's Pet Grooming Services performance	
For example,		for the equipment, knowing the depreciation	can		be	useful	
In addition,		Alicia's Pet Grooming Services	might		loss <sic>	some future receivable	as a Default debit.
	that	there	is			a great increase	in the asset '\$60,4 00' of the company.
because		company	cannot		pay back	the current liabilities	
			cannot		avoid		

Appendix 19: Cohesion Analysis of Abdulrahman's accounting text

Procedures followed in the analysis of the texts:

In the analysis of the texts for cohesion, the following procedures were followed:

- Elements within the same clause have been ignored as being structural rather than cohesive (e.g. Cash paid to suppliers *and* employees).
- Embedded, relative and non-finite clauses have not been counted as separate clauses
- Collocations have not been taken into account since their most occurrences is within the same clause (e.g. board of directors), therefore they do not contribute to the cohesiveness of the text.
- Part—whole relationships in a balance sheet have been recognized even when a category follows the sub-categories: e.g. cash at bank, accounts receivables, prepaid insurance, office supplies, and GST receivable are all meronyms of “Current Assets” which in turn is a hyponym of “Assets”, even if “Current Assets” is stated at the end since most balance sheets follow the top-down listing scheme
- Labels indicating the type of cohesion are enclosed in square brackets in large font size
- Notations used in the analysis of texts are mainly drawn from Halliday and Hasan (1976) and Halliday and Matthiessen (2004):

Metafunction	Component	Annotation Code	Sub-Components
Experiential	L= Lexical	[L: Sub-Component]	Synonym= Syn., Antonym= Ant., Repetition= Rep., Hyponym= Hyp., Meronym= Mer., hypernym= Hyper.
Logical	C= Conjunctive	[Elaboration: Sub-Component]	Apposition= Appos., Clarification= Clari.
		[Extension: Sub-Component]	Addition= Add., Variation = Variat.
		[Enhancement: Sub-Component]	Manner= Man., Condition= Cond., Temporal=Temp., Causal= Caus., Concession= Conc.
		Continuative	Continuative= Cont.
Textual	R= Referential	[R: Sub-Component]	Cataphora= Cat., Anaphoric= Ana., Definite Article= Def., Demonstrative= Dem., Pronoun= Pro., Possessive= Poss., Comparative= Comp.
Textual	Substitution & Ellipsis	[Subs.:Sub-Component], [Ellip.: Sub-Component]	Clausal= Cl, Nominal= N., Verbal= V., Residual= Res.

Title	Accounting 5-question Assignment		
Pseudonym	Abdulrahman		
Type of Analysis	Cohesion Analysis		
Program	Master of Commerce		
Module	Accounting Concepts & Methods		
Number of Words	1304		
Notes			
1.	Answer 1: [R: Cat.]		
2.	(i) Australian Stock Exchange (ASX) is a service company. and [C: Extension: Add.] it [R: Pro.] is working as a market operator, supervisor, central counterparty clearer and payments system facilitator.		
3.	In particular, [C: Elaboration: Clari.] its [R: Poss.] principal activities consist of provision of securities exchange and ancillary services, [L: Rep.] provision of derivatives exchange [L: Rep.] and ancillary services, [L: Rep.] provision of counterparty [L: Rep.] clearing [L: Rep.] services, [L: Rep.] provision of settlement and [C: Extension: Add.] clearing [L: Rep.] of financial products.		
4.	(ii) An accounting equation at the [R: Def.] Beginning of 2008: [R: Cat.]		
5.	Assets= liabilities + owner equity		
6.	9,518,463= [L: Rep.] 6,762,079+ [L: Rep.] 2,756,384		
7.	An accounting [L: Rep.] equation [L: Rep.] at the [R: Def.] end of 2008 [L: Rep.] [R: Cat.]		
8.	6,791,885= [L: Rep.] 4,037,639+ [L: Rep.] 2,754,246		
9.	(iii) The [R: Def.] basis for measurement of assets [L: Rep.] and liabilities [L: Rep.] is the [R: Def.] Australian [L: Rep.] dollars on the [R: Def.] historical cost basis except for [C: Extension: Variat.] available for- sale financial [L: Rep.] assets [L: Rep.] which have been recognised at fair value.		
10.	(iv) The [R: Def.] consolidated profit after tax for the [R: Def.] 2008 [L: Rep.] financial [L: Rep.] year was \$ 365,949,000 AUD.		
11.	(v) The [R: Def.] consolidated cash flow from operating activities for the [R: Def.] 2008 [L: Rep.] was \$ [L: Rep.] 349,109,000.		
12.	In 2007 the [R: Def.] consolidated cash flow [L: Rep.] was 313,653,000, so [C: Elaboration : Appos.] there is increase in 2008 [L: Rep.] by 35,456,000.		
13.	(vi) Revenue is recognised when it is probable that [R: Dem.] the [R: Def.] economic benefits will flow to the [R: Def.] entity and [C: Extension: Add.] the [R: Def.] revenue can be reliably measured.		
14.	The [R: Def.] entity [L: Rep.] needs an accounting [L: Rep.] policy [L: Rep.] for this [R: Dem.] item because [C: Enhancement: Caus.] it [R: Pro.] allows the [R: Def.] users of the [R: Def.] information to distinguish between all types of the [R: Def.] revenue [L: Rep.] whether it [R: Pro.] comes from the [R: Def.] operation activity or [Ellip.: Cl.] from another resource which in the [R: Def.] end can help to evaluate the [R: Def.] entity. [L: Rep.]		
15.	Also, [C: Extension: Add.] it [R: Pro.] is a major criteria in income statement so [C: Elaboration : Appos.] ; it [R: Pro.] is needed to be compared with the [R: Def.] revenue [L: Rep.] of the [R: Def.] company [L: Rep.] for the [R: Def.] current year [L: Rep.] with the [R: Def.] previous years and [C: Extension: Add.] compare it [R: Pro.] with other [R: Comp.] entities.[L: Rep.]		
16.	(vii) The [R: Def.] directors' report is following the [R: Def.] accurate assumption so [C: Elaboration : Appos.] this [R: Dem.] report includes and [C: Extension: Add.] explain extensively the [R: Def.] financial [L: Rep.] year [L: Rep.] events and [C: Extension: Add.] the [R: Def.] important which needs to be clear for information [L: Rep.] users [L: Rep.] in terms of report on the [R: Def.] business, environmental regulation, share information, [L: Rep.] proceedings on behalf of the [R: Def.] company, [L: Rep.] directors' declaration of satisfaction with independence of auditor, remuneration report.		
17.	(vii) The [R: Def.] auditor's [L: Rep.] report [L: Rep.] is a formal opinion as a result of [C: Enhancement: Caus.] an external audit to evaluate the [R: Def.] performance on a legal entity [L: Rep.] or subdivision thereof.		
18.	An auditor's [L: Rep.] report [L: Rep.] is considered an essential tool when reporting financial [L: Rep.] information [L: Rep.] to users. [L: Rep.]		
19.	Since [C: Enhancement: Caus.] many third-party users [L: Rep.] prefer the [R: Def.] financial [L: Rep.] information [L: Rep.] to be certified by an independent external auditor, [L: Rep.] many auditees [L: Rep.] rely on auditor [L: Rep.] reports to certify their [R: Poss.] information [L: Rep.] in order to [C: Enhancement: Caus.] attract investors, obtain loans, and [C: Extension: Add.] improve public appearance.		

20.	The [R: Def.] auditor [L: Rep.] of the [R: Def.] ASX [L: Rep.] Company [L: Rep.] is KPMG.
21.	(IX) This [R: Dem.] general purpose Financial [L: Rep.] Report [L: Rep.] has been prepared in accordance with [C: Enhancement: Man.] Australian [L: Rep.] Accounting [L: Rep.] Standards, Australian [L: Rep.] Accounting [L: Rep.] Standards Board (AASB) pronouncements including Australian [L: Rep.] Interpretations, and the [R: Def.] Corporations Act 2001.
22.	The [R: Def.] consolidated Financial [L: Rep.] Report [L: Rep.] of the [R: Def.] Group [L: Syn.] and the [R: Def.] Financial [L: Rep.] Report [L: Rep.] of the [R: Def.] Company [L: Rep.] comply with [C: Enhancement: Man.] International [L: Rep.] Financial [L: Rep.] Reporting Standards (IFRSs) and [C: Extension: Add.] interpretations adopted by the [R: Def.] International [L: Rep.] Accounting [L: Rep.] Standards Board (IASB).
23.	All the [R: Def.] financial [L: Rep.] reports [L: Rep.] are constructed in accordance with [C: Enhancement: Man.] Accounting [L: Rep.] Standards [L: Rep.] set by AASB. This [R: Dem.] report affirms with International [L: Rep.] Financial [L: Rep.] reporting [L: Rep.] Standards [L: Rep.] and [C: Extension: Add.] interpretations adopted by International [L: Rep.] Accounting [L: Rep.] Standard [L: Rep.] Board.
24.	The [R: Def.] above [R: Ana.] mentioned bodies regulate and instruct companies how to form their [R: Poss.] financial [L: Rep.] reports [L: Rep.] which could be compared at international [L: Rep.] levels.
25.	It [R: Pro.] provides them with the [R: Def.] complete structure giving them liberties to amend them slightly where required.
26.	From the [R: Def.] recognition of revenue [L: Rep.] to recognition of goodwill, for every segment of the [R: Def.] report there is a standard. [L: Rep.]
27.	Notes to the [R: Def.] ASX [L: Rep.] financial [L: Rep.] report [L: Rep.] refer to the [R: Def.] application of amended AASB 3, 101 and 123 indicating that [R: Dem.] need for application of amended accounting standards [L: Rep.] as well. [C: Extension: Add.]
28.	However, [C: Extension: Add.] the [R: Def.] Group [L: Syn.] is yet to [C: Enhancement: Temp.] determine the [R: Def.] potential impact of the [R: Def.] revised standards [L: Rep.] on the [R: Def.] group's financial [L: Rep.] report. [L: Rep.]
29.	Answer 2:[R: Cat.] [L: Rep.]
30.	Since [C: Enhancement: Caus.] the [R: Def.] wages did be paid at the [R: Def.] end of 30 June 2009, this [R: Dem.] <sic> wages [L: Rep.] becomes <sic> accrued expenses which in accounting similar to current liabilities which is defined under [C: Enhancement: Man.] the [R: Def.] framework as a present obligation of the [R: Def.] entity [L: Rep.] [L: Syn.] arising from past events, the [R: Def.] settlement of which is expected to result in an outflow from the [R: Def.] entity [L: Rep.] of resources embodying.
31.	And [C: Extension: Add.] these [R: Dem.] expenses [L: Rep.] should be clear in the [R: Def.] financial [L: Rep.] statements notes.
32.	The [R: Def.] company [L: Rep.] will make a double entry by increasing accrued wages [L: Rep.] expenses [L: Rep.] and [C: Extension: Add.] increase [L: Rep.] expense by this [R: Dem.] amount and [C: Extension: Add.] it [R: Pro.] is considered expenses [L: Rep.] because [C: Enhancement: Caus.] the [R: Def.] expenses [L: Rep.] definition under [C: Enhancement: Man.] the [R: Def.] framework [L: Rep.] is that [R: Dem.] a decrease [L: Ant.] in economic [L: Rep.] benefits [L: Rep.] during the [R: Def.] accounting period in the [R: Def.] form of outflows [L: Rep.] or [C: Elaboration: Clari.] depletions of assets [L: Rep.] or incurrence of liabilities [L: Rep.] that [R: Dem.] result in decrease in equity, other than relating to distributions to equity [L: Rep.] participants.
33.	Then, [C: Extension: Add.] when the [R: Def.] company [L: Rep.] pays the [R: Def.] wages [L: Rep.] to the [R: Def.] employees, the [R: Def.] double entry [L: Rep.] will be reversing the [R: Def.] accrued expenses [L: Rep.] (liability) [L: Rep.] to debit side and [C: Extension: Add.] decreasing [L: Rep.] the [R: Def.] cash [L: Rep.] at bank which is considered assets [L: Rep.] because [C: Enhancement: Caus.] the [R: Def.] framework [L: Rep.] defines the [R: Def.] assets [L: Rep.] as a resource [L: Rep.] controlled by the [R: Def.] entity [L: Rep.] as a result of [C: Enhancement: Caus.] past events and [C: Extension: Add.] from which future economic [L: Rep.] benefits [L: Rep.] are expected to flow to the [R: Def.] entity. [L: Rep.]
34.	Answer 3: [R: Cat.] [L: Rep.]
35.	Vines Shop Balance Sheet As at 30 June 2009 ASSETS

Current Assets		
Cash at bank	\$	28,400
Trade receivable	\$	10,000
Inventory on hand	\$	56,000
Total Current assets		\$ 94,400
Non-current assets		
Equipments	\$	40,000
Less: Accumulated depreciation	\$	(8,000)
Total non-current assets		\$ 32,000
Total assets		\$ 126,400
LIABILITIES		
Current liabilities		
Trade payable	\$	6,000
Total Current liabilities		\$ 6,000
Non current liabilities		
Loan for fittings	\$	28,000
Total non-current liabilities		\$ 28,000
Total liabilities		\$ 34,000
Net ASSETS		\$ 92,400
EQUITY		
Capital	\$	20,000
Profit	\$	102,400
Drawings	\$	(30,000)
Total equity		\$ 92,400
	<ul style="list-style-type: none"> • Cash at bank, [L: Mer.] Trade receivable [L: Mer.] & Inventory on hand [L: Mer.] tie with current assets [L: Hyp.]& Total Current Assets [L: Hyp.] • Equipments Less: accumulated depreciation [L: Mer.] tie with non-current assets [L: Hyp.]& Total non-current assets [L: Hyp.] • Current Assets, Total Current Assets, Non-Current Assets, Total Non-Current Assets tie with Assets [L: Hyper.] & Total Assets [L: Hyper.] • Trade payable [L: Mer.] ties with current liabilities [L: Hyp.] & Total current liabilities [L: Hyp.] • Loan for fittings [L: Mer.] ties with non current liabilities [L: Hyp.]& Total non current liabilities [L: Hyp.] • Current liabilities, Total Current liabilities, Non current liabilities & Total Non current liabilities tie with liabilities [L: Hyper.] & Total liabilities [L: Hyper.] • Capital, [L: Mer.] Profit, [L: Mer.] & Drawings [L: Mer.] tie with Equity [L: Hyper.] & Total Equity [L: Hyper.] • Total Assets Less Total liabilities tie with Net Assets [L: Hyper.] 	<ul style="list-style-type: none"> • Non-current [L: Ant.] ties with Current (3 instances) • EQUITY & Total equity tie with Net Assets • \$ [L: Rep.] 17 instances • June [L: Rep.] 1 instance • 2009 [L: Rep.] 1 instance • Assets [L: Rep.] 7 instances • Curent/Non-current [L: Rep.] 7 instances • Cash [L: Rep.] 1 instance • Bank [L: Rep.] 1 instance • Liabilities [L: Rep.] 6 instances • Total [L: Rep.] 6 instances • Equity [L: Rep.] 2 instances • Profit [L: Rep.] 1 instance
36.	Vines Shop	

Comprehensive Income Statement for the year ended 30 June 2009		
INCOME		
Revenues:		
Sales	\$	400,000
Less: cost of goods sold	\$	230,000
Gross Profit	\$	170,000
EXPENSES		
Rent expenses	\$	6,000
Interest expenses	\$	2,000
Electricity expenses	\$	1,600
Wages	\$	50,000
Depreciation expenses (fittings)	\$	8,000
Total expenses	\$	67,600
Profit for the year	\$	102,400
	<ul style="list-style-type: none"> • Sales Less: cost of goods sold [L: Mer.] tie with Revenues [L: Hyp.] & Gross Profit [L: Hyp.] • Rent expenses, [L: Mer.] interest expenses, [L: Mer.] electricity expenses, [L: Mer.] Wages, [L: Mer.] & Depreciation expenses (fittings) [L: Mer.] tie with EXPENSES [L: Hyp.] & Total expenses [L: Hyp.] • Revenues, & Gross Profit Less EXPENSES/Total expenses tie with Profit for the year. [L: Hyper.] • \$ [L: Rep.] 10 instances • Vines [L: Rep.] 1 instance • Shop [L: Rep.] 1 instance • Statement [L: Rep.] 1 instance 	<ul style="list-style-type: none"> • The [R: Def.] 2 instances • Year [L: Rep.] 2 instances • June [L: Rep.] 1 instance • 2009 [L: Rep.] 1 instance • Income[L: Rep.] 1 instance • Profit [L: Rep.] 2 instances • Expenses [L: Rep.] 6 instances • Wages [L: Rep.] 1 instance • Depreciation [L: Rep.] 1 instance • Profit [L: Rep.] 1 instance
37.	Answer 4: [R: Cat.] [L: Rep.]	
38.	Tiller Ltd Statement of Cash Flows for the year ended 30 June 2009	
Cash flows from operating activities		
Cash receipts from customers	1,400,000	
Cash paid to suppliers and employees	(920,000)	
Cash generated from operations	480,000	
interest paid	(30,000)	
Income tax paid	(50,000)	
Net cash from operating activities		400,000
Cash flows from investing activities		
purchase of equipment	(370,000)	
Proceeds from sale of land	70,000	
Net cash used in investing activities		(300,000)

	Cash flows from financing activities	
	Proceeds from issue of share capital	220,000
	repayments of borrowings	(80,000)
	Dividends paid	(130,000)
	Net cash used in financing activities	10,000
	Net increase (decrease) in cash and cash equivalent	110,000
	Cash and cash equivalents at beginning of period	90,000
	Cash and cash equivalents at end of period	200,000
	<ul style="list-style-type: none"> • <i>Cash receipts from customers, Less Cash paid to suppliers and employees, [L: Mer.] Cash generated from operations, Less interest paid & income tax paid [L: Mer.] tie with Cash flows from operating activities [L: Hyp.] & Net cash from operating activities [L: Hyp.]</i> • <i>Proceeds from sale of land Less purchase of equipment [L: Mer.] tie with Net cash used in investing activities [L: Hyp.] & Cash flows from investing activities [L: Hyp.]</i> • <i>Proceeds from issue of share capital, Less repayments of borrowings & Dividends paid [L: Mer.] tie with Cash flows from financing activities [L: Hyp.] & Net cash used in financing activities [L: Hyp.]</i> • <i>Net increase (decrease) in cash and cash equivalent [L: Mer.] & Cash and cash equivalents at beginning of period [L: Mer.] tie with Cash and cash equivalent at end of period [L: Hyper.]</i> • <i>Operating [L: Syn.] ties with Operations (2 instances)</i> • <i>Net cash from operating activities, Less Net cash used in investing activities [L: Mer.] & Net Cash used in financing activities [L: Mer.] tie with Net increase (decrease) in cash and cash equivalent [L: Hyper.]</i> • <i>Net cash from operating activities, Less Net cash used in investing activities, [L: Mer.] Net Cash used in financing activities [L: Mer.] & Cash and cash equivalents at beginning of period [L: Mer.] tie with Cash and cash equivalent at end of period</i> 	<ul style="list-style-type: none"> • <i>Paid to [L: Ant.] ties with receipts from</i> • <i>End [L: Ant.] ties with beginning</i> • <i>Receipts [L: Syn.] ties with flows</i> • <i>The [R: Def.] 1 instance</i> • <i>Statement [L: Rep.] 1 instance</i> • <i>June [L: Rep.] 1 instance</i> • <i>2009 [L: Rep.] 1 instance</i> • <i>Flows [L: Rep.] 4 instances</i> • <i>Cash [L: Rep.] 15 instances</i> • <i>Interest [L: Rep.] 1 instance</i> • <i>Activities [L: Rep.] 5 instances</i> • <i>Sale [L: Rep.] 1 instance</i> • <i>Capital [L: Rep.] 1 instance</i> • <i>Net [L: Rep.] 3 instances</i> • <i>Investing [L: Rep.] 1 instance</i> • <i>Sale [L: Ant.] ties with purchase equivalents [L: Rep.] 1 instance</i> • <i>Decrease [L: Ant.] ties with increase</i>
39.	Calculations: [R: Cat.]	
40.	Cash [L: Rep.] paid to suppliers and employees [L: Hyp.]	
41.	[Ellip.: Cl.] (equals) Cash [L: Rep.] generated from operations [L: Mer.] - cash [L: Rep.] collected [L: Syn.] from customers	
42.	[Ellip.: Cl.] = [L: Rep.] 480000 [L: Mer.] -1400000 = [L: Rep.] -920000 [L: Hyp.]	
43.	Cash [L: Rep.] generated from operations [L: Hyp.]	
44.	[Ellip.: Cl.] (equals) Net cash [L: Rep.] from operating activities [L: Mer.] + [L: Ant.] interest [L: Rep.] paid [L: Mer.] + [L: Rep.] income taxes paid [L: Mer.]	
45.	[Ellip.: Cl.] = [L: Rep.] 400000 [L: Mer.] + [L: Rep.] 30 000 [L: Mer.] + [L: Rep.] 50000 [L: Mer.] = [L: Rep.] 480000 [L: Hyp.]	
46.	Purchase of equipment [L: Hyp.]	
47.	[Ellip.: Cl.] (equals) Net [L: Rep.] cash [L: Rep.] used in investing [L: Rep.] activities [L: Mer.] - cash [L: Rep.] received [L: Ant.] from sale [L: Rep.] of land [L: Rep.]	
48.	[Ellip.: Cl.] =-[L: Rep.] 300000 [L: Mer.] - [L: Rep.] 70000 = [L: Rep.] -370000 [L: Hyp.]	
49.	Net [L: Rep.] cash [L: Rep.] used in investing [L: Rep.] activities [L: Hyp.]	
50.	[Ellip.: Cl.] (equals) Net [L: Rep.] increase (decrease) [L: Rep.] [L: Ant.] in cash [L: Rep.] and cash [L: Rep.] equivalent held [L: Mer.] - net cash [L: Rep.] used in financing activities - net cash [L: Rep.] from operating activities	
51.	[Ellip.: Cl.] = [L: Rep.] 110000 [L: Mer.] - [L: Rep.] 10000 - [L: Rep.] 400000 = [L: Rep.] -300000 [L: Hyp.]	
52.	Net [L: Rep.] cash [L: Rep.] used in financing activities [L: Hyp.]	
53.	[Ellip.: Cl.] (equals) Dividends paid [L: Mer.] + [L: Rep.] repayment of bank loan [L: Mer.] + [L: Rep.] issue of shares [L: Mer.]	
54.	[Ellip.: Cl.] = [L: Rep.] -130000 [L: Mer.] - [L: Rep.] 80000 [L: Mer.] + [L: Rep.] 220000 [L: Mer.] =10000 [L: Hyp.]	
55.	Answer 5: [R: Cat.] [L: Rep.]	
56.	Net profit [L: Rep.] of Law Services [L: Rep.] for the [R: Def.] year ended 30 June [L: Rep.] 2009: [R: Cat.] [L: Hyp.] [L: Rep.]	

57.	[Ellip.: Cl.] = [L: Rep.] ^ OE [L: Mer.] + [L: Rep.] D [L: Mer.] - [L: Rep.] C
58.	[Ellip.: Cl.] (equals) 200000 [L: Mer.] - [L: Rep.] 346000 [L: Mer.] + [L: Rep.] 80000 [L: Mer.] - [L: Rep.] 20000
59.	[Ellip.: Cl.] =[L: Rep.] 206000 [L: Hyp.]
60.	^ [L: Rep.] = [L: Rep.] Change
61.	OE = (200000) owner equity at the [R: Def.] beginning of the accounting period.
62.	[Ellip.: Cl.] (346000) owner equity at the [R: Def.] end [L: Ant.] of the [R: Def.] accounting [L: Rep.] period. [L: Rep.]
63.	D = [L: Rep.] withdrawals of capital [L: Rep.] by owners.
64.	C= [L: Rep.] contributions of capital [L: Rep.] by owners.[L: Rep.]
65.	(a) Capital [L: Rep.] maintains is central to the [R: Def.] measurement [L: Rep.] of profit [L: Rep.]. It [R: Pro.] provides the [R: Def.] linkage between the [R: Def.] concepts of capital [L: Rep.] and the [R: Def.] concepts of profit [L: Rep.] because [C: Enhancement: Caus.] it [R: Pro.] provides the [R: Def.] point of reference by which profit [L: Rep.] is measured; [L: Rep.] it [R: Pro.] is a prerequisite for distinguishing between an entity's [L: Rep.] return on capital [L: Rep.] and its [R: Poss.] return of capital.[L: Rep.]
66.	(b) I have used financial [L: Rep.] capital [L: Rep.] maintains in my answer.[L: Rep.]

Appendix 20: Cohesion Analysis of Omar's accounting text³⁰

Title	Accounting Assignment
Pseudonym	Omar
Type of Analysis	Cohesion Analysis
Program	Master of Commerce
Module	Accounting Concepts & Methods
Number of Words	1068
Notes	
1.	Question 1
2.	(A)
3.	1) Cash account is affected by this [R: Dem.] transaction;
4.	the [R: Def.] Cash [L: Rep.] is an asset as [C: Enhancement: Caus.] it [R: Pro.] is satisfied the [R: Def.] essential [L: Rep.] characteristics [L: Rep.] of an asset and its [R: Poss.] recognitions criteria: [R: Cat.]
5.	Past event - cash [L: Rep.] was received
6.	Control - Quality Services Ltd has the [R: Def.] capacity to benefit from the [R: Def.] asset [L: Rep.] and [C: Extension: Add.] can deny others access to the [R: Def.] cash [L: Rep.].
7.	Future economic benefits [L: Rep.] – it [R: Pro.] can be used to settle a liability.
8.	The [R: Def.] recognition [L: Rep.] criteria: [L: Rep.] [R: Cat.]
9.	The [R: Def.] future [L: Rep.] economic [L: Rep.] benefits [L: Rep.] may occur – more than [R: Comp.] fifty per cent of probability.
10.	It is obvious that the [R: Def.] cost of that [R: Dem.] asset [L: Rep.] can be measured reliably – the [R: Def.] company [L: Rep.] has paid \$6000 for that [R: Dem.] service.
11.	As a result of [C: Enhancement: Caus.] paying \$6000 [L: Rep.] from the [R: Def.] cash [L: Rep.] account, [L: Rep.] that [R: Dem.] account [L: Rep.] decrease by the [R: Def.] same [Subs.: N.] amount and [C: Extension: Add.] that affects it. [R: Pro.]
12.	2) Expenses account [L: Rep.] is affected by the [R: Def.] same [Subs.: Cl.] transaction , [L: Rep.] as expenses [L: Rep.] as [C: Enhancement: Caus.] it [R: Pro.] is <sic> satisfied [L: Rep.] the essential [L: Rep.] characteristics [L: Rep.] of an asset [L: Rep.] and its [R: Poss.] recognitions [L: Rep.] criteria: [L: Rep.] [R: Cat.]
13.	Minimizing in the [R: Def.] assets [L: Rep.] or [C: Elaboration: Clari.] rising in the [R: Def.] liabilities [L: Rep.] (excluding distributions to owners) that cause the [R: Def.] decrease [L: Rep.] in the [R: Def.] assets. [L: Rep.]
14.	Reducing in assets [L: Rep.] without changing in liabilities [L: Rep.] leads to reduce [L: Syn.] the [R: Def.] Equity.
15.	The [R: Def.] recognition [L: Rep.] criteria: [L: Rep.] [R: Cat.]
16.	The [R: Def.] future [L: Rep.] economic [L: Rep.] benefits [L: Rep.] will minimize as a result of [C: Enhancement: Caus.] the [R: Def.] minimizing in assets [L: Rep.] - more than [R: Comp.] fifty per cent [L: Rep.] of probability. [L: Rep.]
17.	The [R: Def.] declining [L: Syn.] in the [R: Def.] future [L: Rep.] economic [L: Rep.] benefits [L: Rep.] can be measured reliably [L: Rep.] - the [R: Def.] cost [L: Rep.] of that [R: Dem.] expense [L: Rep.] is recognized.
18.	(B)
19.	1) The [R: Def.] expenses [L: Rep.] of year 2010 should increase: [R: Cat.]
20.	\$500 [L: Rep.] per month (6000/12)
21.	2010 [L: Rep.] insurance expense [L: Rep.]: [R: Cat.]
22.	May =\$500 [L: Rep.] + June =\$500 [L: Rep.]
23.	[Ellip.: N.] = [L: Rep.] \$ [L: Rep.] 1000
24.	The [R: Def.] Quality [L: Rep.] Services [L: Rep.] Ltd's [L: Rep.] income statement must contain \$ [L: Rep.] 1000 as insurance expense [L: Rep.] (the [R: Def.] essential [L: Rep.] characteristics [L: Rep.] of an expense [L: Rep.] and the [R: Def.] recognitions [L: Rep.] criteria [L: Rep.] are satisfied) [L: Rep.] (accrual basis assumption).

³⁰ Refer to Appendix 19 for the procedures followed in cohesion analysis of the texts.

25.	2) \$5000 [L: Rep.] must be appeared in the [R: Def.] statement of financial position of Quality [L: Rep.] Services [L: Rep.] Ltd [L: Rep.] as an asset [L: Rep.] (prepaid insurance) below the [R: Def.] current assets [L: Rep.] part due to applying the [R: Def.] essential [L: Rep.] characteristics [L: Rep.] of an asset [L: Rep.] and the [R: Def.] recognitions [L: Rep.] criteria: [L: Rep.] [R: Cat.]																																																							
26.	Past event - cash [L: Rep.] was received.																																																							
27.	The [R: Def.] benefits [L: Rep.] from the [R: Def.] asset [L: Rep.] are controlled because [C: Enhancement: Caus.] Quality [L: Rep.] Services [L: Rep.] Ltd [L: Rep.] has the [R: Def.] capacity [L: Rep.] to gain from that [R: Dem.] asset, [L: Rep.] also [C: Extension: Add.] the company [L: Rep.] has the [R: Def.] power to prevent the [R: Def.] others to access [L: Rep.] these [R: Dem.] benefits. [L: Rep.] (It [R: Pro.] owns the [R: Def.] insurance policy).																																																							
28.	The [R: Def.] next ten months [L: Rep.] of 2011 are covered by insurance [L: Rep.] policy [L: Rep.] and [C: Extension: Add.] that [R: Dem.] achieve Future [L: Rep.] economic [L: Rep.] benefits. [L: Rep.]																																																							
29.	The [R: Def.] recognition [L: Rep.] criteria: [L: Rep.] [R: Cat.]																																																							
30.	The [R: Def.] future [L: Rep.] economic [L: Rep.] benefits [L: Rep.] may occur - more than [R: Comp.] fifty per cent [L: Rep.] of probability. [L: Rep.]																																																							
31.	It is obvious that the [R: Def.] cost [L: Rep.] of that [R: Dem.] asset [L: Rep.] can be measured reliably [L: Rep.] - the [R: Def.] amount [L: Rep.] of that [R: Dem.] assets [L: Rep.] is \$5000 [L: Rep.]																																																							
32.	Question [L: Rep.] 2																																																							
33.	<p style="text-align: center;">Exit Ltd Statement of Financial Position as at 30 June 2010</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">ASSETS <missing entry></td> </tr> <tr> <td colspan="2">CURRENT ASSETS <missing entry></td> </tr> <tr> <td>Accounts receivable</td> <td style="text-align: right;">20</td> </tr> <tr> <td>Inventories</td> <td style="text-align: right;">250</td> </tr> <tr> <td>Prepaid insurance</td> <td style="text-align: right;">25</td> </tr> <tr> <td>Others current assets</td> <td style="text-align: right;">15</td> </tr> <tr> <td>TOTAL CURRENT ASSETS</td> <td style="text-align: right;">310</td> </tr> <tr> <td colspan="2">NON-CURRENT ASSETS</td> </tr> <tr> <td>Long term investment</td> <td style="text-align: right;">100</td> </tr> <tr> <td>Property, plant and equipment</td> <td style="text-align: right;">800</td> </tr> <tr> <td>TOTAL NONO-CURRENT ASSETS</td> <td style="text-align: right;">900</td> </tr> <tr> <td>TOTAL ASSETS</td> <td style="text-align: right;">1210</td> </tr> <tr> <td colspan="2">Liabilities <missing entry></td> </tr> <tr> <td colspan="2">CURRENT LIABILITIES</td> </tr> <tr> <td>Accounts payable</td> <td style="text-align: right;">100</td> </tr> <tr> <td>Bank over draft</td> <td style="text-align: right;">10</td> </tr> <tr> <td>Loan payable due September 2010</td> <td style="text-align: right;">40</td> </tr> <tr> <td>Tax payable</td> <td style="text-align: right;">50</td> </tr> <tr> <td>TOTAL CURRENT LIABILITIES</td> <td style="text-align: right;">200</td> </tr> <tr> <td colspan="2">NON-CURRENT LIABILITIES</td> </tr> <tr> <td>Loan payable due September 2014</td> <td style="text-align: right;">500</td> </tr> <tr> <td>TOTAL NON-CURRENT LIABILITIES</td> <td style="text-align: right;">500</td> </tr> <tr> <td>TOTAL LIABILITES</td> <td style="text-align: right;">700</td> </tr> <tr> <td>NET ASSETS</td> <td style="text-align: right;">510</td> </tr> <tr> <td colspan="2">OWNER'S EQUITY</td> </tr> <tr> <td>Capital</td> <td style="text-align: right;">510</td> </tr> <tr> <td>TOTAL EQUITY</td> <td style="text-align: right;">510</td> </tr> </table>		ASSETS <missing entry>		CURRENT ASSETS <missing entry>		Accounts receivable	20	Inventories	250	Prepaid insurance	25	Others current assets	15	TOTAL CURRENT ASSETS	310	NON-CURRENT ASSETS		Long term investment	100	Property, plant and equipment	800	TOTAL NONO-CURRENT ASSETS	900	TOTAL ASSETS	1210	Liabilities <missing entry>		CURRENT LIABILITIES		Accounts payable	100	Bank over draft	10	Loan payable due September 2010	40	Tax payable	50	TOTAL CURRENT LIABILITIES	200	NON-CURRENT LIABILITIES		Loan payable due September 2014	500	TOTAL NON-CURRENT LIABILITIES	500	TOTAL LIABILITES	700	NET ASSETS	510	OWNER'S EQUITY		Capital	510	TOTAL EQUITY	510
ASSETS <missing entry>																																																								
CURRENT ASSETS <missing entry>																																																								
Accounts receivable	20																																																							
Inventories	250																																																							
Prepaid insurance	25																																																							
Others current assets	15																																																							
TOTAL CURRENT ASSETS	310																																																							
NON-CURRENT ASSETS																																																								
Long term investment	100																																																							
Property, plant and equipment	800																																																							
TOTAL NONO-CURRENT ASSETS	900																																																							
TOTAL ASSETS	1210																																																							
Liabilities <missing entry>																																																								
CURRENT LIABILITIES																																																								
Accounts payable	100																																																							
Bank over draft	10																																																							
Loan payable due September 2010	40																																																							
Tax payable	50																																																							
TOTAL CURRENT LIABILITIES	200																																																							
NON-CURRENT LIABILITIES																																																								
Loan payable due September 2014	500																																																							
TOTAL NON-CURRENT LIABILITIES	500																																																							
TOTAL LIABILITES	700																																																							
NET ASSETS	510																																																							
OWNER'S EQUITY																																																								
Capital	510																																																							
TOTAL EQUITY	510																																																							
	<ul style="list-style-type: none"> • <i>Accounts receivable, [L: Mer.] Inventories, [L: Mer.] Prepaid insurance [L: Mer.] & Others current assets [L: Mer.] tie with TOTAL CURRENT ASSETS [L: Hyp.] & CURRENT ASSETS [L: Hyp.]</i> • <i>Long term investment [L: Mer.] & Property, plant and equipment [L: Mer.] tie with NON-CURRENT ASSETS [L: Hyp.] & TOTAL NON-CURRENT ASSETS [L: Hyp.]</i> • <i>Accounts payable, [L: Mer.] Bank over draft, [L: Mer.] Loan payable due September 2010 [L: Mer.] & Tax payable [L: Mer.] tie with CURRENT LIABILITIES [L: Hyp.] & TOTAL CURRENT LIABILITIES [L: Hyp.]</i> • <i>Loan payable due September 2014 [L: Mer.] ties with NON-CURRENT LIABILITIES [L: Hyp.] & TOTAL NON-CURRENT LIABILITIES [L: Hyp.]</i> • <i>Capital [L: Mer.] ties with OWNER'S EQUITY [L: Hyper.] & TOTAL EQUITY [L: Hyper.]</i> 	<p style="text-align: center;">TOTAL EQUITY</p> <ul style="list-style-type: none"> • <i>TOTAL ASSETS Less TOTAL LIABILITIES ties with NET ASSETS [L: Hyper.]</i> • <i>TOTAL EQUITY ties with NET ASSETS</i> • <i>NON-CURRENT [L: Ant.] ties with CURRENT (4 instances)</i> • <i>Statement [L: Rep.] 1 instance</i> • <i>Ltd [L: Rep.] 1 instance</i> • <i>Financial [L: Rep.] 1 instance</i> • <i>Position [L: Rep.] 1 instance</i> • <i>June [L: Rep.] 1 instance</i> • <i>2010 [L: Rep.] 2 instances</i> • <i>Accounts [L: Rep.] 2 instances</i> • <i>ASSETS [L: Rep.] 6 instances</i> • <i>(NON)CURRENT [L: Rep.] 3 instances</i> • <i>TOTAL [L: Rep.] 7 instances</i> 																																																						

	<ul style="list-style-type: none"> • <i>CURRENT ASSETS, TOTAL CURRENT ASSETS, NON-CURRENT ASSETS & TOTAL NON-CURRENT ASSETS tie with ASSETS [L: Hyper.] & TOTAL ASSETS [L: Hyper.]</i> • <i>TOTAL CURRENT LIABILITIES & TOTAL NON-CURRENT LIABILITIES tie with LIABILITES [L: Hyper.] & TOTAL LIABILITES [L: Hyper.]</i> • <i>OWNER'S EQUITY ties with NET ASSETS [L: Hyper.] &</i> 	<ul style="list-style-type: none"> • <i>OWNER'S [L: Rep.] 1 instance</i> • <i>EQUITY [L: Rep.] 2 instances</i> • <i>LIABILITES [L: Rep.] 5 instances</i> • <i>Payable [L: Rep.] 3 instances</i> • <i>Due [L: Rep.] 1 instance</i> • <i>Equipment [L: Rep.] 1 instance</i> 																																																			
34.	Question [L: Rep.] 3																																																				
35.	<p style="text-align: center;">Exit Ltd Statement of Cash Flows for the year ended 30 June 2011</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="width: 10%; text-align: right;">\$</th> <th style="width: 10%; text-align: right;">\$</th> </tr> </thead> <tbody> <tr> <td>Cash flows from operating activities</td> <td></td> <td></td> </tr> <tr> <td>Cash receipts from Customers</td> <td style="text-align: right;">17940</td> <td></td> </tr> <tr> <td>cash paid to suppliers and employee</td> <td style="text-align: right;">(10260)</td> <td></td> </tr> <tr> <td>cash generated from operations</td> <td style="text-align: right;">7680</td> <td></td> </tr> <tr> <td>Net cash from operating activities</td> <td></td> <td style="text-align: right;">7680</td> </tr> <tr> <td>cash flows from investing activities</td> <td></td> <td></td> </tr> <tr> <td>purchase of equipment , land and motor vehicles</td> <td style="text-align: right;">(10950)</td> <td></td> </tr> <tr> <td>Net cash used in investing activities</td> <td></td> <td style="text-align: right;">(10950)</td> </tr> <tr> <td>Cash from financing activities</td> <td></td> <td></td> </tr> <tr> <td>Proceed from long-term mortgage</td> <td style="text-align: right;">4800</td> <td></td> </tr> <tr> <td>proceed from the owner</td> <td style="text-align: right;">6000</td> <td></td> </tr> <tr> <td>owner withdrawing</td> <td style="text-align: right;">(6690)</td> <td></td> </tr> <tr> <td>Net cash used in financing activities</td> <td></td> <td style="text-align: right;">4110</td> </tr> <tr> <td>Net increase (decrease) in cash and cash equivalents</td> <td></td> <td style="text-align: right;">840</td> </tr> <tr> <td>cash and cash equivalents at begging <sic> of period</td> <td></td> <td style="text-align: right;">(300)</td> </tr> <tr> <td>cash and cash equivalents at end of period</td> <td></td> <td style="text-align: right;">540</td> </tr> </tbody> </table>		\$	\$	Cash flows from operating activities			Cash receipts from Customers	17940		cash paid to suppliers and employee	(10260)		cash generated from operations	7680		Net cash from operating activities		7680	cash flows from investing activities			purchase of equipment , land and motor vehicles	(10950)		Net cash used in investing activities		(10950)	Cash from financing activities			Proceed from long-term mortgage	4800		proceed from the owner	6000		owner withdrawing	(6690)		Net cash used in financing activities		4110	Net increase (decrease) in cash and cash equivalents		840	cash and cash equivalents at begging <sic> of period		(300)	cash and cash equivalents at end of period		540	
	\$	\$																																																			
Cash flows from operating activities																																																					
Cash receipts from Customers	17940																																																				
cash paid to suppliers and employee	(10260)																																																				
cash generated from operations	7680																																																				
Net cash from operating activities		7680																																																			
cash flows from investing activities																																																					
purchase of equipment , land and motor vehicles	(10950)																																																				
Net cash used in investing activities		(10950)																																																			
Cash from financing activities																																																					
Proceed from long-term mortgage	4800																																																				
proceed from the owner	6000																																																				
owner withdrawing	(6690)																																																				
Net cash used in financing activities		4110																																																			
Net increase (decrease) in cash and cash equivalents		840																																																			
cash and cash equivalents at begging <sic> of period		(300)																																																			
cash and cash equivalents at end of period		540																																																			
	<ul style="list-style-type: none"> • <i>Cash receipts from Customers Less cash paid to suppliers and employee [L: Mer.] tie with cash generated from operations, [L: Hyp.] Net cash from operating activities [L: Hyp.] & Cash flows from operating activities [L: Hyp.]</i> • <i>Purchase of equipment, land and motor vehicles [L: Mer.] ties with cash flows from investing activities [L: Hyp.] & Net cash used in investing activities [L: Hyp.]</i> • <i>Proceed from long-term mortgage, [L: Mer.] proceed from the owner, Less owner withdrawing [L: Mer.] tie with Cash from financing activities [L: Hyp.] & Net cash used in financing activities [L: Hyp.]</i> • <i>Net increase (decrease) in cash and cash equivalents Less cash and cash equivalents at begging <sic> of period [L: Mer.] ties with cash and cash equivalents at end of period [L: Hyper.]</i> • <i>Paid [L: Ant.] ties with receipts</i> • <i>At end of [L: Ant.] ties with at begging <sic> of</i> • <i>Net cash from operating activities, Less Net cash used in investing activities [L: Mer.] ties with Net cash used in financing activities [L: Hyp.]</i> • <i>Net cash from operating activities Less Net cash used in investing activities , Net cash used in financing activities [L: Mer.] tie with Net increase (decrease) in cash and cash equivalents [L: Hyper.]</i> 	<ul style="list-style-type: none"> • <i>Net cash from operating activities Less Net cash used in investing activities , Net cash used in financing activities Less cash and cash equivalents at begging <sic> of period tie with cash and cash equivalents at end of period</i> • <i>\$ [L: Rep.] 1 instance</i> • <i>Exit [L: Rep.] 1 instance</i> • <i>Ltd [L: Rep.] 1 instance</i> • <i>Statement [L: Rep.] 1 instance</i> • <i>June [L: Rep.] 1 instance</i> • <i>2011 [L: Rep.] 1 instance</i> • <i>Cash [L: Rep.] 16 instances</i> • <i>The [R: Def.] 2 instances</i> • <i>Flows [L: Rep.] 2 instances</i> • <i>Equivalents [L: Rep.] 2 instances</i> • <i>Activities [L: Rep.] 4 instances</i> • <i>Owner [L: Rep.] 1 instance</i> • <i>Equipment [L: Rep.] 1 instance</i> • <i>Investing [L: Rep.] 1 instance</i> • <i>Financing [L: Rep.] 1 instance</i> • <i>(decrease) [L: Ant.] ties with increase</i> • <i>Operating [L: Rep.] 1 instance</i> 																																																			
36.	Calculations																																																				
37.	Cash [L: Rep.] receipts from customers: [L: Rep.] [R: Cat.] [L: Hyp.]																																																				
38.	[Ellip.: Cl.] (equals) Sales [L: Mer.] - ending accounts [L: Rep.] receivable [L: Rep.] + [L: Rep.] beginning [L: Ant.] accounts [L: Rep.] receivable [L: Rep.] [L: Mer.]																																																				
39.	[Ellip.: Cl.] (equals) 16800 [L: Mer.] - [L: Rep.] 3150 + [L: Rep.] 4290 [L: Mer.] = [L: Rep.] \$ [L: Rep.] 17940 [L: Hyp.]																																																				
40.	Cash [L: Rep.] paid to suppliers and employee: [L: Hyp.] [R: Cat.]																																																				
41.	Cash [L: Rep.] paid to suppliers [L: Rep.] for purchases: [R: Cat.] [L: Hyp.]																																																				
42.	[Ellip.: Cl.] (equals) Cost [L: Rep.] of sales [L: Ant.] [L: Rep.] [L: Mer.] + [L: Rep.] ending inventory [L: Mer.] - [L: Rep.] beginning [L: Ant.] inventory + [L: Rep.] beginning account [L: Rep.] payable [L: Rep.] [L: Mer.] - [L: Rep.] ending [L: Ant.] accounts [L: Rep.] payable [L: Rep.]																																																				
43.	[Ellip.: Cl.] (equals) 5100 [L: Mer.] + [L: Rep.] 6600 [L: Mer.] - [L: Rep.] 6000 + [L: Rep.] 6150 [L: Mer.] - [L: Rep.] 7950 = [L: Rep.] \$ [L: Rep.] 3900 [L: Hyp.]																																																				
44.	Cash [L: Rep.] paid to suppliers [L: Rep.] of service and labour: [L: Hyp.]																																																				
45.	[Ellip.: Cl.] (equals) Accrual [L: Rep.] basis [L: Rep.] Expenses [L: Mer.] - [L: Rep.] beginning prepaid expenses + [L: Rep.] ending expenses [L: Rep.] [L: Mer.] [L: Ant.]																																																				

46.	[Ellip.: Cl.] (equals) 6300 [L: Mer.] -300 + [L: Rep.] 360 [L: Mer.] = [L: Rep.] \$ [L: Rep.] 6360 [L: Hyp.]
47.	91. Accrual [L: Rep.] basis [L: Rep.] Expenses [L: Rep.] [L: Hyp.] : [R: Cat.] expenses [L: Rep.] [L: Mer.] - [L: Rep.] depreciation for the [R: Def.] year
48.	[Ellip.: Cl.] = [L: Rep.] 8610 [L: Mer.] - [L: Rep.] (810-1500)
49.	[Ellip.: Cl.] = [L: Rep.] \$ [L: Rep.] 6300 [L: Hyp.]
50.	Cash [L: Rep.] paid to suppliers [L: Rep.] and employee [L: Rep.] [L: Hyp.]: 3900 [L: Mer.] + [L: Rep.] 6360 [L: Mer.] = [L: Rep.] \$ [L: Rep.] 10260 [L: Hyp.]
51.	Cash [L: Rep.] flows from investing activities [L: Hyp.]
52.	Cash [L: Rep.] paid to purchase of equipment [L: Rep.] [L: Hyp.] : [R: Cat.] ending equipment [L: Rep.] [L: Mer.] - [L: Rep.] beginning Equipment [L: Rep.] [L: Ant.]
53.	[Ellip.: Cl.] (equals) 25500 [L: Mer.] - [L: Rep.] 19200 = [L: Rep.] \$ [L: Rep.] 6300 [L: Hyp.]
54.	Cash [L: Rep.] paid to purchase of land [L: Hyp.]: [L: Rep.] ending land [L: Rep.] [L: Mer.] - [L: Rep.] beginning [L: Ant.] land [L: Rep.]
55.	[Ellip.: Cl.] (equals) 24000 [L: Mer.] - [L: Rep.] 20400 = [L: Rep.] \$ [L: Rep.] 3600 [L: Hyp.]
56.	Cash [L: Rep.] paid to purchase of motor [L: Rep.] vehicles [L: Hyp.]: [L: Rep.] ending motor [L: Rep.] vehicles [L: Mer.] - [L: Rep.] beginning [L: Ant.] motor [L: Rep.] Vehicles [L: Rep.]
57.	[Ellip.: Cl.] (equals) 15600 [L: Mer.] - 14550 = [L: Rep.] \$ [L: Rep.] 1050 [L: Hyp.]
58.	Purchase of equipment, [L: Rep.] land [L: Rep.] and motor [L: Rep.] vehicles [L: Hyp.] : [L: Rep.] 6300 [L: Mer.] + [L: Rep.] 3600 [L: Mer.] + [L: Rep.] 1050 [L: Mer.] = [L: Rep.] \$ [L: Rep.] 10950 [L: Hyp.]
59.	Cash [L: Rep.] from financing activities: [R: Cat.] [L: Hyp.]
60.	Cash [L: Rep.] proceed from long-term mortgage [L: Hyp.]: [R: Cat.] ending long term mortgage [L: Mer.] - beginning [L: Ant.] long [L: Rep.] term [L: Rep.] mortgage [L: Rep.]
61.	[Ellip.: Cl.] (equals) 18900 [L: Mer.] - 14100 = \$ [L: Rep.] 4800 [L: Hyp.]
62.	Cash [L: Rep.] receipts from the [R: Def.] owner [L: Rep.] = \$ [L: Rep.] 6000 [L: Hyp.]
63.	Cash [L: Rep.] paid to the [R: Def.] owner [L: Hyp.]: [R: Cat.] [L: Rep.] beginning equity [L: Rep.] [L: Mer.] + [L: Rep.] profit [L: Mer.] + [L: Rep.] contribution - [L: Rep.] ending [L: Ant.] equity [L: Rep.] [L: Mer.]
64.	[Ellip.: Cl.] (equals) 32700 [L: Mer.] + [L: Rep.] 3090 [L: Mer.] + [L: Rep.] 6000 - [L: Rep.] 35100 [L: Mer.] = [L: Rep.] (\$6690) [L: Hyp.]
65.	Cash from financing [L: Rep.] activities [L: Hyp.]: [R: Cat.] [L: Rep.] 4800 [L: Mer.] + [L: Rep.] 6000 - [L: Rep.] 6690 [L: Mer.] = [L: Rep.] \$ [L: Rep.] 4110 [L: Hyp.]
66.	Question [L: Rep.] 4
67.	(A)
68.	1) The [R: Def.] ending equity [L: Rep.] [L: Hyp.] should be worked out as [C: Enhancement: Man.] following [R: Cat.]
69.	Beginning [L: Ant.] Equity [L: Rep.] [L: Mer.] + [L: Rep.] Profit [L: Rep.] - [L: Rep.] Withdrawals by owners [L: Rep.] [L: Mer.]
70.	Ending [L: Ant.] Equity [L: Rep.] = [L: Rep.] \$ [L: Rep.] 500000 [L: Mer.] + [L: Rep.] \$ [L: Rep.] 32000 - [L: Rep.] \$ [L: Rep.] 15000 [L: Mer.] = [L: Rep.] \$ [L: Rep.] 517000 [L: Hyp.]
71.	The [R: Def.] profit [L: Rep.] according to [C: Enhancement: Man.] change in wealth approach [L: Hyp.] is Change in net assets [L: Rep.] [L: Mer.] + [L: Rep.] drawings - [L: Rep.] contributions [L: Rep.] from owners [L: Rep.] [L: Mer.]
72.	[Ellip.: Cl.] (equals) \$ [L: Rep.] 17000 [L: Mer.] + [L: Rep.] \$ [L: Rep.] 15000 - [L: Rep.] 0 [L: Mer.] = [L: Rep.] \$ [L: Rep.] 32000 [L: Hyp.]
73.	(b)
74.	The [R: Def.] profit [L: Rep.] according to [C: Enhancement: Man.] revenues less expenses [L: Rep.] approach [L: Hyp.]: [R: Cat.] [L: Rep.]
75.	Income [L: Hyp.] [L: Ant.] - expenses [L: Rep.] [L: Ant.]
76.	Dividends received from investments [L: Mer.] \$ [L: Rep.] 50000
77.	Interest paid [L: Ant.] on long term loan (no principal repaid) [L: Mer.] \$(18000) [L: Rep.]
78.	Profit [L: Rep.] [L: Hyper.] \$32000 [L: Rep.]
79.	(C)
80.	Both [C: Extension: Add.] parts A and B have the [R: Def.] same [R: Comp.] profit [L: Rep.] as [C: Enhancement: Caus.] income [L: Rep.] leads to rising in equity [L: Rep.] that result in inflows or [C: Elaboration: Clari.] improvement of assets [L: Rep.] or reducing of liabilities [L: Rep.], except

	[C: Extension: Variat.] the [R: Def.] contributions [L: Rep.] from owners. [L: Rep.]
81.	Also [C: Extension: Add.] both parts A and B have the [R: Def.] same [R: Comp.] profit [L: Rep.] as [C: Enhancement: Man.] expenses [L: Rep.] lead to reducing in equity [L: Rep.] that causes in outflows [L: Ant.] or [C: Elaboration: Clari.] reduction of assets [L: Rep.] or boosting of liabilities, [L: Rep.] except [C: Extension: Variat.] the [R: Def.] distributions from owners. [L: Rep.]
82.	Thus, [C: Enhancement: Caus.] if [C: Enhancement: Conc.] contributions [L: Rep.] and distributions are known then [C: Enhancement: Caus.] profit [L: Rep.] can be worked out from the [R: Def.] statement of financial position.
83.	Extra explanation: (assuming no contributions [L: Rep.] or distributions) [L: Rep.]
84.	A = [L: Rep.] L + [L: Rep.] E A = [L: Rep.] Assts [L: Rep.]
85.	A [L: Rep.] + [L: Rep.] EX = [L: Rep.] L [L: Rep.] + [L: Rep.] E [L: Rep.] + [L: Rep.] R L = [L: Rep.] Liabilities [L: Rep.]
86.	A [L: Rep.] = [L: Rep.] L [L: Rep.] + [L: Rep.] E [L: Rep.] + [L: Rep.] R [L: Rep.] - [L: Rep.] EX [L: Rep.] E = [L: Rep.] Equity [L: Rep.]
87.	A [L: Rep.] = [L: Rep.] L [L: Rep.] + [L: Rep.] E [L: Rep.] + [L: Rep.] P R = [L: Rep.] Revenue
88.	A [L: Rep.] = [L: Rep.] L [L: Rep.] + [L: Rep.] (E [L: Rep.] + [L: Rep.] P [L: Rep.]) EX = [L: Rep.] Expenses [L: Rep.]
89.	A [L: Rep.] = [L: Rep.] L [L: Rep.] + [L: Rep.] ending equity [L: Rep.] P = [L: Rep.] Profit

Appendix 21: Cohesion Analysis of Abdullah's accounting text³¹

Title	Accounting 4-question Assignment
Pseudonym	Abdullah
Type of Analysis	Cohesion Analysis
Program	Master of Commerce
Module	Accounting Concepts & Methods
Number of Words	1187
Notes	
1.	Answer question 1
2.	(A)
3.	First, [C: Enhancement: Temp.] this [R: Dem.] transaction affected cash account which is an asset as [C: Enhancement: Caus.] it [R: Pro.] satisfies the [R: Def.] essential characteristics of an asset and its [R: Poss.] recognitions criteria: [R: Cat.]
4.	Past event - cash [L: Rep.] was received.
5.	Control [L: Rep.] - Quality Services Ltd has the [R: Def.] capacity to benefit from the [R: Def.] asset [L: Rep.] and [C: Extension: Add.] [Ellip: N.] can deny others access to the [R: Def.] cash. [L: Rep.]
6.	Future economic benefits [L: Rep.]- it [R: Pro.] can be used to settle a liability (or other ways)
7.	The [R: Def.] recognition [L: Rep.] criteria: [L: Rep.] [R: Cat.]
8.	It is probable that the future [L: Rep.] economic [L: Rep.] benefits [L: Rep.] will eventuate – greater than 50% probability.
9.	The amount of the asset [L: Rep.] can be measured reliably. The [R: Def.] mount is known (\$6000).
10.	As [C: Enhancement: Caus.] the [R: Def.] amount [L: Rep.] of cash [L: Rep.] was taken out from cash [L: Rep.] account, [L: Rep.] the [R: Def.] effected of this [R: Dem.] transaction [L: Rep.] is negative (cash [L: Rep.] account [L: Rep.] must be reduced \$6000). [L: Rep.]
11.	Second, [C: Enhancement: Temp.] also, [C: Extension: Add.] this [R: Dem.] transaction [L: Rep.] affected expenses account [L: Rep.] which is an expense as <sic> satisfied with the [R: Def.] essential [L: Rep.] characteristics [L: Rep.] of an expense and its [R: Poss.] recognitions [L: Rep.] criteria: [L: Rep.] [R: Cat.]
12.	Reduction in assets [L: Rep.] or [C: Elaboration: Clari.] increase [L: Rep.] in liabilities [L: Rep.] apart from [C: Extension: Variat.] distributions to owners
13.	cash [L: Rep.] was taken out from cash [L: Rep.] (Reduction [L: Rep.] in an asset) [L: Rep.]
14.	Decrease [L: Syn.] in net assets [L: Rep.] (equity)-decrease in an asset [L: Rep.] and [C: Extension: Add.] no change in liabilities. [L: Rep.]
15.	The [R: Def.] recognition [L: Rep.] criteria [L: Rep.] : [R: Cat.]
16.	It is probable that the [R: Def.] decrease [L: Rep.] in future [L: Rep.] economic [L: Rep.] benefits [L: Rep.] resulting in a decrease [L: Rep.] in assets [L: Rep.] has occurred (greater than 50% [L: Rep.] probability). [L: Rep.]
17.	The [R: Def.] decrease [L: Rep.] [L: Syn.] in future [L: Rep.] economic [L: Rep.] benefits [L: Rep.] can be measured reliably [L: Rep.]
18.	the [R: Def.] amount [L: Rep.] of the [R: Def.] expense [L: Rep.] is known.
19.	(B)
20.	First, [C: Enhancement: Temp.] insurance [L: Rep.] expense [L: Rep.] for year 2010 should be determined: [R: Cat.]
21.	$600/12= \$500$ [L: Rep.] per month
22.	2010 [L: Rep.] insurance [L: Rep.] expense [L: Rep.]: 2 (May and June)* $500=$ [L: Rep.] \$1000 [L: Rep.]
23.	According to [C: Enhancement: Man.] accrual basis assumption, \$1000 [L: Rep.] must appear in income statement [L: Rep.] of Quality [L: Rep.] Services [L: Rep.] Ltd [L: Rep.] as insurance expense [L: Rep.] (satisfied [L: Rep.] the [R: Def.] essential [L: Rep.] characteristics [L: Rep.] of an expense [L: Rep.] and its [R: Poss.] recognitions [L: Rep.] criteria). [L: Rep.]
24.	Second, [C: Enhancement: Temp.] the [R: Def.] rest of the [R: Def.] amount [L: Rep.] (\$5000) [L: Rep.] must appear in balance statement [L: Rep.] of Quality [L: Rep.] Services [L: Rep.] Ltd

³¹ Refer to Appendix 19 for the procedures followed in cohesion analysis of the texts.

	[L: Rep.] as an asset [L: Rep.] (prepaid insurance)(under [C: Enhancement: Man.] current assets [L: Rep.] section) because of [C: Enhancement: Caus.] satisfying the [R: Def.] essential [L: Rep.] characteristics [L: Rep.] of an asset [L: Rep.] and its [R: Poss.] recognitions [L: Rep.] criteria: [L: Rep.] [R: Cat.]																																																																		
25.	Past event- cash [L: Rep.] was paid.																																																																		
26.	Control - Quality [L: Rep.] Services [L: Rep.] Ltd [L: Rep.] has the [R: Def.] capacity [L: Rep.] to benefit [L: Rep.] from the [R: Def.] asset [L: Rep.] and [C: Extension: Add.] can deny others access [L: Rep.] to the [R: Def.] cash [L: Rep.] (insurance policy under its [R: Poss.] name).																																																																		
27.	Future [L: Rep.] economic [L: Rep.] benefits [L: Rep.] - insurance [L: Rep.] policy [L: Rep.] covers the [R: Def.] next 10 months [L: Rep.] in 2011.																																																																		
28.	The recognition [L: Rep.] criteria: [L: Rep.]																																																																		
29.	It is probable that the [R: Def.] future [L: Rep.] economic [L: Rep.] benefits [L: Rep.] will eventuate – greater than 50% [L: Rep.] probability. [L: Rep.]																																																																		
30.	The amount [L: Rep.] of the asset [L: Rep.] can be measured reliably. [L: Rep.]																																																																		
31.	The mount <sic> is known (\$5000).																																																																		
32.	Third, [C: Enhancement: Temp.] this [R: Dem.] transaction [L: Rep.] decreases cash [L: Rep.] account [L: Rep.] \$6000 [L: Rep.] as [C: Enhancement: Man.] shown above [R: Ana.] in part (a).																																																																		
33.	Answer Question [L: Rep.] 2																																																																		
34.	<p style="text-align: center;">Exit Ltd Statement of Financial Position as at 30 June 2010</p> <table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Assets</th> <th style="text-align: right;">\$000</th> <th style="text-align: right;">\$000</th> <th style="text-align: left;">Liabilities</th> <th style="text-align: right;">\$000</th> <th style="text-align: right;">\$000</th> </tr> </thead> <tbody> <tr> <td>Current assets</td> <td></td> <td></td> <td>Current liability</td> <td></td> <td></td> </tr> <tr> <td> Accounts receivable</td> <td style="text-align: right;">20</td> <td></td> <td> Accounts payable</td> <td style="text-align: right;">100</td> <td></td> </tr> <tr> <td> Inventories</td> <td style="text-align: right;">250</td> <td></td> <td> Bank over draft</td> <td style="text-align: right;">10</td> <td></td> </tr> <tr> <td> Prepaid insurance</td> <td style="text-align: right;">25</td> <td></td> <td> Loan payable due September 2010</td> <td style="text-align: right;">40</td> <td></td> </tr> <tr> <td> Others current assets</td> <td style="text-align: right;">15</td> <td style="text-align: right;">310</td> <td> Tax payable</td> <td style="text-align: right;">50</td> <td style="text-align: right;">200</td> </tr> <tr> <td>Non-current assets</td> <td></td> <td></td> <td>Non-current liabilities</td> <td></td> <td></td> </tr> <tr> <td> Long term investment</td> <td style="text-align: right;">100</td> <td></td> <td> Loan payable due September 2014</td> <td style="text-align: right;">500</td> <td style="text-align: right;">500</td> </tr> <tr> <td> Property, plant and equipment</td> <td style="text-align: right;">800</td> <td style="text-align: right;">900</td> <td> Owners' equity</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td> Capital</td> <td></td> <td style="text-align: right;">510</td> </tr> <tr> <td>Total assets</td> <td></td> <td style="text-align: right;">1210</td> <td>Total (liabilities and owners' equity)</td> <td></td> <td style="text-align: right;">1210</td> </tr> </tbody> </table>	Assets	\$000	\$000	Liabilities	\$000	\$000	Current assets			Current liability			Accounts receivable	20		Accounts payable	100		Inventories	250		Bank over draft	10		Prepaid insurance	25		Loan payable due September 2010	40		Others current assets	15	310	Tax payable	50	200	Non-current assets			Non-current liabilities			Long term investment	100		Loan payable due September 2014	500	500	Property, plant and equipment	800	900	Owners' equity						Capital		510	Total assets		1210	Total (liabilities and owners' equity)		1210
Assets	\$000	\$000	Liabilities	\$000	\$000																																																														
Current assets			Current liability																																																																
Accounts receivable	20		Accounts payable	100																																																															
Inventories	250		Bank over draft	10																																																															
Prepaid insurance	25		Loan payable due September 2010	40																																																															
Others current assets	15	310	Tax payable	50	200																																																														
Non-current assets			Non-current liabilities																																																																
Long term investment	100		Loan payable due September 2014	500	500																																																														
Property, plant and equipment	800	900	Owners' equity																																																																
			Capital		510																																																														
Total assets		1210	Total (liabilities and owners' equity)		1210																																																														
	<ul style="list-style-type: none"> • Account receivable, [L: Mer.] Inventories, [L: Mer.] Prepaid Insurance [L: Mer.] & Other current Assets [L: Mer.] tie with Current Assets [L: Hyp.] • Long term investment [L: Mer.] & Property, plant and equipment [L: Mer.] tie with Non-Current Assets [L: Hyp.] • Non-current [L: Ant.] ties with Current (2 instances) • Current Assets & Non-current Assets tie with Assets [L: Hyper.] & Total Assets [L: Hyper.] • Accounts payable, [L: Mer.] Bank over draft, [L: Mer.] Loan payable due September 2010 [L: Mer.] & Tax payable [L: Mer.] tie with Current liability [L: Hyp.] • Loan payable due September 2014 [L: Mer.] ties with Non-current liabilities [L: Hyp.] • Current liability & Non-current liabilities tie with Liabilities [L: Hyper.] • Capital [L: Mer.] ties with Owners' equity [L: Hyper.] 																																																																		
	<ul style="list-style-type: none"> • Liabilities & Owners' equity tie with Total (liabilities and owners' equity) • \$ [L: Rep.] 4 instances • Total (liabilities and owners' equity) tie with Total assets • Ltd [L: Rep.] 1 instance • Statement [L: Rep.] 1 instance • Financial [L: Rep.] 1 instance • Position [L: Rep.] 1 instance • June [L: Rep.] 1 instance • 2010 [L: Rep.] 1 instance • Assets [L: Rep.] 5 instances • Accounts [L: Rep.] 1 instance • Prepaid [L: Rep.] 1 instance • Insurance [L: Rep.] 1 instance 																																																																		
35.	Calculations																																																																		
36.	Prepaid [L: Rep.] insurance [L: Rep.] [L: Hyp.] = [L: Rep.] total assets [L: Rep.] [L: Mer.] – Accounts [L: Rep.] receivable– Inventories [L: Rep.] - Others current assets [L: Rep.] - Long term investment– Property, plant and equipment																																																																		
37.	Prepaid [L: Rep.] insurance [L: Rep.] [L: Hyp.] = [L: Rep.] 1210 [L: Mer.] – [L: Rep.] 20 - [L: Rep.] 250 - [L: Rep.] 15 - [L: Rep.] 100 - [L: Rep.] 800																																																																		
38.	= [L: Rep.] \$ [L: Rep.] 25 [L: Hyp.]																																																																		

39.	Accounts [L: Rep.] payable [L: Rep.] [L: Hyp.] = [L: Rep.] total liabilities [L: Rep.] [L: Mer.] - Bank over draft - [L: Rep.] Loan payable due September 2010 [L: Rep.] - [L: Rep.] Tax payable - [L: Rep.] Loan payable due September 2014																																																																													
40.	Total liabilities [L: Rep.] [L: Hyp.] = [L: Rep.] total assets [L: Rep.] [L: Mer.] - [L: Rep.] equity [L: Rep.]																																																																													
41.	[Ellip.: Cl.] = [L: Rep.] 1210 [L: Mer.] -510																																																																													
42.	[Ellip.: Cl.] = [L: Rep.] \$ [L: Rep.] 700 [L: Hyp.]																																																																													
43.	[Ellip.: Cl.] = [L: Rep.] 700 [L: Mer.] - [L: Rep.] 10 - [L: Rep.] 40 - [L: Rep.] 50 - [L: Rep.] 500																																																																													
44.	Accounts [L: Rep.] payable [L: Rep.] = [L: Rep.] \$ [L: Rep.] 100 [L: Hyp.]																																																																													
45.	Answer Question [L: Rep.] 3																																																																													
46.	<p style="text-align: center;">Exit Ltd Statement of Cash Flows for the year ended 30 June 2011</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Cash flows from operating activities</td> <td style="width: 10%; text-align: right;">\$</td> <td style="width: 10%; text-align: right;">\$</td> <td style="width: 20%;"></td> </tr> <tr> <td>Cash receipts from customers</td> <td></td> <td style="text-align: right;">17940</td> <td></td> </tr> <tr> <td>cash paid to suppliers and employee</td> <td></td> <td style="text-align: right;">(10260)</td> <td></td> </tr> <tr> <td>cash generated from operations</td> <td></td> <td style="text-align: right;">7680</td> <td></td> </tr> <tr> <td>Net cash from operating activities</td> <td></td> <td></td> <td style="text-align: right;">7680</td> </tr> <tr> <td colspan="4"> </td> </tr> <tr> <td colspan="4">cash flows from investing activities</td> </tr> <tr> <td>purchase of equipment, land and motor vehicles</td> <td></td> <td style="text-align: right;">(10950)</td> <td></td> </tr> <tr> <td>Net cash used in investing activities</td> <td></td> <td></td> <td style="text-align: right;">(10950)</td> </tr> <tr> <td colspan="4"> </td> </tr> <tr> <td colspan="4">Cash from financing activities</td> </tr> <tr> <td>Proceed from long-term mortgage</td> <td></td> <td style="text-align: right;">4800</td> <td></td> </tr> <tr> <td>proceed from the owner</td> <td></td> <td style="text-align: right;">6000</td> <td></td> </tr> <tr> <td>owner withdrawing</td> <td></td> <td style="text-align: right;">(6690)</td> <td></td> </tr> <tr> <td>Net cash used in financing activities</td> <td></td> <td></td> <td style="text-align: right;">4110</td> </tr> <tr> <td colspan="4"> </td> </tr> <tr> <td>Net increase (decrease) in cash and cash equivalents</td> <td></td> <td></td> <td style="text-align: right;">840</td> </tr> <tr> <td>cash and cash equivalents at beginning of period</td> <td></td> <td></td> <td style="text-align: right;">(300)</td> </tr> <tr> <td>cash and cash equivalents at end of period</td> <td></td> <td></td> <td style="text-align: right;">540</td> </tr> </table>		Cash flows from operating activities	\$	\$		Cash receipts from customers		17940		cash paid to suppliers and employee		(10260)		cash generated from operations		7680		Net cash from operating activities			7680					cash flows from investing activities				purchase of equipment, land and motor vehicles		(10950)		Net cash used in investing activities			(10950)					Cash from financing activities				Proceed from long-term mortgage		4800		proceed from the owner		6000		owner withdrawing		(6690)		Net cash used in financing activities			4110					Net increase (decrease) in cash and cash equivalents			840	cash and cash equivalents at beginning of period			(300)	cash and cash equivalents at end of period			540
Cash flows from operating activities	\$	\$																																																																												
Cash receipts from customers		17940																																																																												
cash paid to suppliers and employee		(10260)																																																																												
cash generated from operations		7680																																																																												
Net cash from operating activities			7680																																																																											
cash flows from investing activities																																																																														
purchase of equipment, land and motor vehicles		(10950)																																																																												
Net cash used in investing activities			(10950)																																																																											
Cash from financing activities																																																																														
Proceed from long-term mortgage		4800																																																																												
proceed from the owner		6000																																																																												
owner withdrawing		(6690)																																																																												
Net cash used in financing activities			4110																																																																											
Net increase (decrease) in cash and cash equivalents			840																																																																											
cash and cash equivalents at beginning of period			(300)																																																																											
cash and cash equivalents at end of period			540																																																																											
	<ul style="list-style-type: none"> • Cash receipts from customers Less Cash paid to suppliers and employees [L: Mer.] ties with Cash flows from operating activities, [L: Hyp.] Cash generated from operations [L: Hyp.] & Net cash from operating activities [L: Hyp.] • Purchase of equipment, land and motor vehicles [L: Mer.] ties with cash flows from investing activities [L: Hyp.] & Net cash used in investing activities. [L: Hyp.] • Proceeds from long term mortgage, [L: Mer.] proceed from the owner, Less owner withdrawing [L: Mer.] tie with Cash from financing activities [L: Hyp.] and Net cash used in financing activities. [L: Hyp.] • Net increase (decrease) in cash and cash equivalent [L: Mer.] & cash and cash equivalents at beginning period [L: Mer.] tie with cash and cash equivalents at end of period. [L: Hyper.] • Net cash from operating activities, Less Net cash used in investing activities & Net cash used in financing activities tie with Net increase (decrease) in cash and cash equivalent [L: Hyper.] • Net cash from operating activities, Less Net cash used in investing activities, Net cash used in financing activities, cash 	<p style="text-align: center;">and cash equivalents at beginning period tie with cash and cash equivalents at end of period.</p> <ul style="list-style-type: none"> • \$ [L: Rep.] 1 instance • Ltd [L: Rep.] 1 instance • Statement [L: Rep.] 1 instance • Cash [L: Rep.] 15 instances • Year [L: Rep.] 1 instance • The [R: Def.] 2 instances • June [L: Rep.] 1 instance • Flows [L: Rep.] 2 instances • Paid ties with [L: Ant.] receipts • Activities [L: Rep.] 5 instances • Equivalents [L: Rep.] 2 instances • Net [L: Rep.] 1 instance • Decrease [L: Rep.] 1 instance • Owner [L: Rep.] 2 instances • Proceed [L: Rep.] 1 instance • End ties with [L: Ant.] beginning 																																																																												
47.	Calculations																																																																													
48.	Cash [L: Rep.] receipts from customers: [L: Cat.] [L: Hyp.] [L: Rep.]																																																																													
49.	Sales [L: Mer.] [L: Rep.] + [L: Rep.] beginning accounts [L: Rep.] receivable [L: Rep.] [L: Mer.] - [L: Rep.] ending [L: Ant.] accounts [L: Rep.] receivable																																																																													

50.	16800 [L: Mer.] + [L: Rep.] 4290 [L: Mer.] -3150 = [L: Rep.] \$ [L: Rep.] 17940 [L: Hyp.]									
51.	Cash [L: Rep.] paid to suppliers [L: Rep.] and employee: [L: Cat.] [L: Hyp.] [L: Rep.]									
52.	Cash [L: Rep.] paid [L: Rep.] to suppliers [L: Rep.] for purchases: [L: Cat.] [L: Hyp.]									
53.	Cost [L: Rep.] of sales [L: Ant.] [L: Rep.] [L: Mer.] + [L: Rep.] ending inventory [L: Mer.] – [L: Rep.] beginning [L: Ant.] inventory + [L: Rep.] beginning account [L: Rep.] payable [L: Mer.] [L: Mer.] – [L: Rep.] ending [L: Ant.] accounts [L: Rep.] payable [L: Rep.]									
54.	5100 [L: Mer.] + [L: Rep.] 6600 [L: Mer.] - [L: Rep.] 6000 + [L: Rep.] 6150 [L: Mer.] - [L: Rep.] 7950 = [L: Rep.] \$ [L: Rep.] 3900 [L: Hyp.]									
55.	Cash [L: Rep.] paid to suppliers [L: Rep.] of service and labour: [L: Cat.] [L: Hyp.]									
56.	Accrual [L: Rep.] basis [L: Rep.] Expenses [L: Rep.] [L: Mer.] – [L: Rep.] beginning prepaid [L: Rep.] expenses [L: Rep.] + [L: Rep.] ending expenses [L: Mer.] [L: Rep.]									
57.	6300 - [L: Rep.] 300 [L: Mer.] + [L: Rep.] 360 [L: Mer.] = [L: Rep.] \$ [L: Rep.] 6360 [L: Hyp.]									
58.	Accrual [L: Rep.] basis [L: Rep.] Expenses [L: Rep.] [L: Hyp.]: [L: Rep.] expenses [L: Rep.] – [L: Rep.] depreciation for the [R: Def.] year [L: Rep.] [L: Mer.]									
59.	[Ellip.: Cl.] = [L: Rep.] 8610 - [L: Rep.] (810-1500) [L: Mer.]									
60.	[Ellip.: Cl.] = [L: Rep.] \$ [L: Rep.] 6300 [L: Hyp.]									
61.	Cash [L: Rep.] paid to suppliers [L: Rep.] and employee [L: Rep.] [L: Hyp.] : 3900 [L: Mer.] + [L: Rep.] 6360 [L: Mer.] = [L: Rep.] \$ [L: Rep.] 10260 [L: Hyp.] [L: Rep.]									
62.	Cash [L: Rep.] flows from investing activities [L: Rep.]									
63.	Cash [L: Rep.] paid to purchase [L: Rep.] of equipment [L: Hyp.]: ending equipment [L: Mer.] – [L: Rep.] beginning equipment									
64.	[Ellip.: Cl.] (equals) 25500 [L: Mer.] - [L: Rep.] 19200 = [L: Rep.] \$ [L: Rep.] 6300 [L: Hyp.]									
65.	Cash [L: Rep.] paid to purchase [L: Rep.] of land [L: Hyp.]: [L: Rep.] ending land [L: Rep.] – [L: Rep.] beginning [L: Ant.] land [L: Rep.] [L: Mer.]									
66.	[Ellip.: Cl.] (equals) 24000 [L: Mer.] -20400 = \$ [L: Rep.] 3600 [L: Hyp.]									
67.	Cash [L: Rep.] paid to purchase [L: Rep.] of motor [L: Rep.] vehicles [L: Hyp.]: [L: Rep.] ending motor [L: Rep.] vehicles [L: Mer.] – [L: Rep.] beginning [L: Ant.] motor [L: Rep.] vehicles [L: Rep.]									
68.	[Ellip.: Cl.] (equals) 15600 [L: Mer.] - [L: Rep.] 14550 = [L: Rep.] \$ [L: Rep.] 1050 [L: Hyp.]									
69.	Purchase [L: Rep.] of equipment, land [L: Rep.] and motor [L: Rep.] vehicles [L: Hyp.]: [L: Rep.] 6300 [L: Mer.] + [L: Rep.] 3600 [L: Mer.] + [L: Rep.] 1050 [L: Mer.] = [L: Rep.] \$ [L: Rep.] 10950 [L: Hyp.]									
70.	Cash [L: Rep.] from financing activities [L: Hyp.] : [L: Cat.] [L: Rep.]									
71.	Cash [L: Rep.] proceed from long-term mortgage [L: Hyp.]: ending long term mortgage [L: Rep.] [L: Mer.] – [L: Rep.] beginning [L: Ant.] long term mortgage [L: Rep.]									
72.	[Ellip.: Cl.] (equals) 18900 [L: Mer.] - [L: Rep.] 14100 = [L: Rep.] \$ [L: Rep.] 4800 [L: Hyp.]									
73.	Cash [L: Rep.] receipts from the [R: Def.] owner [L: Rep.] = [L: Rep.] \$ [L: Rep.] 6000 [L: Rep.]									
74.	Cash [L: Rep.] paid to the [R: Def.] owner [L: Hyp.]: [L: Rep.] beginning equity [L: Rep.] [L: Mer.] + [L: Rep.] profit [L: Mer.] + [L: Rep.] contribution [L: Rep.] [L: Mer.] – [L: Rep.] ending [L: Ant.] equity [L: Rep.]									
75.	[Ellip.: Cl.] (equals) 32700 [L: Mer.] + [L: Rep.] 3090 [L: Mer.] + [L: Rep.] 6000 [L: Mer.] - [L: Rep.] 35100 = [L: Rep.] (\$ [L: Rep.] 6690) [L: Hyp.]									
76.	Cash [L: Rep.] from financing activities [L: Rep.] : 4800 [L: Mer.] + [L: Rep.] 6000 [L: Mer.] – [L: Rep.] 6690 = [L: Rep.] \$ [L: Rep.] 4110 [L: Hyp.]									
77.	Answer question [L: Rep.] 4									
78.	(A)									
79.	First, [C: Enhancement: Temp.] the [R: Def.] ending equity [L: Rep.] should be worked out as [C: Enhancement: Man.] following [R: Cat.]									
80.	<table border="0"> <tr> <td>Beginning Equity</td> <td>\$500000</td> </tr> <tr> <td>Profit</td> <td>\$32000</td> </tr> <tr> <td>Withdrawals by owners</td> <td>\$(15000)</td> </tr> <tr> <td>Ending Equity</td> <td>\$517000</td> </tr> </table>	Beginning Equity	\$500000	Profit	\$32000	Withdrawals by owners	\$(15000)	Ending Equity	\$517000	
Beginning Equity	\$500000									
Profit	\$32000									
Withdrawals by owners	\$(15000)									
Ending Equity	\$517000									
	<ul style="list-style-type: none"> • \$ [L: Rep.] 3 instances • Equity [L: Rep.] 2 instances • Ending ties with [L: Ant.] Beginning • Profit [L: Rep.] 1 instance 	<ul style="list-style-type: none"> • Owners [L: Rep.] 1 instance • Withdrawals [L: Rep.] 1 instance • Beginning Equity [L: Mer.] & Profit Less Withdrawals by owners [L: Mer.] tie with Ending Equity [L: Hyp.] 								
81.	So [C: Elaboration: Appos.], the [R: Def.] difference between Ending [L: Syn.] Equity [L: Rep.] and beginning Equity [L: Rep.] is \$ [L: Rep.] 17000									

82.	Or [C: Elaboration: Clari.] ending [L: Ant.] equity [L: Hyp.] = Beginning [L: Ant.] Equity [L: Mer.] + [L: Rep.] Profit [L: Mer.] - [L: Rep.] Withdrawals [L: Rep.] by owners [L: Rep.]						
83.	[Ellip.: Cl.] = [L: Rep.] 500000 [L: Mer.] + [L: Rep.] 32000 [L: Mer.] - [L: Rep.] 15000 = [L: Rep.] \$ [L: Rep.] 517000 [L: Hyp.]						
84.	The [R: Def.] profit [L: Rep.] according to [C: Enhancement: Man.] change in wealth [L: Rep.] approach [L: Rep.] [L: Hyp.] is Change in net assets [L: Rep.] [L: Mer.] + [L: Rep.] drawings [L: Mer.] - [L: Rep.] contributions [L: Rep.] from owners [L: Rep.]						
85.	[Ellip.: Cl.] (equals) \$17000 [L: Mer.] + [L: Rep.] \$ [L: Rep.] 15000 [L: Mer.] - [L: Rep.] 0 = [L: Rep.] \$ [L: Rep.] 32000 [L: Hyp.]						
86.	(b)						
87.	The [R: Def.] profit [L: Rep.] according to [C: Enhancement: Man.] [L: Rep.] revenues less expenses [L: Rep.] approach [L: Hyp.]: [L: Rep.] Income [L: Mer.] - [L: Rep.] expenses [L: Ant.] [L: Rep.] [L: Mer.]						
88.	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Dividends received from investments</td> <td style="text-align: right;">\$50000</td> </tr> <tr> <td>Interest paid on long term loan (no principal repaid)</td> <td style="text-align: right;">\$(18000)</td> </tr> <tr> <td>Profit</td> <td style="text-align: right;">\$32000</td> </tr> </table>	Dividends received from investments	\$50000	Interest paid on long term loan (no principal repaid)	\$(18000)	Profit	\$32000
Dividends received from investments	\$50000						
Interest paid on long term loan (no principal repaid)	\$(18000)						
Profit	\$32000						
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • \$ [L: Rep.] 3 instances • Dividends received from investments Less Interest paid on long term loan (no principal repaid) [L: Mer.] tie </td> <td style="width: 50%; vertical-align: top;"> <p style="text-align: center;"><i>with Profit [L: Hyp.]</i></p> <ul style="list-style-type: none"> • Profit [L: Rep.] 1 instance </td> </tr> </table>	<ul style="list-style-type: none"> • \$ [L: Rep.] 3 instances • Dividends received from investments Less Interest paid on long term loan (no principal repaid) [L: Mer.] tie 	<p style="text-align: center;"><i>with Profit [L: Hyp.]</i></p> <ul style="list-style-type: none"> • Profit [L: Rep.] 1 instance 				
<ul style="list-style-type: none"> • \$ [L: Rep.] 3 instances • Dividends received from investments Less Interest paid on long term loan (no principal repaid) [L: Mer.] tie 	<p style="text-align: center;"><i>with Profit [L: Hyp.]</i></p> <ul style="list-style-type: none"> • Profit [L: Rep.] 1 instance 						
89.	Or [C: Elaboration: Clari.] 50000 [L: Mer.] - [L: Rep.] 18000 = [L: Rep.] \$ [L: Rep.] 32000 [L: Hyp.]						
90.	(C)						
91.	The [R: Def.] profit [L: Rep.] is the [R: Def.] same [R: Comp.] in part A and B as [C: Enhancement: Caus.] income leads to increasing in equity, [L: Rep.] which results in inflows or [C: Elaboration: Clari.] enhancement of assets [L: Rep.] or [C: Elaboration: Clari.] decrease [L: Rep.] of liabilities [L: Rep.], other than the [R: Def.] contributions [L: Rep.] from owners. [L: Rep.]						
92.	Also [C: Extension: Add.] , The [R: Def.] profit [L: Rep.] is the [R: Def.] same [R: Comp.] in part A and B as [C: Enhancement: Man.] expenses [L: Rep.] lead to decreasing [L: Ant.] in equity, [L: Rep.] which results in outflows [L: Ant.] or [C: Elaboration: Clari.] depletions of assets [L: Rep.] or [C: Elaboration: Clari.] increase [L: Rep.] of liabilities [L: Rep.] , other than the [R: Def.] distributions [L: Rep.] from owners. [L: Rep.]						
93.	Hence [C: Enhancement: Caus.] , profit [L: Rep.] can be calculated from balance sheet (equity [L: Rep.] section), [L: Rep.] as long as [C: Enhancement: Temp.] distributions and contributions [L: Rep.] are known.						
94.	Revenues [L: Rep.] less expenses [L: Rep.] approach [L: Rep.] = [L: Rep.] change in wealth [L: Rep.] approach [L: Rep.]						
95.	<p>Another explanation:</p> <p>Assets [L: Rep.] = [L: Rep.] liabilities [L: Rep.] + [L: Rep.] equity1 [L: Rep.]</p> <p>Assets [L: Rep.] = [L: Rep.] liabilities [L: Rep.] + [L: Rep.] equity1 [L: Rep.] - [L: Rep.] distributions [L: Rep.] + [L: Rep.] contributions [L: Rep.]</p> <p>Assets [L: Rep.] = [L: Rep.] liabilities [L: Rep.] + [L: Rep.] (equity1 [L: Rep.] - [L: Rep.] distributions [L: Rep.] + [L: Rep.] contributions) [L: Rep.]</p> <p>Assets [L: Rep.] = [L: Rep.] liabilities [L: Rep.] + [L: Rep.] equity2 [L: Rep.]</p> <p>Assets [L: Rep.] + [L: Rep.] expenses [L: Rep.] = [L: Rep.] liabilities + [L: Rep.] equity2 [L: Rep.] + [L: Rep.] revenue</p> <p>Assets [L: Rep.] = [L: Rep.] liabilities [L: Rep.] + [L: Rep.] equity2 [L: Rep.] + [L: Rep.] revenue [L: Rep.] - [L: Rep.] expenses [L: Rep.]</p> <p>Assets [L: Rep.] = [L: Rep.] liabilities [L: Rep.] + [L: Rep.] equity 2 [L: Rep.] + [L: Rep.] profit [L: Rep.]</p> <p>Assets [L: Rep.] = [L: Rep.] liabilities [L: Rep.] + [L: Rep.] (equity2 [L: Rep.] + [L: Rep.] profit) [L: Rep.]</p> <p>Assets [L: Rep.] = [L: Rep.] liabilities [L: Rep.] + [L: Rep.] ending equity [L: Rep.]</p> <p>Profit [L: Rep.] = [L: Rep.] ending [L: Rep.] equity [L: Rep.] - [L: Rep.] [L: Ant.] equity2 [L: Rep.]</p> <p>So [C: Elaboration: Appos.], profit [L: Rep.] is equal in both [R: Comp.] approaches [L: Rep.] as [C: Enhancement: Man.] profit [L: Rep.] is a part of ending [L: Rep.] equity (the amount [L: Rep.] of profit, [L: Rep.] which appears in income statement, [L: Rep.] goes to equity [L: Rep.] section) [L: Rep.]</p>						

Appendix 22: Cohesion analysis of Ibrahim's accounting text³²

Title	Accounting 2-question Assignment		
Pseudonym	Ibrahim		
Type of Analysis	Cohesion Analysis		
Program	Master of Commerce		
Module	Accounting Concepts & Methods		
Number of Words	918		
Notes			
1.	Question 1: (a):		
2.	The [R: Def.] accounting service payment on 1 May 2010 should be treated as liability ("Unearned revenue").		
3.	That is, [C: Elaboration: Appos.] the [R: Def.] essential characteristics of a liability [L: Rep.] are satisfied for the [R: Def.] below [R: Cat.] reasons:		
4.	Past transaction / event – The [R: Def.] service [L: Rep.] payment [L: Rep.] has received by Quality Services [L: Rep.] Ltd on 1 May 2010; and [C: Extension: Add.]		
5.	Present obligation – The [R: Def.] entity has entered agreement to provide its [R: Poss.] customer by accounting [L: Rep.] services [L: Rep.] in the [R: Def.] future; and [C: Extension: Add.]		
6.	Future [L: Rep.] sacrifice of economic benefits – In order to [C: Enhancement: Caus.] settle the [R: Def.] obligation, Quality [L: Rep.] Services [L: Rep.] Ltd [L: Rep.] must provide its [R: Poss.] customer [L: Rep.] by an accounting [L: Rep.] service [L: Rep.]		
7.	In addition [C: Extension: Add.] the [R: Def.] recognition criteria for a liability [L: Rep.] are satisfied because [C: Enhancement: Caus.] : [R: Cat.]		
8.	It is probable that future [L: Rep.] sacrifice [L: Rep.] of economic [L: Rep.] benefits [L: Rep.] is greater than 50%; and [C: Extension: Add.]		
9.	The [R: Def.] amount of the [R: Def.] liability [L: Rep.] can be determined reliably – there is a payment [L: Rep.] has received by Quality [L: Rep.] Services [L: Rep.] Ltd [L: Rep.] which can be used to determine the [R: Def.] liability [L: Rep.] (\$10 000).		
10.	(b): On 30 Jun 2010 the [R: Def.] current liability [L: Rep.] will be decreased by \$4 000 [L: Rep.] and [C: Extension: Add.] "accounting [L: Rep.] services [L: Rep.] revenue" [L: Rep.] of \$4 000 [L: Rep.] will be recognised.		
11.	Thus, [C: Enhancement: Caus.] on 30 Jun [L: Rep.] 2010 [L: Rep.] there will be a current liability [L: Rep.] in the [R: Def.] form of "Unearned revenue [L: Rep.] " of \$6 000. [L: Rep.]		
12.	On 30 Jun [L: Rep.] 2010 [L: Rep.] there is accounting [L: Rep.] services [L: Rep.] revenue [L: Rep.] because [C: Enhancement: Caus.] : [R: Cat.]		
13.	There is a reduction in liabilities [L: Rep.] from non-owner resources ("Unearned [L: Rep.] revenue [L: Rep.] "); and [C: Extension: Add.]		
14.	an increase [L: Ant.] in equity (Net assets) has occurred because [C: Enhancement: Caus.] there is a decrease [L: Ant.] in liability [L: Rep.] with no change in the [R: Def.] asset.		
15.	The [R: Def.] revenue [L: Rep.] can be recognised because [C: Enhancement: Caus.] it is probable (greater than 50 %) [L: Rep.] that there has been saving in outflows of future [L: Rep.] economic [L: Rep.] benefits [L: Rep.] resulting from a decrease [L: Rep.] in liabilities. [L: Rep.]		
16.	The [R: Def.] saving [L: Rep.] in outflow [L: Rep.] of future [L: Rep.] economic [L: Rep.] benefits [L: Rep.] can be measured reliably (The [R: Def.] amount [L: Rep.] of calculated of \$ 4,000 [L: Rep.] (Accounting [L: Rep.] services [L: Rep.] revenue [L: Rep.] \$10,000 [L: Rep.] / 5 months X 2 months).		
17.	Question [L: Rep.] 2: Exercise (2.15): (a):		
18.	<p align="center">ALICIA'S PET GROOMING SERVICE</p> <p align="center">Income Statement</p> <p align="center">For the three months ended 31 January 2010</p> <p align="center">INCOME</p>		

³² Refer to Appendix 19 for the procedures followed in cohesion analysis of the texts.

	Services revenue		\$4,720	
	EXPENSES			
	Rent Expense			
	Suppliers cost	600		
	electricity expenses	700		
	Advertising expense	801		
		216	2,317	
	PROFIT			\$2,403
	<ul style="list-style-type: none"> • Services revenue [L: Mer.] ties with INCOME [L: Hyp.] • Rent expense, [L: Mer.] Suppliers cost, [L: Mer.] electricity expenses, [L: Mer.] & Advertising expense [L: Mer.] tie with EXPENSES [L: Hyp.] • INCOME Less EXPENSES ties with PROFIT [L: Hyper.] • Revenue [L: Syn.] ties with INCOME • INCOME Less EXPENSES ties with PROFIT 		<ul style="list-style-type: none"> • \$ [L: Rep.] 2 instances • Expense(s) [L: Rep.] 3 instances • INCOME [L: Rep.] 1 instance • The [R: Def.] 1 instance • Services [L: Rep.] 1 instance • Revenue [L: Rep.] 1 instance 	
19.	(b):			
20.	ALICIA'S PET GROOMING SERVICE Statement of financial position as at 31 January 2010			
	CURRENT ASSETS			
	Cash at bank		\$	3,622
	Accounts receivable			800
	Prepaid rent			200
	Grooming Supplies			260
	TOTAL CURRENT ASSETS			4,882
	NON-CURRENT ASSETS			
	Property, plant and equipment			2,000
	TOTAL NON-CURRENT ASSETS			2,000
	TOTAL ASSETS			6,882
	CURRENT LIABILITIES			
	Accounts payable			779
	TOTAL CURRENT LIABILITIES			779
	TOTAL LIABILITIES			779
	NET ASSETS			6,103
	EQUITY			
	Owner capital		5000	
	Owner, Retained Earnings		\$1,103	
	TOTAL EQUITY			6,103
	<ul style="list-style-type: none"> • Cash at bank, [L: Mer.] Accounts receivable, [L: Mer.] Prepaid rent [L: Mer.] & Grooming supplies [L: Mer.] tie with CURRENT ASSETS [L: Hyp.] & TOTAL CURRENT ASSETS [L: Hyp.] • NON-CURRENT [L: Ant.] ties with CURRENT • Property, plant and equipment [L: Mer.] ties with TOTAL 		<ul style="list-style-type: none"> • TOTAL ASSETS Less TOTAL LIABILITIES ties with NET ASSETS [L: Hyper.] • Owner capital [L: Mer.] & Owner, Retained Earnings [L: Mer.] tie with EQUITY [L: Hyp.] & TOTAL EQUITY [L: Hyp.] • \$ [L: Rep.] 2 instances 	

	<p><i>NON-CURRENT ASSETS [L: Hyp.] & NON-CURRENT ASSETS [L: Hyp.]</i></p> <ul style="list-style-type: none"> • <i>CURRENT ASSETS, TOTAL CURRENT ASSETS, NON-CURRENT ASSETS & TOTAL NON-CURRENT ASSETS tie with TOTAL ASSETS [L: Hyper.]</i> • <i>Accounts payable [L: Mer.] ties with CURRENT LIABILITIES, [L: Hyp.] & TOTAL CURRENT LIABILITIES [L: Hyp.]</i> • <i>CURRENT LIABILITIES & TOTAL CURRENT LIABILITIES tie with TOTAL LIABILITIES [L: Hyper.]</i> 	<ul style="list-style-type: none"> • <i>ALICIA'S [L: Rep.] 1 instance</i> • <i>SERVICE [L: Rep.] 1 instance</i> • <i>2010 [L: Rep.] 1 instance</i> • <i>ASSETS [L: Rep.] 6 instances</i> • <i>LIABILITIES [L: Rep.] 3 instances</i> • <i>TOTAL [L: Rep.] 5 instances</i> • <i>Owner [L: Rep.] 1 instance</i> • <i>Accounts [L: Rep.] 1 instance</i> • <i>Payable [L: Ant.] ties with receivable</i> 																																																									
21.	(C): There is information that still is needed in order to [C: Enhancement: Caus.] determine perfectly how Alicia [L: Rep.] had done during the [R: Def.] 3 months period.																																																										
22.	First, [C: Enhancement: Temp.] grooming equipment depreciation should be provided. This [R: Dem.] factor may affect her [R: Pro] net profit during the [R: Def.] 3 months [L: Rep.] period. [L: Rep.]																																																										
23.	Second, [C: Enhancement: Temp.] it is essential to have more information regarding the [R: Def.] default debit in order to [C: Enhancement: Caus.] reach a propriate <sic> analysis for the [R: Def.] accounting [L: Rep.] receivable.																																																										
24.	Exercise (2.15): (a):																																																										
25.	<p style="text-align: center;">BRETT'S BAIT SUPPLIES Statement of Cash Flows for the year ended 30 June 2011</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="3">Cash flows from operating activities</td> </tr> <tr> <td>Cash receipts from customers</td> <td style="text-align: right;">964 000</td> <td></td> </tr> <tr> <td>Cash paid to suppliers</td> <td style="text-align: right;">(808 000)</td> <td></td> </tr> <tr> <td>Cash paid to suppliers for services</td> <td style="text-align: right;">(73 200)</td> <td></td> </tr> <tr> <td>Overdraft</td> <td style="text-align: right;">8 000</td> <td></td> </tr> <tr> <td>Net cash from operating activities</td> <td></td> <td style="text-align: right;">90 800</td> </tr> <tr> <td colspan="3">Cash flows from investing activities</td> </tr> <tr> <td>New purchase freehold property</td> <td style="text-align: right;">(40 000)</td> <td></td> </tr> <tr> <td>New purchase fixtures</td> <td style="text-align: right;">(20 400)</td> <td></td> </tr> <tr> <td>Proceeds from sale of fixtures Sold</td> <td style="text-align: right;">2400</td> <td></td> </tr> <tr> <td>Investment</td> <td style="text-align: right;">(20 000)</td> <td></td> </tr> <tr> <td>Interest received</td> <td style="text-align: right;">4 000</td> <td></td> </tr> <tr> <td>Net cash used in investing activities</td> <td></td> <td style="text-align: right;">(74 000)</td> </tr> <tr> <td colspan="3">Cash flows from financing activities</td> </tr> <tr> <td>Owners drawing</td> <td style="text-align: right;">(25 600)</td> <td></td> </tr> <tr> <td>Net cash used in financing activities</td> <td></td> <td style="text-align: right;">(25 600)</td> </tr> <tr> <td>Net increase in cash and cash equivalents</td> <td></td> <td style="text-align: right;">(8 800)</td> </tr> <tr> <td>Cash and cash equivalent at beginning of period</td> <td></td> <td style="text-align: right;">8 800</td> </tr> <tr> <td>Cash and equivalents at end of period</td> <td></td> <td style="text-align: right;">0</td> </tr> </table>		Cash flows from operating activities			Cash receipts from customers	964 000		Cash paid to suppliers	(808 000)		Cash paid to suppliers for services	(73 200)		Overdraft	8 000		Net cash from operating activities		90 800	Cash flows from investing activities			New purchase freehold property	(40 000)		New purchase fixtures	(20 400)		Proceeds from sale of fixtures Sold	2400		Investment	(20 000)		Interest received	4 000		Net cash used in investing activities		(74 000)	Cash flows from financing activities			Owners drawing	(25 600)		Net cash used in financing activities		(25 600)	Net increase in cash and cash equivalents		(8 800)	Cash and cash equivalent at beginning of period		8 800	Cash and equivalents at end of period		0
Cash flows from operating activities																																																											
Cash receipts from customers	964 000																																																										
Cash paid to suppliers	(808 000)																																																										
Cash paid to suppliers for services	(73 200)																																																										
Overdraft	8 000																																																										
Net cash from operating activities		90 800																																																									
Cash flows from investing activities																																																											
New purchase freehold property	(40 000)																																																										
New purchase fixtures	(20 400)																																																										
Proceeds from sale of fixtures Sold	2400																																																										
Investment	(20 000)																																																										
Interest received	4 000																																																										
Net cash used in investing activities		(74 000)																																																									
Cash flows from financing activities																																																											
Owners drawing	(25 600)																																																										
Net cash used in financing activities		(25 600)																																																									
Net increase in cash and cash equivalents		(8 800)																																																									
Cash and cash equivalent at beginning of period		8 800																																																									
Cash and equivalents at end of period		0																																																									
	<ul style="list-style-type: none"> • <i>Cash receipts from customers Less Cash paid to suppliers, Less Cash paid to suppliers for services [L: Mer.] & Overdraft [L: Mer.] tie with Cash flows from operating activities [L: Hyp.] & Net Cash from operating activities [L: Hyp.]</i> • <i>Proceeds from sale of fixtures Sold, [L: Mer.] & Investment & Interest received [L: Mer.] tie with Cash flows from investing activities [L: Hyp.] & Net cash used in investing activities [L: Hyp.]</i> • <i>Net increase in cash and cash equivalents & Cash and cash equivalent at beginning of period tie with Cash and equivalents at end of period [L: Hyper.]</i> • <i>Ne Cash flows from operating activities, Net cash used in investing activities, & Net cash used in financing activities tie with Net increase in cash and cash equivalents [L: Hyper.]</i> • <i>Net Cash flows from operating activities, Net cash used in investing activities, Net cash used in financing activities & Cash and cash equivalent at beginning of period [L: Mer.] tie with Cash and equivalents at end of period</i> 	<ul style="list-style-type: none"> • <i>Paid [L: Ant.] ties with receipts</i> • <i>End [L: Ant.] ties with beginning</i> • <i>Cash [L: Rep.] 15 instances</i> • <i>The [R: Def.]</i> • <i>June [L: Rep.] 1 instance</i> • <i>Flows [L: Rep.] 3 instances</i> • <i>Customers [L: Rep.] 1 instance</i> • <i>Suppliers [L: Rep.] 2 instances</i> • <i>Services [L: Rep.] 1 instance</i> • <i>Activities [L: Rep.] 5 instances</i> • <i>Operating [L: Rep.] 1 instance</i> • <i>New [L: Rep.] 1 instance</i> • <i>Purchase [L: Rep.] 1 instance</i> • <i>Fixtures [L: Rep.] 1 instance</i> • <i>Investing [L: Rep.] 1 instance</i> • <i>Financing [L: Rep.]</i> • <i>Increase [L: Rep.] 1 instance</i> • <i>Equivalent [L: Rep.] 1 instance</i> 																																																									
26.	<u>* Calculations:</u>																																																										

	A - Cash [L: Rep.] flows [L: Rep.] from operating [L: Rep.] activities:[L: Rep.]										
27.	1-Cash [L: Rep.] receipt [L: Ant.] [L: Rep.] from customers: [L: Rep.] [R: Cat.]										
	Receipt from the customers	=	Sales (net)	+	Beginning accounts receivable	-	Ending accounts receivable				
	964,000		1,000,000		84,000		120,000				
	<ul style="list-style-type: none"> • Sales (net), [L: Mer.] Beginning accounts receivable Less Ending accounts receivable [L: Mer.] tie with Receipts from the customers [L: Hyp.] • Ending [L: Ant.] ties with Beginning • The [R: Def.] 1 instance 					<ul style="list-style-type: none"> • Receipt [L: Rep.] 1 instance • Customers [L: Rep.] 1 instance • Accounts [L: Rep.] 2 instances • Receivable [L: Rep.] 2 instances 					
28.	2-Cash [L: Rep.] paid to suppliers [L: Rep.] for purchases: [R: Cat.]										
	Cash payments for purchases	=	Cost of sales	-	Beginning inventory	+	Ending inventory	+	Beginning accounts payable	-	Ending accounts payable
	808,000		916,000		160,000		80,000		52,000		80,000
	<ul style="list-style-type: none"> • Cost of sales Less Beginning inventory, [L: Mer.] (net), Ending inventory, [L: Mer.] Beginning accounts payable Less Ending accounts payable [L: Mer.] tie with Cash payments for purchases [L: Hyp.] • Ending [L: Ant.] ties with Beginning (2 instances) • Cash [L: Rep.] 1 instance • Payments [L: Rep.] 1 instance • Purchases [L: Rep.] 1 instance • Sales [L: Rep.] 1 instance 					<ul style="list-style-type: none"> • Inventory [L: Rep.] 2 instances • = sign [L: Rep.] 1 instance • - sign [L: Rep.] 2 instances • + sign [L: Rep.] 2 instances • Accounts [L: Rep.] 1 instance • Payable [L: Rep.] 1 instance • Payable [L: Syn.] ties with payments • Sales [L: Ant.] ties with purchases 					
29.	3- Cash [L: Rep.] paid to suppliers [L: Rep.] for services: [L: Rep.] [L: Cat.]										
	Cash paid to suppliers	=	Selling and administrative expenses	+	Off. Supplies	-	Dep.				
	73,200		58,000		28,000		12,800				
	<ul style="list-style-type: none"> • Selling and administrative expenses, [L: Mer.] & Off. Supplies Less Dep. [L: Mer.] tie with Cash paid to suppliers [L: Hyp.] • Receipts from the customers, Cash payments for purchases & Cash paid to suppliers tie with Cash flows from operating activities [L: Hyper.] • Cash [L: Rep.] 1 instance 					<ul style="list-style-type: none"> • Suppliers [L: Rep.] 2 instances • = sign [L: Rep.] 1 instance • - sign [L: Rep.] 1 instance • + sign [L: Rep.] 1 instance • Expenses [L: Rep.] 1 instance 					
30.	*Equipments Depreciation [L: Rep.] and Offices [L: Rep.] suppliers [L: Rep.] are included.										
31.	Equipments Depreciation										
	Depreciation assets sold	4,400			32,000		Beginning balance				
	Ending balance	40,400			12,800		Depreciation expense (No cash outflow)				
		44,800			44,800						
	Offices suppliers										
	Beginning balance	4,000			22,000		Offices [L: Rep.] suppliers expenses				
	Purchase - (Cash outflow)	28,000			10,000		Ending balance				
		32,000			32,000						
	Overdraft										
					0		Overdraft beginning balance				
					8,000		Drawings on draft				

	Overdraft ending balance	8,000		
		8,000	8,000	
	<ul style="list-style-type: none"> • <i>Beginning</i> [L: Ant.] <i>ties with Ending</i> (2 instances) • <i>Ending</i> [L: Ant.] <i>ties with Beginning</i> • <i>Depreciation assets sold</i> [L: Mer.] & <i>Ending balance</i> [L: Mer.] <i>tie with Equipments Depreciation</i> [L: Hyp.] • <i>Beginning balance</i> [L: Mer.] & <i>Depreciation expense (No cash outflow)</i> [L: Mer.] <i>tie with Equipments Depreciation</i> [L: Hyp.] • <i>Beginning balance</i> [L: Mer.] & <i>Purchase - (Cash outflow)</i> [L: Mer.] <i>tie with Offices suppliers</i> [L: Hyp.] • <i>Offices suppliers expenses</i> [L: Mer.] & <i>Ending balance</i> [L: Mer.] <i>tie with Offices suppliers</i> [L: Hyp.] • <i>Overdraft ending balance</i> [L: Mer.] <i>ties with Overdraft</i> [L: Hyp.] • <i>Overdraft beginning balance</i> [L: Mer.] & <i>Drawings on draft</i> 		<ul style="list-style-type: none"> [L: Mer.] <i>tie with Overdraft</i> [L: Hyp.] • <i>Overdraft</i> [L: Rep.] 2 instances • <i>Equipments</i> [L: Rep.] 1 instance • <i>Depreciation</i> [L: Rep.] 3 instances • <i>Balance</i> [L: Rep.] 4 instances • <i>Expense</i> [L: Rep.] 2 instances • <i>Assets</i> [L: Rep.] 1 instance • <i>Outflows</i> [L: Rep.] 2 instances • <i>Suppliers</i> [L: Rep.] 2 instances • <i>Cash</i> [L: Rep.] 2 instances 	
32.	B- <u>Cash</u> [L: Rep.] <u>from investing</u> [L: Rep.] <u>activities:</u> [L: Rep.] [L: Cat.][L: Hyper.]			
	Fixtures [L: Rep.]			
	Beginning balance	80,000	4,400	Accumulated depreciation
			4,000	Carrying amount of Fixtures sold
	Purchase - <u>(Cash outflow)</u>	20,400		
			92,000	Ending balance
		100,400	100,400	
	Accumulated Depreciation			
	Fixtures	4,400	32,000	Beginning balance
	Ending balance	40,400	12,800	Depreciation Expense (non-cash)
		44,800	44,800	
	Investment			
	Beginning balance	12,000		
	Investment (Cash outflow)	20,000	32,000	Ending balance
		32,000	32,000	
	Interest income			
			0	Beginning balance
			4,000	Interest received (Cash inflow)
	Ending Balance	4,000		
		4,000	4,000	
	<ul style="list-style-type: none"> • <i>Beginning balance</i> [L: Mer.] & <i>Purchase - (Cash outflow)</i> [L: Mer.] <i>tie with Fixture</i> [L: Hyp.] • <i>Accumulated depreciation</i> [L: Mer.] <i>Ending balance</i> [L: Mer.] & <i>Carrying amount of Fixtures sold</i> [L: Mer.] <i>tie with Fixture</i> [L: Hyp.] • <i>Fixtures</i> [L: Mer.] & <i>Ending balance</i> [L: Mer.] <i>tie with Accumulated Depreciation</i> [L: Hyp.] • <i>Beginning balance</i> [L: Mer.] & <i>Depreciation Expense</i> [L: Mer.] 		<ul style="list-style-type: none"> • <i>Ending</i> [L: Ant.] <i>ties with Beginning</i> (2 instances) • <i>Inflow</i> [L: Ant.] <i>ties with outflow</i> • <i>Fixture, Accumulated Depreciation, Investment & Interest income</i> <i>tie with Cash from investing activities</i>[L: Hyper.] • <i>Balance</i> [L: Rep.] 8 instances • <i>Depreciation</i> [L: Rep.] 3 instances • <i>Cash</i> [L: Rep.] 3 instances 	

	<ul style="list-style-type: none"> • <i>tie with Accumulated Depreciation [L: Hyp.]</i> • <i>Beginning balance [L: Mer.] & Investment [L: Mer.] tie with Investment [L: Hyp.]</i> • <i>Ending balance [L: Mer.] ties with Investment [L: Hyp.]</i> • <i>Ending balance [L: Mer.] ties with Interest income [L: Hyp.]</i> • <i>Beginning balance [L: Mer.] & Interest received (Cash inflow) [L: Mer.] tie with Interest income [L: Hyp.]</i> • <i>Beginning [L: Ant.] ties with Ending (2 instances)</i> 	<ul style="list-style-type: none"> • <i>Non-cash [L: Rep.] 1 instance</i> • <i>Suppliers [L: Rep.] 2 instances</i> • <i>Fixtures [L: Rep.] 2 instances</i> • <i>Amounts [L: Rep.] 1 instance</i> • <i>Accumulated [L: Rep.] 1 instance</i> • <i>Expense [L: Rep.] 1 instance</i> • <i>Income [L: Rep.] 1 instance</i> • <i>Investment [L: Rep.] 2 instances</i> 																				
33.	<p>C- <u>Cash</u> [L: Rep.] <u>from financing</u> [L: Rep.] <u>activities</u> [L: Rep.]</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="4" style="text-align: center;">Equity</td> </tr> <tr> <td style="width: 30%;">Owner's withdrew (Cash outflow)</td> <td style="width: 15%; text-align: right;">25,600</td> <td style="width: 15%; text-align: right;">384,800</td> <td style="width: 40%;">Capital beginning balance</td> </tr> <tr> <td>Capital ending balance</td> <td style="text-align: right;">365,600</td> <td style="text-align: right;">6,400</td> <td>Profit</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black; border-bottom: 3px double black;"></td> <td style="border-top: 1px solid black; border-bottom: 3px double black;"></td> <td style="border-top: 1px solid black; border-bottom: 3px double black;"></td> </tr> <tr> <td></td> <td style="text-align: right;">391,200</td> <td style="text-align: right;">391,200</td> <td></td> </tr> </table>		Equity				Owner's withdrew (Cash outflow)	25,600	384,800	Capital beginning balance	Capital ending balance	365,600	6,400	Profit						391,200	391,200	
Equity																						
Owner's withdrew (Cash outflow)	25,600	384,800	Capital beginning balance																			
Capital ending balance	365,600	6,400	Profit																			
	391,200	391,200																				
	<ul style="list-style-type: none"> • <i>Owner's withdrew (Cash outflow) [L: Mer.] & Capital ending balance [L: Mer.] tie with Equity [L: Hyp.]</i> • <i>Capital beginning balance [L: Mer.] & Profit [L: Mer.] tie with Equity [L: Hyp.]</i> • <i>Equity ties with Cash from financing activities [L: Hyper.]</i> 	<ul style="list-style-type: none"> • <i>Beginning [L: Ant.] ties with ending</i> • <i>Cash [L: Rep.] 1 instance</i> • <i>Outflow [L: Rep.] 1 instance</i> • <i>Capital [L: Rep.] 2 instances</i> • <i>Balance [L: Rep.] 2 instances</i> 																				
34.	(b):																					
35.	In terms of the [R: Def.] effect of operating [L: Rep.] activities [L: Rep.] of the [R: Def.] company [L: Rep.] generated a positive cash [L: Rep.] flow [L: Rep.] of \$90 800. [L: Rep.]																					
36.	This [R: Dem.] indicates a satisfactory cash [L: Rep.] position.																					
37.	The [R: Def.] investment [L: Rep.] and financing [L: Rep.] activities [L: Rep.] indicate that average capital [L: Rep.] expansion for freehold property [L: Rep.] and [C: Extension: Add.] purchase fixtures [L: Rep.] were funded by cash [L: Rep.] outlays of \$60 400. [L: Rep.]																					
38.	The [R: Def.] assets [L: Rep.] expansion was covered by the [R: Def.] cash [L: Rep.] generated by operation activities. [L: Rep.]																					
39.	However, [C: Extension: Add.] cash [L: Rep.] position of the [R: Def.] company is in risk which may lead the [R: Def.] company [L: Rep.] to be unable to pay its [R: Poss.] current liabilities [L: Rep.] rustle [resulting] <sic> in bankruptcy.																					

Appendix 23: Cohesion analysis of Hasan’s accounting text³³

Title	Accounting 2-question Assignment								
Pseudonym	Hasan								
Type of Analysis	Cohesion Analysis								
Program	Master of Commerce								
Module	Accounting Concepts & Methods								
Number of Words	821								
Notes									
1.	<u>Question 1:</u>								
2.	The [R: Def.] \$10 000 received on 1 May 2010 should be treated as a liability (“revenue received in advance”).								
3.	That is [C: Elaboration: Appos.] the [R: Def.] essential characteristics of a liability [L: Rep.] are satisfied because [C: Enhancement: Caus.] : [R: Cat.]								
4.	Past transaction – receipts of cash;								
5.	Present obligation – have a legal obligation (cannot avoid) to provide either services or [C: Elaboration: Clari.] repaying the [R: Def.] cash; [L: Rep.] and [C: Extension: Add.]								
6.	Future sacrifice of economic benefits – provision of services [L: Rep.] (or cash [L: Rep.] refund if services [L: Rep.] not provided).								
7.	In addition [C: Extension: Add.] the [R: Def.] recognition criteria for liability [L: Rep.] are satisfied because [C: Enhancement: Caus.] : [R: Cat.]								
8.	It is probable that the [R: Def.] future [L: Rep.] sacrifice [L: Rep.] of economic [L: Rep.] benefits [L: Rep.] will eventuate – greater than 50% probability; and, [C: Extension: Add.]								
9.	The [R: Def.] amount of the [R: Def.] liability [L: Rep.] can be used to measure the [R: Def.] liability. [L: Rep.]								
10.	On 30 June 2010 [L: Rep.] Quality Services [L: Rep.] Ltd should recognise revenue [L: Rep.] of \$ [L: Rep.] 4 000 and [C: Extension: Add.] reduce ‘revenue [L: Rep.] received in advance’ [L: Rep.] by the [R: Def.] same [Subs.: N.] amount.[L: Rep.]								
11.	The [R: Def.] definition of revenue [L: Rep.] is satisfied because [C: Enhancement: Caus.] : [R: Cat.]								
12.	There has been a decrease in an liability [L: Rep.] (revenue [L: Rep.] received in advance) [L: Rep.] from a non-owner contribution; and, [C: Extension: Add.]								
13.	There has been an increase in net assets because [C: Enhancement: Caus.] the [R: Def.] decrease in a liability [L: Rep.] no other assets or liabilities [L: Rep.] have changed.								
14.	In addition [C: Extension: Add.] the [R: Def.] recognition [L: Rep.] criteria [L: Rep.] for revenue [L: Rep.] are satisfied because [C: Enhancement: Caus.] : [R: Cat.]								
15.	It is probable that there has been an inflow of economic [L: Rep.] benefits [L: Rep.] - there has been an decrease in an obligation [L: Rep.] to the [R: Def.] entity; and, [C: Extension: Add.]								
16.	The [R: Def.] amount [L: Rep.] of the [R: Def.] inflow [L: Rep.] of economic [L: Rep.] benefits [L: Rep.] can be measured reliably – the [R: Def.] amount [L: Rep.] of services [L: Rep.] provided (\$4 000) [L: Rep.] is known.								
17.	<u>Question [L: Rep.] 2a:</u> (a):								
18.	<div style="text-align: center; background-color: #e0e0e0; padding: 10px;"> <p>Alicia's Pet Grooming Services</p> <p>Income Statement</p> <p>for the three months ended 31 January 2011</p> </div> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; padding-left: 20px;">REVENUE</td> <td></td> </tr> <tr> <td style="padding-left: 20px;">services revenue</td> <td style="text-align: right; padding-right: 20px;">4720</td> </tr> <tr> <td style="padding-left: 20px;">EXPENSES</td> <td></td> </tr> </table>			REVENUE		services revenue	4720	EXPENSES	
REVENUE									
services revenue	4720								
EXPENSES									

³³ Refer to Appendix 19 for the procedures followed in cohesion analysis of the texts.

	Rent	600	
	Growing supplies	700	
	Electricity expenses	801	
	Advertisement expenses	216	
			2317
	PROFIT		2403
	<ul style="list-style-type: none"> • <i>Services revenue [L: Mer.] ties with REVENUE [L: Hyp.]</i> • <i>Rent, [L: Mer.] Growing supplies, [L: Mer.] Electricity expenses, [L: Mer.] & Advertisement expenses [L: Mer.] tie with EXPENSES [L: Hyp.]</i> • <i>REVENUE Less EXPENSES tie with PROFIT [L: Hyper.]</i> 		<ul style="list-style-type: none"> • <i>The [R: Def.]</i> • <i>Revenue [L: Rep.] 2 instances</i> • <i>Expenses [L: Rep.] 2 instances</i>
19.	Alicia's Pet Grooming Services		
	Balance Sheets		
	as at 31 January 2011		
	CURRENT ASSETS		
	Cash		3622
	Accounts receivable		800
	Grooming supplies		260
	Prepaid rents		200
	TOTAL CURRENT ASSETS		4882
	NON-CURRENT ASSETS		
	Equipment		2000
	TOTAL NON-CURRENT ASSETS		2000
	TOTAL ASSETS		6882
	CURRENT LIABILITIES		
	Accounts payable		779
	TOTAL LIABILITIES		779
	NET ASSETS		6103
	EQUITY		
	Alicia's Pet Grooming Services, Capital		6103
	TOTAL EQUITY		6103
	<ul style="list-style-type: none"> • <i>Cash, [L: Mer.] Accounts receivable, [L: Mer.] Grooming supplies & [L: Mer.] Prepaid rents tie with CURRENT ASSETS [L: Hyp.] & TOTAL CURRENT ASSETS [L: Hyp.]</i> • <i>Equipment [L: Mer.] ties with NON-CURRENT ASSETS & TOTAL NON-CURRENT ASSETS [L: Hyp.]</i> • <i>CURRENT ASSETS, TOTAL CURRENT ASSETS, NON-CURRENT ASSETS & TOTAL NON-CURRENT ASSETS tie with TOTAL ASSETS [L: Hyper.]</i> • <i>Accounts payable [L: Mer.] ties with CURRENT LIABILITIES [L: Hyp.]</i> • <i>CURRENT LIABILITIES ties with TOTAL LIABILITIES [L: Hyper.]</i> • <i>Payable [L: Ant.] ties with receivable</i> • <i>Alicia's Pet Grooming Services, Capital [L: Mer.] ties with EQUITY [L: Hyp.] & TOTAL EQUITY [L: Hyp.]</i> 		<ul style="list-style-type: none"> • <i>TOTAL EQUITY ties with NET ASSETS</i> • <i>TOTAL ASSETS Less TOTAL LIABILITIES ties with NET ASSETS [L: Hyper.]</i> • <i>NON-CURRENT [L: Ant.] ties with CURRENT (2 instances)</i> • <i>Alicia's [L: Rep.] 2 instances</i> • <i>Pet [L: Rep.] 2 instances</i> • <i>Grooming [L: Rep.] 3 instances</i> • <i>Services [L: Rep.] 2 instances</i> • <i>Assets [L: Rep.] 5 instances</i> • <i>Cash [L: Rep.] 1 instance</i> • <i>CURRENT [L: Rep.] 2 instances</i> • <i>NON-CURRENT [L: Rep.] 1 instance</i> • <i>LIABILITIES [L: Rep.] 2 instances</i>
20.	C) Some information could assist to determine Alicia's [L: Rep.] Pet Grooming [L: Rep.] Services		

	[L: Rep.] performance.																																																																																		
21.	For example, [C: Elaboration: Appos.] for the [R: Def.] equipment, [L: Rep.] knowing the [R: Def.] depreciation can be useful to figure out the [R: Def.] depreciation cost expenses [L: Rep.] which affect the [R: Def.] profits. [L: Rep.]																																																																																		
22.	In addition, [C: Extension: Add.] Alicia's [L: Rep.] Pet Grooming [L: Rep.] Services [L: Rep.] might lose some future [L: Rep.] receivable as a Default debit.																																																																																		
23.	Question [L: Rep.] 2b: (a):																																																																																		
24.	<p style="text-align: center;">BRETT'S BAIT SUPPLIES Statement of Cash Flows year ended 30 June 2011</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="4">Cash flows from operating activities</td> </tr> <tr> <td>Cash receipts from customers</td> <td style="text-align: right;">964000.00</td> <td></td> <td></td> </tr> <tr> <td>Cash paid to suppliers for services</td> <td style="text-align: right;">(73200.00)</td> <td></td> <td></td> </tr> <tr> <td>Cash paid to suppliers</td> <td style="text-align: right;">(808000.00)</td> <td></td> <td></td> </tr> <tr> <td>Overdraft</td> <td style="text-align: right;">8000.00</td> <td></td> <td></td> </tr> <tr> <td><i>Net cash from operating activities</i></td> <td></td> <td style="text-align: right;">90800.00</td> <td></td> </tr> <tr> <td colspan="4">Cash flows from investing activities</td> </tr> <tr> <td>Purchase Fixtures</td> <td style="text-align: right;">(20400.00)</td> <td></td> <td></td> </tr> <tr> <td>New investment</td> <td style="text-align: right;">(20000.00)</td> <td></td> <td></td> </tr> <tr> <td>Purchase freehold property</td> <td style="text-align: right;">(40000.00)</td> <td></td> <td></td> </tr> <tr> <td>Proceeds from sale of fixtures sold</td> <td style="text-align: right;">2400.00</td> <td></td> <td></td> </tr> <tr> <td>interest received</td> <td style="text-align: right;">4000.00</td> <td></td> <td></td> </tr> <tr> <td><i>Net cash used in investing activities</i></td> <td></td> <td style="text-align: right;">(74000.00)</td> <td></td> </tr> <tr> <td colspan="4">Cash flows from financing activities</td> </tr> <tr> <td>Proceeds from issue of owner new investments</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Owners drawing</td> <td style="text-align: right;">(25600.00)</td> <td></td> <td></td> </tr> <tr> <td><i>Net cash used in financing activities</i></td> <td></td> <td style="text-align: right;">(25600.00)</td> <td></td> </tr> <tr> <td>Net increase in cash and cash equivalents</td> <td></td> <td style="text-align: right;">(8800.00)</td> <td></td> </tr> <tr> <td>cash and cash equivalent at beginning of period</td> <td></td> <td style="text-align: right;">8800.00</td> <td></td> </tr> <tr> <td>cash and equivalents at end of period</td> <td></td> <td style="text-align: right;">0.00</td> <td></td> </tr> </table>			Cash flows from operating activities				Cash receipts from customers	964000.00			Cash paid to suppliers for services	(73200.00)			Cash paid to suppliers	(808000.00)			Overdraft	8000.00			<i>Net cash from operating activities</i>		90800.00		Cash flows from investing activities				Purchase Fixtures	(20400.00)			New investment	(20000.00)			Purchase freehold property	(40000.00)			Proceeds from sale of fixtures sold	2400.00			interest received	4000.00			<i>Net cash used in investing activities</i>		(74000.00)		Cash flows from financing activities				Proceeds from issue of owner new investments				Owners drawing	(25600.00)			<i>Net cash used in financing activities</i>		(25600.00)		Net increase in cash and cash equivalents		(8800.00)		cash and cash equivalent at beginning of period		8800.00		cash and equivalents at end of period		0.00	
Cash flows from operating activities																																																																																			
Cash receipts from customers	964000.00																																																																																		
Cash paid to suppliers for services	(73200.00)																																																																																		
Cash paid to suppliers	(808000.00)																																																																																		
Overdraft	8000.00																																																																																		
<i>Net cash from operating activities</i>		90800.00																																																																																	
Cash flows from investing activities																																																																																			
Purchase Fixtures	(20400.00)																																																																																		
New investment	(20000.00)																																																																																		
Purchase freehold property	(40000.00)																																																																																		
Proceeds from sale of fixtures sold	2400.00																																																																																		
interest received	4000.00																																																																																		
<i>Net cash used in investing activities</i>		(74000.00)																																																																																	
Cash flows from financing activities																																																																																			
Proceeds from issue of owner new investments																																																																																			
Owners drawing	(25600.00)																																																																																		
<i>Net cash used in financing activities</i>		(25600.00)																																																																																	
Net increase in cash and cash equivalents		(8800.00)																																																																																	
cash and cash equivalent at beginning of period		8800.00																																																																																	
cash and equivalents at end of period		0.00																																																																																	
	<ul style="list-style-type: none"> • <i>Cash receipts from customers Less Cash paid to suppliers for services Less Cash paid to suppliers, [L: Mer.] & Overdraft [L: Mer.] tie with Cash flows from operating activities [L: Hyp.] & Net Cash from operating activities [L: Hyp.]</i> • <i>Proceeds from sale of fixtures, [L: Mer.] interest received, Less Purchase Fixtures, Less New investment, Less Purchase freehold property [L: Mer.] tie with Cash flows from investing activities [L: Hyp.] & Net cash used in investing activities [L: Hyp.]</i> • <i>Owners drawing [L: Mer.] & Proceeds from issue of owner new investments [L: Mer.] tie with Cash flows from financing activities [L: Hyp.] & Net cash used in financing activities [L: Hyp.]</i> • <i>Net increase in cash and cash equivalents [L: Hyp.] & Cash and cash equivalent at beginning of period [L: Hyp.] tie with Cash and equivalents at end of period [L: Hyper.]</i> • <i>End [L: Ant.] ties with beginning</i> • <i>Ne Cash flows from operating activities, Net cash used in investing activities, & Net cash used in financing activities tie with Net increase in cash and cash equivalents [L: Hyper.]</i> 	<ul style="list-style-type: none"> • <i>Net Cash flows from operating activities, Net cash used in investing activities, Net cash used in financing activities & Cash and cash equivalent at beginning of period tie with Cash and equivalents at end of period</i> • <i>Statement [L: Rep.] 1 instance</i> • <i>Cash [L: Rep.] 14 instances</i> • <i>June [L: Rep.] 1 instance</i> • <i>Services [L: Rep.] 1 instance</i> • <i>Suppliers [L: Rep.] 1 instance</i> • <i>Activities [L: Rep.] 5 instances</i> • <i>Flows [L: Rep.] 3 instances</i> • <i>Fixtures [L: Rep.] 1 instance</i> • <i>Investing [L: Rep.] 1 instance</i> • <i>Increase [L: Rep.] 1 instance</i> • <i>Equivalent(s) [L: Rep.] 2 instances</i> • <i>Period [L: Rep.] 1 instance</i> 																																																																																	
25.	1-Cash [L: Rep.] receipt [L: Rep.] from customers: [L: Rep.] [R: Cat.]																																																																																		

	cash at bank	8,000	8,000	overdraft ending balance
		8,000	8,000	
	<ul style="list-style-type: none"> • <i>Overdraft beginning balance [L: Mer.] & cash at bank [L: Mer.] tie with Overdraft [L: Hyp.]</i> • <i>Overdraft ending balance [L: Mer.] ties with Overdraft [L: Hyp.]</i> • <i>Ending [L: Ant.] ties with beginning</i> 			<ul style="list-style-type: none"> • <i>Balance [L: Rep.] 1 instance</i> • <i>Cash [L: Rep.] 1 instance</i> • <i>Beginning [L: Rep.] 1 instance</i>
31.	Cash from investing activities			
	<u>Fixtures</u>			
	B-balance	80,000	4,000	carrying amount of Fixtures sold
	Purchase - Cash	20,400	4,400	Accum. Depreciation
			92,000	Ending balance
		100,400	100,400	
	<u>Accumulated Depreciation- Fixtures</u>			
	Fixtures	4,400	32,000	Beginning balance
			12,800	Depreciation Expense
	Ending balance	40,400		
		44,800	44,800	
	<u>Carrying Amount of Fixtures Sold</u>			
	Fixtures	4,000	4,000	Profit and loss summary
		4,000	4,000	
	<u>Proceeds from Sale of Fixtures</u>			
	Profit and loss summary	2,400	2,400	Cash
		2,400	2,400	

Freehold property			
Beginning balance	120,000		
Purchase	40,000	160,000	Ending balance
	<u>160,000</u>	<u>160,000</u>	
Investment			
beginning balance	12,000		
New investment	20,000	32,000	ending balance
	<u>32,000</u>	<u>32,000</u>	
Interest income			
		0	beginning balance
interest received	4,000	4,000 <missing>	Interest received (Cash inflow) <missing>
	<u>4,000</u>	<u>4,000</u>	
Cash from financing activities			
Proceeds from increase the owner's capital			
		384,800	Capital beginning balance
Withdrew	25,600	6,400	Profit
Capital ending balance	365,600		
	<u>391,200</u>	<u>391,200</u>	
<ul style="list-style-type: none"> • B-balance [L: Mer.] & Purchase – Cash [L: Mer.] tie with Fixtures [L: Hyp.] • Carrying amount of Fixtures sold, [L: Mer.] Accum. Depreciation [L: Mer.] & Ending balance [L: Mer.] tie with Fixtures [L: Hyp.] • Ending balance [L: Ant.] ties with B-balance (4 instances) • Fixtures [L: Mer.] & Ending balance [L: Mer.] tie with Accumulated Depreciation- Fixtures [L: Hyp.] • Beginning balance [L: Mer.] & Depreciation Expense [L: Mer.] tie with 		<ul style="list-style-type: none"> • Interest Income, Investment, Freehold property, Proceeds from Sale of Fixtures, Carrying Amount of Fixtures Sold, Accumulated Depreciation- Fixtures & Fixtures tie with Cash from Investing Activities [L: Hyper.] • Proceeds from increase the owner's 	

	<p><i>Accumulated Depreciation- Fixtures [L: Hyp.]</i></p> <ul style="list-style-type: none"> • <i>Beginning [L: Ant.] ties with Ending (3 instances)</i> • <i>Fixtures [L: Mer.] ties with Carrying Amount of Fixtures Sold [L: Hyp.]</i> • <i>Profit and loss summary [L: Mer.] ties with Carrying Amount of Fixtures Sold [L: Hyp.]</i> • <i>Profit and loss summary [L: Mer.] ties with Proceeds from Sale of Fixtures [L: Hyp.]</i> • <i>Cash [L: Mer.] ties with Proceeds from Sale of Fixtures [L: Hyp.]</i> • <i>Beginning balance [L: Mer.] & Purchase [L: Mer.] tie with Freehold property [L: Hyp.]</i> • <i>Ending balance [L: Mer.] ties with Freehold property [L: Hyp.]</i> • <i>Beginning balance [L: Mer.] & New investment [L: Mer.] tie with Investment [L: Hyp.]</i> • <i>Ending balance [L: Mer.] ties with Investment [L: Hyp.]</i> • <i>Interest received [L: Mer.] ties with Interest Income [L: Hyp.]</i> • <i>Beginning balance [L: Mer.] & Interest received (Cash inflow) <missing entry> tie with Interest Income [L: Hyp.]</i> • <i>Withdraw [L: Mer.] & Capital ending balance [L: Mer.] tie with Proceeds from increase the owner's capital [L: Hyp.]</i> • <i>Capital beginning balance [L: Mer.] & Profit [L: Mer.] tie with Proceeds from increase the owner's capital [L: Hyp.]</i> 	<p><i>capital ties with Cash from financing activities[L: Hyper.]</i></p> <ul style="list-style-type: none"> • <i>Cash [L: Rep.] 5 instances</i> • <i>Investing [L: Rep.] 1 instance</i> • <i>Activities [L: Rep.] 2 instances</i> • <i>Fixtures [L: Rep.] 7 instances</i> • <i>Balance [L: Rep.] 11 instances</i> • <i>Amount [L: Rep.] 2 instances</i> • <i>Depreciation [L: Rep.] 3 instances</i> • <i>Accumulated [L: Rep.] 1 instance</i> • <i>Expense [L: Rep.] 1 instance</i> • <i>Profit [L: Rep.] 3 instances</i> • <i>Beginning [L: Rep.] 2 instances</i> • <i>Capital [L: Rep.] 3 instances</i> • <i>Increase [L: Rep.] 1 instance</i> • <i>Owner's [L: Rep.] 1 instance</i> • <i>Interest [L: Rep.] 2 instances</i> • <i>Income [L: Rep.] 1 instance</i> • <i>Investment [L: Rep.] 1 instance</i>
32.	(b):	
33.	The [R: Def.] company has generated cash [L: Rep.] from operating activities [L: Rep.] “\$90,800” [L: Rep.] which indicates a good position.	
34.	Moreover, [C: Extension: Add.] financing and investment activities [L: Rep.] illustrate that there is a great increase [L: Rep.] in the [R: Def.] asset [L: Rep.]’\$60,400’ [L: Rep.] of the [R: Def.] company. [L: Rep.] However, [C: Extension: Add.] cash position [L: Rep.] is very risky because [C: Enhancement: Caus.] company cannot pay back the [R: Def.] current [L: Rep.] liabilities [L: Rep.]	

Appendix 24: Thematic progression analysis of Abdulrahman's accounting text³⁴

Title	Accounting 5-question Assignment		
Pseudonym	Abdulrahman		
Type of Analysis	Thematic progression analysis		
Program	Master of Commerce		
Module	Accounting Concepts & Methods		
Number of Words	1304		
Notes			
THEME (T)			RHEME (R)
			Theme Type
Textual	Interpersonal	Topical	
(i)		Australian Stock Exchange (ASX)	is a service company.
and		<u>it</u>	is working as a market operator, supervisor, central counterparty clearer and payments system facilitator.
	In particular,	<u>its</u> principal activities	consist of provision of securities exchange and ancillary services, provision of derivatives exchange and ancillary services, provision of counterparty clearing services, provision of settlement and clearing of financial products.
(v)		The consolidated cash flow from operating activities for the 2008	was \$ 349,109,000.
		In 2007	the consolidated cash flow was 313,653,000,
So,		there	is increase in 2008 by 35,456,000.
(vi)		Revenue	is recognised when it is probable
that		the economic benefits	will flow to the entity
and		<u>the revenue</u>	can be reliably measured.
		The entity	needs <u>an accounting policy</u> for this item
because		<u>it</u>	allows the users of the information to distinguish between all types of the revenue
whether		<u>it</u>	comes from the operation activity or from another resource which in the end can help to evaluate the entity.
Also,		<u>it</u>	is a major criteria in income statement so;
		<u>it</u>	is needed to be compared with the revenue of the company for the current year with the previous years and compare it with other entities.
(vii)		The directors' <u>report</u>	is following the accurate assumption
so		this <u>report</u>	includes and explain extensively the financial year events and the important

³⁴ Refer to Appendix 9 for instances of Theme reiteration in the tables and the graphs that are found among the implicit relational identifying Themes.

THEME (T)			RHEME (R)	Theme Type
Textual	Interpersonal	Topical		
		which	needs to be clear for information users in terms of report on the business, environmental regulation, share information, proceedings on behalf of the company, directors' declaration of satisfaction with independence of auditor, remuneration report.	Linear (or zig-zag)
(vii)		<u>The auditor's report</u>	is a formal opinion	Reiteration
as a result of		an external audit	to evaluate the performance on a legal entity or subdivision thereof.	
		<u>An auditor's report</u>	is considered an essential tool	Reiteration
		when	reporting financial information to <u>users</u> .	
Since	many	third-party <u>users</u>	prefer	Linear (or zig-zag)
		the financial information	to be certified by an independent external auditor,	
	many	auditees	rely on <u>auditor</u> reports to certify their information	
in order to			attract investors, obtain loans, and improve public appearance.	
		<u>The auditor of the ASX Company</u>	is KPMG.	Linear (or zig-zag)
(IX)		<u>This general purpose Financial Report</u>	has been prepared	
in accordance with			Australian Accounting Standards, Australian Accounting Standards Board (AASB) pronouncements including Australian Interpretations, and the Corporations Act 2001.	
		The consolidated Financial Report of the Group and the <u>Financial Report</u> of the Company	comply with International Financial Reporting Standards (IFRSs) and interpretations adopted by the International Accounting Standards Board (IASB).	Reiteration
		<u>All the financial reports</u>	are constructed	Reiteration
in accordance with			Accounting Standards set by AASB.	
		<u>This report</u>	affirms with International Financial reporting Standards and interpretations adopted by International Accounting Standard Board.	Reiteration
		<u>The above mentioned bodies</u>	regulate and instruct companies	Linear (or zig-zag)
how			to form their financial reports .	
		which	could be compared at international levels	Linear (or zig-zag)
		It [<u>the bodies</u>] <sic>	provides [provide] <sic> them with the complete structure giving them liberties to amend them slightly where required.	Reiteration

THEME (T)			RHEME (R)	Theme Type
Textual	Interpersonal	Topical		
		From the recognition of revenue to recognition of goodwill,	for every segment of the report there is a standard.	
		Notes to the ASX financial report	refer to the application of amended AASB 3, 101 and 123 indicating that need for application of amended accounting standards as well.	
However,		the Group	is	
	yet		to determine the potential impact of the revised standards on the group's financial report.	
Since		<u>the wages</u>	did be <sic> [were] paid at the end of 30 June 2009,	
		<u>this wages</u>	becomes accrued <u>expenses</u>	Reiteration
		which in accounting	similar <sic> to current <u>liabilities</u>	Linear (or zig-zag)
		which	is defined under the framework as a present obligation of the entity arising from past events, the settlement of	
		which	is expected to result in an <u>outflow from the entity of resources embodying</u> .	Linear (or zig-zag)
And		<u>these expenses</u>	should be clear in the financial statements notes.	Linear (or zig-zag)
		The company	will make a double entry by increasing accrued wages expenses and increase expense by <u>this amount</u>	
and		<u>it</u>	is considered <u>expenses</u>	Linear (or zig-zag)
because		<u>the expenses</u> definition under the framework	is that a decrease in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrence of liabilities	Linear (or zig-zag)
		that	result in decrease in equity, other than relating to distributions to equity participants.	Linear (or zig-zag)
Then,		when the company	pays the wages to the employees, the double entry will be reversing the accrued expenses (liability) to debit side and decreasing the cash at bank	
which			is considered assets	
because		<u>the framework</u>	defines the assets as a resource controlled by the entity as a result of past events	Reiteration
and		from which future economic benefits	are expected to flow to the entity.	Linear (or zig-zag)
Calculations:		<u>Cash</u>	paid to suppliers and employees	Reiteration
		<u>Cash</u>	generated from operations-	Reiteration
		<u>cash</u>	collected from customers	Reiteration
		Net cash	used in investing activities	

THEME (T)			RHEME (R)	Theme Type
Textual	Interpersonal	Topical		
		<u>Net</u> increase (decrease) in cash and cash equivalent held-net cash	used in financing activities-net cash from operating activities	Reiteration
(a)		Capital maintains	is central to the measurement of profit	
because		<u>It</u>	provides the linkage between the concepts of capital and the concepts of profit	Reiteration
because		<u>It</u>	provides the point of reference	Reiteration
by which		profit	is measured;	
		<u>it</u>	is a prerequisite for distinguishing between an entity's return on capital and its return of capital.	Reiteration

Appendix 26: Thematic progression analysis of Abdullah's accounting text³⁶

Title	Accounting 4-question Assignment		
Pseudonym	Abdullah		
Type of Analysis	Thematic progression analysis		
Program	Master of Commerce		
Module	Accounting Concepts & Methods		
Number of Words	1187		
Notes			
	THEME (T)		RHEME (R)
	Textual	Interpersonal	Topical
			Quality Services Ltd
			has the capacity to benefit from the asset
and			can deny others access to the <u>cash</u> .
			Future economic benefits - <u>it</u>
			can be used to settle a liability(or other ways)
			<u>The amount</u> of the asset
			can be measured reliably.
			<u>The amount</u>
As			is known (\$6000).
			was <u>taken out from cash account</u> .
			is negative (cash account must be reduced \$6000).
			the effected of <u>this transaction</u>
			is
	probable		that <u>the decrease</u> in future economic benefits resulting in a decrease in assets
			has occurred (greater than 50% probability).
			<u>The decrease</u> in future economic benefits
			can be measured reliably –
			is known.
			<u>Cash</u>
			paid to suppliers and employee:
			<u>Cash</u>
			paid to suppliers for purchase
			<u>Cash</u>
			paid to suppliers and employee: 3900+6360= \$10260
			<u>Cash</u>
			paid to purchase of equipment: ending equipment – beginning equipment
			<u>The profit</u>
			is the same in part A and B.
as			income
which			leads to increasing in equity,
			results in inflows or enhancement of assets or decrease of liabilities, other than <u>the contributions</u> from owners
Also,			<u>the profit</u>
as			is the same in part A and B
			expenses
			lead to decreasing in equity,
			which
			results in outflows or depletions of assets or increase of liabilities, other than <u>the distributions</u> from owners.
Hence,			<u>profit</u>
			can be calculated from balance sheet (equity section),
as long as			<u>distributions and contributions</u>
as			are known.
So,			<u>profit</u>
			is equal in both approaches
			Reiteration

³⁶ Refer to Appendix 11 for instances of Theme reiteration in the tables and the graphs that are found among the implicit relational identifying Themes.

THEME (T)			RHEME (R)	Theme Type
Textual	Interpersonal	Topical		
as		<u>profit</u>	is a part of ending equity (the amount of profit,	Reiteration
		which	appears in income statement, goes to equity section)	Linear (or zig-zag)

Appendix 28: Thematic progression analysis of Hasan’s accounting text³⁸

Title	Accounting 2-question Assignment		
Pseudonym	Hasan		
Type of Analysis	Thematic progression analysis		
Program	Master of Commerce		
Module	Accounting Concepts & Methods		
Number of Words	821		
Notes			
	THEME (T)		RHEME (R)
	Textual	Interpersonal	Topical
			The accounting service payment on 1 May 2010
		should be	treated as <u>liability</u> (“revenue received in advance”).
That is,			are satisfied because:
			the essential characteristics of a <u>liability</u>
			It is
	probable		has been <u>an inflow of economic benefits-</u>
			there has been an decrease in an obligation to the entity;
and,			can be measured reliably –
			The amount of <u>the inflow of economic benefits</u>
			is known.
			the amount of services provided (\$4 000)
			The company has generated cash from <u>operating activities</u> “\$90,800”
which			indicates a good position.
Moreover,			<u>financing and investment activities</u>
that			illustrate
			there is a great increase in the asset’\$60,400’ of the company
			Linear (or zig-zag)
			Linear (or zig-zag)

³⁸ Refer to Appendix 13 for instances of Theme reiteration in the tables and the graphs that are found among the implicit relational identifying Themes.

Appendix 29: Nominalisation annotation of Abdulrahman's accounting text

Title	Accounting 5-question Assignment
Pseudonym	Abdulrahman
Type of Analysis	Nominalisation annotation
Program	Master of Commerce
Module	Accounting Concepts & Methods
Number of Words	1304
Notes	

Answer 1:

(i) Australian Stock Exchange (ASX) is a service company. and it is working as a market operator, supervisor, central counterparty clearer and payments system facilitator. In particular, its principal activities consist of provision of securities exchange and ancillary services, provision of derivatives exchange and ancillary services, provision of counterparty clearing services, provision of settlement and clearing of financial products.

(ii) An accounting equation at the Beginning of 2008:

$$\text{Assets} = \text{liabilities} + \text{owner equity}$$

$$9,518,463 = 6,762,079 + 2,756,384$$

An accounting equation at the end of 2008:

$$6,791,885 = 4,037,639 + 2,754,246$$

(iii) The basis for measurement of assets and liabilities is the Australian dollars on the historical cost basis except for available for-sale financial assets which have been recognised at fair value.

(iv) The consolidated profit after tax for the 2008 financial year was \$ 365,949,000 AUD.

(v) The consolidated cash flow from operating activities for the 2008 was \$ 349,109,000. In 2007 the consolidated cash flow was 313,653,000, so there is increase in 2008 by 35,456,000.

(vi) Revenue is recognised when it is probable that the economic benefits will flow to the entity and the revenue can be reliably measured.

The entity needs an accounting policy for this item because it allows the users of the information to distinguish between all types of the revenue whether it comes from the operation activity or from another resource which in the end can help to evaluate the entity. Also, it is a major criteria in income statement so; it is needed to be compared with the revenue of the company for the current year with the previous years and compare it with other entities.

(vii) The directors' report is following the accurate assumption so this report includes and explain extensively the financial year events and the important which needs to be clear for information users in terms of report on the business, environmental regulation, share information, proceedings on behalf of the company, directors' declaration of satisfaction with independence of a auditor, remuneration report.

(viii) The auditor's report is a formal opinion as a result of an external audit to evaluate the performance on a legal entity or subdivision thereof. An auditor's report is considered an essential tool when reporting financial information to users. Since many third-party users prefer the financial information to be certified by an independent external auditor, many auditees rely on auditor reports to certify their information in order to attract investors, obtain loans, and improve public appearance.

The auditor of the ASX Company is KPMG.

(IX) This general purpose Financial Report has been prepared in accordance with Australian Accounting Standards, Australian Accounting Standards Board (AASB) pronouncements including Australian Interpretations, and the Corporations Act 2001. The consolidated Financial Report of the Group and the Financial Report of the

Company comply with International Financial Reporting Standards (IFRSs) and interpretations adopted by the International Accounting Standards Board (IASB).

All the financial reports are constructed in accordance with Accounting Standards set by AASB. This report affirms with International Financial reporting Standards and interpretations adopted by International Accounting Standard Board.

The above mentioned bodies regulate and instruct companies how to form their financial reports which could be compared at international levels. It provides them with the complete structure giving them liberties to amend them slightly where required. From the recognition of revenue to recognition of goodwill, for every segment of the report there is a standard. Notes to the ASX financial report refer to the application of amended AASB 3, 101 and 123 indicating that need for application of amended accounting standards as well. However, the Group is yet to determine the potential impact of the revised standards on the group's financial report.

Answer 2:

Since the wages did be paid at the end of 30 June 2009, this wages becomes accrued expenses which in accounting similar to current liabilities which is defined under the framework as a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying. And these expenses should be clear in the financial statements notes. The company will make a double entry by increasing accrued wages expenses and increase expense by this amount and it is considered expenses because the expenses definition under the framework is that a decrease in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrence of liabilities that result in decrease in equity, other than relating to distributions to equity participants. Then, when the company pays the wages to the employees, the double entry will be reversing the accrued expenses (liability) to debit side and decreasing the cash at bank which is considered as assets because the framework defines the assets as a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity.

Answer 3:

Vines Shop		
Balance Sheet		
As at 30 June 2009		
ASSETS		
Current Assets		
Cash at bank	\$	28,400
Trade receivable	\$	10,000
Inventory on hand	\$	56,000
Total Current assets	\$	94,400
Non-current assets		
Equipments	\$	40,000
Less: Accumulated depreciation	\$	(8,000)
Total non-current assets	\$	32,000
Total assets		\$ 126,400
LIABILITIES		
Current liabilities		
Trade payable	\$	6,000
Total Current liabilities	\$	6,000

Non current liabilities		
Loan for fittings	\$ 28,000	
Total non-current liabilities		\$ 28,000
Total liabilities		\$ 34,000
Net ASSETS		\$ 92,400
EQUITY		
Capital	\$ 20,000	
Profit	\$ 102,400	
Drawings	\$ (30,000)	
Total equity		\$ 92,400

Vines Shop		
Comprehensive Income Statement		
for the year ended 30 June 2009		
INCOME		
Revenues:		
Sales		\$ 400,000
Less: cost of goods sold		\$ 230,000
Gross Profit		\$ 170,000
EXPENSES		
Rent expenses	\$ 6,000	
Interest expenses	\$ 2,000	
Electricity expenses	\$ 1,600	
Wages	\$ 50,000	
Depreciation expenses (fittings)	\$ 8,000	
Total expenses		\$ 67,600
Profit for the year		\$ 102,400

Answer 4:

Tiller Ltd		
Statement of Cash Flows		
for the year ended 30 June 2009		
Cash flows from operating activities		
Cash receipts from customers	1,400,000	
Cash paid to suppliers and employees	(920,000)	
	480,000	
Cash generated from operations	480,000	
interest paid	(30,000)	
Income tax paid	(50,000)	
	400,000	400,000
Cash flows from investing activities		
purchase of equipment	(370,000)	
Proceeds from sale of land	70,000	
	(300,000)	(300,000)
Cash flows from financing activities		
Proceeds from issue of share capital	220,000	
repayments of borrowings	(80,000)	
Dividends paid	(130,000)	
	10,000	10,000
Net increase (decrease) in cash and cash equivalent		110,000
Cash and cash equivalents at beginning of period		90,000
		200,000
Cash and cash equivalents at end of period		200,000

Calculations:

Cash paid to suppliers and employees

Cash generated from operations- cash collected from customers

$$= 480000 - 1400000 = -920000$$

Cash generated from operations

Net cash from operating activities+interest paid+income taxes paid

$$= 400000 + 30000 + 50000 = 480000$$

Purchase of equipment

Net cash used in investing activities-cash received from sale of land

$$= -300000 - 70000 = -370000$$

Net cash used in investing activities

Net increase (decrease) in cash and cash equivalent held-net cash used in financing activities-net cash from operating activities

$$= 110000 - 10000 - 400000 = -300000$$

Net cash used in financing activities

Dividends paid+repayment of bank loan+issue of shares

$$= -130000 - 80000 + 220000 = 10000$$

Answer 5:

Net profit of Law Services for the year ended 30 June 2009:

$$= \Delta OE + D - C$$

$$200000 - 346000 + 80000 - 20000$$

$$= 206000$$

Δ = Change

OE = (200000) owner equity at the beginning of the accounting period.

(346000) owner equity at the end of the accounting period.

D = withdrawals of capital by owners.

C = contributions of capital by owners.

(a) Capital maintains is central to the measurement of profit because it provides the linkage between the concepts of capital and the concepts of profit because it provides the point of reference by which profit is measured; it is a prerequisite for distinguishing between an entity's return on capital and its return of capital.

(b) I have used financial capital maintains in my answer.

Appendix 30: Nominalisation annotation of Omar's accounting text

Title	Accounting 4-question Assignment
Pseudonym	Omar
Type of Analysis	Nominalisation annotation
Program	Master of Commerce
Module	Accounting Concepts & Methods
Number of Words	1068
Notes	

Question 1

1) Cash account is affected by this transaction; the Cash is an asset as it is satisfied the essential characteristics of an asset and its recognition criteria:

- o Past event - cash was received.
- o Control - Quality Services Ltd has the capacity to benefit from the asset and can deny others access to the cash.
- o Future economic benefits - it can be used to settle a liability.

The recognition criteria:

The future economic benefits may occur - more than fifty per cent of probability.

It is obvious that the cost of that asset can be measured reliably - the company has paid \$6000 for that service.

As a result of paying \$6000 from the cash account, that account decrease by the same amount and that affects it.

2) Expenses account is affected by the same transaction, as expenses as it is satisfied the essential characteristics of an asset and its recognition criteria:

Minimizing in the assets or rising in the liabilities (excluding distributions to owners) that cause the decrease in the assets.

Reducing in assets without changing in liabilities leads to reduce the Equity.

The recognition criteria:

The future economic benefits will minimize as a result of the minimizing in assets - more than fifty per cent of probability.

The declining in the future economic benefits can be measured reliably - the cost of that expense is recognized.

(B)

1) The expenses of year 2010 should increase:

\$500 per month (6000/12)

2010 insurance expense:

May =\$500 + June =\$500

= \$1000

The Quality Services Ltd's income statement must contain \$1000 as insurance expense (the essential characteristics of an expense and the recognition criteria are satisfied) (accrual basis assumption).

2) \$5000 must be appeared in the statement of financial position of Quality Services Ltd as an asset (prepaid insurance) below the current assets part due to applying the essential characteristics of an asset and the recognition criteria:

- Past event - cash was received.
- The benefits from the asset are controlled because Quality Services Ltd has the capacity to gain from that asset, also the company has the power to prevent the others to access these benefits. (It owns the insurance policy).
- The next ten months of 2011 are covered by insurance policy and that achieve Future economic benefits.

The recognition criteria:

- The future economic benefits may occur - more than fifty per cent of probability.
- It is obvious that the cost of that asset can be measured reliably - the amount of that assets is \$5000

Question 2

Exit Ltd

Statement of Financial Position

as at 30 June 2010

Accounts receivable	20
Inventories	250
Prepaid insurance	25
Others current assets	15
TOTAL CURRENT ASSETS	310
NON-CURRENT ASSETS	
Long term investment	100
Property, plant and equipment	800
TOTAL NONO-CURRENT ASSETS	900
TOTAL ASSETS	1210
CURRENT LIABILITIES	
Accounts payable	100
Bank over draft	10
Loan payable due September 2010	40
Tax payable	50

TOTAL CURRENT LIABILITIES	<u>200</u>
NON-CURRENT LIABILITIES	
Loan payable due September 2014	<u>500</u>
TOTAL NON-CURRENT LIABILITIES	<u>500</u>
TOTAL LIABILITIES	<u>700</u>
NET ASSETS	<u>510</u>
OWNER'S EQUITY	
Capital	<u>510</u>
TOTAL EQUITY	<u>510</u>

Question 3

Exit Ltd
Statement of Cash Flows
for the year ended 30 June 2011

Cash flows from operating activities	\$	\$
Cash receipts from customers	17940	
cash paid to suppliers and employee	<u>(10260)</u>	
cash generated from operations	7680	
Net cash from operating activities		7680
cash flows from investing activities		
purchase of equipment, land and motor vehicles	<u>(10950)</u>	
Net cash used in investing activities		(10950)
Cash from financing activities		
Proceed from long-term mortgage	4800	
proceed from the owner	6000	
owner withdrawing	<u>(6690)</u>	
Net cash used in financing activities		<u>4110</u>
Net increase (decrease) in cash and cash equivalents		840
cash and cash equivalents at beginning of period		<u>(300)</u>
cash and cash equivalents at end of period		<u><u>540</u></u>

Calculations

Cash receipts from customers:

Sales - ending accounts receivable + beginning accounts receivable

 $16800 - 3150 + 4290 = \$17940$

Cash paid to suppliers and employee:

Cash paid to suppliers for purchases:

Cost of sales + ending inventory - beginning inventory + beginning account payable - ending accounts payable

 $5100 + 6600 - 6000 + 6150 - 7950 = \3900

Cash paid to suppliers of service and labour:

Accrual basis Expenses – beginning prepaid expenses + ending expenses

$$6300 - 300 + 360 = \$6360$$

Accrual basis Expenses: expenses – depreciation for the year

$$= 8610 - (810 - 1500) \\ = \$6300$$

Cash paid to suppliers and employee: $3900 + 6360 = \$10260$

Cash flows from investing activities

Cash paid to purchase of equipment: ending equipment – beginning equipment

$$25500 - 19200 = \$6300$$

Cash paid to purchase of land: ending land – beginning land

$$24000 - 20400 = \$3600$$

Cash paid to purchase of motor vehicles: ending motor vehicles – beginning motor vehicles

$$15600 - 14550 = \$1050$$

Purchase of equipment, land and motor vehicles: $6300 + 3600 + 1050 = \$10950$

Cash from financing activities:

Cash proceed from long-term mortgage: ending long term mortgage – beginning long term mortgage

$$18900 - 14100 = \$4800$$

Cash receipts from the owner = \$6000

Cash paid to the owner: beginning equity + profit + contribution – ending equity

$$32700 + 3090 + 6000 - 35100 = (\$6690)$$

Cash from financing activities: $4800 + 6000 - 6690 = \$4110$

Question 4

(A)

1) The ending equity should be worked out as follows

Beginning Equity + Profit - Withdrawals by owners

$$\text{Ending Equity} = \$500000 + \$32000 - \$15000 = \$517000$$

The profit according to change in wealth approach is

Change in net assets + drawings – contributions from owners

$$\$17000 + \$15000 - 0 = \$32000$$

(b)

The profit according to revenues less expenses approach:

Income – expenses

Dividends received from investments	\$50000
-------------------------------------	---------

Interest paid on long term loan (no principal repaid)	\$(18000)
---	-----------

Profit	\$32000
--------	----------------

(C)

Both parts A and B have the same profit as income leads to rising in equity that result in inflows or improvement of assets or reducing of liabilities, except the contributions from owners. Also both parts A and B have the same profit as expenses lead to reducing in equity that causes in outflows or reduction of assets or boosting of liabilities, except the distributions from owners. Thus, if contributions and distributions are known then profit can be worked out from the statement of financial position.

Extra explanation: (assuming no contributions or distributions)

$$A = L + E$$

A= Assts

$$A + EX = L + E + R$$

L= Liabilities

$$A = L + E + R - EX$$

E= Equity

$$A = L + E + P$$

R= Revenue

$$A = L + (E + P)$$

EX= Expenses

$$A = L + \text{ending equity}$$

P= Profit

Appendix 31: Nominalisation annotation of Abdullah's accounting text

Title	Accounting 4-question Assignment
Pseudonym	Abdullah
Type of Analysis	Nominalisation annotation
Program	Master of Commerce
Module	Accounting Concepts & Methods
Number of Words	1187
Notes	

Answer question 1

First, this transaction affected cash account which is an asset as it satisfies the essential characteristics of an asset and its recognitions criteria:
Past event - cash was received.

Control - Quality Services Ltd has the capacity to benefit from the asset and can deny others access to the cash.

Future economic benefits - it can be used to settle a liability (or other ways)

The recognition criteria:
It is probable that the future economic benefits will eventuate – greater than 50% probability.
The amount of the asset can be measured reliably. The amount is known (\$6000).
As the amount of cash was taken out from cash account, the effected of this transaction is negative (cash account must be reduced \$6000).

Second, also, this transaction affected expenses account which is an expense as satisfied with the essential characteristics of an expense and its recognitions criteria:
Reduction in assets or increase in liabilities apart from distributions to owners --cash was taken out from cash (Reduction in an asset)
Decrease in net assets (equity)-decrease in an asset and no change in liabilities.

The recognition criteria:
It is probable that the decrease in future economic benefits resulting in a decrease in assets has occurred (greater than 50% probability).
The decrease in future economic benefits can be measured reliably – the amount of the expense is known.

(B)
First, insurance expense for year 2010 should be determined:
 $600/12 = \$500$ per month
2010 insurance expense: $2(\text{May and June}) * 500 = \1000

According to accrual basis assumption, \$1000 must appear in income statement of Quality Services Ltd as insurance expense (satisfied the essential characteristics of an expense and its recognitions criteria).

Second, the rest of the amount (\$5000) must appear in balance statement of Quality Services Ltd as an asset (prepaid insurance)(under current assets section) because of satisfying the essential characteristics of an asset an its recognitions criteria:
Past event- cash was paid.
Control - Quality Services Ltd has the capacity to benefit from the asset and can deny others access to the cash (insurance policy under its name).

Future economic benefits- insurance policy covers the next 10 months in 2011.

The recognition criteria:
It is probable that the future economic benefits will eventuate – greater than 50% probability.
The amount of the asset can be measured reliably. The amount is known (\$5000).

Third, this transaction decreases cash account \$6000 as shown above in part (a).

Answer Question 2

Exit Ltd
Statement of Financial Position
as at 30 June 2010

	\$000	\$000		\$000	\$000
Assets			Liabilities		
Current assets			Current liability		
Accounts receivable	20		Accounts payable	100	
Inventories	250		Bank over draft	10	
Prepaid insurance	25		Loan payable due September 2010	40	
Others current assets	15	310	Tax payable	50	200
Non-current assets			Non-current liabilities		
Long term investment	100		Loan payable due September 2014	500	500
Property, plant and equipment	800	900	Owners' equity		
			Capital		510
Total assets		1210	Total (liabilities and owners' equity)		1210

Calculations

Prepaid insurance = total assets – Accounts receivable – Inventories - Others current assets - Long term investment - Property, plant and equipment

$$\text{Prepaid insurance} = 1210 - 20 - 250 - 15 - 100 - 800 = \$25$$

Accounts payable = total liabilities - Bank over draft - Loan payable due September 2010 - Tax payable - Loan payable due September 2014

$$\text{Total liabilities} = \text{total assets} - \text{equity} = 1210 - 510 = \$700$$

$$= 700 - 10 - 40 - 50 - 500$$

$$\text{Accounts payable} = \$100$$

Answer Question 3

Exit Ltd
Statement of Cash Flows

for the year ended 30 June 2011

Cash flows from operating activities	\$	\$
Cash receipts from customers	17940	
cash paid to suppliers and employee	(10260)	
cash generated from operations	7680	
Net cash from operating activities		7680
cash flows from investing activities		
purchase of equipment, land and motor vehicles	(10950)	
Net cash used in investing activities		(10950)
Cash from financing activities		
Proceed from long-term mortgage	4800	
proceed from the owner	6000	
owner withdrawing	(6690)	
Net cash used in financing activities		4110
Net increase (decrease) in cash and cash equivalents		840

cash and cash equivalents at beginning of period	(300)
cash and cash equivalents at end of period	<u>540</u>

Calculations

Cash receipts from customers:

Sales + beginning accounts receivable - ending accounts receivable

$$16800 + 4290 - 3150 = \$17940$$

Cash paid to suppliers and employee:

Cash paid to suppliers for purchases:

Cost of sales + ending inventory - beginning inventory + beginning account payable - ending accounts payable

$$5100 + 6600 - 6000 + 6150 - 7950 = \$3900$$

Cash paid to suppliers of service and labour:

Accrual basis Expenses - beginning prepaid expenses + ending expenses

$$6300 - 300 + 360 = \$6360$$

Accrual basis Expenses: expenses - depreciation for the year

$$= 8610 - (810 - 1500)$$

$$= \$6300$$

Cash paid to suppliers and employee: 3900 + 6360 = **\$10260**

Cash flows from investing activities:

Cash paid to purchase of equipment: ending equipment - beginning equipment

$$25500 - 19200 = \$6300$$

Cash paid to purchase of land: ending land - beginning land

$$24000 - 20400 = \$3600$$

Cash paid to purchase of motor vehicles: ending motor vehicles - beginning motor vehicles

$$15600 - 14550 = \$1050$$

Purchase of equipment, land and motor vehicles: 6300 + 3600 + 1050 = **\$10950**

Cash from financing activities:

Cash proceed from long-term mortgage: ending long term mortgage - beginning long term mortgage

$$18900 - 14100 = \$4800$$

Cash receipts from the owner = \$6000

Cash paid to the owner: beginning equity + profit + contribution - ending equity

$$32700 + 3090 + 6000 - 35100 = (\$6690)$$

Cash from financing activities: 4800 + 6000 - 6690 = **\$4110****Answer question 4****(A)**

First, the ending equity should be worked out as following

Beginning Equity	\$500000
Profit	\$32000
Withdrawals by owners	\$(15000)
Ending Equity	\$517000

So, the difference between Ending Equity and beginning Equity is \$17000

Or ending equity = Beginning Equity + Profit - Withdrawals by owners

$$= 500000 + 32000 - 15000 = \$517000$$

The profit according to change in wealth approach is

Change in net assets + drawings – contributions from owners
 $\$17000 + \$15000 - 0 = \$32000$

(b)

The profit according to revenues less expenses approach: Income – expenses

Dividends received from investments	\$50000	
Interest paid on long term loan (no principal repaid)	\$(18000)	
Profit		\$32000

Or $50000 - 18000 = \$32000$

(C)

The profit is the same in part A and B as income leads to increasing in equity, which results in inflows or enhancement of assets or decrease of liabilities, other than the contributions from owners. Also, The profit is the same in part A and B as expenses lead to decreasing in equity, which results in outflows or depletions of assets or increase of liabilities, other than the distributions from owners. Hence, profit can be calculated from balance sheet (equity section), as long as distributions and contributions are known.

Revenues less expenses approach = change in wealth approach

Another explanation:

Assets = liabilities + equity1

Assets = liabilities + equity1 - distributions + contributions

Assets = liabilities + (equity1 - distributions + contributions)

Assets = liabilities + equity2

Assets + expenses = liabilities + equity2 + revenue

Assets = liabilities + equity2 + revenue – expenses

Assets = liabilities + equity2 + profit

Assets = liabilities + (equity2 + profit)

Assets = liabilities + ending equity

Profit = ending equity - equity2

So, profit is equal in both approaches as profit is a part of ending equity (the amount of profit, which appears in income statement, goes to equity section)

**equity1= beginning equity
equity2= changing in
equity (distributions
and contributions)**

Appendix 32: Nominalisation annotation of Ibrahim's accounting text

Title	Accounting 2-question Assignment
Pseudonym	Ibrahim
Type of Analysis	Nominalisation annotation
Program	Master of Commerce
Module	Accounting Concepts & Methods
Number of Words	918
Notes	

Question 1:

(a):

The accounting service payment on 1 May 2010 should be treated as liability ("Unearned revenue"). That is, the essential characteristics of a liability are satisfied for the below reasons:

- Past transaction / event – The service payment has received by Quality Services Ltd on 1 May 2010; and
- Present obligation – The entity has entered agreement to provide its customer by accounting services in the future; and
- Future sacrifice of economic benefits – In order to settle the obligation, Quality Services Ltd must provide its customer by an accounting service.

In addition the recognition criteria for a liability are satisfied because:

- It is probable that future sacrifice of economic benefits is greater than 50%; and
- The amount of the liability can be determined reliably – there is a payment has received by Quality Services Ltd which can be used to determine the liability (\$10 000).

(b):

On 30 Jun 2010 the current liability will be decreased by \$4 000 and "accounting services revenue" of \$4 000 will be recognised. Thus, on 30 Jun 2010 there will be a current liability in the form of "Unearned revenue" of \$6 000.

On 30 Jun 2010 there is accounting services revenue because:

- There is a reduction in liabilities from non-owner resources ("Unearned revenue"); and
- an increase in equity (Net assets) has occurred because there is a decrease in liability with no change in the asset.

The revenue can be recognised because it is probable (greater than 50 %) that there has been saving in outflows of future economic benefits resulting from a decrease in liabilities. The saving in outflow of future economic benefits can be measured reliably (The amount of calculated of \$ 4, 000 (Accounting services revenue \$10,000 / 5 months X 2 months).

Question 2:

Exercise (2.15):

(a):

ALICIA'S PET GROOMING SERVICE		
Income Statement		
For the three months ended 31 January 2010		
INCOME		
Services revenue		\$4,720
EXPENSES		
Rent Expense	600	
Suppliers cost	700	
electricity expenses	801	
Advertising expense	216	
	2,317	
PROFIT		\$2,403

(b):

ALICIA'S PET GROOMING SERVICE	
Statement of financial position	
as at 31 January 2010	
CURRENT ASSETS	
Cash at bank	\$ 3,622
Accounts receivable	800
Prepaid rent	200
Grooming Supplies	260
TOTAL CURRENT ASSETS	<u>4,882</u>
NON-CURRENT ASSETS	
Property, plant and equipment	2,000
TOTAL NON-CURRENT ASSETS	<u>2,000</u>
TOTAL ASSETS	<u>6,882</u>
CURRENT LIABILITIES	
Accounts payable	779
TOTAL CURRENT LIABILITIES	<u>779</u>
TOTAL LIABILITIES	<u>779</u>
NET ASSETS	<u>6,103</u>
EQUITY	
Owner capital	5000
Owner, Retained Earnings	\$1,103
TOTAL EQUITY	<u>6,103</u>

(C):

There is information that still is needed in order to determine perfectly how Alicia had done during the 3 months period. First, grooming equipment depreciation should be provided. This factor may affect her net profit during the 3 months period. Second, it is essential to have more information regarding the default debit in order to reach a propriate analysis for the accounting receivable.

Exercise (2.15):

(a):

BRETT'S BAIT SUPPLIES	
Statement of Cash Flows	
for the year ended 30 June 2011	
Cash flows from operating activities	
Cash receipts from customers	964 000
Cash paid to suppliers	(808 000)
Cash paid to suppliers for services	(73 200)
Overdraft	8 000
Net cash from operating activities	<u>90 800</u>
Cash flows from investing activities	
New purchase freehold property	(40 000)
New purchase fixtures	(20 400)
Proceeds from sale of fixtures Sold	2 400
Investment	(20 000)
Interest received	4 000
Net cash used in investing activities	<u>(74 000)</u>
Cash flows from financing activities	
Owners drawing	(25 600)
Net cash used in financing activities	<u>(25 600)</u>
Net increase in cash and cash equivalents	<u>(8 800)</u>
Cash and cash equivalent at beginning of period	8 800
Cash and equivalents at end of period	<u>0</u>

* **Calculations:**

A - Cash flows from operating activities:

1-Cash receipt from customers:

Receipt from the customers	=	Sales (net)	+	Beginning accounts receivable	-	Ending accounts receivable
964,000		1,000,000		84,000		120,000

2-Cash paid to suppliers for purchases:

Cash payments for purchases	=	Cost of sales	-	Beginning inventory	+	Ending inventory	+	Beginning accounts payable	-	Ending accounts payable
808,000		916,000		160,000		80,000		52,000		80,000

3- Cash paid to suppliers for services:

Cash paid to suppliers	=	Selling and administrative expenses	+	Off. supplies	-	Dep.
73,200		58,000		28,000		12,800

*Equipments Depreciation and Offices suppliers are included.

Equipments Depreciation

Depreciation assets sold	4,400	32,000	Beginning balance
Ending balance	40,400	12,800	Depreciation expense (No cash outflow)
	44,800	44,800	

Offices suppliers

Beginning balance	4,000	22,000	Offices suppliers expenses
Purchase - (Cash outflow)	28,000	10,000	Ending balance
	32,000	32,000	

Overdraft

		0	Overdraft beginning balance
		8,000	Drawings on draft
Overdraft ending balance	8,000		
	8,000	8,000	

B- Cash from investing activities:**Fixtures**

Beginning balance	80,000	4,400	Accumulated depreciation
Purchase - (Cash outflow)	20,400	4,000	Carrying amount of Fixtures sold
		92,000	Ending balance

	100,400	100,400	
Accumulated Depreciation			
Fixtures	4,400	32,000	Beginning balance
Ending balance	40,400	12,800	Depreciation Expense (non-cash)
	44,800	44,800	
Investment			
Beginning balance	12,000		
Investment (Cash outflow)	20,000	32,000	Ending balance
	32,000	32,000	
Interest income			
		0	Beginning balance
		4,000	Interest received (Cash inflow)
Ending Balance	4,000		
	4,000	4,000	
C- Cash from financing activities			
Equity			
Owner's withdrew (Cash outflow)	25,600	384,800	Capital beginning balance
Capital ending balance	365,600	6,400	Profit
	391,200	391,200	
(b):			
In terms of the effect of operating activities of the company generated a positive cash flow of \$90 800. This indicates a satisfactory cash position. The investment and financing activities indicate that a verage capital expansion for freehold property and purchase fixtures were funded by cash outlays of \$60 400. The assets expansion was covered by the cash generated by operation activities. However, cash position of the company is in risk which may lead the company to be unable to pay its current liabilities rustle [resulting] <sic> in bankruptcy.			

Appendix 33: Nominalisation annotation of Hasan's accounting text

Title	Accounting 2-question Assignment
Pseudonym	Hasan
Type of Analysis	Nominalisation annotation
Program	Master of Commerce
Module	Accounting Concepts & Methods
Number of Words	821
Notes	

Question 1:

- The \$10 000 received on 1 May 2010 should be treated as a liability ("revenue received in advance"). That is the essential characteristics of a liability are satisfied because:
 - Past transaction – receipts of cash;
 - Present obligation – have a legal obligation (cannot avoid) to provide either services or repaying the cash; and
 - Future sacrifice of economic benefits – provision of services (or cash refund if services not provided).
 In addition the recognition criteria for liability are satisfied because:
 - It is probable that the future sacrifice of economic benefits will eventuate – greater than 50% probability; and,
 - The amount of the liability can be used to measure the liability.
- On 30 June 2010 Quality Services Ltd should recognise revenue of \$4 000 and reduce 'revenue received in advance' by the same amount.

The definition of revenue is satisfied because:

 - There has been a decrease in an liability (revenue received in advance) from a non-owner contribution; and,
 - There has been an increase in net assets because the decrease in a liability no other assets or liabilities have changed.
 In addition the recognition criteria for revenue are satisfied because:
 - It is probable that there has been an inflow of economic benefits- there has been an decrease in an obligation to the entity; and,
 - The amount of the inflow of economic benefits can be measured reliably – the amount of services provided (\$4 000) is known.

Question 2 a:

a)

Alicia's Pet Grooming Services		
Income Statement		
for the three months ended 31 January 2011		
REVENUE		
services revenue		4720
EXPENSES		
Rent	600	
Growing supplies	700	
Electricity expenses	801	
Advertisement expenses	216	
		<hr/>
		2317
PROFIT		<hr/> <hr/>
		2403

b)

Alicia's Pet Grooming Services
Balance Sheets
as at 31 January 2011

CURRENT ASSETS

Cash	3622
Accounts receivable	800
Grooming supplies	260
Prepaid rents	200
TOTAL CURRENT ASSETS	4882

NON-CURRENT ASSETS

Equipment	2000
TOTAL NON-CURRENT ASSETS	2000
TOTAL ASSETS	6882

CURRENT LIABILITIES

Accounts payable	779
TOTAL LIABILITIES	779
NET ASSETS	6103

EQUITY

Alicia's Pet Grooming Services, Capital	6103
TOTAL EQUITY	6103

- Some information could assist to determine Alicia's Pet Grooming Services performance. For example, for the equipment, knowing the depreciation can be useful to figure out the depreciation cost expenses which affect the profits. In addition, Alicia's Pet Grooming Services might lose some future receivable as a Default debit.

Question 2 b:

BRETT'S BAIT SUPPLIES

Statement of Cash Flows
year ended 30 June 2011

Cash flows from operating activities

Cash receipts from customers	964000.00	
Cash paid to suppliers for services	(73200.00)	
Cash paid to suppliers	(808000.00)	
overdraft	8000.00	
<i>Net cash from operating activities</i>	90800.00	90800.00

Cash flows from investing activities

Purchase Fixtures	(20400.00)	
New investment	(20000.00)	
Purchase freehold property	(40000.00)	
Proceeds from sale of fixtures sold	2400.00	
interest received	4000.00	
<i>Net cash used in investing activities</i>		(74000.00)
Cash flows from financing activities		
Proceeds from issue of owner new investments		
Owners drawing	(25600.00)	
<i>Net cash used in financing activities</i>		(25600.00)
Net increase in cash and cash equivalents		(8800.00)
cash and cash equivalent at beginning of period		8800.00
cash and equivalents at end of period		0.00

a)

1 Cash receipt from customers

Receipt from the customers	=	Sales (net)	+	beginning accounts receivable	-	ending accounts receivable
964,000		1,000,000		84,000		-120,000

2 Cash paid to suppliers for purchases

Cash payments for purchases	=	Cost of sales	-	Beginning inventory	+	ending inventory	+	beginning accounts payable	-	ending accounts payable
808,000		916,000		-160,000		80,000		52,000		-80,000

3 Cash paid to suppliers for services

Cash paid to supplies for services	=	Selling and administrative expenses	-	Dep.	+	Off supplies
73,200		58000		12800		28000

Equipment Dep.

Dep. Assets sold	4400	32000	Beginning balance
------------------	------	-------	-------------------

Ending balance	40400	12800	Dep. expense
<hr/>			
	44800	44800	
Offices supplies			
<hr/>			
Beginning balance	4000	22000	Offices supplies expenses
cash	28,000	10000	Ending balance
<hr/>			
	32000	32000	
<hr/>			
Overdraft			
<hr/>			
Overdraft beginning balance			
cash at bank	8,000	8,000	overdraft ending balance
<hr/>			
	8,000	8,000	
<hr/>			
Cash from investing activities			
<hr/>			
Fixtures			
<hr/>			
B-balance	80,000	4,000	carrying amount of Fixtures sold
Purchase - Cash	20,400	4,400	Accum. Depreciation
<hr/>			
		92,000	Ending balance
	100,400	100,400	
<hr/>			
Accumulated Depreciation - Fixtures			
<hr/>			
Fixtures	4,400	32,000	Beginning balance
		12,800	Depreciation Expense
Ending balance	40,400		
<hr/>			
	44,800	44,800	
<hr/>			

Carrying Amount of Fixtures Sold

Fixtures	4,000	4,000	Profit and loss summary
	<u>4,000</u>	<u>4,000</u>	

Proceeds from Sale of Fixtures

Profit and loss summary	2,400	2,400	Cash
	<u>2,400</u>	<u>2,400</u>	

Freehold property

Beginning balance	120,000		
Purchase	40,000		
		160,000	Ending balance
	<u>160,000</u>	<u>160,000</u>	

Investment

beginning balance	12,000		
New investment	20,000		
		32,000	ending balance
	<u>32,000</u>	<u>32,000</u>	

Interest income

		0	beginning balance
interest received	4,000		

Cash from financing activities

Proceeds from increase the owner's capital

		384,800	Capital beginning balance
withdrew	25,600	6,400	profit
Capital ending balance	365,600		
	391,200	391,200	

- b) The company has generated cash from operating activities "\$90,800" which indicates a good position. Moreover, financing and investment activities illustrate that there is a great increase in the asset '\$60,400' of the company. However, cash position is very risky because company cannot pay back the current liabilities.

Appendix 34: Transcription of Saud's interview

Title	Interview with Saud	
Module	Principles of Finance	
Date	March 29, 2010	
Duration		
Setting	E-mail	
Line No.	Note	R= Researcher & S= Saud
1.	R	How did you start to do the assignment? What sources did you refer to?
2.	S	We met our group members (was 4) for a discussion, we used the handout
3.		(slides) as the main source and we used the textbook as well.
4.	R	How did you work out the structure (i.e. headings, tables/graphs)?
5.	S	As required from the question sheet to be s report structure, and from
6.		business comm guide.
7.	R	Where did you learn to use this? How did you learn to use Excel to make
8.		tables and calculate formulae?
9.		If you used Excel could you please attach a copy of this file?
10.	S	I have enrolled in many courses, and from my personal experience in
11.		Microsoft office.
12.	R	Did you experience significant difficulties in undertaking the
13.		assignment task? Were there any aspects that you found difficult in the
14.		assignment task?
15.	S	Yes, everything was difficult. The calculation in general and data
16.		collection in question 2.
17.	R	How were you influenced by your previous literacy and numeracy skills?
18.	S	I have used only 30% roughly from my previous study.
19.	R	How were you influenced by your lecturer in this course when doing the
20.		assignment?
21.	S	Yes, it was totally useful.
22.	R	What was your reaction to the grade you got?
23.	S	I was satisfied.
24.	R	What was wrong?
25.	S	I don't know. The feedback was unclear.

Appendix 35: Transcription of Abdulrahman's interview

Title	Interview with Abdulrahman	
Module	Principles of Finance	
Date	February 26, 2010	
Duration	53:29	
Setting	Abdulrahman's house	
Line No.	Note	R= Researcher & An= Abdulrahman
1.	R	I would like to ask you Abdulrahman whether you have referred to the
2.		textbook when doing the assignment?
3.	An	Ya all the required procedures are listed in the book. There is a whole
4.		chapter there on WACC.
5.	R	Did you refer to other textbooks?
6.	An	Arabic textbooks which I brought with me from Saudi Arabia.
7.	R	Did you refer to any sites?
8.	An	No
9.	R	How did you learn to use spreadsheets to lay out data and to measure and
10.		describe financial relations?
11.	An	I used it while working in a bank after finishing my undergraduate study.
12.	R	Do you use the financial calculator?
13.	An	Ya but it did not help me a lot in doing the assignment as Excel is faster but
14.		I use in the exam.
15.	R	How did you learn to use it?
16.	An	I read the brochure last semester
17.	R	Oh so you did not use it before coming to Australia?
18.	An	No
19.	R	How did you start to do the assignment after reading the task sheet? Could
20.		you please detail the steps you performed to come up with this 10-page
21.		assignment and the Excel worksheets.
22.	An	This assignment is neither easy nor difficult. I exerted greater effort to
23.		understand the requirements so that I will not have to read the task sheet
24.		again. I searched for the information which will help me do the
25.		assignment, the calculations that need to be performed. I then outlined the
26.		requirements on a piece of paper.
27.	R	If you are still keeping this paper can I have a copy?
28.	An	Of course I will. (Abdulrahman reads through the task sheet and then looks
29.		at the assignment paper). The first step we performed is calculating the
30.		WACC
31.	R	To arrive at the operating cash flow.
32.	An	Precisely so I had to know the procedures that I need to implement to arrive
33.		at the operating cash flows. What does WACC include? The equity which is
34.		280,000 ok
35.	R	Ya
36.	An	280,000 the equity divided by the debt 500,000 then multiplied by 20%
37.		which the cost of equity
38.	R	What is pre-tax cost of equity?
39.	An	Before tax it's calculated before tax. One of the procedures in calculating
40.		incremental cash flows is finding out the tax which is 30%. All these
41.		calculations are detailed in the Excel sheet.
42.	R	How did you calculate revenues?
43.	An	Based on the given information such working hours per annum and number
44.		of session per hour we can predict the revenues which might match
45.		expectation or not.
46.	R	What else?
47.	An	First we calculate the expected income. Then we multiply each year's
48.		income by the inflation rate which is 3%. This is the most important topic in
49.		finance.

50.	R	Then you calculated weighted average?
51.	An	Ya which is 14.28
52.	R	What does WACC represent.
53.	An	It's average cost of equity and debt. We need WACC to arrive at the
54.		incremental cash flow which is the net income of a given project regardless
55.		of the company's other incomes.
56.	R	Do you use a formula to calculate incremental cash flow?
57.	An	In our case we calculate operating income of the project at the end of every
58.		year: income from the sale of the tanning lotion and income from the
59.		operation of the equipMent. Then we deduct the costs: use of
60.		electricity, bulbs replacement and depreciation.
61.	R	Over the number of years
62.	An	mmm ..we deduct depreciation ...is deducted because it's non-cash outflow.
63.		Finance deals with cash unlike accounting which uses accrual and cash
64.		basis.
65.	R	What is accrual?
66.	An	When a company sells goods for 2 million they are registered in accounting
67.		statements even if the amount has not been collected yet. Why we have
68.		included depreciation here although it's not a real expense in finance?
69.		Because we want to deduct the tax from the revenues after deducting
70.		depreciation., which is then added back.
71.	R	Ahaa. Did the task sheet state this procedure?
72.	An	No this is known procedure because depreciation is non-cash outflow. After
73.		we add back depreciation we get the incremental cash flow for each year
74.		which is calculated by dividing this amount by WACC which 14.28
75.		circumflex by 1+ the year number.
76.	R	How did you arrive at the first year's incremental cash flow of \$9,975?
77.	An	(Abdulrahman starts Excel) Look here present value at 14.6
78.	R	Why you haven't divided it by 14.28?
79.	An	Let's see. Aha Initially the WACC was 14.6 when I did not include current
80.		debt, but I have changed it in the formula to 14.28 when our tutor required
81.		me to include both current and long term debt but forgot to amend it in the
82.		description column. (Abdulrahman points at the formula
83.		=+C25/(1.1428)^C24 in Excel).
84.		See here it's year 1+14.28=1.1428
85.	R	Why you wanted to exclude current debt?
86.	An	Because short term debt is not usually used in budgeting projects but the
87.		tutor insisted I include it.
88.	R	What is sensitivity analysis?
89.	An	Since we cannot guarantee our revenue expectations we calculate sensitivity
90.		since higher than expected expenses may affect cash flows. Also revenues
91.		may be greater or lesser than what was expected.
92.	R	Is this what you call equivalent annual annuities?
93.	An	No we use EAA when the project have unequal live and comparability is
94.		impossible.
95.	R	How do you calculate sensitivity analysis?
96.	An	The task sheet requires us to calculate sensitivity analysis for the most likely
97.		case (70%). It is calculated by keeping all values constant and increasing
98.		just the one value which we think may change due to economical
99.		conditions.
100.	R	So you have to decide which value might change from the expectation.
101.	An	Ya .. but you have to state your reasons in the assumptions. If you see here i
102.		have written that revenues may increase or decrease 10% from expectations.
103.	R	Why increase or decrease?
104.	An	We have to account for both cases.
105.	R	What is the role of this kind of task in real life? How do you think this task
106.		will related to your future work?
107.	An	You'll pay \$26500 on a machine and you have income vs. Expenses. All

108.		this need to be taken into account. However, if we basically assess all this
109.		we will not be able to take into account the time value of future inflows in
110.		today's dollars. Positive NPV means income is higher than expenses and.
111.		vice versa
112.	R	Under the 40% scenario you stated the PP cannot be computed. Why?
113.	An	PP is the time needed to cover a project's costs. Since the following years
114.		incurred losses the PP cannot be computed.
115.	R	Thank you very much Abdulrahman.
116.	An	Not at all.

Appendix 36: Transcription of Ibrahim's interview

Title	Interview with Ibrahim	
Module	Principles of Finance	
Date	March 28, 2011	
Duration	32:55	
Setting	In a restaurant	
Line No.	Note	R= Researcher & Ib= Ibrahim
1.	R	How did you start to do the assignment Abdullah?
2.	Ib	Once I receive the task sheet I have a look at the requirements, I do not
3.		look at the given information but the first thing is the requirements.
4.	R	So you read the requirements ?
5.	Ib	Yaa .. the requirements give me an idea about the topics of the
6.		assignments, are they budgeting? This also gives me an idea about the
7.		volume of work needed. The volume of work in Abdullah and Omar's
8.		task sheet is huge compared to mine. The calculations in our assignment
9.		were not that big.
10.	R	Ya I remember their assignment had two case studies instead of one.
11.	Ib	The scenario in our task was to choose one of the three alternatives at the
12.		end: first the closure of one of the two factories, the factory in Adelaide,
13.		and relocating operations to Thailand; the second alternative is installing
14.		new IT system for the two factories; the last alternative is to develop
15.		new product designs and to improve quality control
16.	R	Did you refer to an example that facilitate doing this assignment? Your
17.		assignment consists of a number of steps, calculating NPV, WACC, so
18.		how did you know which step should be first calculated rather than the
19.		other?
20.	Ib	Indeed if you give me Abdullah and Omar's written assignment it won't
21.		help me as a guideline although the requirement is the same because the
22.		scenario is different. Our assignment states the topics covered such as 3-
23.		6, so if you refer to each chapter you will be able to extract the main
24.		ideas and the order of the steps. For example, you cannot work out
25.		sensitivity analysis or WACC before working out the incremental cash
26.		flows. We could have referred to Abdullah and Omar's written
27.		assignment if there were greater similarities in the task. Besides, the
28.		textbook has also changed during the second semester.
29.	R	The book has changed
30.	Ib	Ya the book has changed. In addition, the requirements were different
31.		and the tutor has changed.
32.	R	What was his name?
33.	Ib	I forgot ... Michael who was perfect in his explanation. He was fantastic
34.		but our problem with him was that he was too complicated. He liked to
35.		give us complicated questions in the test that are heart breaking. Even in
36.		the summer school when I retook the course, he gave us hard questions.
37.	R	You used Excel in the calculations.
38.	Ib	Without it you cannot do anything.
39.	R	How did you learn to use spreadsheets to lay out data and to measure
40.		and describe financial relations? Did you seek help from other groups?
41.	Ib	I have been using it in my work for fifteen years. I can perform anything
42.		you want to do in Excel. Any accountant should be professional in Excel.
43.	R	Why use Excel at work don't you use other accounting software.
44.	Ib	Software give you final results, enquiry, databases but when you're
45.		required to do data analysis the software cannot perform this.
46.	R	What kind of tasks did you do in Excel
47.	Ib	I used to make models. When we have a contract/project it resembles
48.		finance but the difference I do not use PV the same way as finance. In
49.		accounting depreciation is reflected in the stateMent. We calculate the

50.		net incomes of a project or its losses.
51.	R	Did you experience significant difficulties in undertaking the assignment
52.		task or understanding the requirements?
53.	Ib	We experience difficulties in decoding the scenarios, what does this and
54.		that mean? This was the problem faced and we met with the tutor two or
55.		three times and he sent us an e-mail to clarify the ambiguities.
56.	R	How did he know you were facing ambiguities?
57.	Ib	He collected all our enquiries in the first meeting and then he sent us an
58.		e-mail.
59.	R	Was the meeting during the tutorial?
60.	Ib	No he specified a time for this meeting in order to collect students'
61.		enquiries. Then he sent an e-mail to all students stating this phrase
62.		means xx, etc. We did not face any difficulties in writing.
63.	R	How were you influenced by your previous literacy and numeracy
64.		skills? Whether at work or during your undergraduate study. In work
65.		you mentioned Excel.
66.	Ib	In work I also have strong background in accounting. I can easily deal
67.		with any income statement or balance sheet. This facilitated my work in
68.		the assignment as i did all the calculations such as the incremental cash
69.		flows. But as for the steps that follow the calculation of net cash flow I
70.		referred to the textbook.
71.	R	Did you revise your calculation upon completing the assignment?
72.	Ib	I forwarded the assignment to other group members to check it, two
73.		Chinese students as my colleague Hasan did not have any background in
74.		finance and later on he withdrew from the course. I wrote 1300 words,
75.		the other wrote 1300 and the third student wrote 900 words, totalling
76.		3500 words. Since the word limit was 2200 words we had to revise the
77.		report again.
78.	R	Did you meet with group members?
79.	Ib	Yes, any we decided each one should reduce the length of his analysis.
80.	R	How many times did you meet?
81.	Ib	I met one of the members many times. I do not how many times, but I
82.		used to meet her 2-3 times per week for approximately four weeks. We
83.		worked iteratively together because she was good and I sought her help
84.		in certain aspects, though she did not have sufficient knowledge in Excel
85.		but her background in finance complemented my accounting knowledge.
86.	R	Her undergraduate study was in finance?
87.	Ib	Yaa so I started the process till I arrived at the net cash flow then we
88.		started ... we meet for a number of times in the business school study
89.		rooms and started to explain what we have done on the board. I think
90.		we have got 10 out of 15 in this assignMent.
91.	R	So both of you worked the most on this assignment?
92.	Ib	Ya . one did not participate so both of us did about 70% of the work and
93.		the third member I guess did 30%.
94.	R	How many times you met with the third member?
95.	Ib	I met her a couple of times but one meeting was extended. I met her less
96.		than the second one.
97.	R	How many times?
98.	Ib	In addition to the extended meeting we met three times before the
99.		submission of the assignment till 1 am.
100.	R	Were you influenced by your lecturer in doing this assignment? For
101.		example the outline.
102.	Ib	We used to refer to the outline to decide the steps we're going to use as
103.		sometimes there are more than one method that can be followed so I
104.		choose the best one I can impleMent. So I make a note of the related
105.		slides which I will refer to while doing the work and after finishing it.
106.	R	Do you think the assignment was simple and clear?
107.	Ib	I do not think it was easy or clear, the worst thing in it was the ambiguity

108.		in the written task sheet which was ambiguous.
109.	R	That's why most students asked for clarifications.
110.	Ib	Clarifications and that's why he arranged a meeting with us and later he
111.		sent e-mail to explain the ambiguities. The main difficulty in the
112.		assignment was not related to knowledge but to the ambiguity and the
113.		worst thing is that there was no definite right answer.
114.	R	mmm.
115.	Ib	Based on your assumptions. The tutor evaluates whether your
116.		assumptions are reasonable or not. Two different assumptions could be
117.		assessed by him as reasonable. Though the two could reach different
118.		results they are considered to be on the right track. Therefore, there was
119.		no definite right answer.
120.	R	Ya because there are external factors.
121.	Ib	No, it depends on your arguments.
122.	R	One of the alternatives was to sell the factory. So if you do how you'll
123.		know how much it will be sold for?
124.	Ib	No, this is not what I meant. One could assume the factory will close at
125.		the beginning of the year while another will assume at the end of the
126.		year.
127.	R	Why isn't this stated in the task sheet?
128.	Ib	No, the main requirement of the task is stating the assumptions. When
129.		you look at our assignment you'll see after the introduction that we have
130.		written down the assumptions. So we assumed that the investor will do
131.		this and that and so on. Therefore, based on this we do our calculations
132.		because some requirements are not stated in the task sheet.
133.	R	Like what?
134.	Ib	I will tell you such as the task states the factory will relocate but it didn't
135.		mention when? On the beginning of the year, March April?
136.	R	Aha in order to calculate costs
137.	Ib	Ya it differs.
138.	R	So the assignment has a trick?
139.	Ib	Not a trick ... tricks. It is not straight forward. The main problem was in
140.		the assumptions.
141.	R	It's strange the tutor didn't specify when the factory will be sold .. in this
142.		case all the groups will have different calculations.
143.	Ib	There is no right answer.
144.	R	In this way the assessor will spend more time correcting the papers.
145.	Ib	The tutor assesses the procedures and not the final numbers. The steps
146.		you've followed. Let's assume I've started with the assumptions, then
147.		calculations, then the criteria used to evaluate, then the decision, then I
148.		performed sensitivity analysis, and then the conclusion based on the
149.		analysis. Thus the tutor looks at these steps .. fine, he doesn't consider
150.		the final numbers.
151.	R	Really?
152.	Ib	Ya he says what is important is the procedures you have used. I
153.		shouldn't overlook assumptions and just start the calculations.
154.		Overlooking any of these steps will reduce the marks.
155.	R	Are these procedures similar to those used in the workplace?
156.	Ib	I believe this resembles 80-90% of workplace practices. I have a reason
157.		to say this. I have worked on project biddings in my company but from
158.		an accountant view and not finance. Therefore I faced the same problem
159.		faced in this assignMent. So when my company wants to make biddings
160.		for four or five aircrafts and you're facing competitors. You have to
161.		study it carefully and assumption are part and parcel of this report.
162.	R	And did you spend much time on the report?
163.	Ib	It took me ten days to perform the analysis and the report.
164.	R	Do you use/post comments in the discipline's forum (news group)?
165.	Ib	I have never used it.

166.	R	In this assignment
167.	Ib	At all, just we used to share our procedures through the e-mail with
168.		another group who we trust.
169.	R	You've told me you've got 11 out of 15 in the assignMent. What was
170.		wrong?
171.	Ib	My colleague has the feedback but I haven't see it
172.	R	Can you ask her to give it to you.
173.	Ib	I've asked her two times but i will tell her when i see her in the lecture.
174.	R	Thank you very much Ibrahim.
175.	Ib	You're welcome.

Appendix 37: Transitivity analysis of Group 1's finance text

Title	Major Assignment - Semester 1, 2008								
Pseudonym	Abdulhadi, Saud, Jim & Cathy (Group 1)								
Type of Analysis	Transitivity Analysis								
Program	Master of Commerce (Accounting)								
Module	<i>Principles of Finance</i>								
Number of Words	4224 words: 2483 words in the capital budgeting assignment and 1741 words in the Portfolio Management Report								
Notes	No Appendices were submitted by the participants								
1.		Sales	are forecasted	on the basis of the suggested growth rates	in the assignment paper.				
		Senser	Pr: Ment	Phenomenon (act)	Circ: Location (spatial)				
2.	In addition,	it	[is] assumed						
		Senser	Pr: Ment	Phenomenon					
3.	that	inflation	is incorporated	in the growth rates.					
		Recipient	Pr: Mat	Range					
4.	Table 1.1: Sales Forecasts								
	2008	2009	2010	2011	2012	2013	2014	2015	2016
		10%	10%	5%	5%	5%	5%	5%	5%
	6,000,000	6,600,000	7,260,000	7,623,000	8,004,150	8,404,358	8,824,575	9,265,804	9,729,094
		Token	Pr: Implicit, Rel, Ident (17 instances)			Value			
5.		Cost of good sold	is forecasted	as percentage of sales					
		Token	Pr: Rel, Ident	Value					
6.	as		suggested						in the assignment paper.
		Behaver	Pr: Behav.	Phenomenon	Circ: Location (spatial)				
7.	Furthermore,	it	is assumed						
		Phenomenon	Pr: Ment						
8.	that	inflation	is incorporated	in those estimates.					
		Recipient	Pr: Mat	Range					
9.	Table 1.2: cost of good sold forecasts								
	2008	2009	2010	2011	2012	2013	2014	2015	2016
	60%	65%	80%	70%	60%	65%	60%	60%	60%
	3,600,000	4,290,000	5,808,000	5,336,100	4,802,490	5,462,832	5,294,745	5,559,482	5,837,457
		Token	Pr: Implicit, Rel, Ident (18 instances)			Value			
10.		Gross profit	is calculated						
		Goal	Pr: Mat						
11.		and it	appears						
		Carrier	Pr: Rel, Attrib						
12.	that	it	is [sic] fluctuates						because of the fluctuations in COGS.
		Behaver	Pr: Behav.	Phenomenon	Circ: Cause				

					(reason)
13.		Operating cost	is assumed to remain	constant at 1.2 million	into the foreseeable future.
		Carrier	Pr: Rel, Attrib	Attribute	Circ: Location (temporal)
14.		Leasing cost	is expected to rise		according to the inflation rate of 3.5%.
		Goal	Pr: Mat		Circ: Angle
15.	Furthermore,	[sic]			
16.		Depreciation	is calculated	on a straight line basis.	
		Goal	Pr: Mat	Range	
17.	Firstly,	for the first machine it	is assumed		
		Senser	Pr: Ment		
18.	that	the machine	will be sold for	0.2 million	
		Token	Pr: Rel, Ident	Value	
19.	and	it [sic] residual value	is not affected	by inflation	
		Goal	Pr: Mat	Actor	
20.	and	its historical cost	is	2.2 [million]	
		Token	Pr: Rel, Ident	Value	
21.	and	its economic life	is	4 years .	
		Token	Pr: Rel, Ident	Value	
22.	Therefore,	depreciation expense	accounts for	0.5 million.	
		Token	Pr: Rel, Ident	Value	
23.	Secondly,	the new machine	is expected to be purchased	for about 2.524 million	after the adjustment for inflation
		Goal	Pr: Mat		Circ: Location
24.	and	it [sic] residual value	is	0.4 million	
		Token	Pr: Rel, Ident	Value	
25.	and	it	is assumed		
		Senser	Pr: Ment	Phenomenon (fact)	
26.	that	it	is	adjusted for inflation	
		Carrier	Pr: Rel, Attrib	Attribute	
27.	and	its economic life	is	4 years.	
		Token	Pr: Rel, Ident	Value	
28.	Thus,	depreciation expense	accounts for	0.531 million.	
		Token	Pr: Rel, Ident	Value	
29.	Table 1.3: depreciation expense (in millions)				
			First machine	New machine	
		Economic life	4	4	
		Cost	2.2	2.524	
		Residual value	0.2	0.4	
		Depreciation expense	0.5	0.531	
		Token	Pr: Implicit, Rel, Ident (8 instances)	Value	
30.		The time series blow [below] <sic>	illustrates	the behaviour of EBIT	through out the life of the project.

		Token	Pr: Rel, Ident	Value	Circ: Extent (temporal)																
31.	Indeed,	it	fluctuates		as according [sic] the fluctuation in COGS.																
		Actor	Pr: Mat		Circ: Manner (quality)																
32.	Figure 1.1: EBIT time series																				
33.	<div style="text-align: center;"> <p style="text-align: center;">EBIT</p> <table border="1" style="margin: auto;"> <caption>Data for EBIT Time Series</caption> <thead> <tr> <th>Period (t)</th> <th>EBIT Value</th> </tr> </thead> <tbody> <tr><td>1</td><td>500,000</td></tr> <tr><td>2</td><td>400,000</td></tr> <tr><td>3</td><td>-500,000</td></tr> <tr><td>4</td><td>300,000</td></tr> <tr><td>5</td><td>1,250,000</td></tr> <tr><td>6</td><td>950,000</td></tr> <tr><td>7</td><td>1,550,000</td></tr> </tbody> </table> </div> <p>Transitivity analysis of the graph below (32-40):</p>					Period (t)	EBIT Value	1	500,000	2	400,000	3	-500,000	4	300,000	5	1,250,000	6	950,000	7	1,550,000
Period (t)	EBIT Value																				
1	500,000																				
2	400,000																				
3	-500,000																				
4	300,000																				
5	1,250,000																				
6	950,000																				
7	1,550,000																				
34.		EBIT for period 1	is	\$500,000.																	
		Token	Pr: Implicit, Rel, Ident	Value																	
35.	In period 2,	it	drops to	\$400,000.																	
		Circ: Location	Pr: Implicit, Mat	Goal																	
36.	In period 3,	it	drops sharply to	-\$500,000.																	
		Circ: Location	Pr: Implicit, Mat	Goal																	
37.	In period 4,	it	increases to	\$300,000																	
		Circ: Location	Pr: Implicit, Mat	Goal																	
38.	In period 5,	it	increases to	\$1,250,000																	
		Circ: Location	Pr: Implicit, Mat	Goal																	
39.	In period 6,	it	drops to	\$950,000.																	
		Circ: Location	Pr: Implicit, Mat	Goal																	
40.	In period 7,	it	increases to	\$1,550,000																	
		Circ: Location	Pr: Implicit, Mat	Goal																	
41.		The company	is taxed		at the corporate rate of 30%.																
		Goal	Pr: Mat		Circ: Manner (quality)																
42.		The time series blow [below] <sic>	illustrates	the behaviour of Net profit	through out the life of the project.																
		Token	Pr: Rel, Ident	Value	Circ: Extent (temporal)																

43.	Indeed,	it	fluctuates		as according [sic] the fluctuation in COGS.																
		Actor	Pr: Mat		Circ: Manner (quality)																
44.	Figure 1.2: Net profit time series																				
45.	<p style="text-align: center;">Net income</p> <table border="1"> <caption>Data for Figure 1.2: Net profit time series</caption> <thead> <tr> <th>Period (t)</th> <th>Net Income (€)</th> </tr> </thead> <tbody> <tr><td>1</td><td>350,000</td></tr> <tr><td>2</td><td>250,000</td></tr> <tr><td>3</td><td>-300,000</td></tr> <tr><td>4</td><td>200,000</td></tr> <tr><td>5</td><td>850,000</td></tr> <tr><td>6</td><td>700,000</td></tr> <tr><td>7</td><td>1,100,000</td></tr> </tbody> </table>					Period (t)	Net Income (€)	1	350,000	2	250,000	3	-300,000	4	200,000	5	850,000	6	700,000	7	1,100,000
Period (t)	Net Income (€)																				
1	350,000																				
2	250,000																				
3	-300,000																				
4	200,000																				
5	850,000																				
6	700,000																				
7	1,100,000																				
Transitivity analysis of the graph below (46-52):																					
46.		EBIT for period 1	is	\$290,000.																	
		Token	Pr: Implicit, Rel, Ident	Value																	
47.	In period 2,	it	drops to	\$300,000.																	
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal																	
48.	In period 3,	it	drops sharply to	-\$300,000.																	
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal																	
49.	In period 4,	it	increases to	\$200,000.																	
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal																	
50.	In period 5,	it	increases to	\$850,000.																	
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal																	
51.	In period 6,	it	drops to	\$700,000.																	
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal																	
52.	In period 7,	it	increases to	\$1,100,000.																	
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal																	
53.		IncreMent. net capital spending	accounts for	(2,324,551\$)	in the year 2010.																
		Token	Pr: Rel, Ident	Value	Circ: Location (temporal)																
54.	In fact,	the purchase of the first machine	is regarded to be	a sunk cost																	
		Senser	Pr: Ment	Phenomenon																	
55.	therefore	it	has not been considered.																		
		Phenomenon	Pr: Ment																		
56.	In	terminal value	is	equal to salvage																	

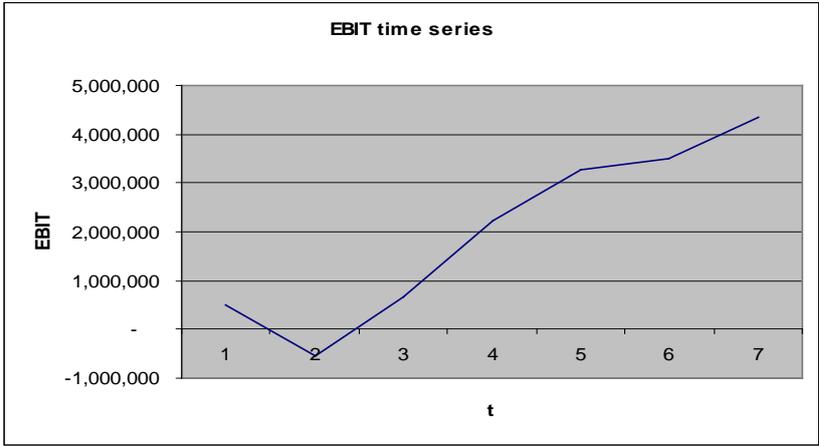
	addition,			value				
		Value	Pr: Rel, Ident	Token				
57.	because	it	has not incurred	loss nor gain	on the salvage value.			
		Actor	Pr: Mat	Goal	Circ: Location			
58.	Table 1.4: Net capital spending							
		Cash flows	2010	2014				
		Sale of Machine	200,000					
		Cost of New Machine	(2,524,551)					
		Terminal value		400,000				
		Net Capital Spending	(2,324,551)	400,000				
		Token	Pr: Implicit, Rel, Ident (5 instances)	Value				
59.		Operating cash flows	are calculated					
		Goal	Pr: Mat					
60.	and		represented in	the table	below.			
			Pr: Rel, Ident	Value	Circ: Location			
61.	Table 1.5: Operating cash flows							
		2008	2009	2010	2011	2012	2013	2014
	Operating cash flows	850,000	782,100	(176,428)	764,951	1,399,850	1,212,133	1,618,127
		Token	Pr: Implicit, Rel, Ident (7 instances)	Value				
62.		Net cash flows	are calculated					
		Goal	Pr: Mat					
63.	by		adding	net capital spending				
			Pr: Mat	Goal				
64.	and		represented in	the table	below.			
			Pr: Rel, Ident	Value	Circ: Location			
65.	Table 1.6: Net cash flows							
		2008	2009	2010	2011	2012	2013	2014
	Net cash flows	850,000	782,100	(2,148,122)	764,951	1,399,850	1,212,133	2,018,127
		Token	Pr: Implicit, Rel, Ident (7 instances)	Value				
66.		The cost of capital	is calculated		on the basis of the given weights.			
		Goal	Pr: Mat		Circ: Manner (quality)			
67.	In addition,	it	is considered					
		Phenomenon	Pr: Ment					
68.	that	debt and hybrid debt i.e. mezzanine finance	are	tax deductible.				
		Carrier	Pr: Rel, Attrib	Attribute				
69.	In addition,	the required rate of return on common stock	is calculated					
		Goal	Pr: Mat					
70.		by	utilising	CAPM equation.				
			Pr: Mat	Goal				
71.	Table 1.7: Cost of capital							

		Capital Structure	Weight	Required return	Required return after tax savings
		Hybrid Debt	15.00%	15.00%	10.5%
		Debt	35%	12%	8.4%
		Common Stocks	45%	17.80%	17.80%
		Preferred stocks	5.00%	14%	14%
		WACC			13.23
		Token	Pr: Implicit, Rel, Ident (13 instances)		Value
72.	After the derivation of cash flows	NPV	is calculated		
		Goal	Pr: Mat		
73.	and	it	accounted for		2,853,108
		Value	Pr: Rel, Ident		Token
74.		which	are		positive
		Carrier	Pr: Rel, Attrib		Attribute
75.	and	this	implies		
		Senser	Pr: Ment		
76.	that	proposal	is creating		value.
		Actor	Pr: Mat		Goal
77.	Nevertheless,	this figure	should be compared to		the NPV of the other alternatives
		Senser	Pr: Ment		Phenomenon
78.		which	has had		different time periods.
		Carrier, Possor	Pr: Rel, Attrib		Attribute , Possessd
79.	Hence,	the NPV	is regarded to yield		a misleading result.
		Actor	Pr: Mat		Goal
80.	Thus,	EAV	is calculated		
		Goal	Pr: Mat		
81.	and		utilised to choose [sic]		among those proposals.
		Actor	Pr: Mat		Goal
82.	In addition,	IRR	is not considered		
		Phenomenon	Pr: Ment		
83.	because	the proposal	has		an unconventional cash flow.
		Carrier, Possor	Pr: Rel, Attrib		Attribute , Possessd
84.	Alternatively,	MIRR	is computed and amounted for <sic>		33.64%.
		Token	Pr: Rel, Ident		Value
85.	Table 1.8: investment criteria				
	Investment criteria			Results	
	NPV			2,853,108\$	
	EAV			649,643\$	
		Token	Pr: Implicit, Rel, Ident (2 instances)		Value
86.		Examining the sensitivity analysis	appears		

		outcomes it																																			
		Carrier	Pr: Rel, Attrib																																		
87.	that	NPV	is	highly responsive	to changes in sells [sic] and in cost of good [sic] sold.																																
		Carrier	Pr: Rel, Attrib	Attribute	Circ: Extent (spatial)																																
88.	On the other hand,	it	is suggested																																		
		Phenomenon	Pr: Behav.																																		
89.	that	changes in WACC and the cost of the machine	do not significantly affect	NPV.																																	
		Actor	Pr: Mat	Goal																																	
90.	Figure 1.3: Sensitivity analysis																																				
91.	<table border="1"> <caption>Data points for Figure 1.3: Sensitivity analysis</caption> <thead> <tr> <th>Percentage Change</th> <th>WACC (NPV)</th> <th>Sales (NPV)</th> <th>Green Line (NPV)</th> </tr> </thead> <tbody> <tr> <td>-30%</td> <td>\$2,800,000</td> <td>\$1,000,000</td> <td>\$7,000,000</td> </tr> <tr> <td>-20%</td> <td>\$2,700,000</td> <td>\$1,500,000</td> <td>\$5,500,000</td> </tr> <tr> <td>-10%</td> <td>\$2,600,000</td> <td>\$2,000,000</td> <td>\$4,000,000</td> </tr> <tr> <td>0%</td> <td>\$2,500,000</td> <td>\$2,500,000</td> <td>\$2,500,000</td> </tr> <tr> <td>10%</td> <td>\$2,400,000</td> <td>\$3,000,000</td> <td>\$1,000,000</td> </tr> <tr> <td>20%</td> <td>\$2,300,000</td> <td>\$3,500,000</td> <td>-\$500,000</td> </tr> <tr> <td>30%</td> <td>\$2,200,000</td> <td>\$4,000,000</td> <td>-\$1,500,000</td> </tr> </tbody> </table>					Percentage Change	WACC (NPV)	Sales (NPV)	Green Line (NPV)	-30%	\$2,800,000	\$1,000,000	\$7,000,000	-20%	\$2,700,000	\$1,500,000	\$5,500,000	-10%	\$2,600,000	\$2,000,000	\$4,000,000	0%	\$2,500,000	\$2,500,000	\$2,500,000	10%	\$2,400,000	\$3,000,000	\$1,000,000	20%	\$2,300,000	\$3,500,000	-\$500,000	30%	\$2,200,000	\$4,000,000	-\$1,500,000
Percentage Change	WACC (NPV)	Sales (NPV)	Green Line (NPV)																																		
-30%	\$2,800,000	\$1,000,000	\$7,000,000																																		
-20%	\$2,700,000	\$1,500,000	\$5,500,000																																		
-10%	\$2,600,000	\$2,000,000	\$4,000,000																																		
0%	\$2,500,000	\$2,500,000	\$2,500,000																																		
10%	\$2,400,000	\$3,000,000	\$1,000,000																																		
20%	\$2,300,000	\$3,500,000	-\$500,000																																		
30%	\$2,200,000	\$4,000,000	-\$1,500,000																																		
	Transitivity analysis of the graph below (92-102):																																				
92.		When all of the inputs	are set at		at their base-case levels,																																
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)																																
93.		their deviations from the base	are	all zero																																	
		Token	Pr: Implicit, Rel, Ident	Value																																	
94.	and	the NPV	is	\$ 2500,000.																																	
		Token	Pr: Implicit, Rel, Ident	Value																																	
95.	If	sales price	is set	30%	above its expected price																																
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)																																
96.		the NPV	would be	+5,000,000.																																	
		Token	Pr: Implicit, Rel, Ident	Value																																	
97.	If	WACC price	is set	30%	above its expected price																																
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)																																
98.		the NPV	would be	+2,500,000.																																	
		Token	Pr: Implicit, Rel, Ident	Value																																	
99.	If	machine cost price	is set	30%	above its expected price																																
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location																																

									(spatial)
100.		the NPV	would be	+2,500,000.					
		Token	Pr: Implicit, Rel, Ident	Value					
101.	If	COGS price	is set	30%					above its expected price
		Recipient	Pr: Implicit, Mat	Goal					Circ: Location (spatial)
102.		the NPV	would be	-2000,000.					
		Token	Pr: Implicit, Rel, Ident	Value					
103.		Sales	are forecasted						on the basis of the suggested growth rates in the assignment paper.
		Phenomenon	Pr: Ment						Circ: Contingency
104.	In addition,	it	[sic] assumed						
		Senser	Pr: Ment	Phenomenon					
105.	that	inflation	is incorporated	in the growth rates.					
		Recipient	Pr: Mat	Range					
106.	Table 2.1: Sales Forecasts								
	2008	2009	2010	2011	2012	2013	2014	2015	2016
		10%	10%	10%	10%	10%	10%	10%	10%
	6,000,000	7,260,000	7,986,000	8,385,300	8,804,565	9,244,793	9,707,033	10,192,385	10,702,004
		Token	Pr: Implicit, Rel, Ident (17 instances)	Value					
107.		Cost of good sold	is forecasted	as percentage of the cost of good sold of proposal 1					
		Token	Pr: Rel, Ident	Value					
108.	as		suggested						in the assignment paper.
		Phenomenon	Phenomenon	Phenomenon	Phenomenon	Phenomenon	Phenomenon	Phenomenon	Circ: Location
109.	Furthermore,	it	is assumed						
		Phenomenon	Pr: Ment						
110.	that	inflation	is incorporated	in those estimates.					
		Recipient	Pr: Mat	Range					
111.	Table 2.2: cost of good sold forecasts								
	2008	2009	2010	2011	2012	2013	2014	2015	2016
	100%	120%	80%	75%	70%	65%	60%	60%	60%
	3,600,000	5,148,000	4,646,400	4,002,075	3,361,743	3,550,841	3,176,847	3,335,689	3,502,474
		Token	Pr: Implicit, Rel, Ident (18 instances)	Value					
112.		Gross profit	is calculated						
		Goal	Pr: Mat						
113.	and	it	appears						
		Carrier	Pr: Rel, Attrib						
114.	that	(it)	dipped	slightly					in 2009
			Pr: Mat	Attribute	Circ: Location (temporal)				

115.	then	it	grew		steadily.
		Carrier	Pr: Rel, Attrib		Circ: Extent (spatial)
116.		Operating cost	is assumed to remain	constant	at 1.2 million into the foreseeable future.
		Carrier	Pr: Rel, Attrib	Attribute	Circ: Location (spatial)
117.		Leasing cost	is expected to rise		according to the inflation rate of 3.5%.
		Goal	Pr: Mat		Circ: Angle
118.	Furthermore, [sic]				
119.		Depreciation	is calculated	on a straight line basis.	
		Goal	Pr: Mat	Range	
120.	Firstly,	for the first machine it	is assumed		
		Phenomenon	Pr: Ment		
121.	that	the machine	will be sold for	0.2 million	
		Token	Pr: Rel, Ident	Value	
122.	and	it [sic] residual value	is not affected by	inflation	
		Goal	Pr: Mat	Actor	
123.	and	its historical cost	is	2.2 [million]	
		Token	Pr: Rel, Ident	Value	
124.	and	its economic life	is	4 years .	
		Token	Pr: Rel, Ident	Value	
125.	Therefore,	depreciation expense	accounts for	0.5 million	
		Token	Pr: Rel, Ident	Value	
126.	and	it	is assumed		
		Phenomenon	Pr: Ment		
127.	that	it	will sill [sic]	in production	up to the year 2010.
		Actor	Pr: Mat	Goal	Circ: Location
128.	Secondly,	the new machine	is expected to be purchased for	about 5 million	
		Token	Pr: Rel, Ident	Value	
129.	and	its residual value	is	about 1.053 million	after the adjustment for inflation $(0.5(1.035)^6)$ and it is [sic]
		Token	Pr: Rel, Ident	Value	Circ: Contingency
130.	and	its economic life	is	6years.	
		Token	Pr: Rel, Ident	Value	
131.	Thus,	depreciation expense	accounts for	0.75million.	
		Token	Pr: Rel, Ident	Value	
132.	Table 2.3: depreciation expense (in millions)				
			First machine	New machine	
	Economic life		4	6	

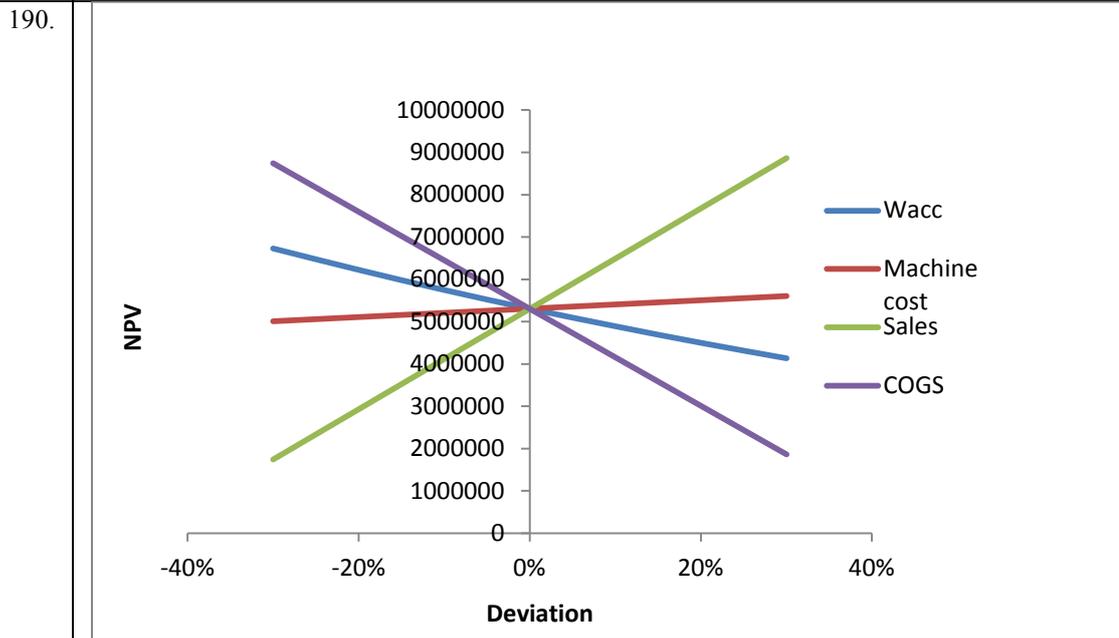
	Cost	2.2	5	
	Residual value	0.2	0.517	
	Depreciation expense	0.5	0.747	
	Token	Pr: Implicit, Rel, Ident (8 instances)	Value	
133.	The time series blow [below] <sic>	illustrates	the behaviour of EBIT	through out the life of the project.
	Token	Pr: Rel, Ident	Value	Circ: Extent (temporal)
134.	Indeed, it	fluctuates		as [sic] according the fluctuation in COGS.
	Actor	Pr: Mat		Circ: Manner
135.	Figure 2.1: EBIT time series			
136.				
	Transitivity analysis of the graph below (137-143):			
137.	EBIT for period 1	is	\$500,000.	
	Token	Pr: Implicit, Rel, Ident	Value	
138.	In period 2,	it	drops sharply to	\$-500,000.
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal
139.	In period 3,	it	increases to	\$800,000.
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal
140.	In period 4,	it	increases to	\$2,300,000.
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal
141.	In period 5,	it	increases to	\$3,300,000.
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal
142.	In period 6,		increases to	\$3,350,000.
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal
143.	In period 7,	it	increases sharply to	\$4,400,000.
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal
144.	The company	is taxed		at the corporate

					rate of 30%.																
		Goal	Pr: Mat		Circ: Location																
145.		The time series blow [below] <sic>	illustrates	the behaviour of Net profit	through out the life of the project.																
		Token	Pr: Rel, Ident	Value	Circ: Location																
146.	Indeed,	it	fluctuates		as [sic] according the fluctuation in COGS.																
		Actor	Pr: Mat		Circ: Manner																
147.	Figure 2.2: Net profit time series																				
148.	<div style="text-align: center;"> <p style="text-align: center;">Net profit time series</p> <table border="1"> <caption>Data for Net profit time series graph</caption> <thead> <tr> <th>Period (t)</th> <th>Net profit</th> </tr> </thead> <tbody> <tr><td>1</td><td>400,000</td></tr> <tr><td>2</td><td>-500,000</td></tr> <tr><td>3</td><td>500,000</td></tr> <tr><td>4</td><td>1,500,000</td></tr> <tr><td>5</td><td>2,250,000</td></tr> <tr><td>6</td><td>2,400,000</td></tr> <tr><td>7</td><td>3,000,000</td></tr> </tbody> </table> </div> <p>Transitivity analysis of the graph below (149-155):</p>					Period (t)	Net profit	1	400,000	2	-500,000	3	500,000	4	1,500,000	5	2,250,000	6	2,400,000	7	3,000,000
Period (t)	Net profit																				
1	400,000																				
2	-500,000																				
3	500,000																				
4	1,500,000																				
5	2,250,000																				
6	2,400,000																				
7	3,000,000																				
149.		EBIT for period 1	is	\$400,000.																	
		Token	Pr: Implicit, Rel, Ident	Value																	
150.	In period 2,	it	drops sharply to	-\$500,000.																	
		Circ: Location	Recipient	Pr: Implicit, Mat	Goal																
151.	In period 3,	it	increases to	\$500,000.																	
		Circ: Location	Recipient	Pr: Implicit, Mat	Goal																
152.	In period 4,	it	increases sharply to	\$1,500,000.																	
		Circ: Location	Recipient	Pr: Implicit, Mat	Goal																
153.	In period 5,	it	increases to	\$2,250,000.																	
		Circ: Location	Recipient	Pr: Implicit, Mat	Goal																
154.	In period 6,	it	increases to	\$2,400,000.																	
		Recipient	Pr: Implicit, Mat	Goal																	
155.	In period 7,	it	increases sharply to	\$3,000,000.																	
		Circ: Location	Recipient	Pr: Implicit, Mat	Goal																
156.		IncreMent. net capital spending	accounts for	(5,000,000\$)	in the year 2008.																
		Token	Pr: Rel, Ident	Value	Circ: Location																
157.	In addition,	the old machine	is sold for	200,000																	
		Token	Pr: Rel, Ident	Value																	
158.		which	is equal to	its residual value terminal																	

		Token	Pr: Rel, Ident	Value				
159.	thus			no tax saving.				
160.	Moreover,	terminal value of the new machine	is equal to	its residual value				
		Token	Pr: Rel, Ident	Value				
161.	because	it	has not incurred	loss nor gain	on the salvage value.			
		Carrier	Pr: Rel, Attrib	Attribute	Circ: Location			
162.	Table 2.4: Net capital spending							
		Cash flows	2008	2010	2014			
		Sale of Machine		200,000				
		Cost of New Machine	(5,000,000)					
		Terminal value			517,500			
		Net Capital Spending	(5,000,000)	200,000	517,500			
		Token	Pr: Implicit, Rel, Ident (6 instances)	Value				
163.		Operating cash flows	are calculated and represented in	the table	below.			
		Token	Pr: Rel, Ident	Value	Circ: Location			
164.	Table 2.5: Operating cash flows							
	Operating cash flows	2008	2009	2010	2011	2012	2013	2014
		850,000	867,625	1,921,874	1,721,874	3,033,447	3,203,615	3783159
		Token	Pr: Implicit, Rel, Ident (7 instances)	Value				
165.		Net cash flow	are calculated					
		Goal	Pr: Mat					
166.		by	adding	net capital spending				
			Pr: Mat	Range				
167.	and		represented in	the table	below.			
		Token	Pr: Rel, Ident	Value	Circ: Location			
168.	Table 2.6: Net cash flows							
	Net cash flows	2008	2009	2010	2011	2012	2013	2014
		(4,150,000)	867,625	1,921,874	2,297,162	3,033,447	3,203,615	4,300,659
		Token	Pr: Implicit, Rel, Ident (7 instances)	Value				
169.		The cost of capital and the capital structure	is assumed to remain	the same	in proposal 2.			
		Carrier	Pr: Rel, Attrib	Attribute	Circ: Location			
170.	Table 2.7: Cost of capital							
		Capital Structure	Weight	Required return	Required return after tax savings			
		Hybrid Debt	15.00%	15.00%	10.5%			
		Debt	35%	12%	8.4%			
		Common Stocks	45%	17.80%	17.80%			
		Preferred stocks	5.00%	14%	14%			
		WACC	-		13.23			
		Token	Pr: Implicit, Rel, Ident (13 instances)	Value				
171.	After the derivation	NPV	is calculated					

188.	but				moderately.
					Circ: Manner

189. Figure 2.3: Sensitivity analysis



Transitivity analysis of the graph below (191-201):

191.		When all of the inputs	are set		at their base-case levels,
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location
192.		their deviations from the base	are	all zero	
		Token	Pr: Implicit, Rel, Ident	Value	
193.	and	the NPV	is	\$ 5,304,861.	
		Token	Pr: Implicit, Rel, Ident	Value	
194.	If	sales price	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
195.		the NPV	would be	+9,000,000.	
		Token	Pr: Implicit, Rel, Ident	Value	
196.	If	WACC price	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
197.		the NPV	would be	+6,500,000.	
		Token	Pr: Implicit, Rel, Ident	Value	
198.	If	machine cost price	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
199.		the NPV	would be	+5,500,000.	
		Token	Pr: Implicit, Rel, Ident	Value	
200.	If	COGS price	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
201.		the NPV	would be	8,800,000.	

		Token	Pr: Implicit, Rel, Ident	Value					
202.		Sales	are assumed to remain	the same	as proposal 2.				
		Carrier	Pr: Rel, Attrib	Attribute	Circ: Role				
203.	Table 2.1: Sales Forecasts								
	2008	2009	2010	2011	2012	2013	2014	2015	2016
		10%	10%	10%	10%	10%	10%	10%	10%
	6,000,000	7,260,000	7,986,000	8,385,300	8,804,565	9,244,793	9,707,033	10,192,385	10,702,004
		Token	Pr: Implicit, Rel, Ident (17 instances)	Value					
204.		Cost of good sold	is forecasted	as percentage of the cost of good sold of proposal 1					
		Token	Pr: Rel, Ident	Value					
205.	as		suggested		in the assignment paper.				
			Pr: Behav.		Circ: Location				
206.	Furthermore,	it	is assumed						
		Senser	Pr: Ment	Phenomenon					
207.	that	inflation	is incorporated	in those estimates.					
		Recipient	Pr: Mat	Range					
208.	Table 2.2: cost of good sold forecasts								
	2008	2009	2010	2011	2012	2013	2014	2015	2016
	100%	90%	85%	80%	70%	65%	65%	60%	60%
	3,600,000	3,861,000	4,936,800	4,268,880	3,361,743	3,550,841	3,441,584	3,335,689	3,502,474
		Token	Pr: Implicit, Rel, Ident (18 instances)	Value					
209.		Gross profit	is calculated						
		Goal	Pr: Mat						
210.	and	it	appears						
		Carrier	Pr: Rel, Attrib						
211.	that	(it)	dipped	slightly	in 2010				
			Pr: Mat	Attribute	Circ: Location (temporal)				
212.	then	it	grew	steadily.					
		Carrier	Pr: Rel, Attrib	Attribute					
213.		Operating cost	is assumed to remain	constant at 1.2 million	into the foreseeable future.				
		Carrier	Pr: Rel, Attrib	Attribute	Circ: Location (spatial)				
214.		Leasing cost	is expected to rise		according to the inflation rate of 3.5%.				
		Goal	Pr: Mat		Circ: Contingency				
215.	Furthermore,	Depreciation	is calculated	on a straight line basis.					
		Goal	Pr: Mat	Range	Circ: Manner (quality)				
216.	Firstly,	for the old machine it	is assumed						

		Senser	Pr: Ment	Phenomenon	
217.	that	the machine	will be sold	for 0.8 million	in 2008
		Token	Pr: Rel, Ident	Value	Circ: Location
218.	and	book value	is	1.2 million	
		Token	Pr: Rel, Ident	Value	
219.		its annual depreciation expense	remain	0.5 million	as in proposal 1.
		Token	Pr: Rel, Ident	Value	Circ: Location
220.	Hence,	there	is	tax shield	
			Pr: Exist.	Existent	
221.		which	increases	cash inflows accordingly.	
		Actor	Pr: Mat	Goal	
222.		After tax salvage on the old machine	= [is equal to]	800,000- 0.3 (800,000- 1,200,000)	
		Token	Pr: Rel, Ident	Value	
223.		After tax salvage on the old machine	= [is equal to]	920,000.	
		Token	Pr: Rel, Ident	Value	
224.	Secondly,	the new machine	is purchased	for 7.4 million	
		Beneficiary	Pr: Mat	Goal	
225.	and	its estimated salvage value	is	.8 million	
		Token	Pr: Rel, Ident	Value	
226.	and	its economic life	is	8 years	
		Token	Pr: Rel, Ident	Value	
227.	and	it	is depreciated	on straight line basis	
		Goal	Pr: Mat	Range	
228.	so	the depreciation expense	is	.825 million.	
		Token	Pr: Rel, Ident	Value	
229.	Table 3.3: depreciation expense (in millions)				
			old machine	New machine	
		Economic life	4	8	
		Cost	2.2	7.4	
		Residual value	0.2	0.8	
		Depreciation expense	0.5	0.825	
		Token	Pr: Implicit, Rel, Ident (8 instances)	Value	
230.		Selling the old machine	has resulted in incurring	an opportunity cost	
		Carrier	Pr: Rel, Attrib	Attribute	
231.	because	the depreciation expense			
		Range	Pr: Mat		
232.		which	is	tax deductible	
		Carrier	Pr: Rel, Attrib	Attribute	
233.			has been forgone		
			Pr: Mat		
234.	as a result of		selling	the old machine	in the 2008
			Pr: Mat	Goal	Circ: Location

235.	therefore	increment. cash flows	are calculated	for 325,000	for the years 2009 and 2010.
		Goal	Pr: Mat	Range	Circ: Location
236.		The time series blow [below] <sic>	illustrates	the behaviour of EBIT	through out the life of the project.
		Token	Pr: Rel, Ident	Value	Circ: Extent
237.	Indeed,	it	fluctuates		as according the fluctuation in COGS.
		Actor	Pr: Mat		Circ: Manner
238.	Figure 3.1: EBIT time series				
239.					
	Transitivity analysis of the graph below (240-248):				
240.		EBIT for period 1	is	\$500,000.	
		Token	Pr: Implicit, Rel, Ident	Value	
241.	In period 2,	it	increases to	\$1,500,000.	
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal	
242.	In period 3,	it	drops to	\$1,200,000.	
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal	
243.	In period 4,	it	increases to	\$1,800,000.	
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal	
244.	In period 5,	it	increases sharply to	\$3,200,000.	
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal	
245.	In period 6,	it	increases to	\$3,250,000.	
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal	
246.	In period 7,	it	increases sharply to	\$4,000,000.	
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal	
247.	In period 8,	it	increases to	\$4,500,000.	
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal	
248.	In period	it	increases sharply to	\$4,950,000.	

	9,																								
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal																					
249.		The company	is taxed		at the corporate rate of 30%.																				
		Goal	Pr: Mat		Circ: Location																				
250.		The time series blow [below] <sic>	illustrates	the behaviour of Net profit	through out the life of the project.																				
		Token	Pr: Rel, Ident	Value	Circ: Extent																				
251.	Indeed,	it	fluctuates		as according the fluctuation in COGS.																				
		Actor	Pr: Mat		Circ: Manner																				
252.	Figure 2.2 <sic>: Net profit time series																								
253.	<p style="text-align: center;">Net profit time series</p> <table border="1"> <thead> <tr> <th>t</th> <th>Net profit</th> </tr> </thead> <tbody> <tr><td>1</td><td>400,000</td></tr> <tr><td>2</td><td>1,150,000</td></tr> <tr><td>3</td><td>950,000</td></tr> <tr><td>4</td><td>1,250,000</td></tr> <tr><td>5</td><td>2,250,000</td></tr> <tr><td>6</td><td>2,400,000</td></tr> <tr><td>7</td><td>2,750,000</td></tr> <tr><td>8</td><td>3,000,000</td></tr> <tr><td>9</td><td>3,200,000</td></tr> </tbody> </table>					t	Net profit	1	400,000	2	1,150,000	3	950,000	4	1,250,000	5	2,250,000	6	2,400,000	7	2,750,000	8	3,000,000	9	3,200,000
t	Net profit																								
1	400,000																								
2	1,150,000																								
3	950,000																								
4	1,250,000																								
5	2,250,000																								
6	2,400,000																								
7	2,750,000																								
8	3,000,000																								
9	3,200,000																								
	Transitivity analysis of the graph below (254-262):																								
254.		EBIT for period 1	is	\$400,000.																					
		Token	Pr: Implicit, Rel, Ident	Value																					
255.	In period 2,	it	increases to	\$1,150,000.																					
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal																					
256.	In period 3,	it	drops to	\$950,000.																					
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal																					
257.	In period 4,	it	increases to	\$1,250,000.																					
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal																					
258.	In period 5,	it	increases sharply to	\$2,250,000.																					
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal																					
259.	In period 6,	it	increases to	\$2,400,000.																					
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal																					
260.	In period 7,	it	increases to	\$2,750,000.																					
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal																					
261.	In period	it	increases sharply to	\$3,200,000.																					

	8,							
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal				
262.	In period 9,	it	increases to	\$3,400,000.				
	Circ: Location	Recipient	Pr: Implicit, Mat	Goal				
263.		IncreMent. net capital spending	accounts for	(5,000,000\$)	in the year 2008.			
		Token	Pr: Rel, Ident	Value	Circ: Location (temporal)			
264.	In addition,	the old machine is	sold for	200,000				
		Token	Pr: Rel, Ident	Value				
265.		which	is equal to	its residual value terminal				
		Token	Pr: Rel, Ident	Value				
266.	thus			no tax saving.				
267.	Moreover,	terminal value of the new machine	is equal to	its residual value				
		Token	Pr: Rel, Ident	Value				
268.	because	it	has not incurred	loss nor gain	on the salvage value.			
		Carrier	Pr: Rel, Attrib	Attribute	Circ: Location (spatial)			
269.	Table 3.4: Net capital spending							
	Cash flows		2008	2014				
	Sale of the old Machine		800,000					
	After tax salvage on the old machine		920,000					
	Cost of New Machine		(7,400,000)					
	Terminal value			825,000				
	Net Capital Spending		(6,480,000)	825,000				
		Token	Pr: Implicit, Rel, Ident (6 instances)	Value				
270.		Operating cash flows	are calculated and represented in	the table	below.			
		Token	Pr: Rel, Ident	Value	Circ: Location			
271.	Table 3.4: Operating cash flows							
	Operating cash flows	2008	2009	2010	2011	2012	2013	2014
		850,000	1,491,900	1,241,969	2,133,773	3,056,822	3,226,990	2,796,218
				Pr: Implicit, Rel, Ident (7 instances)	Value			
272.		Net cash flow	are calculated					
		Goal	Pr: Mat					
273.		by	adding	net capital spending				
			Pr: Mat	Range				
274.	and		represented in	the table	below.			
		Token	Pr: Rel, Ident	Value	Circ: Location			
275.	Table 3.5: Net cash flows							
	Net cash flows	2008	2009	2010	2011	2012	2013	2014
		(5,630,000)	1,491,900	1,241,969	2,133,773	3,056,822	3,226,990	3,621,218

		Token	Pr: Implicit, Rel, Ident (7 instances)	Value	
276.		The cost of capital and the capital structure	is assumed to remain	the same	in proposal 3.
		Carrier	Pr: Rel, Attrib	Attribute	Circ: Location
277.	Table 1.6: Cost of capital				
		Capital Structure	Weight	Required return	Required return after tax savings
		Hybrid Debt	15.00%	15.00%	10.5%
		Debt	35%	12%	8.4%
		Common Stocks	45%	17.80%	17.80%
		Preferred stocks	5.00%	14%	14%
		WACC	-		13.23
		Token	Pr: Implicit, Rel, Ident (13 instances)	Value	
278.	After the derivation of cash flows	NPV	is calculated		
	Circ: Location (temporal)	Goal	Pr: Mat		
279.	and	it	accounted for	about 6,999,826\$	
		Token	Pr: Rel, Ident	Value	
280.	and	it	is	indeed massively greater than	
		Carrier	Pr: Rel, Attrib	Attribute	
281.		the NPV of proposal 1 which only	accounts for	2,853,108\$. and considerably higher than	
		Token	Pr: Rel, Ident	Value	
282.		proposal 2 which	accounts for	2,853,108\$.	
		Token	Pr: Rel, Ident	Value	
283.	Nevertheless,	this figure	should be compared to	the NPV of the other alternatives	
		Senser	Pr: Ment	Phenomenon	
284.		which	has	different time periods.	
		Carrier, Possr	Pr: Rel, Attrib	Attrib, Possd	
285.	Hence,	the NPV	is regarded to yield	a misleading result.	
		Actor	Pr: Mat	Goal	
286.	Thus,	EAV	is calculated and utilised to choose	among those proposals.	
		Goal	Pr: Mat	Range	
287.	In addition,	IRR	is not considered		
		Phenomenon	Pr: Ment		
288.	because	it	can not be compared to	proposal 1	
		Senser	Pr: Ment	Phenomenon	
289.		which	has	unconventional cash flows.	
		Carrier, Possr	Pr: Rel, Attrib	Attrib, Possd	
290.	Table 3.7: investment criteria				
		Investment criteria		Results	

		NPV	6,999,826\$																																	
		EAV	1,375,733\$																																	
		Token	Pr: Implicit, Rel, Ident (2 instances)	Value																																
291.		Examining the sensitivity analysis outcomes it	appears																																	
		Carrier	Pr: Rel, Attrib																																	
292.	that	NPV	is	highly responsive to changes in sells and in cost of good sold.																																
		Carrier	Pr: Rel, Attrib	Attribute																																
		Pr: Rel, Attrib	Attribute	Circ: Contingency																																
293.	However,	it	is suggested																																	
		Phenomenon	Pr: Behav.																																	
294.	that	changes in WACC and the cost of the machine	affect	NPV but moderately.																																
		Actor	Pr: Mat	Goal																																
		Pr: Mat	Goal	Circ: Manner																																
295.	Figure 3.3: Sensitivity analysis																																			
296.	<table border="1"> <caption>Data for Figure 3.3: Sensitivity analysis</caption> <thead> <tr> <th>Change (%)</th> <th>WACC (\$)</th> <th>Saels (\$)</th> <th>COGS (\$)</th> </tr> </thead> <tbody> <tr> <td>-30%</td> <td>~9,000,000</td> <td>~2,000,000</td> <td>~11,000,000</td> </tr> <tr> <td>-20%</td> <td>~7,500,000</td> <td>~3,500,000</td> <td>~9,500,000</td> </tr> <tr> <td>-10%</td> <td>~6,500,000</td> <td>~5,000,000</td> <td>~8,000,000</td> </tr> <tr> <td>0%</td> <td>~6,000,000</td> <td>~6,000,000</td> <td>~7,000,000</td> </tr> <tr> <td>10%</td> <td>~5,500,000</td> <td>~7,500,000</td> <td>~5,500,000</td> </tr> <tr> <td>20%</td> <td>~5,000,000</td> <td>~9,000,000</td> <td>~4,000,000</td> </tr> <tr> <td>30%</td> <td>~4,500,000</td> <td>~10,500,000</td> <td>~2,500,000</td> </tr> </tbody> </table>				Change (%)	WACC (\$)	Saels (\$)	COGS (\$)	-30%	~9,000,000	~2,000,000	~11,000,000	-20%	~7,500,000	~3,500,000	~9,500,000	-10%	~6,500,000	~5,000,000	~8,000,000	0%	~6,000,000	~6,000,000	~7,000,000	10%	~5,500,000	~7,500,000	~5,500,000	20%	~5,000,000	~9,000,000	~4,000,000	30%	~4,500,000	~10,500,000	~2,500,000
Change (%)	WACC (\$)	Saels (\$)	COGS (\$)																																	
-30%	~9,000,000	~2,000,000	~11,000,000																																	
-20%	~7,500,000	~3,500,000	~9,500,000																																	
-10%	~6,500,000	~5,000,000	~8,000,000																																	
0%	~6,000,000	~6,000,000	~7,000,000																																	
10%	~5,500,000	~7,500,000	~5,500,000																																	
20%	~5,000,000	~9,000,000	~4,000,000																																	
30%	~4,500,000	~10,500,000	~2,500,000																																	
	Transitivity analysis of the graph below (297-307):																																			
297.		When all of the inputs	are set	at their base-case levels,																																
		Recipient	Pr: Implicit, Mat	Goal																																
		Pr: Implicit, Mat	Goal	Circ: Location (spatial)																																
298.		their deviations from the base	are	all zero																																
		Token	Pr: Implicit, Rel, Ident	Value																																
299.	and	the NPV	is	\$ 6,999,826.																																
		Token	Pr: Implicit, Rel, Ident	Value																																
300.	If	sales price	is set	30%																																
		Recipient	Pr: Implicit, Mat	Goal																																
		Pr: Implicit, Mat	Goal	Circ: Location (spatial)																																
301.		the NPV	would be	+11,500,000.																																
		Token	Pr: Implicit, Rel, Ident	Value																																
302.	If	WACC price	is set	30%																																
		Recipient	Pr: Implicit, Mat	Goal																																
		Pr: Implicit, Mat	Goal	Circ: Location (spatial)																																

		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
303.		the NPV	would be	+8,400,000.	
		Token	Pr: Implicit, Rel, Ident	Value	
304.	If	machine cost price	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
305.		the NPV	would be	+7,800,000.	
		Token	Pr: Implicit, Rel, Ident	Value	
306.	If	COGS price	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
307.		the NPV	would be	10,200,000.	
		Token	Pr: Implicit, Rel, Ident	Value	
308.		Examining the investment criteria for the three proposals it	appears		
		Carrier	Pr: Rel, Attrib		
309.	that	proposal 3	is	the favourable one	
		Carrier	Pr: Rel, Attrib	Attribute	
310.	since	his EAV	is	greater than both proposal 1 and 2.	
		Carrier	Pr: Rel, Attrib	Attribute	
311.	Consequently,	it	is recommended		
		Sayer	Pr: Verb.		
312.	that	proposal 3	to be implemented.		
		Goal	Pr: Mat		
313.			Proposal 1	Proposal 2	Proposal 3
		NPV	2,853,108\$	5,304,861\$	6,999,826\$
		EAV	649,643\$	1,208,086\$	1,375,733\$
		Token	Pr: Implicit, Rel, Ident (6 instances)	Value	

Appendix 38: Transitivity analysis of Group 2's finance text

Title	Major Assignment - Semester 1, 2009																						
Pseudonym	Abdulrahman and Jiang (Group 2)																						
Type of Analysis	Transitivity Analysis																						
Program	Master of Commerce (Accounting)																						
Module	<i>Principles of Finance</i>																						
Number of Words	1975 words																						
Notes	Excluding cover sheet, T.O.C., and the appendix																						
1.		Salon spa	is faced with	the problem of evaluating																			
		Recipient	Pr: Mat	Range																			
2.	whether		to go ahead with	the proposed foray into the tanning business																			
			Pr: Mat	Goal																			
3.	and if	yes,	to decide																				
			Pr: Ment																				
4.	as to	which alternative amongst the two models (Dome Unit and Tanning Bed)	would be	more suitable.																			
		Carrier	Pr: Rel, Attrib	Attribute																			
5.	For this	we	would have to compute	the projected operating cash flows for the two alternatives																			
		Actor	Pr: Mat	Goal																			
6.	and		discount	them	to the present value																		
			Pr: Mat	Goal	Range																		
7.			using	the firm's cost of capital.																			
			Pr: Mat	Goal																			
8.		We	take	the latest balance sheet of the firm																			
		Actor	Pr: Mat	Goal																			
9.	and		derive	figures	for short, long term debt and equity																		
			Pr: Mat	Goal	Range																		
10.			to derive	the weighted average of capital cost (WACC)																			
			Pr: Mat	Goal																			
11.	<table border="1"> <tr> <td colspan="2">Calculation of Cost of capital</td> </tr> <tr> <td>Particulars</td> <td>Amt(\$)</td> </tr> <tr> <td>Long-term debt (D)</td> <td>200,000</td> </tr> <tr> <td>Current debt (D)</td> <td>20,000</td> </tr> <tr> <td>Equity (E)</td> <td>280,000</td> </tr> <tr> <td>Total</td> <td>500,000</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td>Pre-tax cost of debt</td> <td>10%</td> </tr> <tr> <td>Tax Rate</td> <td>30%</td> </tr> </table>					Calculation of Cost of capital		Particulars	Amt(\$)	Long-term debt (D)	200,000	Current debt (D)	20,000	Equity (E)	280,000	Total	500,000			Pre-tax cost of debt	10%	Tax Rate	30%
Calculation of Cost of capital																							
Particulars	Amt(\$)																						
Long-term debt (D)	200,000																						
Current debt (D)	20,000																						
Equity (E)	280,000																						
Total	500,000																						
Pre-tax cost of debt	10%																						
Tax Rate	30%																						

	Post-Tax Cost of debt	7%		
	Proportion of debt	44%		
	Pre-tax cost of equity	20%		
	Proportion of equity	56%		
	Cost of Capital	14.28%		
		Token	Pr: Implicit, Rel, Ident (11 instances)	Value
12.	$WACC = \frac{E}{E+D} \cdot r_e + \frac{D}{E+D} \cdot r_d \cdot (1-t) = \frac{280,000}{500,000} \cdot 20\% + \frac{220,000}{500,000} \cdot 10\% \cdot (1-0.3) = 14.28\%$			
		Token	Pr: Implicit, Rel, Ident (3 instances)	Value
13.	Then,	we	calculate	the working hours per annum
		Actor	Pr: Mat	Goal
14.			using	the given information:
			Pr: Mat	Goal
15.	Calculation of working hours p.a.			
	Day	Time	Hours	
	Tues-Thur	9 am - 7 pm	30	
	Friday	9 am - 5 pm	8	
	Saturday	9 am - 2 pm	5	
	Hours per week		43	
	No of weeks		48	
	Hours p.a.		2064	
		Token	Pr: Implicit, Rel, Ident (9 instances)	Value
16.		The maximum number of operation hours during a year	is	$HRS_{year} = HRS_{week} \cdot N_{weeks} =$
		Token	Pr: Rel, Ident	Value
17.	Based on	the hours	calculated,	
		Goal	Pr: Mat	
18.		we	compute	the revenue from tanning
		Actor	Pr: Mat	Goal
19.		by	multiplying	the hours by the number of sessions
			Pr: Mat	Goal
20.	and then		by	the price per visit.
			Pr: Mat	Goal
21.	Calculation of Revenue in yr 1 under the two options			
	Particulars	Dome Unit	Tanning Bed	
	Hours p.a.	2064	2064	
	No of Sessions per hour	3	2	
	No of Sessions @ 100% occupancy	6192	4128	
	Price per visit (\$)	8	8	

	Revenue from tanning	\$49,536	\$33,024		
		Token	Pr: Implicit, Rel, Ident (10 instances)	Value	
22.		We then	compute	the other income	at base case derived from sale of bottles
		Actor	Pr: Mat	Goal	Circ: Contingency
23.	by		dividing	the no of sessions by 5	
			Pr: Mat	Goal	
24.	(as		stated		in question)
		Sayer	Pr: Verb		Circ: Location (spatial)
25.	and		multiplying by	contribution of \$2 per bottle:	
			Pr: Mat	Goal	
26.	Calculation of Other Income under the two options				
	Particulars		Dome Unit	Tanning Bed	
	Hours p.a.		2064	2064	
	No of Sessions per hr		3	2	
	No of Sessions @ 100% occupancy		6192	4128	
	No of Bottles sold (1 bottle/5 sessions)		1238	826	
	Profit from sale		\$2,477	\$1,651	
		Token	Pr: Implicit, Rel, Ident (10 instances)	Value	
27.		Variable costs of tanning session	include	electricity costs plus bulbs costs.	
		Value	Pr: Rel, Ident	Token	
28.		Electricity Cost (No of Sessions* Rate per Session) and annual growth @ 3%	[is]	in line with given data on inflation.	
		Carrier	Pr: Rel, Attrib	Attribute	
29.	Variable Costs per Session				
	Particulars		Dome Unit	Tanning Bed	
	Electricity cost per session		-\$3.00	-\$1.50	
	Number of sessions per hour		3	2	
	Number of bulbs needed		56	28	
	Cost per bulb		-\$50.00	-\$50.00	
	Bulb life (hours)		800	800	
	Unit life (years)		8	5	
	Electricity		-\$3.00	-\$1.50	
	Bulbs		-\$1.17	-\$0.88	
	Total variable costs per session				
	Electricity+ Bulbs		-\$4.17	-\$2.38	
		Token	Pr: Implicit, Rel, Ident (16 instances)	Value	
30.		Bulb Cost (No of Hours* 56*50/800) for Dome Unit and (No of Hours*	[is]	in line with given data on inflation.	

		28*50/800) for Tanning Unit .Annual growth @ 3%			
		Carrier	Pr: Rel, Attrib	Attribute	
31.		Computation Methodology for	calculating	the operating cash flows	
		Actor	Pr: Mat	Goal	
32.		Machine and Set up Costs for Dome Unit	are	(25000 + 1500=\$26,500) and (15000 + 1500=\$16,500) for Tanning Unit.	
		Token	Pr: Rel, Ident	Value	
33.		Revenue from tanning business as	computed		above
		Goal	Pr: Mat		Circ: Location (spatial)
34.		Revenue from sale of bottles as	computed		above
		Goal	Pr: Mat		Circ: Location (spatial)
35.		Advertising Costs in Yellow pages and Other advertisements	are	(\$6,000+ \$6,000	
		Token	Pr: Rel, Ident	Value	
36.			=	\$12,000 p.a)	
			Pr: Rel, Ident	Value	
37.		Depreciation	is calculated	on a straight line basis	
		Goal	Pr: Mat	Range	
38.	and	[depreciation]=elliptical	[is] computed		
		Goal	Pr: Mat		
39.		by	dividing	the prime cost by estimated useful life	for both projects.
			Pr: Mat	Goal	Circ: Cause
40.		For calculating operating cash flows,	add back	depreciation to profit after taxes	
			Pr: Mat	Goal	
41.	as	it	is	a non-cash expense.	
		Token	Pr: Rel, Ident	Value	
42.		NPV	is computed		
		Goal	Pr: Mat		
43.		by	using	discount rate of 14.28%	
			Pr: Mat	Goal	
44.	as		computed		above.
		Actor	Pr: Mat	Goal	Circ: Location (spatial)
45.		Discounted	are calculated and	the tables	below:

		IncreMent. operating cash flows at 14.28% of the alternative machines for three scenarios	represented in								
		Token	Pr: Rel, Ident	Value	Circ:	Location					
46.	Full Capacity 100% (Base Case):										
	Particulars	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	
	Dome Unit (PV)	(\$26,500)	\$9,575	\$8,761	\$8,010	\$7,319	\$6,684	\$6,101	\$5,565	\$5,074	
	Tanning Bed (PV)	(\$16,500)	\$8,750	\$8,030	\$7,363	\$6,747	\$6,177	-	-	-	
		Token: Identified	Pr: Implicit, Rel, Ident (15 instances)			Value: Identifier					
47.	70% Capacity (Most Likely Case):										
	Particulars	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	
	Dome Unit (P)	(\$26,500)	\$4,759	\$4,431	\$4,118	\$3,821	\$3,539	\$3,273	\$3,023	\$2,788	
	Tanning Bed (PV)	(\$16,500)	\$4,180	\$3,919	\$3,665	\$3,419	\$3,183	-	-	-	
		Token: Identified	Pr: Implicit, Rel, Ident (15 instances)			Value: Identifier					
48.	40% Capacity (Worst Case):										
	Particulars	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	
	Dome Unit (PV)	(\$26,500)	(\$1,326)	(\$942)	(\$628)	(\$372)	(\$166)	(\$1)	\$129	\$229	
	Tanning Bed (PV)	(\$16,500)	(\$1,795)	(\$1,357)	(\$996)	(\$698)	(\$454)	-	-	-	
		Token	Pr: Implicit, Rel, Ident (15 instances)			Value					
49.	Calculation for NPV, Payback Period and IRR is as follows:										
	Investment Criteria	100% Base case		70% Most Likely		40% Worst Case					
		Dome Unit	Tanning Bed	Dome Unit	Tanning Bed	Dome Unit	Tanning Bed				
	NPV	\$30,589	\$20,567	\$3,251	\$1,866	(\$29,576)	(\$21,800.54)				
	PP	2.34 Yrs	1.64 Yrs	4.38 Yrs	3.24 Yrs	NA*	NA*				
	IRR	42.26%	57.51%	17.61%	18.70%	-38.91%	NA*				
		Token	Pr: Implicit, Rel, Ident (20 instances)			Value					
50.			Cannot be calculated								
		Goal	Pr: Mat								
51.		It	can be seen								
		Phenomenon	Pr: Ment								
52.	that	NPV of investing into a Dome Unit	is			higher.					
		Carrier	Pr: Rel, Attrib			Attribute					
53.		The projects	are			mutually exclusive					
		Carrier	Pr: Rel, Attrib			Attribute					
54.	since	the company	is			unlikely					
		Carrier	Pr: Rel, Attrib			Attribute					
55.			to attract			a sufficient number of customers			on the competitive market		
			Pr: Mat			Goal			Circ: Location (spatial)		

56.			to employ	two or more tanning machines.	
			Pr: Mat	Goal	
57.	Therefore,	NPV	should be	more important characteristic than IRR and payback period.	
		Carrier	Pr: Rel, Attrib	Attribute	
58.	As	per our analysis, Dome Unit's present value under the base case	is	\$30,589	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	
59.	as		compared to	\$20,567	under the Tanning Bed Base Case.
			Pr: Ment	Phenomenon	Circ: Contingency
60.	However, since	project lives	are	different	
		Carrier	Pr: Rel, Attrib	Attribute	
61.	and	they	are	mutually exclusive,	
		Carrier	Pr: Rel, Attrib	Attribute	
62.		the regular NPV method	may not indicate	the better project,	
		Carrier	Pr: Rel, Attrib	Attribute	
63.	therefore,	we	calculate	the Equivalent Annual Annuities (EAA)	
		Actor	Pr: Mat	Goal	
64.		by	using	the NPV of each project over its stated life	
			Pr: Mat	Goal	
65.	and then	(we)	found	the constant annual cash flow	
		Senser	Pr: Ment	Phenomenon	
66.	that	this NPV	would provide over	the project initial life.	
		Actor	Pr: Mat	Scope	
67.	Since	the projects	would be		presumably
		Actor	Pr: Mat		Circ: Manner (quality)
68.			being repeated		indefinitely,
			Pr: Mat		Circ: Extent
69.		those annuity payments	would continue		indefinitely
		Actor	Pr: Mat		Circ: Extent
70.	and	the project that	provided	the higher stream	
		Token	Pr: Rel, Ident	Value	
71.			is	the better option.	
		Carrier	Pr: Rel, Attrib	Attribute	
72.	Equivalent Annual Annuity (EAA) Base case				
			Dome Unit	Tanning Bed	

	Present Value (PV)	-30588.79		-20567.36							
	Number of Years (N)	8		5							
	Discount Rate (K)	14.28%		14.28%							
	Future Value (FV)	0		0							
	Annual Payment (PMT)	\$6,656		\$6,031							
		Token	Pr: Implicit, Rel, Ident (10 instances)	Value							
73.	As	we	see	in the table							
		Senser	Pr: Ment	Phenomenon							
74.	according to	Equivalent Annual Annuity (EEA),	investing in	Dome Unit							
		Circ: Angle	Pr: Mat	Goal							
75.	still		is	the best choice							
			Pr: Rel, Attrib	Attribute							
76.	because	its annual payments	are	higher than Tanning Bed annual payments.							
		Carrier	Pr: Rel, Attrib	Attribute							
77.	For the both tanning options,	we	perform	sensitivity analysis	under most likely case (70% occupancy).						
		Actor	Pr: Mat	Goal	Circ: Contingency						
78.	For this	we	compute	the likely scenario for an increase							
		Actor	Pr: Mat	Goal							
79.	as well as	decrease in revenues to the extent of 10%.									
80.	Sensitivity Analysis (Revenue +10%) Discounted Incremental Cash Flows at 14.28%										
	Particulars	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	
	Dome Unit (CFs)	(\$26500)	\$6,989	\$6,438	\$5,925	\$5,447	\$5,003	\$4,591	\$4,209	\$3,856	
	Tanning Bed (CFs)	(\$16500)	\$5,667	\$5,257	\$4,869	\$4,503	\$4,159	-	-	-	
		Token	Pr: Implicit, Rel, Ident (15 instances)				Value				
81.	Sensitivity Analysis (Revenue -10%) Discounted Incremental Cash Flows at 14.28%										
	Particulars	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	
	Dome Unit (CFs)	(\$26500)	\$2,370	\$2,376	\$2,311	\$2,194	\$2,075	\$1,955	\$1,837	\$1,720	
	Tanning Bed (CFs)	(\$16500)	\$2,610	\$2,581	\$2,460	\$2,335	\$2,207	-	-	-	
		Token	Pr: Implicit, Rel, Ident (15 instances)				Value				
82.	Calculation for NPV, Payback Period and IRR is as follows:										
	Investment Criteria	Revenue (-10%)		70% Most Likely		Revenue (+10%)					
		Dome Unit	Tanning Bed	Dome Unit	Tanning Bed	Dome Unit	Tanning Bed				
	NPV	(\$9,662)	(\$4,306)	\$3,251	\$1,866.49	\$15,957	\$7,956				
	PP	7.08 Yrs	4.58 Yrs	4.38 Yrs	3.24 Yrs	3.14 Yrs	2.47 Yrs				
	IRR	3.00%	3.37%	17.61%	18.70%	29.60%	32.18%				

		Token	Pr: Implicit, Rel, Ident (19 instances)	Value	
83.		The sensitivity analysis	is	type	of risk analysis.
		Token	Pr: Rel, Ident	Value	Circ: Matter
84.		This analysis	shows	us	
		Senser	Pr: Ment	Phenomenon	
85.		what	will happen		
		Actor	Pr: Mat		
86.	if	one of variable factors	has been changed.		
		Goal	Pr: Mat		
87.	As	we	see	in the table	
		Senser	Pr: Ment, perception	Phenomenon	
88.		a change in revenue of the most likely case 70%	caused	the NPV	
		Actor	Pr: Mat	Goal	
89.			to change.		
			Pr: Mat		
90.		The table	showed		
		Senser	Pr: Ment	Phenomenon (fact)	
91.	that	when the revenue	increased	by 10%	
		Goal	Pr: Mat		
92.		the NPV	increased	as well.	
		Goal	Pr: Mat		
93.	However,	when the revenue	turns out to be	10%	below the most likely case,
		Token	Pr: Rel, Ident	Value	Circ: Location
94.		both projects	must be rejected		
		Goal	Pr: Mat		
95.	because	NPV	is	negative.	
		Carrier	Pr: Rel, Attrib	Attribute	
96.	In fact,	NPV	is	very sensitive to changes in the revenue volume.	
		Carrier	Pr: Rel, Attrib	Attribute	
97.	Furthermore,	Dome Unit	is	more sensitive to changes in its cash flows more than Tanning bed	
		Carrier	Pr: Rel, Attrib	Attribute	
98.	because	it	has	the highest amount either negative or positive	in the both cases,
		Carrier, Possr	Pr: Rel, Attrib	Attrib, Possd	Circ: Location
99.	but	we	should not ignore		
		Senser	Pr: Ment		
100.	that	the projects lifetime	are playing	a major role	in NPV calculation,

		Actor	Pr: Mat	Goal	Circ: Location
101.		the evidence for that	is	Dome Unit life,	
		Token	Pr: Rel, Ident	Value	
102.		this machine	will last for	8 years,	
		Token	Pr: Rel, Ident	Value	
103.	therefore	it	is	more sensitive than Tanning bed	
		Carrier	Pr: Rel, Attrib	Attribute	
104.		which	will last for	five years.	
		Token	Pr: Rel, Ident	Value	
105.		Some externalities and other relevant issues that	could affect	the decision:	
		Token	Pr: Rel, Ident	Value	
106.	Although	the fact that tanning business	could very well complement	her existing salon business	
		Actor	Pr: Mat	Range	
107.	and also	the calculations	cause	us	
		Senser	Pr: Ment	Phenomenon	
108.			to believe		
			Pr: Ment		
109.	that	the dome unit	would yield	positive contributions	to the firm's revenue,
		Actor	Pr: Mat	Goal	Circ: Accompaniment
110.		Patsy's lack of knowledge about the tanning business	could come		in the way
		Actor	Pr: Mat		Circ: Location
111.		of her	reaping	benefits	from the business to its full potential.
		Actor	Pr: Mat	Goal	Circ: Location
112.	Also	it	is mentioned		
		Sayer	Pr: Verb.		
113.	that	over the past year a number of new salons and nail spas	had come up		in the city.
		Goal	Pr: Mat		Circ: Location
114.	Thus	the threat of external competition	poses	a significant downside	to the investment decision
		Senser	Pr: Ment	Phenomenon	Circ: Extent
115.		It	should be noted		
		Sayer	Pr: Verb.		
116.	that	capital budgeting results	are	not the only evidence	
		Token	Pr: Rel, Ident	Value	
117.		the manager	has to rely on.		

		Actor	Pr: Mat		
118.		Tanning bed	can be bought		from the available cash,
		Actor	Pr: Mat		Circ: Location (spatial)
119.	but	dome unit	requires	debt financing	
		Client	Pr: Mat	Goal	
120.	since	there	is	only \$20,000 in cash	according to the balance sheet.
			Pr: Exist.	Existent	Circ: Contingency
121.	Therefore,	tanning bed	may be	preferable	
		Carrier	Pr: Rel, Attrib	Attribute	
122.		if payable debt financing	is not	available.	
		Carrier	Pr: Rel, Attrib	Attribute	
123.		Dome unit and tanning bed	have	different space requirements	
		Carrier , Possr	Pr: Rel, Attrib	Attrib, Possd	
124.		which	have also to be considered.		
		Phenomenon	Pr: Ment		
125.		If a particular project	cannot be implemented		because of space requirements,
		Goal	Pr: Mat		Circ: Cause (reason)
126.		favorable results of capital budgeting	are	worthless.	
		Carrier	Pr: Rel, Attrib	Attribute	
127.		It	is not clearly stated		in the description
		Sayer	Pr: Verb.		Circ: Location (spatial)
128.	how many	(additional) worker-hours	are needed for	operating tanning facilities.	
	Circ: Extent	Value	Pr: Rel, Ident	Token	
129.		If every hour of operation	requires	one worker	
		Client	Pr: Mat	Goal	
130.			to be paid	\$30,	
			Pr: Mat	Goal	
131.	then	the recommended price \$8.00 per session	is	too low.	
		Carrier	Pr: Rel, Attrib	Attribute	
132.	For our calculation purposes,	we	assume	revenues	from tanning
		Senser	Pr: Ment	Phenomenon (fact)	Circ: Location (spatial)
133.			to grow	in line with	

				inflation i.e. @ 3% p.a.	
			Pr: Mat	Goal	
134.		Profit from sale of tanning lotion, being of the nature of "Other Income"	is assumed to be	constant	
		Carrier	Pr: Rel, Attrib	Attribute	
135.	Similarly	we	assume	electricity costs, bulb costs	
		Senser	Pr: Ment	Phenomenon (fact)	
136.			to grow	in line with inflation@ 3%	
			Pr: Mat	Goal	
137.	In the absence of relevant information,	we	ignore	the space requirement	for the two alternatives
	Circ: Manner	Senser	Pr: Ment	Phenomenon	Circ: Cause
138.	and		do not include	it	in the computation
			Pr: Ment	Phenomenon	Circ: Location
139.		In the absence of certainty regarding the recruitment of part-time labour force, the same	is ignored		in the computation
		Phenomenon	Pr: Ment		Circ: Location
140.		Revenues and variable costs	are adjusted		for inflation
		Phenomenon	Pr: Ment		
141.		Advertisement costs	are assumed to be	fixed at the level \$12000 a year	
		Carrier	Pr: Rel, Attrib	Attribute	
142.	and		do not depend on	inflation.	
			Pr: Ment	Phenomenon	
143.		We	assume		
		Senser	Pr: Ment		
144.	that	the occupancy	is	constant	throughout the lifetime of equipment
		Carrier	Pr: Rel, Attrib	Attribute	Circ: Contingency
145.	and		equal	100% (Best Case), 70% (Most Likely Case) and 40% (Worst Case)	of the maximum occupancy.
			Pr: Rel, Ident	Value	Circ: Matter
146.		Patsy	is considering expanding	her business.	
		Actor	Pr: Mat	Goal	

147.		She	has	two choices, a Dome Unit or a Tanning Bed.	
		Carrier	Pr: Rel, Attrib	Attribute	
148.		Both projects	can produce	the same product.	
		Actor	Pr: Mat	Goal	
149.		She	has to choose	one of them	
		Actor	Pr: Mat	Range	
150.	as	it	is	a mutually exclusive investment.	
		Carrier	Pr: Rel, Attrib	Attribute	
151.	As a result,	she	has to accept	one project	
		Actor	Pr: Mat	Goal	
152.	and		reject	another project.	
			Pr: Mat	Goal	
153.	According to	the base case financial results, we	compared between	the two machines,	
	Circ: Angle	Senser	Pr: Ment	Phenomenon	
154.		we	recommend		
		Sayer	Pr: Verb.		
155.	that	Patsy	should accept	the Dome Unit	over the Tanning Bed
		Actor	Pr: Mat	Goal	Circ: Accompaniment
156.	because	it	provides	not only highest positive NPV	
		Token	Pr: Rel, Ident	Value	
157.	but also	[it] elliptical	provides	the highest IRR	
		Token	Pr: Rel, Ident	Value	
158.	that		exceeds	the required return (WACC) and calculated shorter payback period.	
			Pr: Mat	Goal	

Appendix 39: Transitivity analysis of Group 3's finance text

Title	Major Assignment - Semester 2 2010				
Pseudonym	Ibrahim, Hasan, Sharon and Tracey (Group 3)				
Type of Analysis	Transitivity Analysis				
Program	Master of Commerce				
Module	<i>Principles of Finance</i>				
Number of Words	3387				
Notes	Excluding appendices, T.O.C., List of illustrations & Reference list				
1.	Executive summary				
2.		Rubber Man Ltd	is	a rubber products company	
		Token	Pr: Rel, Ident	Value	
3.		which	owns	2 factories	in Australia.
		Token, Possd	Pr: Rel, Ident, Poss	Value, Possr	Circ: Location
4.	In order		to make	maximum profit to the company,	
			Pr: Mat	Goal	
5.		the Board	decides to accept	an investment proposal among three proposals.	
		Actor	Pr: Mat	Goal	
6.	In this report, firstly, in order to		help	the Rubber Man Ltd	
			Pr: Mat	Goal	
7.			to analyze	the cash flow	
			Pr: Ment	Phenomenon	
8.		several assumptions	are mentioned.		
		Verbiage	Pr: Verb.		
9.	Secondly,	three proposals	are analyzed		by the incremental after-tax net operating cash flow
		Phenomenon	Pr: Ment	Senser	Circ: Manner
10.		which	could calculate	the NPVs, IRRs and PPs	respectively.
			Pr: Mat	Goal	
11.	Thirdly, according to the results of cash flow,	the company	could make	sensitivity analysis	for each proposal
	Circ: Angle	Actor	Pr: Mat	Goal	Client
12.		by	increasing or decreasing	the percentage.	
			Pr: Mat	Goal	
13.	Fourthly,	the company	needs to consider	about the intangible or qualitative factors	in proposal 3.
		Senser	Pr: Ment	Phenomenon	Circ: Location
14.	Finally,	the recommendation	could be suggested	for the company.	

		Phenomenon	Pr: Behav.		
15.		The aim of this paper	is to analyze	NPV& IRR sensitivity analysis and recommendation for each proposal.	
		Senser	Pr: Ment	Phenomenon	
16.		After a series of operating cash flows calculation, the company	should accept	proposal 2	
		Actor	Pr: Mat	Goal	
17.		which	has	greatest NPV, the biggest IRR, and shortest PP as well.	
		Carrier, Possr	Pr: Rel, Attrib, Poss	Attrib, Possd	
18.			Considering	all above the aspect,	
			Pr: Ment	Phenomenon	
19.		this paper	indicates		
		Carrier	Pr: Rel, Attrib		
20.	that	it	is	quite necessary	
		Carrier	Pr: Rel, Attrib	Attribute	
21.			to accept	proposal 2 for Rubber Man Ltd.	
			Pr: Mat	Goal	
22.		<u>1. Introduction</u>			
23.		Rubber Man Ltd	is	a Brisbane-based company	
		Token	Pr: Rel, Ident	Value	
24.		which	has	another factory	in Adelaide.
		Carrier, Possr	Pr: Rel, Attrib, Poss	Attrib, Possd	Circ: Location
25.		It	produces	a range of rubber products for building, playgrounds and sport facilities.	
		Actor	Pr: Mat	Goal	
26.	According to the economic downturn,	the company	decides to make	an investment decision for company's future developMent.	
	Circ: Cause (behalf)	Actor	Pr: Mat	Goal	
27.	In this report,	the company	has	three proposals.	
		Carrier, Possr	Pr: Rel, Attrib, Poss	Attrib, Possd	
28.	Firstly,		remove	the factory	from Adelaide to Thailand;
			Pr: Mat	Goal	Circ: Location (spatial)
29.	secondly,		replace	IT system;	
			Pr: Mat	Goal	
30.	thirdly,		hire	new employees	
			Pr: Mat	Goal	

31.			to improve	product quality and design new product.	
			Pr: Mat	Goal	
32.	Therefore,	through this report, the company	would make	a final, reasonable and efficient decision for running their business	in next ten years.
		Actor	Pr: Mat	Goal	Circ: Location
33.	For analysis of each proposal,	Rubber Man Ltd	uses	the incremental after-tax net operating cash flow	
		Actor	Pr: Mat	Goal	
34.			to calculate	the Net Present Value (NPV), Internal Rate of Return (IRR) and Payback Period (PP)	
			Pr: Mat	Goal	
35.			to make	a decision.	
			Pr: Mat	Goal	
36.	In addition,	the analysis	is base <sic> on	the "Operating Cash Flow (OCF)	
		Senser	Pr: Ment	Phenomenon	
37.			=		
			Pr: Rel, Ident		
38.		Earnings before Interest and Tax (EBIT)	-	Taxes	
		Actor	Pr: Mat	Goal	
39.			+	Depreciation and amortisation charges.	
		Actor	Pr: Mat	Goal	
40.		This report	will put	toward on NPV& IRR analysis, sensitivity analysis and recommendation	for each proposal.
		Senser	Pr: Ment	Phenomenon	Circ: Extent (temporal)
41.		<u>2. Assumptions</u>			
42.		All these proposals	are based on	several same assumptions.	
		Senser	Pr: Ment	Phenomenon	
43.	Firstly,	all cash flows	are calculated	incremental cash flows	at the end of each year.
		Goal	Pr: Mat	Range	Circ: Temporal
44.	Moreover,	current yearly revenue	is	\$ 10 million	
		Token	Pr: Rel, Ident	Value	
45.		which	could influenced	by 5% growth rate, discount rate (12%), tax rate	each year.

				(30%) and inflation rate (3.5%)	
		Goal	Pr: Mat	Actor	Circ: Extent
46.	Secondly,	discount rate 12%	should be treated as	a nominal interest rate	
		Token	Pr: Rel, Ident	Value	
47.		which	means		
		Phenomenon	Pr: Ment		
48.		for all the proposals no	need to multiply	the real rate and inflation rate again.	
			Pr: Mat	Goal	
49.	Thirdly,	incremental working capital requirement and incremental working capital contribution which	are restored		annually
		Goal	Pr: Mat		
50.			are based on	sales revenue.	
			Pr: Ment	Phenomenon	
51.	Finally, in order to	convenience <sic>	illustrate	the calculation process,	
		Actor	Pr: Mat	Goal	
52.		all the analysis figures	are based on	the before tax effect.	
		Senser	Pr: Ment	Phenomenon	
53.		<u>3. Proposal 1</u>			
54.	In proposal 1,	the company	aims to beat	the margin squeeze	
	Circ: Location	Actor	Pr: Mat	Goal	
55.		by	cutting	labour cost,	
			Pr: Mat	Goal	
56.		they	would relocate	Adelaide factory to Thailand.	
		Actor	Pr: Mat	Goal	
57.	In addition,	the company	is required to decide	two scenarios:	
		Senser	Pr: Ment	Phenomenon	
58.	firstly,		lease	Adelaide Factory	with proper lease revenue;
			Pr: Mat	Goal	Circ: Accompaniment
59.	secondly,		sale	Adelaide Factory after Thailand fully operational.	
			Pr: Mat	Goal	
60.	In order		to analyse	the two scenarios,	
			Pr: Ment	Phenomenon	
61.		this report	assume		
		Senser	Pr: Ment		
62.	that	the company	will pay	Thailand Factory lease expense	at the beginning of each year from year 0.

		Actor	Pr: Mat	Recipient	Circ: Location
63.		3.1. Leasing scenario:			
64.		The report	assumes		
		Senser	Pr: Ment		
65.	that	the company	will receive	Adelaide Factory leasing revenue	at the beginning of each year from year 2.
		Recipient	Pr: Mat	Goal	Circ: Location
66.			Implementing	leasing scenario	
			Pr: Mat	Goal	
67.			would affect	the company cash inflows.	
			Pr: Rel, Ident	Value	
68.	Firstly,	the company	could lease	Adelaide Factory,	
		Actor	Pr: Mat	Goal	
69.	and	it	could generate	a cash inflow	
		Actor	Pr: Mat	Goal	
70.		which	is estimated	4.4 % of Adelaide annual sales contribution	
		Senser	Pr: Ment	Phenomenon	
71.		that	can be translated to	\$ 2.9 M	during ten years period.
		Token	Pr: Rel, Ident	Value	Circ: Location (temporal)
72.	In addition,	cash inflows under leasing scenario	could be increased	by Adelaide Factory salvage value	at the end of year 10.
		Goal	Pr: Mat	Actor	Circ: Location
73.		It	could contribute to	company \$ 1 M	
		Token, Possd	Pr: Rel, Ident, Poss	Value, Possr	
74.		which	equals to	1.5% of Adelaide annual sales contribution.	
		Token	Pr: Rel, Ident	Value	
75.	Furthermore,	leasing scenario	might increase	the cash inflows sharply	due to a huge saving in operating cost by \$ 16.5 M
		Actor	Pr: Mat	Goal	Circ: Cause (reason)
76.		which	is equals <sic>	to 25% of Adelaide annual sales contribution.	
		Token	Pr: Rel, Ident	Value	
77.		There	are	many factors	
			Pr: Exist.	Existent	
78.		that	might influence	leasing scenario cash outflows.	
		Actor	Pr: Mat	Goal	
79.	Firstly, according to	Australian labour law, the company	must pay	redundancy package \$ 2.5 M	to Adelaide Factory's employees,
	Circ: Angle	Actor	Pr: Mat	Goal	Recipient
80.	and	this incremental outflow	would equal to	approximately 3.8% of Adelaide	

				annual sales contribution.	
		Token	Pr: Rel, Ident	Value	
81.	Moreover, if	the company	decides to lease	Adelaide Factory,	
		Actor	Pr: Mat	Goal	
82.		it	means		
		Senser	Pr: Ment		
83.		this factory	could not be sold		
		Goal	Pr: Mat		
84.		which	is treated	it <sic> as an opportunity cost \$ 4 M by approximately 6% (Adelaide factory salvage value revenue / Adelaide annual sales contribution) of Adelaide annual sales contribution.	
		Token	Pr: Rel, Ident	Value	
85.		3.2. Selling scenario			
86.			Selling	Adelaide Factory	
			Pr: Mat	Goal	
87.			would generate	cash inflow	from Adelaide Factory salvage value and incremental depreciation.
			Pr: Mat	Goal	Circ: Location
88.	If	the company	sells	Adelaide factory	
		Actor	Pr: Mat	Goal	
89.		they	would receive	\$ 4 M	
		Recipient	Pr: Mat	Goal	
90.		which	equals to	6 % of Adelaide annual sales contribution.	
		Token	Pr: Rel, Ident	Value	
91.	Furthermore,	this scenario still	could produce	cash inflow	from Thailand salvage at the end year 10
		Actor	Pr: Mat	Goal	Circ: Location
					Circ: Accompaniment
92.	In addition,	the incremental deprecation	could bring	a huge cash inflow	from \$ 83k to \$ 750 k.
		Actor	Pr: Mat	Goal	Circ: Location
93.		This process	can support	this proposal	
		Token	Pr: Rel, Ident	Value	
94.			to create	cash inflow	from tax saving after year 2
			Pr: Mat	Goal	Circ: Location
95.		that	can be translated to	\$ 225k	instead of \$ 25k.

		Token	Pr: Rel, Ident	Value	Circ: Contingency
96.	On the other hand,	there	are	some difference cash outflows between selling and leasing scenario.	
			Pr: Exist	Existent	
97.	For the selling scenario,	it	would be affected	by two opportunity cost.	
		Goal	Pr: Mat	Actor	
98.	Firstly,	if the company	will not be able to lease	Adelaide Factory,	
		Actor	Pr: Mat	Goal	
99.		the cash outflow	will increase	up to \$ 4 M.	
		Actor	Pr: Mat	Goal	
100.	Secondly,	\$1 M	should be considered		as opportunity cost
		Phenomenon	Pr: Ment		Circ: Role
101.		which	means		
		Senser	Pr: Ment		
102.		the company	would lose	the leasing revenue	from year 2.
		Actor	Pr: Mat	Goal	Circ: Location
103.		<u>4. Proposal 2</u>			
104.		Proposal 2	supposes		
		Senser	Pr: Ment		
105.	that	both two factories	would install	a new IT system .	for all the production lines
		Actor	Pr: Mat	Goal	Recipient
106.	Under the streamline internal ordering and despatch functions,	the company	could increase	the efficiency of production and transportation.	
	Circ: Contingency	Actor	Pr: Mat	Goal	
107.	According to the results of NPV \$ 254,961, IRR 13.50%, and PP 5.25years,	the proposal 2	provides	company	a positive value , greater return rate than discount rate 12%
	Circ: Angle	Actor	Pr: Mat	Recipient	Goal
108.	and	shorter time	to recover	its initial cost.	
		Actor	Pr: Mat	Goal	
109.	In propose <sic> 2,	the report	assumes		
	Circ: Location	Senser	Pr: Ment		

110.	that	there	are	no book value and no salvage value	in the previous IT system
			Pr: Exist.	Existent	Circ: Location
111.		when new system	was installed	at year 0.	
		Goal	Pr: Mat	Client	
112.		There	are	three incremental cash inflows	
			Pr: Exist.	Existent	
113.			refer	to the new IT system.	
			Pr: Ment	Phenomenon	
114.	First of all,	new system	could lead	a decrease working capital requirement	from 15% to 7% of forecasted sales each year.
		Actor	Pr: Mat	Goal	Circ: Location
115.	That is to say,	there	is	an incremental working capital contribution up to \$1.3M,	
			Pr: Exist.	Existent	
116.	and then		recovers	it	at the end of the year.
			Pr: Mat	Goal	Circ: Location
117.	Moreover,	rising production processes	could reduce	labour cost by 7.5% of sales revenue per year	
		Actor	Pr: Mat	Goal	
118.		which	equals to	\$ 9.9 million.	
		Token	Pr: Rel, Ident	Value	
119.	Furthermore,	company	should concern	about \$ 0.4 M salvage value	during the ten-year life.
		Senser	Pr: Ment	Phenomenon	Circ: Location
120.		The company	insists		
		Actor	Pr: Mat		
121.	that	the book value	would be	zero	
		Carrier	Pr: Rel, Attrib	Attribute	
122.		when the new system still	has	a salvage value	at the end of year 10.
		Carrier, Possr	Pr: Rel, Attrib, Poss	Attrib, Possd	Circ: Location
123.	Thus,	the salvage value	could treat <sic>	as a cash inflow	at the last year in the Incomes Tax Rules (Feldstein, 1999)
		Token	Pr: Rel, Ident	Value	Circ: Location
124.	On the other hand,	there	are	several outflows	in the proposal 2.
			Pr: Exist.	Existent	Circ: Location
125.	For each factory,	the advance technology	would cost	\$ 3 million	for initial cost
		Actor	Pr: Mat	Goal	Client
126.	and			\$ 1 million	for set-up cost.
				Goal	Client
127.	Similarly,	the depreciation for new system	would follow	straight-line rule	

		Actor	Pr: Mat	Goal	
128.		which	equals to	\$ 0.5 million per year	
		Token	Pr: Rel, Ident	Value	
129.	and		have	a zero book value	at the end of year 10.
		Carrier, Possr	Pr: Rel, Attrib, Poss	Attrib, Possd	Circ: Location
130.	In addition,	there	is	an incremental maintenance cost (cash outflow) per year	
			Pr: Exist.	Existent	
131.		which	is increasing	by the inflation rate.	
		Actor	Pr: Mat	Range	
132.		<u>5. Proposal 3</u>			
133.		Proposal 3	supposes		
		Senser	Pr: Ment		
134.	that	the company	would hire	seven new engineers	
		Actor	Pr: Mat	Goal	
135.			to develop	new product	
			Pr: Mat	Goal	
136.	and		improve	quality in ten years.	
			Pr: Mat	Goal	
137.	Meanwhile,	the market share for company	could be improved	by the new product	
		Goal	Pr: Mat	Actor	
138.		which	remains	until year 10.	
		Token	Pr: Rel, Ident	Value	
139.	Through the analysis,	the expected NPV	is	\$ 122,018,	
		Token	Pr: Rel, Ident	Value	
140.		IRR	is	13.14%	
		Token	Pr: Rel, Ident	Value	
141.	and	PP	is	6.35 years for this proposal.	
		Token	Pr: Rel, Ident	Value	
142.		The seven new engineers	could create	6% increase on the yearly sales revenue	
		Actor	Pr: Mat	Goal	
143.		which	result in	a cash inflow \$ 7.3 million	from the year 2.
		Carrier	Pr: Rel, Attrib	Attribute	Circ: Location
144.	Moreover,	the new product also	could bring	another cash inflow from the enhancing market share \$ 15 million	
		Actor	Pr: Mat	Goal	
145.		which	equals to	12% of the total project revenue.	
		Token	Pr: Rel, Ident	Value	
146.	Conversely,	it	is	necessary	

		Carrier	Pr: Rel, Attrib	Attribute	
147.			to consider	cash outflows	in proposal 3.
		Senser	Pr: Ment	Phenomenon	Circ: Location
148.	Firstly,	seven employees	cost	the company \$0.53 M from year 1	
		Token	Pr: Rel, Ident	Value	
149.			increased by	the inflation rate to year 10 totally \$ 6M.	
			Pr: Mat	Actor	
150.	Secondly,	the cost of sales for new product	takes up	40% of sales revenue	
		Actor	Pr: Mat	Goal	
151.		which totally	equals to	\$ 9 million.	
		Token	Pr: Rel, Ident	Value	
152.	Thirdly,	it	could assume		
		Senser	Pr: Ment	Phenomenon	
153.	that	upgrade cost	should be treated	as an asset	
		Token	Pr: Rel, Ident	Value	
154.		which	could be depreciated	\$ 0.15 M per year.	
		Actor	Pr: Mat	Goal	
155.	Fourthly,	administration cost	could be increased	by inflation rate up to \$ 0.18 M totally.	
		Actor	Pr: Mat	Goal	
156.	Moreover,	there	is	a negative working capital contribution \$ 0.46 M	from the difference between old product and new product,
			Pr: Exist.	Existent	Circ: Location
157.	and then	it	would recover	at the end of year.	
		Actor	Pr: Mat	Goal	
158.		The last cash outflow	is	opportunity cost	
		Token	Pr: Rel, Ident	Value	
159.		which	means		
		Senser	Pr: Ment	Phenomenon	
160.		new product sales revenue	will replace	the old product sales revenue.	
		Actor	Pr: Mat	Goal	
161.	Consequently,	the company	need to treat	old product sales revenue	as an opportunity cost for cash outflow by \$1.7 M (after tax).
		Assigner	Pr: Rel, Ident	Token	Value
162.	Finally,	the company	assumes		
		Senser	Pr: Ment	Phenomenon	
163.	that	old products	have	no initial cost as a sunk cost	in the year 0.
		Carrier, Possr	Pr: Rel, Attrib, Poss	Attrib, Possd	Circ: Location
164.		<u>6. Proposals Sensitivity analysis</u>			
165.	Generally,	Sensitivity analysis	is	the calculating procedure	

		Token	Pr: Rel, Ident	Value	
166.		which	is used	widely	in investment decision making.
		Token	Pr: Rel, Ident	Value	Circ: Location
167.		This procedure	is used	for prediction of effect of changes of input (sales revenue, operating costs saving, salvage value, etc) data on output results of one model.	
		Actor	Pr: Mat	Goal	
168.	After inputting some variable values,	the investment-project evaluation	can be presented	in a range interval, like NPV1, NPV2, NPV3, etc.	
		Token	Pr: Rel, Ident	Value	
169.		6.1. Proposal 1			
170.		6.1.1. Leasing scenario			
171.		It	is discovered	by sensitivity analysis	
		Phenomenon	Pr: Ment	Senser	
172.	that	, proposal 1 (leasing scenario), expected NPV	is	\$-4.8M	
		Token	Pr: Rel, Ident	Value	
173.	and	IRR	is	2.10%.	
		Token	Pr: Rel, Ident	Value	
174.		There	are	three negative correlation factors and four positive correlation factors.	
			Pr: Exist.	Existent	
175.	For example,	Incremental Adelaide factory leasing revenue and incremental cost saving	are	obvious positive correlation factors.	
		Token	Pr: Rel, Ident	Value	
176.		If the Incremental cost saving	increase	by 30%,	
		Actor	Pr: Mat	Goal	
177.		the NPV	will change	from \$-4.8 M to \$-2.9M.	
		Actor	Pr: Mat	Goal	
178.	However, as positive correlation factors,	the incremental revenue and incremental cost saving	have not put	huge impacts on NPV and IRR.	
		Senser	Pr: Ment	Phenomenon	
179.	As	there	are	several outflows factors, like Incremental	

				leasing cost (Thailand factory) and opportunity cost (if lease Adelaide factory).	
			Pr: Exist.	Existent	

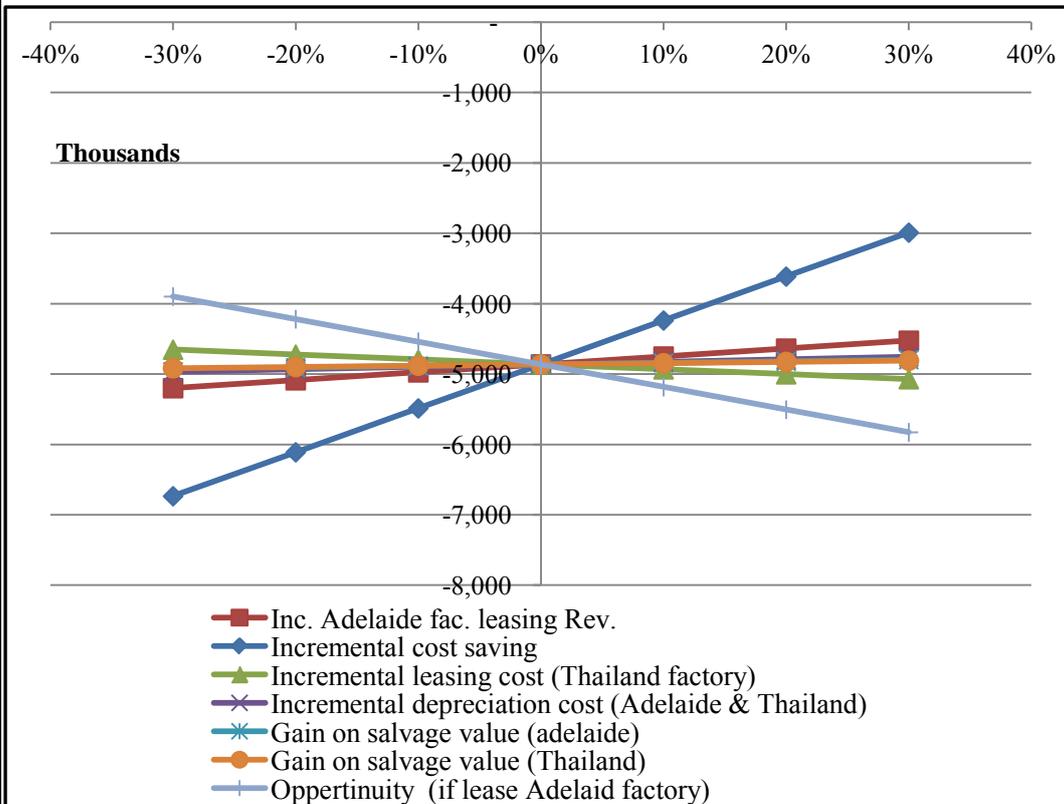
180. Table 1: Sensitivity analysis for Proposal1-leasing scenario (changing in NPV)

181.	Base level	Resulting NPV (000s)							
		Inc. Adelaide leasing Rev.	Inc. cost saving	Inc. leasing cost (Thailand)	Inc. dep. cost (Ade. & Thai)	Gain on salvage (Adelaide)	Gain on salvage (Thailand)	Opportunity (Adelaide leased)	
		30%	- 4,524,655	- 2,989,345	- 5,071,718	- 4,756,679	- 4,794,168	- 4,807,691	- 5,826,068
		20%	- 4,637,031	- 3,613,491	- 5,001,740	- 4,791,713	- 4,816,706	- 4,825,721	- 5,504,639
		10%	- 4,749,407	- 4,237,637	- 4,931,761	- 4,826,748	- 4,839,244	- 4,843,752	- 5,183,211
		0%	- 4,861,782	- 4,861,782	- 4,861,782	- 4,861,782	- 4,861,782	- 4,861,782	- 4,861,782
		-10%	- 4,974,158	- 5,485,928	- 4,791,804	- 4,896,817	- 4,884,320	- 4,879,813	- 4,540,354
		-20%	- 5,086,534	- 6,110,074	- 4,721,825	- 4,931,851	- 4,906,859	- 4,897,843	- 4,218,925
		-30%	- 5,198,909	- 6,734,219	- 4,651,846	- 4,966,886	- 4,929,397	- 4,915,874	- 3,897,497

	Token	Pr: Implicit, Rel, Ident (49 instances)	Value
--	--------------	--	--------------

182. Figure1: Sensitivity analysis for Proposal1-leasing scenario (changing in NPV)

183. **TRANSITIVITY analysis of the graph below (184-200):**



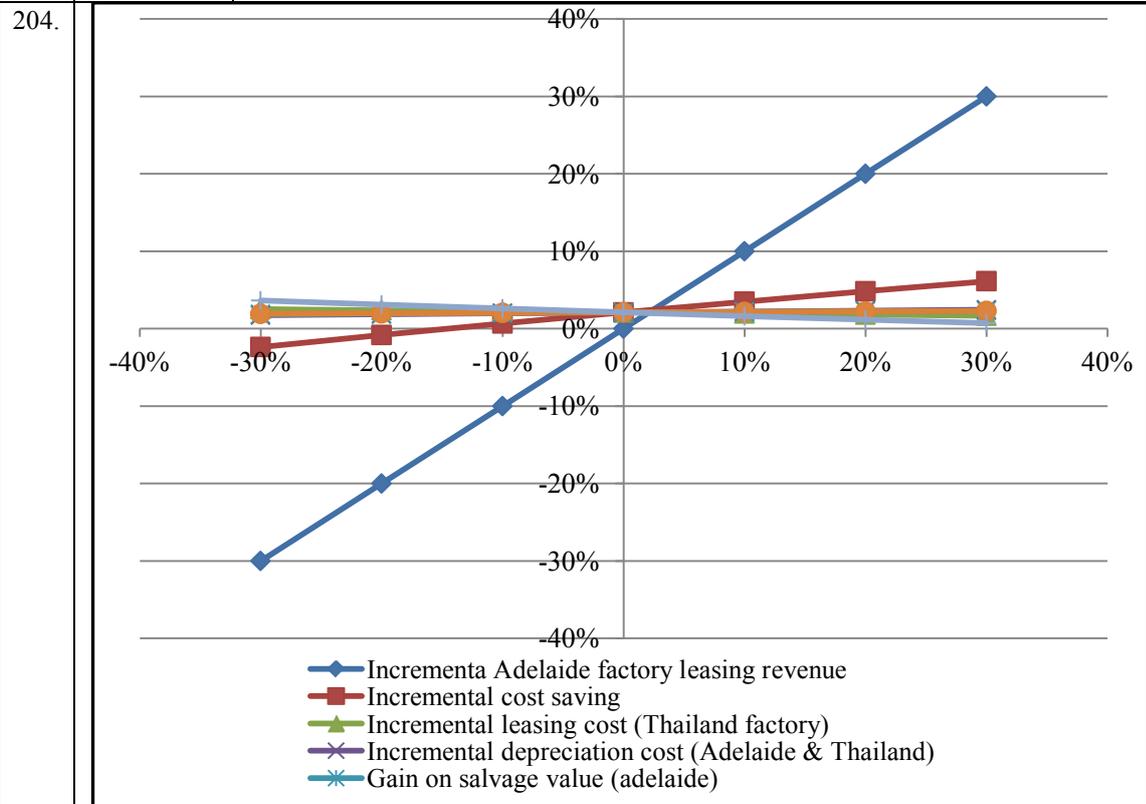
184.	When all of the inputs	are set at		at their base-case levels,
	Recipient	Pr: Implicit, Mat	Goal	Circ: Location

					(spatial)
185.		their deviations from the base	are	all zero	
		Token	Pr: Implicit, Rel, Ident	Value	
186.	and	the NPV	is	\$ 5000,00.	
		Token	Pr: Implicit, Rel, Ident	Value	
187.	If	Inc. Adelaide Fac. Leasing revenue	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
188.		the NPV	would be	\$ 4,5000,00.	
		Token	Pr: Implicit, Rel, Ident	Value	
189.	If	Incremental cost saving	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
190.		the NPV	would be	\$ 3,000,00.	
		Token	Pr: Implicit, Rel, Ident	Value	
191.	If	Incremental leasing cost	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
192.		the NPV	would be	\$ 5,100,00.	
		Token	Pr: Implicit, Rel, Ident	Value	
193.	If	Incremental depreciation cost	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
194.		the NPV	would be	\$ 4,100,00.	
		Token	Pr: Implicit, Rel, Ident	Value	
195.	If	Gain on salvage value (Adelaide)	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
196.		the NPV	would be	\$ 4,100,00.	
		Token	Pr: Implicit, Rel, Ident	Value	
197.	If	Gain on salvage value (Thailand)	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
198.		the NPV	would be	\$ 4,100,00.	
		Token	Pr: Implicit, Rel, Ident	Value	
199.	If	Opportunity cost	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
200.		the NPV	would be	\$ 5,800,00.	
		Token	Pr: Implicit, Rel, Ident	Value	
201.	Table 2: Sensitivity analysis for Proposal1-leasing scenario (changing in IRR)				
202.		Base level	Resulting IRR (000s)		

	Inc. Adelai de leasing Rev.	Inc. cost saving	Inc. leasing cost (Thailand)	Inc. dep. cost (Ade. & Thai)	Gain on salvage (Adelaide)	Gain on salvage (Thailand)	Opportunity (Adelaide leased)
30%	2.85%	6.14%	1.67%	2.45%	2.33%	2.29%	0.72%
20%	2.60%	4.83%	1.82%	2.34%	2.26%	2.23%	1.16%
10%	2.35%	3.49%	1.96%	2.22%	2.18%	2.16%	1.62%
0%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%
-10%	1.85%	0.67%	2.24%	1.98%	2.02%	2.04%	2.59%
-20%	1.60%	-0.82%	2.39%	1.86%	1.94%	1.98%	3.10%
-30%	1.34%	-2.37%	2.53%	1.74%	1.86%	1.91%	3.63%

	Token	Pr: Implicit, Rel, Ident (49 instances)	Value
--	--------------	--	--------------

203. Figure2: Sensitivity analysis for Proposal1-leasing scenario (changing in IRR)



TRANSITIVITY analysis of the graph below (205-214):

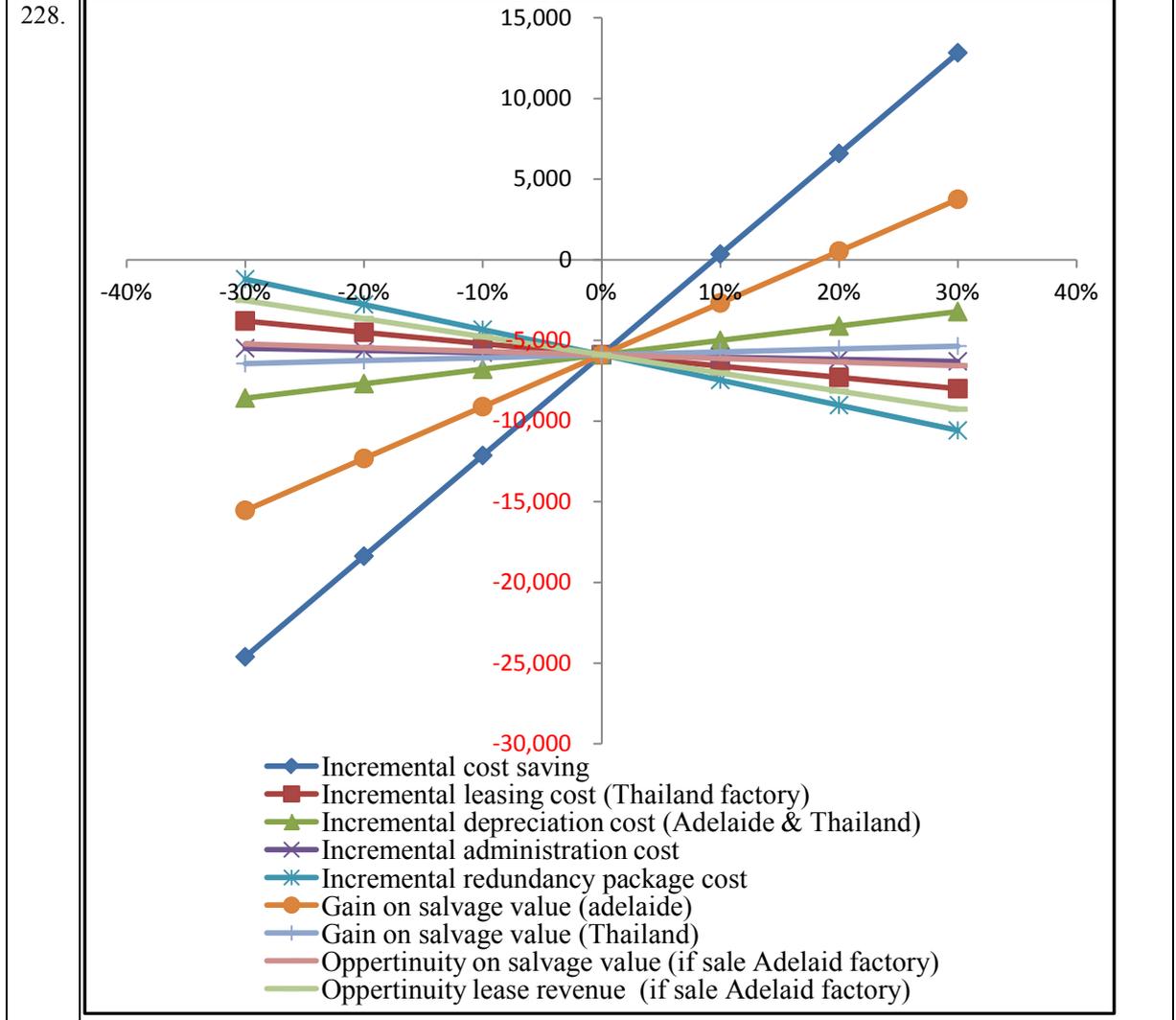
205.	If	Incremental Adelaide factory leasing revenue	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
206.		the NPV	would be	0%.	
		Token	Pr: Implicit, Rel, Ident	Value	
207.	If	Incremental cost saving	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
208.		the NPV	would be	8%.	
		Token	Pr: Implicit, Rel, Ident	Value	
209.	If	Incremental leasing cost	is set	30%	above its expected price

		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)					
210.		the NPV	would be	8%.						
		Token	Pr: Implicit, Rel, Ident	Value						
211.	If	Incremental depreciation cost	is set	30%	above its expected price					
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)					
212.		the NPV	would be	8%.						
		Token	Pr: Implicit, Rel, Ident	Value						
213.	If	Gain on salvage	is set	30%	above its expected price					
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)					
214.		the NPV	would be	8%.						
		Token	Pr: Implicit, Rel, Ident	Value						
215.		6.1.2. Selling scenario:								
216.	For the sellings scenario,	if both incremental revenue and gain on salvage (Adelaide)	could increase to	30%	respectively,					
		Actor	Pr: Mat	Goal	Circ: Manner (quality)					
217.		the NPV for selling scenario	would become	positive \$1.3 M and \$0.37 M	respectively.					
		Actor	Pr: Mat	Goal	Circ: Manner (quality)					
218.	Similarly,	if incremental cost saving	will increase	10%, the NPV would be	from -\$0.58M to \$0.035M,					
		Actor	Pr: Mat	Goal	Circ: Extent					
219.	and	the maximum figure	is	\$1.28M						
		Token	Pr: Rel, Ident	Value						
220.		which	mean							
		Senser	Pr: Ment							
221.		the company	would have	greater benefits than before.						
		Carrier, Possr	Pr: Rel, Attrib, Poss	Attrib, Possd						
222.	Conversely,	the rest of the variable	may lead	a negative NPV and unacceptable IRR.						
		Carrier	Pr: Rel, Attrib	Attribute						
223.	For example,	if the negative correlation factor 'redundancy cost'	will increase	30%,						
		Actor	Pr: Mat	Goal						
224.		the NPV	would have	an apparent change	from -\$0.58M to \$1.05M.					
		Carrier, Possr	Pr: Rel, Attrib, Poss	Attrib, Possd	Circ: Extent					
225.		Table 3: Sensitivity analysis for Proposal1-selling scenario (changing in NPV)								
226.	Base level	Resulting NPV (000s)								
		Inc. cost saving	Inc. leasing cost (Thai)	Inc. dep. cost (Ade. & Thai)	Inc. adm. cost	Inc. redundancy cost	Gain on salvage (Adelaide)	Gain on salvage (Thai)	Opp. Cost on salvage (leasing)	Opp. cost (sales)

30%	1,283,333	-799,040	-321,285	-629,559	-1,057,854	375,182	-535,013	-656,718	-926,231
20%	659,187	-729,061	-410,558	-616,074	-901,604	53,753	-553,043	-634,180	-813,856
10%	35,042	-659,083	-499,831	-602,589	-745,354	-267,676	-571,074	-611,642	-701,480
0%	-589,104	-589,104	-589,104	-589,104	-589,104	-589,104	-589,104	-589,104	-589,104
-10%	-1,213,250	-519,125	-678,377	-575,619	-432,854	-910,533	-607,135	-566,566	-476,728
-20%	-1,837,395	-449,147	-767,650	-562,134	-276,604	-1,231,961	-625,165	-544,028	-364,353
-30%	-2,461,541	-379,168	-856,923	-548,649	-120,354	-1,553,390	-643,196	-521,490	-251,977

	Token	Pr: Implicit, Rel, Ident (63 instances)	Value
--	--------------	--	--------------

227. Figure 3: Sensitivity analysis for Proposal1-selling scenario (changing in NPV)

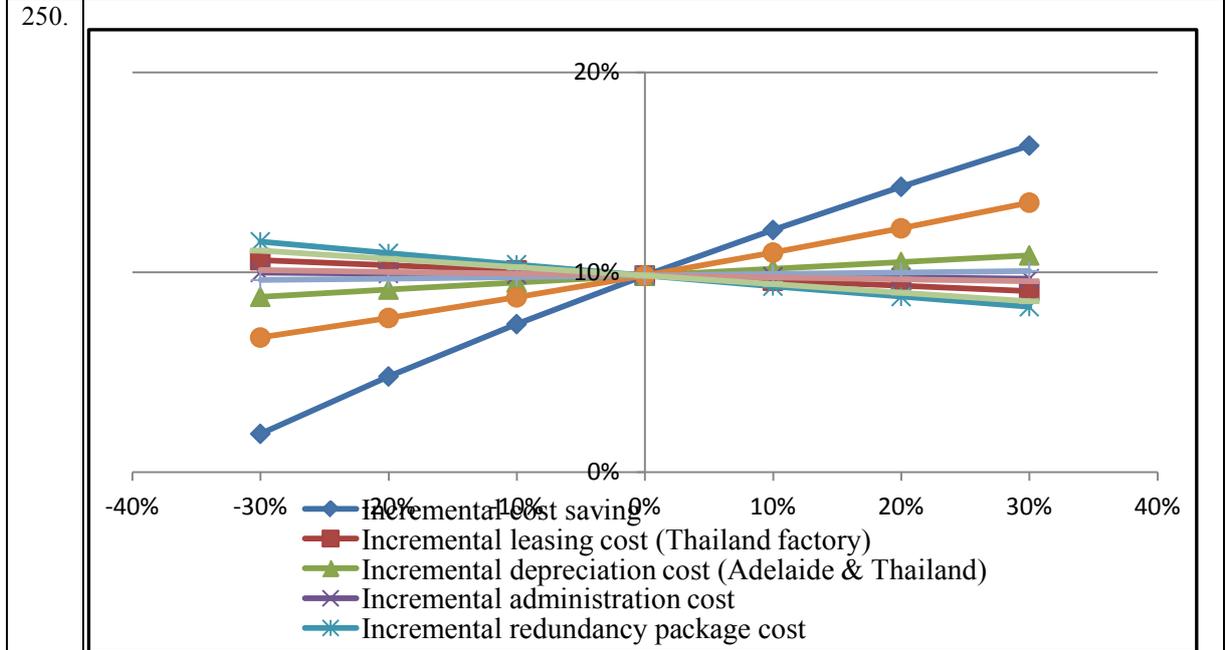


229.	If	Incremental cost saving	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
230.		the NPV	would be	\$12,500,00.	
		Token	Pr: Implicit, Rel, Ident	Value	
231.	If	Incremental leasing cost	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
232.		the NPV	would be	\$5000,00.	

-10%	7.41%	10.10%	9.50%	9.89%	10.39%	8.75%	9.77%	9.94%	10.26%
-20%	4.79%	10.36%	9.14%	9.94%	10.96%	7.72%	9.69%	10.03%	10.68%
-30%	1.92%	10.62%	8.78%	10.00%	11.54%	6.74%	9.62%	10.12%	11.09%

	Token	Pr: Implicit, Rel, Ident (63 instances)	Value
--	--------------	---	--------------

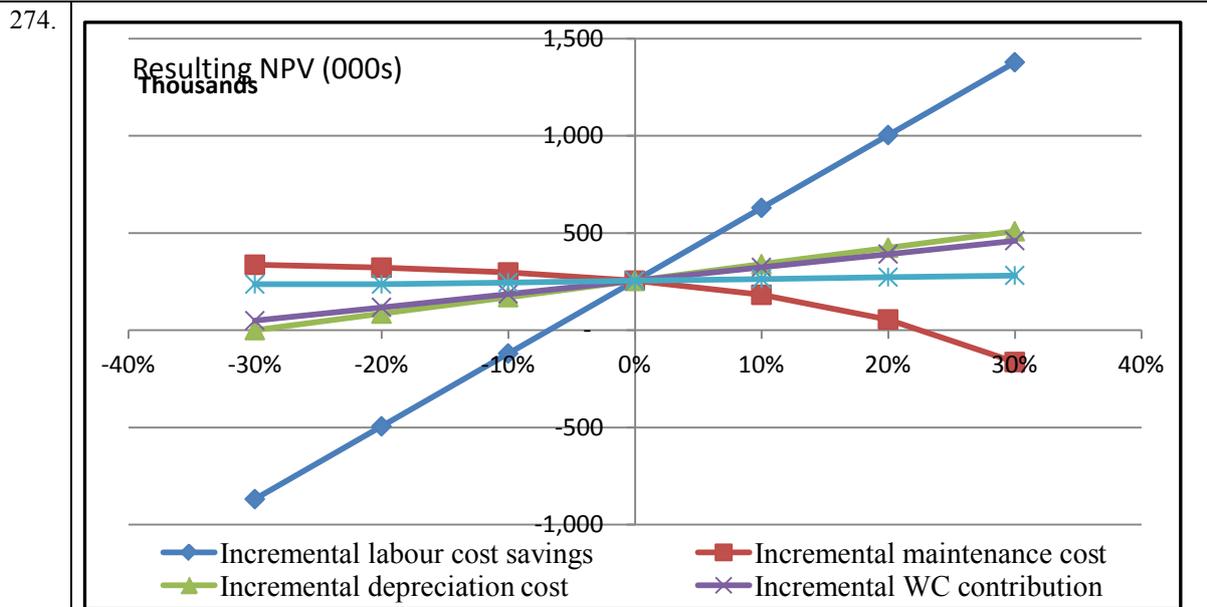
249. **Figure 4: Sensitivity analysis for Proposal1-selling scenario (changing in IRR)**



TRANSITIVITY analysis of the graph below (251-260):

251.	If	Incremental cost saving	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
252.		the NPV	would be	10%.	
		Token	Pr: Implicit, Rel, Ident	Value	
253.	If	Incremental leasing cost	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
254.		the NPV	would be	10%.	
		Token	Pr: Implicit, Rel, Ident	Value	
255.	If	Incremental depreciation cost	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
256.		the NPV	would be	10%.	
		Token	Pr: Implicit, Rel, Ident	Value	
257.	If	Incremental administration cost	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
258.		the NPV	would be	10%.	
		Token	Pr: Implicit, Rel, Ident	Value	
259.	If	Incremental redundancy package cost	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)

260.		the NPV	would be	10%.																																																						
		Token	Pr: Implicit, Rel, Ident	Value																																																						
261.		6.2. Proposal 2																																																								
262.		The expected NPV	is	\$0.25 M																																																						
		Token	Pr: Rel, Ident	Value																																																						
263.	and	IRR	is	13.50% respectively	in proposal 2.																																																					
		Token	Pr: Rel, Ident	Value	Circ: Location																																																					
264.		There	are	three positive correlation factors and one negative correlation factor	in this proposal.																																																					
			Pr: Exist.	Existent	Circ: Location																																																					
265.	For example,	it	has	the greatest NPV																																																						
		Carrier, Possr	Pr: Rel, Attrib, Poss	Attrib, Possd																																																						
266.			equals to	\$1.35M																																																						
			Pr: Rel, Ident	Value																																																						
267.		which	Contributed <sic>	by increase 30% incremental costs of savings.																																																						
		Actor	Pr: Mat	Goal																																																						
268.	On the other hand,	the only one negative correlation factor, incremental maintenance cost,	would lead	a decreasing change in NPV																																																						
		Carrier	Pr: Rel, Attrib	Attribute																																																						
269.			equals to	\$-0.16M																																																						
			Pr: Rel, Ident	Value																																																						
270.		when this parameter	decreases	30%.																																																						
		Actor	Pr: Mat	Goal																																																						
271.	Table 5: Sensitivity analysis for Proposal2 (changing in NPV)																																																									
272.	<table border="1"> <thead> <tr> <th rowspan="2">Base level</th> <th colspan="5">Resulting NPV (000s)</th> </tr> <tr> <th>Incremental labour cost savings</th> <th>Incremental maintenance cost</th> <th>Incremental depreciation cost</th> <th>Incremental WC contribution</th> <th>New system salvage value</th> </tr> </thead> <tbody> <tr> <td>30%</td> <td>1,378,423</td> <td>-163,448</td> <td>509,221</td> <td>460,394</td> <td>282,007</td> </tr> <tr> <td>20%</td> <td>1,003,936</td> <td>55,412</td> <td>424,468</td> <td>391,916</td> <td>272,991</td> </tr> <tr> <td>10%</td> <td>629,448</td> <td>182,107</td> <td>339,714</td> <td>323,439</td> <td>263,976</td> </tr> <tr> <td>0%</td> <td>254,961</td> <td>254,961</td> <td>254,961</td> <td>254,961</td> <td>254,961</td> </tr> <tr> <td>-10%</td> <td>-119,526</td> <td>297,014</td> <td>170,208</td> <td>186,483</td> <td>245,946</td> </tr> <tr> <td>-20%</td> <td>-494,014</td> <td>321,730</td> <td>85,454</td> <td>118,006</td> <td>236,930</td> </tr> <tr> <td>-30%</td> <td>-868,501</td> <td>336,761</td> <td>701</td> <td>49,528</td> <td>236,930</td> </tr> </tbody> </table>					Base level	Resulting NPV (000s)					Incremental labour cost savings	Incremental maintenance cost	Incremental depreciation cost	Incremental WC contribution	New system salvage value	30%	1,378,423	-163,448	509,221	460,394	282,007	20%	1,003,936	55,412	424,468	391,916	272,991	10%	629,448	182,107	339,714	323,439	263,976	0%	254,961	254,961	254,961	254,961	254,961	-10%	-119,526	297,014	170,208	186,483	245,946	-20%	-494,014	321,730	85,454	118,006	236,930	-30%	-868,501	336,761	701	49,528	236,930
Base level	Resulting NPV (000s)																																																									
	Incremental labour cost savings	Incremental maintenance cost	Incremental depreciation cost	Incremental WC contribution	New system salvage value																																																					
30%	1,378,423	-163,448	509,221	460,394	282,007																																																					
20%	1,003,936	55,412	424,468	391,916	272,991																																																					
10%	629,448	182,107	339,714	323,439	263,976																																																					
0%	254,961	254,961	254,961	254,961	254,961																																																					
-10%	-119,526	297,014	170,208	186,483	245,946																																																					
-20%	-494,014	321,730	85,454	118,006	236,930																																																					
-30%	-868,501	336,761	701	49,528	236,930																																																					
		Token	Pr: Implicit, Rel, Ident (35 instances)	Value																																																						
273.	Figure 5: Sensitivity analysis for Proposal2 (changing in NPV)																																																									



TRANSITIVITY analysis of the graph below (275-282):

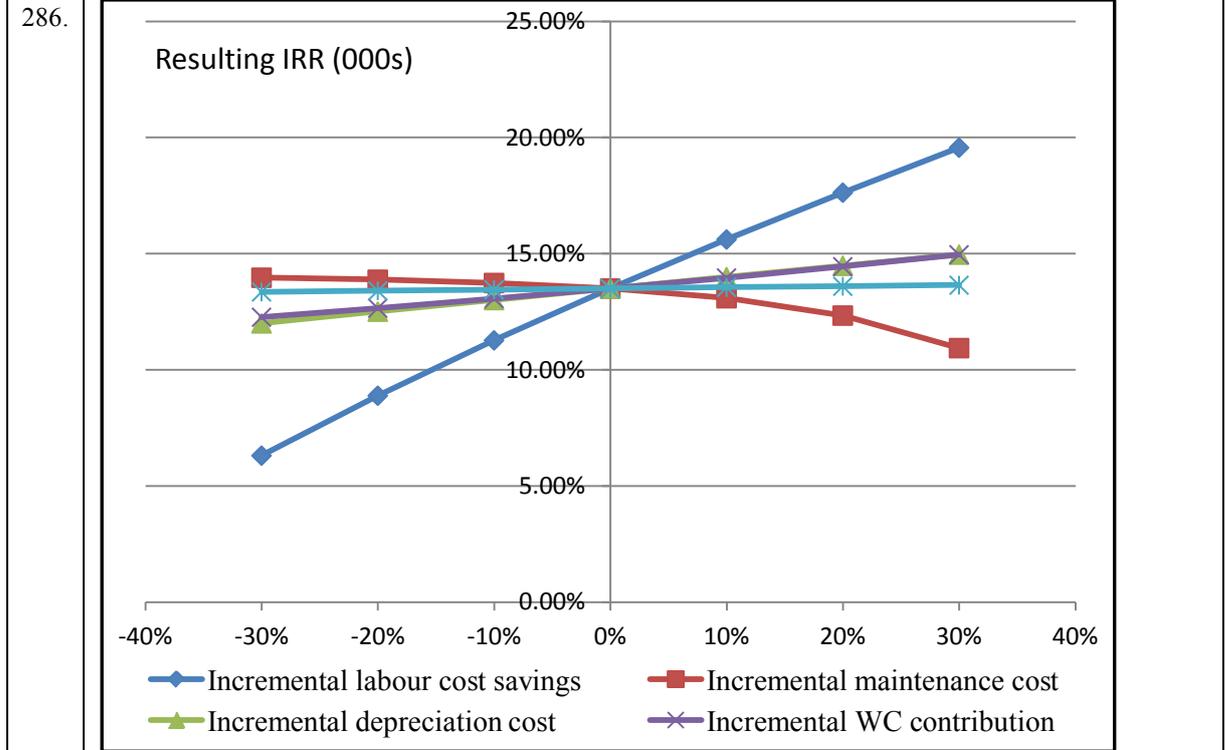
275.	If	Incremental labour cost savings	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
276.		the NPV	would be	\$1,400,00.	
		Token	Pr: Implicit, Rel, Ident	Value	
277.	If	Incremental depreciation cost	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
278.		the NPV	would be	\$500,00.	
		Token	Pr: Implicit, Rel, Ident	Value	
279.	If	Incremental maintenance cost	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
280.		the NPV	would be	\$300,00.	
		Token	Pr: Implicit, Rel, Ident	Value	
281.	If	Incremental WC contribution	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
282.		the NPV	would be	\$400,00.	
		Token	Pr: Implicit, Rel, Ident	Value	
283.		Table 6: Sensitivity analysis for Proposal2 (changing in IRR)			

284.	Base level	Resulting IRR (000s)				
		Incremental labour cost savings	Incremental maintenance cost	Incremental depreciation cost	Incremental WC contribution	New system salvage value
	30%	19.57%	10.94%	14.96%	14.96%	13.65%
	20%	17.63%	12.34%	14.48%	14.45%	13.60%
	10%	15.62%	13.09%	14.00%	13.96%	13.55%
	0%	13.50%	13.50%	13.50%	13.50%	13.50%
-10%	11.27%	13.74%	13.01%	13.07%	13.46%	

	-20%	8.89%	13.88%	12.51%	12.66%	13.41%
	-30%	6.31%	13.97%	12.00%	12.27%	13.36%

	Token	Pr: Implicit, Rel, Ident (35 instances)	Value
--	--------------	--	--------------

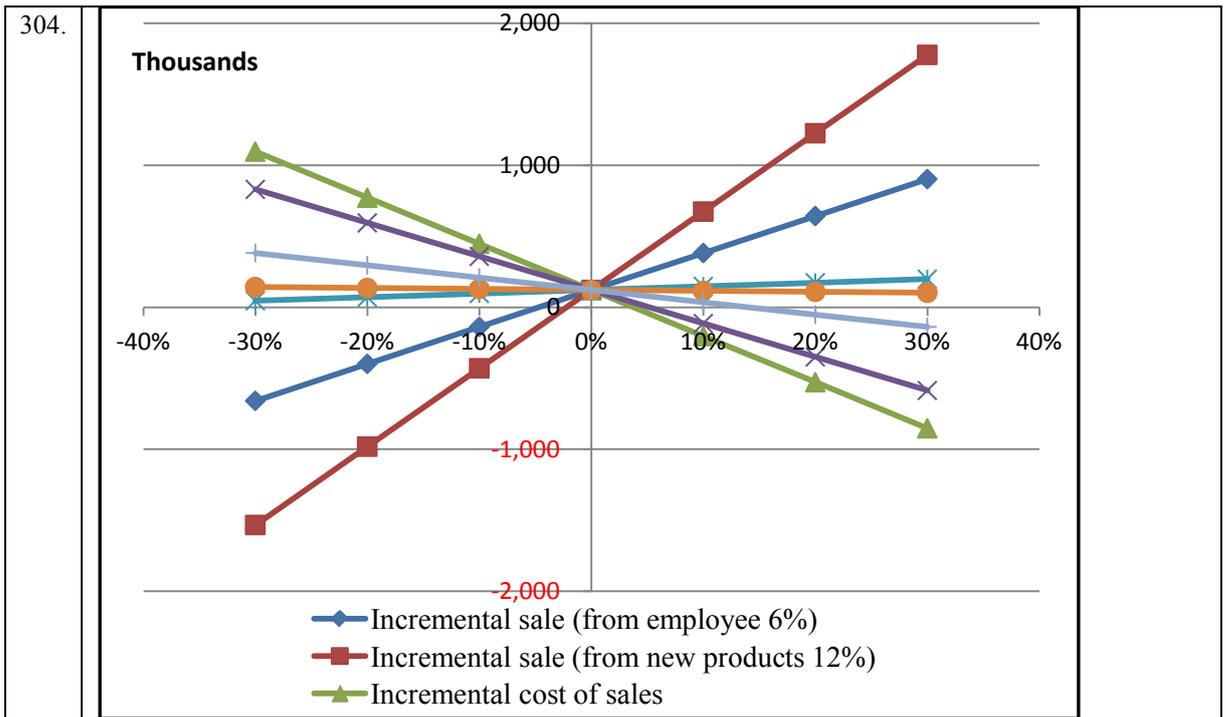
285. Figure 6: Sensitivity analysis for Proposal2 (changing in IRR)



TRANSITIVITY analysis of the graph below (287-294):

287.	If	Incremental labour cost savings	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
288.		the NPV	would be	17%.	
		Token	Pr: Implicit, Rel, Ident	Value	
289.	If	Incremental depreciation cost	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
290.		the NPV	would be	15%.	
		Token	Pr: Implicit, Rel, Ident	Value	
291.	If	Incremental maintenance cost	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
292.		the NPV	would be	18%.	
		Token	Pr: Implicit, Rel, Ident	Value	
293.	If	Incremental WC contribution	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
294.		the NPV	would be	19%.	
		Token	Pr: Implicit, Rel, Ident	Value	
295.		6.3. Proposal 3			
296.		The proposal 3 also	provides	company	a positive NPV \$0.12M and

						better IRR 13.14% than discount rate.			
		Actor	Pr: Mat	Recipient	Goal				
297.	When each incremental sales from employees and new products, and incremental depreciation cost	the NPV	would increase to	\$0.902M, \$1.77M and \$0.19M		respectively.			
		Actor	Pr: Mat	Goal	Circ: Manner (quality)				
298.	In contrast, for the negative correlation factor, if	incremental cost of sales	increase	30%,					
		Actor	Pr: Mat	Goal					
299.		the NPV	would have	a dramatically change		from \$0.12M to \$-0.85M.			
		Carrier, Possr	Pr: Rel, Attrib, Poss	Attrib, Possd	Circ: Extent				
300.	Therefore, if any variable have a tiny change,	the NPV and IRR	would change			in proposal			
		Actor	Pr: Mat	Goal	Circ: Location				
301.		Table 7: Sensitivity analysis for Proposal3 (changing in NPV)							
302.	Base level	Resulting NPV (000s)							
		Inc. sale (employee)	Inc. sale (new products)	Inc. cost of sales	Inc. employees cost	Inc. dep. cost	Inc. adm. cost	Opportunity cost (old product)	
		30%	902,662	1,776,984	-852,227	-585,949	198,296	101,790	-138,197
		20%	642,447	1,225,329	-527,479	-349,960	172,870	108,533	-51,459
		10%	382,233	673,673	-202,731	-113,971	147,444	115,275	35,279
		0%	\$122,018	\$122,018	\$122,018	\$122,018	\$122,018	\$122,018	\$122,018
		-10%	-138,197	-429,638	446,766	358,007	96,592	128,760	208,756
		-20%	-398,412	-981,294	771,514	593,996	71,166	135,503	295,494
-30%	-658,627	-1,532,949	1,096,262	829,985	45,740	142,245	382,233		
		Token	Pr: Implicit, Rel, Ident (49 instances)	Value					
303.		Figure 7: Sensitivity analysis for Proposal3 (changing in NPV)							



TRANSITIVITY analysis of the graph below (305-310):

305.	If	Incremental sale (from employee 6%)	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
306.		the NPV	would be	\$800,00	
		Token	Pr: Implicit, Rel, Ident	Value	
307.	If	Incremental sale (from new products 12%)	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
308.		the NPV	would be	\$1,800,00	
		Token	Pr: Implicit, Rel, Ident	Value	
309.	If	Incremental cost of sales	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
310.		the NPV	would be	\$1,050,00	
		Token	Pr: Implicit, Rel, Ident	Value	

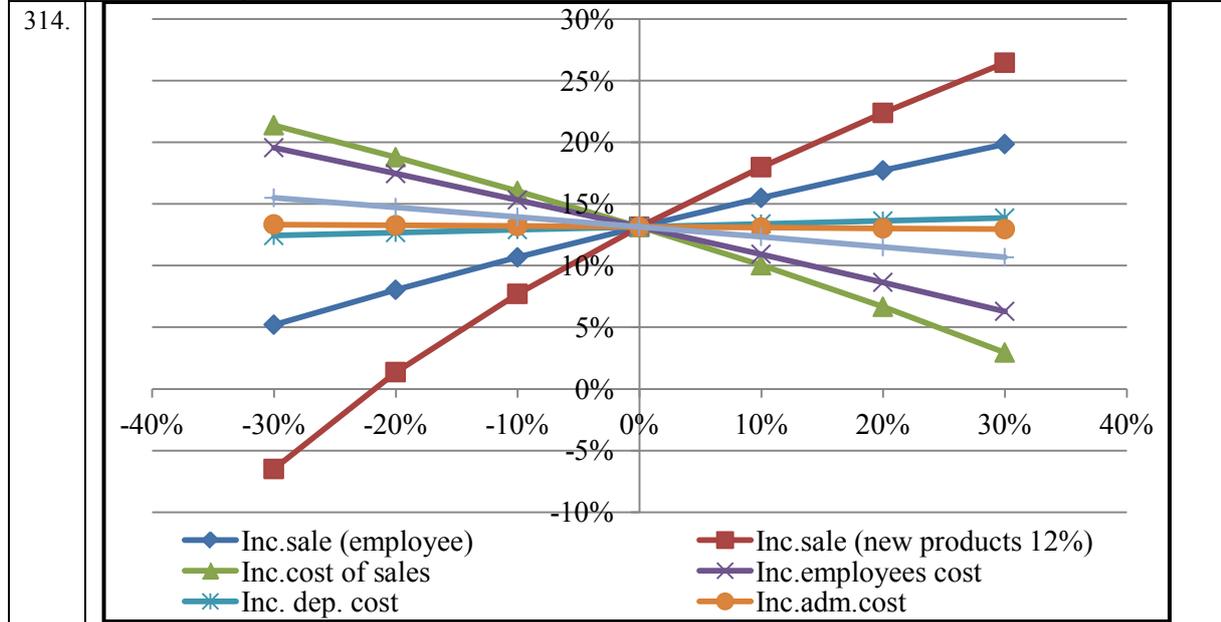
311. Table 8: Sensitivity analysis for Proposal3 (changing in IRR)

Base level	Resulting IRR (000s)						
	Inc. sale (employee)	Inc. sale (new products 12%)	Inc. cost of sales	Inc. employees cost	Inc. dep. cost	Inc. adm. cost	Opportunity cost (old product)
30%	19.85%	26.44%	2.95%	6.29%	13.85%	12.95%	10.67%
20%	17.72%	22.38%	6.66%	8.64%	13.62%	13.02%	11.51%
10%	15.49%	17.98%	10.03%	10.92%	13.38%	13.08%	12.33%
0%	13.14%	13.14%	13.14%	13.14%	13.14%	13.14%	13.14%
-10%	10.67%	7.70%	16.05%	15.32%	12.91%	13.21%	13.94%
-20%	8.03%	1.36%	18.79%	17.45%	12.67%	13.27%	14.72%

	-30%	5.20%	-6.50%	21.38%	19.55%	12.43%	13.33%	15.49%
--	------	-------	--------	--------	--------	--------	--------	--------

	Token	Pr: Implicit, Rel, Ident (49 instances)	Value
--	--------------	--	--------------

313. Figure 8: Sensitivity analysis for Proposal3 (changing in IRR)



TRANSITIVITY analysis of the graph below (315-326):

315.	If	Inc. Sale (employee)	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
316.		the NPV	would be	20%.	
		Token	Pr: Implicit, Rel, Ident	Value	
317.	If	Inc. Cost of sales	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
318.		the NPV	would be	21%.	
		Token	Pr: Implicit, Rel, Ident	Value	
319.	If	Inc. dep. cost	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
320.		the NPV	would be	12.50%.	
		Token	Pr: Implicit, Rel, Ident	Value	
321.	If	Inc. sale (new products 12%)	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
322.		the NPV	would be	27%.	
		Token	Pr: Implicit, Rel, Ident	Value	
323.	If	Inc. employees cost	is set	30%	above its expected price
		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
324.		the NPV	would be	16%.	
		Token	Pr: Implicit, Rel, Ident	Value	
325.	If	Inc. adm. cost	is set	30%	above its expected price

		Recipient	Pr: Implicit, Mat	Goal	Circ: Location (spatial)
326.		the NPV	would be	17%.	
		Token	Pr: Implicit, Rel, Ident	Value	
327.	After analysing three proposals,	it	shows	incremental depreciation cost and salvage value	(except proposal 1 - senerio 2)
		Senser	Pr: Ment	Phenomenon	Circ: Contingency
328.			didn't put	much influence on the NPV and IRR.	
		Senser	Pr: Ment	Phenomenon	
329.	For the depreciation cost,	it	depends on	the outlays	
		Senser	Pr: Ment	Phenomenon	
330.		which just	relates to	tax effect.	
		Token	Pr: Rel, Ident	Value	
331.	For another factor,	salvage value, the influence on the NPV	is	not apparent too.	
		Carrier	Pr: Rel, Attrib	Attribute	
332.		The reason	is		
		Token	Pr: Rel, Ident		
333.	that	salvage value for both amounts of old system and new system	is	a tiny change	
		Token	Pr: Rel, Ident	Value	
334.	and	only	calculate		at the end of the life.
			Pr: Mat		Circ: Extent (temporal)
335.		<u>7. Intangible or qualitative factors</u>			
336.		There	are	one intangible and one qualitative factor	in proposal 3
			Pr: Exist.	Existent	Circ: Location
337.		when	considering	operating cash flows.	
		Senser	Pr: Ment	Phenomenon	
338.		Proposal 3	focus on	company's brand influence	
		Senser	Pr: Ment	Phenomenon	
339.		which	will bring	cash inflows in future.	
		Actor	Pr: Mat	Goal	
340.	Moreover,	the responsibility for new engineers	improves	product quality (qualitative factor)	in future as well.
		Actor	Pr: Mat	Goal	Circ: Extent (temporal)
341.		It	seems		
		Carrier	Pr: Rel, Attrib		
342.	that if	the brand	is	familiar for	

				customers	
		Carrier	Pr: Rel, Attrib	Attribute	
343.	and	the goods quality	would be improved,		
		Goal	Pr: Mat		
344.		which <sic> sales revenue	would be boosted	more than 6% gradually per year.	
		Goal	Pr: Mat	Range	
345.		<u>8. Recommendation</u>			
346.	Base <sic> on analysis,	this report	would recommend	proposal 2 to the company	due to three major reasons.
		Sayer	Pr: Verb.	Verbiage	Circ: Cause
347.	Firstly,	NPV for proposal 2	is	\$ 254 K comparing to proposal 1(leasing scenario)	
		Token	Pr: Rel, Ident	Value	
348.		NPV \$	-	4.8 M,	
		Token	Pr: Implicit, Rel, Ident	Value	
349.		proposal 1(selling scenario) NPV	(equal)	\$ -582 k	
		Token	Pr: Implicit, Rel, Ident	Value	
350.	and	proposal 3 NPV	(equal)	\$122 k.	
		Token	Pr: Implicit, Rel, Ident	Value	
351.		The financial management goal	is to increase	owners' wealth.	
		Actor	Pr: Mat	Goal	
352.	Therefore,	proposal 2	could support	the company	
		Token	Pr: Rel, Ident	Value	
353.			to achieve	their goal by totally \$ 254 k to shareholder wealth.	
		Actor	Pr: Mat	Goal	
354.	Secondly,	the proposal 2	shows		
			Pr: Ment		
355.	that	IRR	is	13.5% which more than 12% discount rate.	
		Token	Pr: Rel, Ident	Value	
356.	In addition,	the acceptability of any projects	determined by comparing	the internal rate of return	with required rate of return.
		Phenomenon	Pr: Ment	Senser	Circ: Accompaniment
357.	Moreover,.	any project	has	greater IRR	
		Carrier, Possr	Pr: Rel, Attrib, Poss	Attrib, Possd	
358.		than the required rate of return	should be accepted	or otherwise	
		Goal	Pr: Mat		
359.	Therefore,	this report	would recommend		
		Sayer	Pr: Verb.		
360.	that	the company	should accept	proposal 2.	
		Actor	Pr: Mat	Goal	
361.		For proposal 1 and 3	should be rejected		
		Goal	Pr: Mat		

362.	because	they	generate	lower IRR	
		Actor	Pr: Mat	Goal	
363.			comparing with	required rate of return.	
			Pr: Ment	Phenomenon	
364.		it	seems	clear	
		Carrier	Pr: Rel, Attrib	Attribute	
365.	Finally, that	proposal 2	has	a shorter time of PP (approximately 5.25 years).	
		Carrier, Possr	Pr: Rel, Attrib, Poss	Attrib, Possd	
366.	In contrast,	proposal 1 leasing scenario, selling scenario and proposal 3	need	more than 5.25 years	
		Token	Pr: Rel, Ident	Value	
367.			to recover	its initial cost	
			Pr: Mat	Goal	
368.		which	means company should reject	three of them.	
		Actor	Pr: Mat	Range	
369.		<u>9. Conclusion</u>			
370.		From all the analysis, Rubber Man Ltd	should accept	proposal 2.	
		Actor	Pr: Mat	Goal	
371.	As	the new IT system,	could increase	the efficiency of the whole process,	
		Actor	Pr: Mat	Goal	
372.	and	it	could decrease	the working capital and labour cost	
		Actor	Pr: Mat	Goal	
373.		when the advance technology	runs.		
		Goal	Pr: Mat		
374.	Under the greatest NPV, IRR and PP,	the company	could have	an improvement	
		Carrier, Possr	Pr: Rel, Attrib, Poss	Attrib, Possd	
375.		which	could help	them	
		Actor	Pr: Mat	Range	
376.			to recover	their economy	during the next ten years.
			Pr: Mat	Goal	Circ: Location

Appendix 40: MOOD & modality in Group 1's finance text

Title	Major Assignment - Semester 1, 2008						
Pseudonym	Abdulhadi, Saud, Jim & Cathy (Group 1)						
Type of Analysis	Exploring the interpersonal meanings: MOOD & modality						
Program	Master of Commerce (Accounting)						
Module	<i>Principles of Finance</i>						
Number of Words	4224 words: 2483 words in the capital budgeting assignment and 1741 words in the Portfolio Management Report						
Notes	No Appendices were submitted by the participants						
Conj. Adjunct	Adjunct: Textual	Subject- (Actor)	Finite- (Modal)	Mood Adjunct	Predicator	Complement	Adjunct
		Mood Block			Residue		
	that	the machine	will be		sold for	0.2 million	(repeated 3 times)
Nevertheless,		This figure	should be		compared to	the NPV	(repeated 3 times)
		it	will			sill <sic> in production	
because		it	can not be		compared to	proposal <i>(Repeated three times in the Text)</i>	(repeated 3 times)
Consequently,		it			is recommended	that proposal 3 to be implemented.	

Appendix 41: MOOD & modality in Group 2's finance text

Title	Major Assignment - Semester 1, 2009						
Pseudonym	Abdulrahman and Jiang (Group 2)						
Type of Analysis	Exploring the interpersonal meanings: MOOD & modality						
Program	Master of Commerce (Accounting)						
Module	<i>Principles of Finance</i>						
Number of Words	1975 words						
Notes	Excluding cover sheet, T.O.C., and the appendix						
Conj. Adjunct	Adjunct: Textual	Subject- (Actor)	Finite- (Modal)	Mood Adjunct	Predicator	Complement	Adjunct
		Mood Block			Residue		
	that		could		affect	the decision	
	which	alternative amongst the two models (Dome Unit and Tanning Bed)	would be			more suitable.	
		we	would have to		compute	the projected operating cash flows	
			Cannot be		calculated		
		It	Can be		seen		
		NPV	Should be			more important characteristic	
		the regular NPV method	may		not indicate	the better project	
	that	this NPV	would		provide	over the project initial life.	
Since		the projects	would be	Presumably	being repeated		
				indefinitely			
		those annuity payments	would		continue	indefinitely	
		what	will		happen		
both		projects	must be		rejected		
but		we	should not		ignore		
		this machine	will		last	for 8 years	
	which		will		last	for 5 years	
	that		could		affect	the decision	
	that	tanning business	could	very well	complement	her existing salon business	
	that	the dome unit	would		yield	positive contributions	to the firm's revenue,
		Patsy's lack of knowledge about the tanning business	could		come	in the way	

Conj. Adjunct	Adjunct: Textual	Subject- (Actor)	Finite- (Modal)	Mood Adjunct	Predicator	Complement	Adjunct
		Mood Block			Residue		
	that	capital budgeting results are not the only evidence the manager	has to		rely on.		
		It	should be		noted		
		Tanning bed	can be		bought	from the available cash,	
Therefore,		tanning bed	may be			preferable	
If		a particular project	cannot be		implemented		
Both		projects	can		produce	the same product.	
		She	has to		choose	one of them	
As a result,		she	has to		accept	one project	
	that	Patsy	should		accept	the Dome Unit over the Tanning Bed	

Appendix 42: MOOD & modality in Group 3's finance text

Title	Major Assignment - Semester 2 2010						
Pseudonym	Ibrahim, Hasan, Sharon and Tracey (Group 3)						
Type of Analysis	Exploring the interpersonal meanings: MOOD & modality						
Program	Master of Commerce						
Module	<i>Principles of Finance</i>						
Number of Words	3387						
Notes	Excluding appendices, T.O.C., List of illustrations & Reference list						
Conj. Adjunct	Adjunct: Textual	Subject- (Actor)	Finite- (Modal)	Mood Adjunct	Predicator	Complement	Adjunct
		Mood Block			Residue		
	which		could		calculate	the NPVs, IRRs and PPs respectively.	
		the company	could		make	sensitivity analysis	for each proposal
Finally,		the recommendat ion	could be		suggested		for the company.
		, the company	should		accept proposal 2		
Therefore,	through this report,	the company	would		make	a final, reasonable and efficient decision	for running their business in next ten years.
		This report	will		put	toward on NPV& IRR analysis, sensitivity analysis and recommendat ion	for each proposal.
	which		could <sic>		influenced		by 5% growth rate, discount rate (12%), tax rate (30%) and inflation rate (3.5%) each year.
Secondly,		discount rate 12%	Should be		treated	as a nominal interest rate	
		they	would		relocate	Adelaide factory to Thailand.	
	that	the company	will.		pay	Thailand Factory lease expense	at the beginning of each year from year 0
	that	the company	will		receive	Adelaide Factory leasing revenue	
		Implementing leasing scenario	would		affect	the company cash inflows	

Conj. Adjunct	Adjunct: Textual	Subject- (Actor)	Finite- (Modal)	Mood Adjunct	Predicator	Complement	Adjunct
		Mood Block			Residue		
		new product sales revenue	will		replace	the old product sales revenue.	
		the investment-project evaluation	can be		presented	in a range interval	
		the NPV	will		change	from \$-4.8 M to \$-2.9M.	
if both		incremental revenue and gain on salvage (Adelaide)	could		increase to	30% respectively,	
		the NPV for selling scenario	would		become	positive \$1.3 M and \$0.37 M respectively	
Similarly, if		incremental cost saving	will		increase	10%,	
		the NPV	would be			from - \$0.58M to \$0.035M,	
		the company	would have			greater benefits	than before.
Conversely,		the rest of the variable	may		lead	a negative NPV and unacceptable IRR.	
For example, if		the negative correlation factor 'redundancy cost'	will		increase	30%,	
		the NPV	would		have	an apparent change from \$-0.58M to \$1.05M.	
On the other hand,		the only one negative correlation factor, incremental maintenance cost,	would		lead	a decreasing change in NPV	
		the NPV	would		increase to	\$0.902M, \$1.77M and \$0.19M respectively.	
		the NPV	would have			a dramatically change from \$0.12M to \$-0.85M.	
Therefore, if	any	variable			have	a tiny change,	
		the NPV and IRR	would		change	in proposal 3.	

Conj. Adjunct	Adjunct: Textual	Subject- (Actor)	Finite- (Modal)	Mood Adjunct	Predicator	Complement	Adjunct
		Mood Block			Residue		
	which		will		bring	cash inflows	in future.
		the goods quality	would be		improved,		
	which	sales revenue	would be		boosted		more than 6% gradually per year.
		this report	would		recommen d	proposal 2	
Therefore,		proposal 2	could		support	the company to achieve their goal	
Moreover,		any project			has	greater IRR	
than		the required rate of return	should be		accepted	or otherwise	
Therefore,		this report	would		recommen d		
	that	the company	should		accept	proposal 2.	
For		proposal 1 and 3	should be		rejected		
		company	should		reject	three of them.	
From all the analysis,		Rubber Man Ltd	should		accept	proposal 2.	
As		the new IT system,	could		increase	the efficiency	of the whole process,
and		it	could		decrease	the working capital and labour cost	
	Under the greatest NPV, IRR and PP,	the company	could		have	an improvement	
	which		could		help	them to recover their economy	during the next ten years.

Appendix 43: Thematic progression analysis of Group 1's finance text³⁹

Title	Major Assignment - Semester 1, 2008			
Pseudonym	Abdulhadi, Saud, Jim & Cathy (Group 1)			
Type of Analysis	Thematic progression analysis			
Program	Master of Commerce (Accounting)			
Module	<i>Principles of Finance</i>			
Number of Words	4224 words: 2483 words in the capital budgeting assignment and 1741 words in the Portfolio Management Report			
Notes	Appendices not included (as they were not submitted by the participants).			
THEME (T)			RHEME (R)	Theme Type
Textual	Interpersonal	Topical		
		<u>Gross profit</u>	is calculated	
and		it	appears	
that		<u>it</u> is <sic>	fluctuates	Reiteration
because of			the fluctuations in COGS.	
Firstly,		for the first machine it	is assumed	
that		<u>the machine</u>	will be sold for 0.2 million	
and		it [<u>its</u>] <sic> residual value	is not affected by inflation	Reiteration
and		<u>its</u> historical cost	is 2.2	Reiteration
and		<u>its</u> economic life	is 4 years .	Reiteration
Secondly,		<u>the new machine</u>	is expected to be purchased for about 2.524 million after the adjustment for inflation	
and		it [<u>its</u>] <sic> residual value	is 0.4 million	Reiteration
and		it	is assumed	
that		<u>it</u>	is adjusted for inflation	Reiteration
and		its economic life	is 4 years.	Reiteration
		The <u>time series</u> blow [below] <sic>	illustrates the behaviour of EBIT through out the life of the project.	
Indeed,		<u>it</u>	fluctuates as <sic> according the fluctuation in COGS.	Reiteration
		The <u>time series</u> blow [below] <sic>	illustrates the behaviour of Net profit through out the life of the project.	
Indeed,		<u>it</u>	fluctuates as <sic> according the fluctuation in COGS.	Reiteration
In fact,		the purchase of the first machine	is regarded to be a <u>sunk cost</u>	
therefore		<u>it</u>	has not been considered.	Linear (or zig-zag)
In addition,		<u>terminal value</u>	is equal to salvage value	
because		<u>it</u>	has not incurred loss nor gain on the salvage value.	Reiteration
In addition,		it	is considered that <sic> debt and hybrid debt	
i.e.		mezzanine finance	are tax deductible.	
		After the derivation of cash flows	<u>NPV</u> is calculated	

³⁹ Refer to Appendix 37 for instances of Theme reiteration in the tables and the graphs that are found among the implicit relational identifying Themes.

THEME (T)			RHEME (R)	Theme Type
Textual	Interpersonal	Topical		
and		<u>it</u>	accounted for 2,853,108	Linear (or zig-zag)
		which	are positive	
Nevertheless,		<u>this figure</u>		Linear (or zig-zag)
	should		be compared to the NPV of the other alternatives	
		which	has had different time periods.	
Hence,		the <u>NPV</u>	is regarded to yield a misleading result.	Linear (or zig-zag)
Firstly,		for the first machine	it is assumed	
that		<u>the machine</u>	will be sold for 0.2 million	
and		it [<u>its</u>] <sic> residual value	is not affected by inflation	Reiteration
and		<u>its</u> historical cost	is 2.2	Reiteration
and		<u>its</u> economic life	is 4 years .	Reiteration
Secondly,		<u>the new machine</u>	is expected to be purchased for about 5 million	
and		<u>its</u> residual value	is about 1.053 million after the adjustment for inflation $(0.5(1.035)^6)$	Reiteration
and it is <sic> and		<u>its</u> economic life	is 6years.	Reiteration
		The <u>time series</u> blow [below] <sic>	illustrates the behaviour of EBIT through out the life of the project.	
Indeed,		<u>it</u>	fluctuates as <sic> according the fluctuation in COGS.	Reiteration
		The <u>time series</u> blow [below] <sic>	illustrates the behaviour of Net profit through out the life of the project.	
Indeed,		<u>it</u>	fluctuates as <sic> according the fluctuation in COGS.	Reiteration
In addition,		the old machine	is sold for 200,000	
		which	is equal to its residual value terminal thus no tax saving.	
Moreover,		terminal value of <u>the new machine</u>	is equal to its residual value	
because		<u>it</u>	has not incurred loss nor gain on the salvage value.	Reiteration
		After the derivation of cash flows	<u>NPV</u> is calculated	
and		<u>it</u>	accounted for <u>5,304,861\$</u>	Linear (or zig-zag)
and		<u>it</u>	is indeed massively greater than <u>the NPV of proposal 1</u>	Linear (or zig-zag)
		<u>which</u> only	accounts for <u>2,853,108\$.</u>	Linear (or zig-zag)
Nevertheless,		<u>this figure</u>	should be compared to the NPV of the other alternatives	Linear (or zig-zag)
Hence,		<u>the NPV</u>	is regarded to yield a misleading result.	Linear (or zig-zag)
Thus,		EAV	is calculated and utilised to choose among those proposals.	
In addition,		<u>IRR</u>	is not considered	
because		<u>it</u>		Reiteration

THEME (T)			RHEME (R)	Theme Type
Textual	Interpersonal	Topical		
		which	has different time periods.	
	can not		be compared to <u>proposal 1</u>	
		<u>which</u>	has unconventional cash flows.	Linear (or zig-zag)
		<u>Gross profit</u>	is calculated	
and		it	appears	
that		[it] <sic>	dipped slightly in 2010	Reiteration
then		it	grew steadily.	Reiteration
Firstly,		for the old <u>machine</u> it	is assumed	
that		<u>the machine</u>	will be sold for 0.8 million in 2008	Reiteration
and		[its] book value	is 1.2 million	Reiteration
		its annual depreciation expense	remain 0.5 million as in proposal 1.	Reiteration
Hence,		there	is <u>tax shield</u>	
		<u>which</u>	increases cash inflows accordingly.	Linear (or zig-zag)
		<u>After tax salvage on the old machine</u>	= 800,000- 0.3 (800,000- 1,200,000)	Reiteration
		<u>After tax salvage on the old machine</u>	= 920,000.	Reiteration
Secondly,		<u>the new machine</u>	is purchased for 7.4 million	
and		its estimated salvage value	is .8 million	Reiteration
and		its economic life	is 8 years	Reiteration
and		it	is <u>depreciated</u> on straight line basis	
so		<u>the depreciation expense</u>	is .825 million.	Linear (or zig-zag)
		The <u>time series</u> blow [below] <sic>	illustrates the behaviour of EBIT through out the life of the project.	
Indeed,		it	fluctuates as <sic> according the fluctuation in COGS.	Reiteration
		The <u>time series</u> blow [below] <sic>	illustrates the behaviour of Net profit through out the life of the project.	
Indeed,		it	fluctuates as <sic> according the fluctuation in COGS.	Reiteration
		Incremental net capital spending	accounts for (5,000,000\$) in the year 2008.	
In addition,		the old machine	is sold for <u>200,000</u>	
		<u>which</u>	is equal to its residual value terminal thus no tax saving.	Linear (or zig-zag)
		After the derivation of cash flows <u>NPV</u>	is calculated	
and		it	accounted for about 6,999,826\$	Reiteration
and		it	is indeed massively greater than <u>the NPV</u> of proposal 1	Reiteration

THEME (T)			RHEME (R)	Theme Type
Textual	Interpersonal	Topical		
		which	only accounts for 2,853,108\$. and considerably higher than <u>proposal 2</u>	Linear (or zig-zag)
		<u>which</u> only	accounts for <u>2,853,108\$.</u>	Linear (or zig-zag)
Nevertheless,		<u>this figure</u>		Linear (or zig-zag)
	should be		compared to the <u>NPV of the other alternatives</u>	
		<u>which</u>	has different time periods.	Linear (or zig-zag)
In addition,		<u>IRR</u>	is not considered	
because		<u>it</u>		Reiteration
	can not be		compared to <u>proposal 1</u>	
		<u>which</u>	has unconventional cash flows.	Linear (or zig-zag)
		Examining the investment criteria for the three proposals	it appears	
that		<u>proposal 3</u>	is the favourable one	
since		his [<u>its</u>] <sic> EAV	is greater than both proposal 1 and 2.	Linear (or zig-zag)

Appendix 44: Thematic progression analysis of Group 2's finance text⁴⁰

Title	Major Assignment - Semester 1, 2009		
Pseudonym	Abdulrahman and Jiang (Group 2)		
Type of Analysis	Thematic progression analysis		
Program	Master of Commerce (Accounting)		
Module	<i>Principles of Finance</i>		
Number of Words	1975 words		
Notes	Excluding cover sheet, T.O.C., and the appendix		
	THEME (T)		RHEME (R)
	Textual	Interpersonal	Topical
		<u>We</u>	take the latest balance sheet of the firm
and			derive figures for short, long term debt and equity to derive the weighted average of capital cost (WACC)
Then,		<u>we</u>	<u>calculate the working hours per annum</u> using the given information:
		The maximum number of operation hours during a year	is $HRS_{year} = HRS_{week} \cdot N_{weeks} = (0+0+10+10+10+8+5) \cdot 48 = 2064$
Based on		<u>the hours calculated.</u>	we compute the revenue from tanning under the base case of 100% occupancy by multiplying the hours by the number of sessions and then by the price per visit.
		<u>We then</u>	compute the other income at base case derived from sale of bottles by dividing the no of sessions by 5 (as stated in question) and multiplying by contribution of \$2 per bottle:
		Variable <u>costs</u> of tanning session	include electricity costs plus bulbs costs.
		a)Electricity <u>Cost</u> (No of Sessions* ..	in line with given data on inflation.
		b)Bulb <u>Cost</u> (No of Hours* ...	in line with given data on inflation.
		a) <u>Revenue</u> from tanning business	as computed above
		b)Revenue from sale of bottles	as computed above
		<u>NPV</u> of investing into a Dome Unit	is higher.
Therefore,		<u>NPV</u>	
	should		be more important characteristic than IRR
However, since and		<u>project lives</u>	are different
		<u>they</u>	are mutually exclusive, the regular NPV method
	may not		indicate the better project,
Since		<u>the projects</u>	
			Reiteration

⁴⁰ Refer to Appendix 38 for instances of Theme reiteration in the tables and the graphs that are found among the implicit relational identifying Themes.

THEME (T)			RHEME (R)	Theme Type
Textual	Interpersonal	Topical		
	would be presumably		being repeated indefinitely,	
		those annuity payments	would continue indefinitely	
and		<u>the project that provided the higher stream</u>	is the better option.	Reiteration
As		we	see in the table	
according to		Equivalent Annual Annuity (EEA),	investing in <u>Dome Unit</u> still is the best choice	
because		<u>its annual payments</u>	are higher than Tanning Bed annual payments.	Linear (or zig-zag)
		For the both tanning options,	we perform <u>sensitivity analysis under most likely case (70% occupancy)</u> .	
		For <u>this</u>	we compute the likely scenario for an increase as well as decrease in revenues to the extent of 10%.	Linear (or zig-zag)
		The sensitivity analysis	is <u>type of risk analysis</u> .	
		<u>This analysis</u>	shows us what will happen	Linear (or zig-zag)
if		one of variable factors	has been changed.	
As		we see in <u>the table</u>	a change in revenue of the most likely case 70% caused the NPV to change.	
		<u>The table</u>	showed	Reiteration
that		when the revenue	increased by 10%	
		the NPV	increased as well.	
However,		when the revenue	turns out to be 10% below the most likely case,	
both		projects	must be rejected	
because		<u>NPV</u>	is negative.	
In fact,		<u>NPV</u>	is very sensitive to changes in the revenue volume.	Reiteration
Furthermore,		<u>Dome Unit</u>	is more sensitive to changes in its cash flows more than Tanning bed	
because		<u>it</u>	has the highest amount either negative or positive in the both cases,	Reiteration
but		we	should not ignore	
that		the projects lifetime	are playing a major role in NPV calculation,	
		the evidence for that	is <u>Dome Unit</u> life,	
		this machine	will last for 8 years,	Linear (or zig-zag)
therefore		it	is more sensitive than <u>Tanning bed</u>	Reiteration
		which	will last for five years.	Linear (or zig-zag)
1-		<u>Tanning bed</u>	can be bought from the available cash,	
but		dome unit	requires debt financing	
since			there is only \$20,000 in cash according to the balance sheet.	
Therefore,		<u>tanning bed</u>	may be preferable	Reiteration

THEME (T)		RHEME (R)		Theme Type
		Topical		
if		payable debt financing	is not available.	
2-		Dome unit and tanning bed	have different <u>space requirements</u>	
		which	have also to be considered.	
If		a particular project	cannot be implemented	
because		of <u>space requirements</u> , favorable results of capital budgeting	are worthless.	Linear (or zig-zag)
		how many (additional) worker- <u>hours</u>	are needed for operating tanning facilities.	
If		every <u>hour</u> of operation	requires one worker to be paid \$30,	Linear (or zig-zag)
then	the recommended	price \$8.00 per session	is too low.	
		For our calculation purposes,	<u>we</u> assume revenues from tanning to grow in line with inflation i.e. @ 3% p.a. Profit from sale of tanning lotion , being of the nature of “Other Income” is assumed to be constant	
Similarly		<u>we</u>	assume electricity costs, bulb costs to grow in line with inflation@ 3%	Linear (or zig-zag)
		Revenues and variable <u>costs</u>	are adjusted for inflation	
		Advertisement <u>costs</u>	are assumed to be fixed at the level \$12000 a year	Reiteration
and			do not depend on inflation.	
		<u>Patsy</u>	is considering expanding her business.	
		<u>She</u>	has two choices, <u>a Dome Unit or a Tanning Bed.</u>	Reiteration
		<u>Both projects</u>	can produce the same product.	Linear (or zig-zag)
		<u>She</u>	has to choose one of them	Reiteration
as		it	is a mutually exclusive investment.	
As a result,		she	has to accept one project and reject another project.	Reiteration
According to		the base case financial results,	<u>we</u> compared between the two machines,	
		<u>we</u>	recommend	Linear (or zig-zag)
that		<u>Patsy</u>	should accept the <u>Dome Unit</u> over the Tanning Bed	Reiteration & Linear (or zig-zag)
because		it	provides not only highest positive NPV	Linear (or zig-zag)
but also			provides the highest IRR	
that			exceeds the required return (WACC)	Linear (or zig-zag)
and			calculated shorter payback period.	

Appendix 45: Thematic progression analysis of Group 3's finance text⁴¹

Title	Major Assignment - Semester 2 2010		
Pseudonym	Ibrahim, Hasan, Sharon and Tracey (Group 3)		
Type of Analysis	Thematic progression analysis		
Program	Master of Commerce		
Module	<i>Principles of Finance</i>		
Number of Words	3387		
Notes	Excluding appendices, T.O.C., List of illustrations & Reference list		
THEME (T)			RHEME (R)
Textual	Interpersonal	Topical	Theme Type
		Rubber Man Ltd	is a rubber products company
		which	owns 2 factories in Australia.
In order to			make maximum profit to <u>the company</u> .
		the Board	decides to accept an investment proposal among three proposals.
In this report, firstly, in order to			help the Rubber Man Ltd to analyze the cash flow
		several assumptions	are mentioned.
Thirdly, according to		the results of cash flow,	the company could make sensitivity analysis for each proposal by increasing or decreasing the percentage.
Fourthly,		<u>the company</u>	needs to consider about the intangible or qualitative factors in proposal 3.
Finally,		the recommendation	could be suggested for <u>the company</u> .
		Rubber Man Ltd	is a Brisbane-based company .
		which	has another factory in Adelaide
		<u>It</u>	produces a range of rubber products for building, playgrounds and sport facilities.
According to		the economic downturn,	<u>the company</u> decides to make an investment decision for company's future development.
In this report,		<u>the company</u>	has three proposals.
Therefore,		through this report,	the company would make a final, reasonable and efficient decision for running their business in next ten years.
Moreover,		current yearly revenue	is \$ 10 million
		which	could <sic> influenced by 5% growth rate, <u>discount rate (12%)</u> , tax rate (30%) and inflation rate (3.5%) each year.
Secondly,		<u>discount rate 12%</u>	should be treated as a nominal interest rate
			Linear (or zig-zag)

⁴¹ Refer to Appendix 39 for instances of Theme reiteration in the tables and the graphs that are found among the implicit relational identifying Themes.

THEME (T)			RHEME (R)	Theme Type
Textual	Interpersonal	Topical		
		which	means	Linear (or zig-zag)
		for all the proposals	no need to multiply the real rate and inflation rate again.	
		In proposal 1, <u>the company</u>	aims to beat the margin squeeze by cutting labour cost,	Reiteration
		<u>they</u>	would relocate Adelaide factory to Thailand.	Reiteration
In addition,		<u>the company</u>	is required to decide <u>two scenarios</u> :	Reiteration
In order to		analyse <u>the two scenarios</u> ,	this report assume	Linear (or zig-zag)
that		<u>the company</u>	will pay Thailand Factory lease expense at the beginning of each year from year 0.	Reiteration
		The report	assumes	
that		<u>the company</u>	will receive <u>Adelaide Factory leasing revenue</u> at the beginning of each year from year 2.	Reiteration
		Implementing <u>leasing scenario</u>	would affect <u>the company</u> cash inflows.	Linear (or zig-zag)
Firstly,		<u>the company</u>	could lease Adelaide Factory,	Linear (or zig-zag)
and		<u>it</u>	could generate <u>a cash inflow</u>	Reiteration
		which	is estimated 4.4 % of Adelaide annual sales contribution	
that			can be translated to \$ 2.9 M during ten years period.	
In addition,		<u>cash inflows under leasing scenario</u>	could be increased by Adelaide Factory salvage value at the end of year 10.	Linear (or zig-zag)
		<u>It</u>	could contribute to company \$ 1 M	Reiteration
		which	equals to 1.5% of Adelaide annual sales contribution.	
Furthermore,		<u>leasing scenario</u>	might increase the cash inflows sharply due to a huge saving in operating cost by \$ 16.5 M	Reiteration
		which	is equals <sic> to 25% of Adelaide annual sales contribution.	
Firstly, according to		Australian labour law,	the company must <u>pay redundancy package \$ 2.5 M</u> to Adelaide Factory's employees,	
and		<u>this incremental outflow</u>	would equal to approximately 3.8% of <u>Adelaide</u> annual sales contribution.	Linear (or zig-zag)
If		the company sells Adelaide factory	they would receive \$ 4 M	Linear (or zig-zag)
		which	equals to 6 % of Adelaide annual sales contribution.	
Furthermore,		this scenario	still could produce cash inflow from Thailand salvage at the end year 10 with an amount of \$ 1M.	Linear (or zig-zag)

THEME (T)			RHEME (R)	Theme Type
Textual	Interpersonal	Topical		
In addition,		the incremental depreciation	could bring a huge cash inflow from \$ 83k to \$ 750 k.	
		<u>This process</u>	can support this proposal to create cash inflow from tax saving after year 2	Linear (or zig-zag)
that			can be translated to \$ 225k instead of \$ 25k.	
On the other hand,		there	are some difference <sic> cash outflows between <u>selling</u> and <u>leasing scenario</u> .	Multiple-Rheme pattern
		For <u>the selling scenario</u> ,	it would be affected by two opportunity cost.	
Firstly, if		the company	will not be able to lease Adelaide Factory,	
		the cash outflow	will increase up to \$ 4 M.	
Secondly,		\$1 M	should be considered as opportunity cost	
		which	means	
		the company	would lose the leasing revenue from year 2.	
		<u>Proposal 2</u>	supposes	
that both		two factories	would install a new IT system for all the production lines.	
According to		the results of NPV \$ 254,961, IRR 13.50%, and PP 5.25years,	the proposal 2 provides company a positive value , greater return rate than discount rate 12% and shorter time to recover its initial cost.	
		three incremental cash inflows	refer to <u>the new IT system</u> .	
First of all,		<u>new system</u>	could lead a decrease working capital requirement from 15% to 7% of forecasted sales each year.	Linear (or zig-zag)
Furthermore,		<u>company</u>	should concern about \$ 0.4 M salvage value during the ten-year life.	
		<u>The company</u>	insists	Reiteration
that		the book value	would be zero	
		when the new system	still has a <u>salvage value</u> at the end of year 10.	
Thus,		<u>the salvage value</u>	could treat <sic> as a cash inflow at the last year in the Incomes Tax Rules.	Linear (or zig-zag)
Moreover,		there	is a negative <u>working capital contribution \$ 0.46 M</u> from the difference between <u>old product and new product</u> ,	Multiple-Rheme pattern
and then		<u>it</u>	would recover at the end of year.	Linear (or zig-zag)
		The last cash outflow	is opportunity cost which means	
		<u>new product sales revenue</u>	will replace the old product sales revenue.	Linear (or zig-zag)
Finally,		the company	assumes	
that		<u>old products</u>	have no initial cost as a sunk cost in the year 0.	Linear (or zig-zag)
	Generally,	Sensitivity analysis	is <u>the calculating procedure which is used widely in investment decision making</u> .	

THEME (T)			RHEME (R)	Theme Type
Textual	Interpersonal	Topical		
		<u>This procedure</u>	is used for <u>prediction of effect of changes of input (sales revenue, operating costs saving, salvage value, etc)</u> data on output results of one model.	Linear (or zig-zag)
After		<u>inputting some variable values,</u>		Linear (or zig-zag)
		the investment-project evaluation	can be presented in a range interval, like NPV1, NPV2, NPV3, etc.	
For example,		<u>Incremental Adelaide factory leasing revenue and incremental cost saving</u>	are obvious positive correlation factors.	
If		<u>the Incremental cost saving</u>	increase by 30%,	Reiteration
		the NPV	will change from \$-4.8 M to \$-2.9M.	
However,		as positive correlation factors,		
		the incremental revenue and incremental cost saving	have no t p ut huge impacts on N PV a nd IRR.	
		<u>the NPV for selling scenario</u>	would become positive \$1.3 M and \$0.37 M respectively.	
		<u>the NPV</u>	would be from -\$0.58M to \$0.035M, and the maximum figure is \$1.28M	Reiteration
		which	mean the company would have greater benefits than before.	
		There	are three positive correlation factors and <u>one negative correlation factor in this proposal.</u>	
For example,		<u>it</u>	has the greatest NPV equals to \$1.35M	Linear (or zig-zag)
which			contributed by increase 30% incremental costs of savings.	
On the other hand,	the only	<u>one negative correlation factor,</u>		Linear (or zig-zag)
		incremental maintenance cost,	would lead a decreasing change in NPV equals to \$-0.16M	
		when this parameter	decreases 30%.	Linear (or zig-zag)

THEME (T)			RHEME (R)	Theme Type
Textual	Interpersonal	Topical		
When		each incremental sales from employees and new products, and incremental depreciation cost	increase 10%,	
		the NPV	would increase to \$0.902M, \$1.77M and \$0.19M respectively.	
In contrast,		for the negative correlation factor,		
if		incremental cost of sales	increase 30%,	
		the NPV	would have a dramatically change from \$0.12M to \$-0.85M.	
After		analysing three proposals,		
		it	shows incremental <u>depreciation cost</u> and <u>salvage value</u> (except proposal 1-senario 2) didn't put much influence on the NPV and IRR.	Multiple-Rheme pattern
		For the <u>depreciation cost</u> ,	it depends on the outlays	Linear (or zig-zag)
		which	just relates to tax effect.	
		For another factor, <u>salvage value</u> ,		Linear (or zig-zag)
		the influence on the NPV	is not apparent too.	
		Proposal 3	focus on company's <u>brand</u> influence	
		which	will bring cash inflows in future.	
Moreover,		the responsibility for new engineers	improves <u>product quality</u> (qualitative factor) in future	
as well.				
		It	seems	
that if		<u>the brand</u>	is familiar for customers	Linear (or zig-zag)
and		<u>the goods quality</u>	would be improved,	Linear (or zig-zag)
		which sales revenue	would be boosted more than 6% gradually per year.	
In addition,		the acceptability of <u>any projects</u>	determined by comparing the internal rate of return with required rate of return.	
Moreover,		<u>any project</u>	has greater IRR than the required rate of return	Reiteration
	should be		accepted or otherwise.	

THEME (T)			RHEME (R)	Theme Type
Textual	Interpersonal	Topical		
Therefore,		this report	would recommend	
that		the company	should accept <u>proposal 2</u> .	
		For <u>proposal 1 and 3</u>	should be rejected	
because		<u>they</u>	generate lower IRR comparing with required rate of return.	Reiteration
Finally,	it seems clear			
that		<u>proposal 2</u>	has a shorter time of PP (approximately 5.25 years).	Linear (or zig-zag)
In contrast,		<u>proposal 1</u> leasing scenario, selling scenario <u>and proposal 3</u>	need more than 5.25 years	Reiteration
			to recover its initial cost	
		which	means company should reject three of them.	
As		<u>the new IT system,</u>	could increase the efficiency of the whole process,	
and		<u>it</u>	could decrease the working capital and labour cost	Reiteration
		when the advance technology	runs.	

Appendix 46: Nominalisation annotation of Group 1's finance text

Title	Major Assignment - Semester 1, 2008
Pseudonym	Abdulhadi, Saud, Jim & Cathy (Group 1)
Type of Analysis	Nominalisation Analysis
Program	Master of Commerce (Accounting)
Module	<i>Principles of Finance</i>
Number of Words	4224 words: 2483 words in the capital budgeting assignment and 1741 words in the Portfolio Management Report
Notes	No Appendices were submitted by the participants

Proposal 1:

1.1. Sales forecasting:
Sales are forecasted on the basis of the suggested growth rates in the assignment paper. In addition, it is assumed that inflation is incorporated in the growth rates.

Table 1.1: Sales Forecasts

2008	2009	2010	2011	2012	2013	2014
	10%	10%	5%	5%	5%	5%
6,000,000	6,600,000	7,260,000	7,623,000	8,004,150	8,404,358	8,824,575

1.2. Cost of good sold forecasts:
Cost of good sold is forecasted as percentage of sales as suggested in the assignment paper. Furthermore, it is assumed that inflation is incorporated in those estimates.

Table 1.2: cost of good sold forecasts

2008	2009	2010	2011	2012	2013	2014	2015	2016
60%	65%	80%	70%	60%	65%	60%	60%	60%
3,600,000	4,290,000	5,808,000	5,336,100	4,802,490	5,462,832	5,294,745	5,559,482	5,837,457

1.3. Gross profit:
Gross profit is calculated and it appears that it is fluctuates because of the fluctuations in COGS.

1.4. Operating cost:
Operating cost is assumed to remain constant at 1.2 million into the foreseeable future.

1.5. Leasing cost:
Leasing cost is expected to rise according to the inflation rate of 3.5%. Furthermore,

1.6. Depreciation:
Depreciation is calculated on a straight line basis. Firstly, for the first machine it is assumed that the machine will be sold for 0.2 million and its residual value is not affected by inflation and its historical cost is 2.2 and its economic life is 4 years. Therefore, depreciation expense accounts for 0.5 million. Secondly, the new machine is expected to be purchased for about 2.524 million after the adjustment for inflation and its residual value is 0.4 million and it is assumed that it is adjusted for inflation and its economic life is 4 years. Thus, depreciation expense accounts for 0.531 million.

Table 1.3: depreciation expense (in millions)

	First machine	New machine
Economic life	4	4
Cost	2.2	2.524
Residual value	0.2	0.4
Depreciation expense	0.5	0.531

○ **1.7. Earning before interest and taxes:**
The time series blow [below] <sic> illustrates the behaviour of EBIT through out the life of the project. Indeed, it fluctuates as according the fluctuation in COGS.

1.8. Tax:
The company is taxed at the corporate rate of 30%.

1.9. Net profit:
The time series blow [below] <sic> illustrates the behaviour of Net profit through out the life of the project. Indeed, it fluctuates as according the fluctuation in COGS.

1.10. Cash flows:**1.10.1. Net capital spending:**

Incremental net capital spending accounts for (2,324,551\$) in the year 2010. In fact, the purchase of the first machine is regarded to be a sunk cost therefore it has not been considered. In addition, terminal value is equal to salvage value because it has not incurred loss nor gain on the salvage value.

Table 1.4: Net capital spending

Cash flows	2010	2014
Sale of Machine	200,000	
Cost of New Machine	(2,524,551)	
Terminal value		400,000
Net Capital Spending	(2,324,551)	400,000

1.10.2. Operating cash flows:

Operating cash flows are calculated and represented in the table below.

Table 1.5: Operating cash flows

	2008	2009	2010	2011	2012	2013	2014
Operating cash flows	850,000	782,100	(176,428)	764,951	1,399,850	1,212,133	1,618,127

1.10.3. Net cash flows:

Net cash flow are calculated by adding net capital spending and represented in the table below.

Table 1.6: Net cash flows

	2008	2009	2010	2011	2012	2013	2014
Net cash flows	850,000	782,100	(2,148,122)	764,951	1,399,850	1,212,133	2,018,127

1.11. Capital structure:

The cost of capital is calculated on the basis of the given weights. In addition, it is considered that debt and hybrid debt i.e. mezzanine finance are tax deductible. In addition, the required rate of return on common stock is calculated by utilising CAPM equation.

Table 1.7: Cost of capital

Capital Structure	Weight	Required return	Required return after tax savings
Hybrid Debt	15.00%	15.00%	10.5%
Debt	35%	12%	8.4%
Common Stocks	45%	17.80%	17.80%
Preferred stocks	5.00%	14%	14%
WACC		-	13.23

1.12. Investment criteria:

After the derivation of cash flows NPV is calculated and it accounted for 2,853,108 which are positive and this implies that proposal is creating value. Nevertheless, this figure should be compared to the NPV of the other alternatives which has had different time periods. Hence, the NPV is regarded to yield a misleading result. Thus, EAV is calculated and utilised to choose among those proposals. In addition, IRR is not considered because the proposal has an unconventional cash flow. Alternatively, MIRR is computed and amounted for 33.64%.

Table 1.8: investment criteria

Investment criteria	Results
NPV	2,853,108\$
EAV	649,643\$

1.13. Sensitivity analysis:

Examining the sensitivity analysis outcomes it appears that NPV is highly responsive to changes in sells and in cost of good sold. On the other hand, it is suggested that changes in WACC and the cost of the machine do not significantly affect NPV.

Proposal 2:**2.1. Sales forecasting:**

Sales are forecasted on the basis of the suggested growth rates in the assignment paper. In addition, it is assumed that inflation is incorporated in the growth rates.

Table 2.1: Sales Forecasts

2008	2009	2010	2011	2012	2013	2014	2015	2016
	10%	10%	10%	10%	10%	10%	10%	10%
6,000,000	7,260,000	7,986,000	8,385,300	8,804,565	9,244,793	9,707,033	10,192,385	10,702,004

2.2. Cost of good sold forecasts:

Cost of good sold is forecasted as percentage of the cost of good sold of proposal 1 as suggested in the assignment paper. Furthermore, it is assumed that inflation is incorporated in those estimates.

Table 2.2: cost of good sold forecasts

2008	2009	2010	2011	2012	2013	2014	2015	2016
100%	120%	80%	75%	70%	65%	60%	60%	60%
3,600,000	5,148,000	4,646,400	4,002,075	3,361,743	3,550,841	3,176,847	3,335,689	3,502,474

2.3. Gross profit:

Gross profit is calculated and it appears that dipped slightly in 2009 then it grew steadily.

2.4. Operating cost:

Operating cost is assumed to remain constant at 1.2 million into the foreseeable future.

2.5. Leasing cost:

Leasing cost is expected to rise according to the inflation rate of 3.5%. Furthermore,

2.6. Depreciation:

Depreciation is calculated on a straight line basis. Firstly, for the first machine it is assumed that the machine will be sold for 0.2 million and its residual value is not affected by inflation and its historical cost is 2.2 and its economic life is 4 years. Therefore, depreciation expense accounts for 0.5 million and it is assumed that it will still in production up to the year 2010. Secondly, the new machine is expected to be purchased for about 5 million and its residual value is about 1.053 million after the adjustment for inflation $(0.5(1.035)^6)$ and it is and its economic life is 6 years. Thus, depreciation expense accounts for 0.75 million.

Table 2.3: depreciation expense (in millions)

	First machine	New machine
Economic life	4	6
Cost	2.2	5
Residual value	0.2	0.517
Depreciation expense	0.5	0.747

2.7. Earning before interest and taxes:

The time series blow [below] <sic> illustrates the behaviour of EBIT through out the life of the project. Indeed, it fluctuates as according the fluctuation in COGS.

2.8. Tax:

The company is taxed at the corporate rate of 30%.

2.9. Net profit:

The time series blow [below] <sic> illustrates the behaviour of Net profit through out the life of the project. Indeed, it fluctuates as according the fluctuation in COGS.

2.10. Cash flows:

2.10.1. Net capital spending:

Incremental net capital spending accounts for (5,000,000\$) in the year 2008. In addition, the old machine is sold for 200,000 which is equal to its residual value terminal thus no tax saving. Moreover, terminal value of the new machine is equal to its residual value because it has not incurred loss nor gain on the salvage value.

Table 2.4: Net capital spending

Cash flows	2008	2010	2014
Sale of Machine		200,000	
Cost of New Machine	(5,000,000)		

Terminal value			517,500
Net Capital Spending	(5,000,000)	200,000	517,500

2.10.2. Operating cash flows:

Operating cash flows are calculated and represented in the table below.

Table 2.5: Operating cash flows

	2008	2009	2010	2011	2012	2013	2014
Operating cash flows	850,000	867,625	1,921,874	1,721,874	3,033,447	3,203,615	3783159

2.10.3. Net cash flows:

Net cash flow are calculated by adding net capital spending and represented in the table below.

Table 2.6: Net cash flows

	2008	2009	2010	2011	2012	2013	2014
Net cash flows	(4,150,000)	867,625	1,921,874	2,297,162	3,033,447	3,203,615	4,300,659

2.11. Capital structure:

The cost of capital and the capital structure is assumed to remain the same in proposal 2.

Table 2.7: Cost of capital

Capital Structure	Weight	Required return	Required return after tax savings
Hybrid Debt	15.00%	15.00%	10.5%
Debt	35%	12%	8.4%
Common Stocks	45%	17.80%	17.80%
Preferred stocks	5.00%	14%	14%
WACC		-	13.23

2.12. Investment criteria:

After the derivation of cash flows NPV is calculated and it accounted for 5,304,861\$ and it is indeed massively greater than the NPV of proposal 1 which only accounts for 2,853,108\$. Nevertheless, this figure should be compared to the NPV of the other alternatives which has different time periods. Hence, the NPV is regarded to yield a misleading result. Thus, EAV

Appendix 47: Nominalisation annotation of Group 2's finance text

Title	Major Assignment - Semester 1, 2009
Pseudonym	Abdulrahman and Jiang (Group 2)
Type of Analysis	Nominalisation annotation
Program	Master of Commerce (Accounting)
Module	<i>Principles of Finance</i>
Number of Words	1975 words
Notes	Excluding cover sheet, T.O.C., and the appendix

Introduction

Salon spa is faced with the problem of evaluating whether to go ahead with the proposed foray into the tanning business and if yes, to decide as to which alternative amongst the two models (Dome Unit and Tanning Bed) would be more suitable. For this we would have to compute the projected operating cash flows for the two alternatives and discount them to the present value using the firm's cost of capital.

Analysis of the two proposals of tanning equipment for Salon spa

Finding WACC:

We take the latest balance sheet of the firm and derive figures for short, long term debt and equity to derive the weighted average of capital cost (WACC)

Calculation of Cost of capital	
Particulars	Amt(\$)
Long-term debt (D)	200,000
Current debt (D)	20,000
Equity (E)	280,000
Total	500,000
Pre-tax cost of debt	10%
Tax Rate	30%
Post-Tax Cost of debt	7%
Proportion of debt	44%
Pre-tax cost of equity	20%
Proportion of equity.	56%
Cost of Capital	14.28%

$$WACC = \frac{E}{E+D} \cdot r_e + \frac{D}{E+D} \cdot r_d \cdot (1-t) = \frac{280,000}{500,000} \cdot 20\% + \frac{220,000}{500,000} \cdot 10\% \cdot (1-0.3) = 14.28\%$$

Working Hours:

Then, we calculate the working hours per annum using the given information:

Calculation of working hours p.a.		
Day	Time	Hours
Tues-Thur	9 am - 7 pm	30
Friday	9 am - 5 pm	8
Saturday	9 am - 2 pm	5
Hours per week		43
No of weeks		48
Hours p.a.		2064

The maximum number of operation hours during a year is

$$HRS_{year} = HRS_{week} \cdot N_{weeks} = (0 + 0 + 10 + 10 + 10 + 8 + 5) \cdot 48 = 2064$$

Total Revenue:

Based on the hours calculated, we compute the revenue from tanning under the base case of 100% occupancy by multiplying the hours by the number of sessions and then by the price per visit.

Calculation of Revenue in yr 1 under the two options		
Particulars	Dome Unit	Tanning Bed
Hours p.a.	2064	2064
No of Sessions per hour	3	2
No of Sessions @ 100% occupancy	6192	4128
Price per visit (\$)	8	8
Revenue from tanning	\$49,536	\$33,024

We then compute the other income at base case derived from sale of bottles by dividing the no of sessions by 5 (as stated in question) and multiplying by contribution of \$2 per bottle:

Calculation of Other Income under the two options		
Particulars	Dome Unit	Tanning Bed
Hours p.a.	2064	2064
No of Sessions per hr	3	2
No of Sessions @ 100% occupancy	6192	4128
No of Bottles sold (1 bottle/5 sessions)	1238	826
Profit from sale	\$2,477	\$1,651

Variable Costs:

Variable costs of tanning session include electricity costs plus bulbs costs.

Electricity Cost (No of Sessions* Rate per Session) and annual growth @ 3% in line with given data on inflation.

Bulb Cost (No of Hours* 56*50/800) for Dome Unit and (No of Hours* 28*50/800) for Tanning Unit. Annual growth @ 3% in line with given data on inflation.

Variable Costs per Session		
Particulars	Dome Unit	Tanning Bed
Electricity cost per session	-\$3.00	-\$1.50
Number of sessions per hour	3	2
Number of bulbs needed	56	28
Cost per bulb	-\$50.00	-\$50.00
Bulb life (hours)	800	800
Unit life (years)	8	5
Electricity	-\$3.00	-\$1.50
Bulbs	-\$1.17	-\$0.88
Total variable costs per session		
Electricity+ Bulbs	-\$4.17	-\$2.38

Computation Methodology for calculating the operating cash flows

Machine and Set up Costs for Dome Unit are (25000 + 1500=\$26,500) and (15000 + 1500=\$16,500) for Tanning Unit.

Revenue from tanning business as computed above

Revenue from sale of bottles as computed above

Advertising Costs in Yellow pages and Other advertisements are (\$6,000+ \$6,000= \$12,000 p.a)

Depreciation is calculated on a straight line basis and computed by dividing the prime cost by estimated useful life for both projects.

Taxes at 30%

For calculating operating cash flows, add back depreciation to profit after taxes as it is a non-cash expense.

NPV is computed by using discount rate of 14.28% as computed above.

Incremental Cash Flows:

Discounted Incremental operating cash flows at 14.28% of the alternative machines for three scenarios are calculated and represented in the tables below:

Full Capacity 100% (Base Case):

Particulars	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8
Dome Unit (PV)	(\$26,500)	\$9,575	\$8,761	\$8,010	\$7,319	\$6,684	\$6,101	\$5,565	\$5,074
Tanning Bed (PV)	(\$16,500)	\$8,750	\$8,030	\$7,363	\$6,747	\$6,177	-	-	-

70% Capacity (Most Likely Case):

Particulars	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8
Dome Unit (PV)	(\$26,500)	\$4,759	\$4,431	\$4,118	\$3,821	\$3,539	\$3,273	\$3,023	\$2,788
Tanning Bed (PV)	(\$16,500)	\$4,180	\$3,919	\$3,665	\$3,419	\$3,183	-	-	-

40% Capacity (Worst Case):

Particulars	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8
Dome Unit (PV)	(\$26,500)	(\$1,326)	(\$942)	(\$628)	(\$372)	(\$166)	(\$1)	\$129	\$229
Tanning Bed (PV)	(\$16,500)	(\$1,795)	(\$1,357)	(\$996)	(\$698)	(\$454)	-	-	-

Calculation for NPV, Payback Period and IRR is as follows:

Investment Criteria	100% Base case		70% Most Likely		40% Worst Case	
	Dome Unit	Tanning Bed	Dome Unit	Tanning Bed	Dome Unit	Tanning Bed
NPV	\$30,589	\$20,567	\$3,251	\$1,866	(\$29,576)	(\$21,800.54)
PP	2.34 Yrs	1.64 Yrs	4.38 Yrs	3.24 Yrs	NA*	NA*
IRR	42.26%	57.51%	17.61%	18.70%	-38.91%	NA*

Cannot be calculated

Recommendation:

It can be seen that NPV of investing into a Dome Unit is higher. The projects are mutually exclusive since the company is unlikely to attract a sufficient number of customers on the competitive market to employ two or more tanning machines. Therefore, NPV should be more important characteristic than IRR and payback period. As per our analysis, Dome Unit's present value under the base case is \$30,589 as compared to \$20,567 under the Tanning Bed Base Case. However, since project lives are different and they are mutually exclusive, the regular NPV method may not indicate the better project, therefore, we calculate the Equivalent Annual Annuities (EAA) by using the NPV of each project over its stated life and then found the constant annual cash flow that this NPV would provide over the project initial life. Since the projects would be presumably being repeated indefinitely, those annuity payments would continue indefinitely and the project that provided the higher stream is the better option.

Equivalent Annual Annuity (EEA) Base case		
	Dome Unit	Tanning Bed
Present Value (PV)	-30588.79	-20567.36
Number of Years (N)	8	5
Discount Rate (K)	14.28%	14.28%
Future Value (FV)	0	0
Annual Payment (PMT)	\$6,656	\$6,031

As we see in the table according to Equivalent Annual Annuity (EEA), investing in Dome Unit still is the best choice because its annual payments are higher than Tanning Bed annual payments.

Sensitivity Analysis

For the both tanning options, we perform sensitivity analysis under most likely case (70% occupancy). For this we compute the likely scenario for an increase as well as decrease in revenues to the extent of 10%.

Sensitivity Analysis (Revenue +10%)

Discounted Incremental Cash Flows at 14.28%

Particulars	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8
Dome Unit (CFs)	(\$26500)	\$6,989	\$6,438	\$5,925	\$5,447	\$5,003	\$4,591	\$4,209	\$3,856
Tanning Bed (CFs)	(\$16500)	\$5,667	\$5,257	\$4,869	\$4,503	\$4,159	-	-	-

Sensitivity Analysis (Revenue -10%)

Discounted Incremental Cash Flows at 14.28%

Particulars	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8
Dome Unit (CFs)	(\$26500)	\$2,370	\$2,376	\$2,311	\$2,194	\$2,075	\$1,955	\$1,837	\$1,720
Tanning Bed (CFs)	(\$16500)	\$2,610	\$2,581	\$2,460	\$2,335	\$2,207	-	-	-

Calculation for NPV, Payback Period and IRR is as follows:

Investment Criteria	Revenue (-10%)		70% Most Likely		Revenue (+10%)	
	Dome Unit	Tanning Bed	Dome Unit	Tanning Bed	Dome Unit	Tanning Bed
NPV	(\$9,662)	(\$4,306)	\$3,251	\$1,866.49	\$15,957	\$7,956
PP	7.08 Yrs	4.58 Yrs	4.38 Yrs	3.24 Yrs	3.14 Yrs	2.47 Yrs
IRR	3.00%	3.37%	17.61%	18.70%	29.60%	32.18%

The sensitivity analysis is type of risk analysis. This analysis shows us what will happen if one of variable factors has been changed. As we see in the table a change in revenue of the most likely case 70% caused the NPV to change. The table showed that when the revenue increased by 10% the NPV increased as well. However, when the revenue turns out to be 10% below the most likely case, both projects must be rejected because NPV is negative. In fact, NPV is very sensitive to changes in the revenue volume. Furthermore, Dome Unit is more sensitive to changes in its cash flows more than Tanning bed because it has the highest amount either negative or positive in the both cases, but we should not ignore that the projects lifetime are playing a major role in NPV calculation, the evidence for that is Dome Unit life, this machine will last for 8 years, therefore it is more sensitive than Tanning bed which will last for five years.

Some externalities and other relevant issues that could affect the decision:

Although the fact that tanning business could very well complement her existing salon business and also the calculations cause us to believe that the dome

Appendix 48: Nominalisation annotation of Group 3's finance text

Title	Major Assignment - Semester 2 2010
Pseudonym	Ibrahim, Hasan, Sharon and Tracey (Group 3)
Type of Analysis	Nominalisation Analysis
Program	Master of Commerce
Module	<i>Principles of Finance</i>
Number of Words	3387
Notes	Excluding appendices, T.O.C., List of illustrations & Reference list

1. Introduction

Rubber Man Ltd is a Brisbane-based company which has another factory in Adelaide. It produces a range of rubber products for building, playgrounds and sport facilities. According to the economic downturn, the company decides to make an investment decision for company's future development. In this report, the company has three proposals. Firstly, remove the factory from Adelaide to Thailand; secondly, replace IT system; thirdly, hire new employees to improve product quality and design new product. Therefore, through this report, the company would make a final, reasonable and efficient decision for running their business in next ten years.

For analysis of each proposal, Rubber Man Ltd uses the incremental after-tax net operating cash flow to calculate the Net Present Value (NPV), Internal Rate of Return (IRR) and Payback Period (PP) to make a decision. In addition, the analysis is based on the "Operating Cash Flow (OCF) = Earnings before Interest and Tax (EBIT) – Taxes + Depreciation and amortisation charges".

This report will put toward on NPV & IRR analysis, sensitivity analysis and recommendation for each proposal.

2. Assumptions

All these proposals are based on several same assumptions. Firstly, all cash flows are calculated incremental cash flows at the end of each year. Moreover, current yearly revenue is \$ 10 million which could be influenced by 5% growth rate, discount rate (12%), tax rate (30%) and inflation rate (3.5%) each year. Secondly, discount rate 12% should be treated as a nominal interest rate which means for all the proposals no need to multiply the real rate and inflation rate again. Thirdly, incremental working capital requirement and incremental working capital contribution which are restored annually are based on sales revenue. Finally, in order to conveniently illustrate the calculation process, all the analysis figures are based on the before tax effect.

3. Proposal 1

In proposal 1, the company aims to beat the margin squeeze by cutting labour cost, they would relocate Adelaide factory to Thailand. In addition, the company is required to decide two scenarios: firstly, lease Adelaide Factory with proper lease revenue; secondly, sell Adelaide Factory after Thailand fully operational.

In order to analyse the two scenarios, this report assumes that the company will pay Thailand Factory lease expense at the beginning of each year from year 0.

3.1. Leasing scenario:

The report assumes that the company will receive Adelaide Factory leasing revenue at the beginning of each year from year 2.

Implementing leasing scenario would affect the company cash inflows. Firstly, the company could lease Adelaide Factory, and it could generate a cash inflow which is estimated 4.4 % of Adelaide annual sales contribution that can be translated to \$ 2.9 M during ten years period. In addition, cash inflows under leasing scenario could be increased by Adelaide Factory salvage value at the end of year 10. It could contribute to company \$ 1 M which equals to 1.5% of Adelaide annual sales contribution. Furthermore, leasing scenario might increase the cash inflows sharply due to a huge saving in operating cost by \$ 16.5 M which is equal to 25% of Adelaide annual sales contribution.

There are many factors that might influence leasing scenario cash outflows. Firstly, according to Australian labour law, the company must pay redundancy package \$ 2.5 M to Adelaide Factory's employees, and this incremental outflow would equal to approximately 3.8% of Adelaide annual sales contribution. Moreover, if the company decides to lease Adelaide Factory, it means this factory could not be sold which is treated as

an opportunity cost \$ 4 M by approximately 6% (Adelaide factory salvage value revenue / Adelaide annual sales contribution) of Adelaide annual sales contribution.

3.2. Selling scenario

Selling Adelaide Factory would generate cash inflow from Adelaide Factory salvage value and incremental depreciation. If the company sells Adelaide factory they would receive \$ 4 M which equals to 6 % of Adelaide annual sales contribution. Furthermore, this scenario still could produce cash inflow from Thailand salvage at the end year 10 with an amount of \$ 1M. In addition, the incremental depreciation could bring a huge cash inflow from \$ 83k to \$ 750 k. This process can support this proposal to create cash inflow from tax saving after year 2 that can be translated to \$ 225k instead of \$ 25k.

On the other hand, there are some difference cash outflows between selling and leasing scenario. For the selling scenario, it would be affected by two opportunity cost. Firstly, if the company will not be able to lease Adelaide Factory, the cash outflow will increase up to \$ 4 M. Secondly, \$1 M should be considered as opportunity cost which means the company would lose the leasing revenue from year 2.

4. Proposal 2

Proposal 2 supposes that both two factories would install a new IT system for all the production lines. Under the streamline internal ordering and despatch functions, the company could increase the efficiency of production and transportation. According to the results of NPV \$ 254,961, IRR 13.50%, and PP 5.25years, the proposal 2 provides company a positive value , greater return rate than discount rate 12% and shorter time to recover its initial cost.

In propose 2, the report assumes that there are no book value and no salvage value in the previous IT system when new system was installed at year 0. There are three incremental cash inflows refer to the new IT system. First of all, new system could lead a decrease working capital requirement from 15% to 7% of forecasted sales each year. That is to say, there is an incremental working capital contribution up to \$1.3M, and then recovers it at the end of the year. Moreover, rising production processes could reduce labour cost by 7.5% of sales revenue per year which equals to \$ 9.9 million. Furthermore, company should concern about \$ 0.4 M salvage value during the ten-year life. The company insists that the book value would be zero when the new system still has a salvage value at the end of year 10. Thus, the salvage value could treat as a cash inflow at the last year in the Incomes Tax Rules.

On the other hand, there are several outflows in the proposal 2. For each factory, the advance technology would cost \$ 3 million for initial cost and \$ 1 million for set-up cost. Similarly, the depreciation for new system would follow straight-line rule which equals to \$ 0.5 million per year and have a zero book value at the end of year 10. In addition, there is an incremental maintenance cost (cash outflow) per year which is increasing by the inflation rate.

5. Proposal 3

Proposal 3 supposes that the company would hire seven new engineers to develop new product and improve quality in ten years. Meanwhile, the market share for company could be improved by the new product which remains until year 10. Through the analysis, the expected NPV is \$ 122,018, IRR is 13.14% and PP is 6.35 years for this proposal.

The seven new engineers could create 6% increase on the yearly sales revenue which result in a cash inflow \$ 7.3 million from the year 2. Moreover, the new product also could bring another cash inflow from the enhancing market share \$ 15 million which equals to 12% of the total project revenue.

Conversely, it is necessary to consider cash outflows in proposal 3. Firstly, seven employees cost the company \$0.53 M from year 1 increased by the inflation rate to year 10 totally \$ 6M. Secondly, the cost of sales for new product takes up 40% of sales revenue which totally equals to \$ 9 million. Thirdly, it could assume that upgrade cost should be treated as an asset which could be depreciated \$ 0.15 M per year. Fourthly, administration cost could be increased by inflation rate up to \$ 0.18 M totally. Moreover, there is a negative working capital contribution \$ 0.46 M from the difference between old product and new product, and then it would recover at the end of year. The last cash outflow is opportunity cost which means new product sales revenue will replace the old product sales revenue. Consequently, the company need to treat old product sales revenue as an opportunity cost for cash outflow by \$1.7 M (after tax). Finally, the company assumes that old products have no initial cost as a sunk cost in the year 0.

6. Proposals Sensitivity analysis

Generally, Sensitivity analysis is the calculating procedure which is used widely in investment decision making. This procedure is used for prediction of effect of changes of input (sales revenue, operating costs saving, salvage value, etc) data on output results of one model. After inputting some variable values, the investment-project evaluation can be presented in a range interval, like NPV1, NPV2, NPV3, etc.

6.1. Proposal 1

6.1.1. Leasing scenario

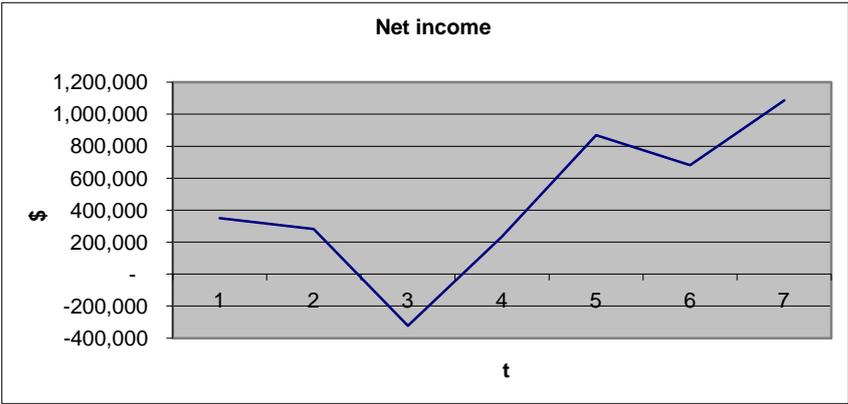
It is discovered by sensitivity analysis that, proposal 1 (leasing scenario), expected NPV is \$-4.8M and IRR is

Appendix 49: Cohesion analysis of Group 1's finance text⁴²

Title	Major Assignment - Semester 1, 2008									
Pseudonym	Abdulahadi, Saud, Jim & Cathy (Group 1)									
Type of Analysis	Cohesion Analysis									
Program	Master of Commerce									
Course	Principles of Finance									
Number of Words	4224 words: 2483 words in the capital budgeting assignment and 1741 words in the Portfolio Management Report									
Notes	No Appendices were submitted by the participants									
1.	Proposal 1: [R: Cat.]									
2.	1.1. Sales forecasting:[R: Cat.]									
3.	Sales [L: Rep.] are forecasted [L: Rep.] on the basis of the [R: Def.] suggested growth rates in the [R: Def.] assignment paper.									
4.	In addition [C: Extension: Add.], it [R: Pro.] assumed [L: Rep.] that inflation is incorporated in the [R: Def.] growth rates. [L: Rep.]									
5.	Table 1.1: Sales [L: Rep.] Forecasts [L: Rep.]									
6.	2008	2009	2010	2011	2012	2013	2014	2015	2016	
		10%	10%	5%	5%	5%	5%	5%	5%	
	6,000,000	6,600,000	7,260,000	7,623,000	8,004,150	8,404,358	8,824,575	9,265,804	9,729,094	
	•% [L: Rep.] 7 instances									
7.	1.2. Cost of good sold forecasts: [L: Rep.][R: Cat.]									
8.	Cost of [L: Rep.] good [L: Rep.] sold [L: Rep.] is forecasted [L: Rep.] as percentage [L: Rep.] of sales [L: Rep.] as [C: Enhancement: Man.] suggested [L: Rep.] in the [R: Def.] assignment [L: Rep.] paper. [L: Rep.]									
9.	Furthermore [C: Extension: Add.], it [R: Pro.] is assumed [L: Rep.] that inflation [L: Rep.] is incorporated in those estimates. [R: Dem.]									
10.	Table [L: Rep.] 1.2: cost of [L: Rep.] good [L: Rep.] sold [L: Rep.] forecasts [L: Rep.]									
11.	2008	2009	2010	2011	2012	2013	2014	2015	2016	
	60%	65%	80%	70%	60%	65%	60%	60%	60%	
	3,600,000	4,290,000	5,808,000	5,336,100	4,802,490	5,462,832	5,294,745	5,559,482	5,837,457	
	•% [L: Rep.] 9 instances									
12.	1.3. Gross profit:									
13.	Gross [L: Rep.] profit [L: Rep.] is calculated and [C: Extension: Add.] it [R: Pro.] appears that it [R: Pro.] is <sic> fluctuates because [C: Enhancement: Caus.] of the fluctuations [L: Rep.] in COGS.									
14.	1.4. Operating cost: [L: Rep.] [R: Cat.]									
15.	Operating [L: Rep.] cost [L: Rep.] is assumed [L: Rep.] to remain constant at 1.2 million into the foreseeable future. [L: Rep.]									
16.	1.5. Leasing cost: [L: Rep.]									
17.	Furthermore, [C: Extension: Add.] <sic>									
18.	Leasing [L: Rep.] cost [L: Rep.] is expected to rise according to [C: Enhancement: Man.] the [R: Def.] inflation [L: Rep.] rate [L: Rep.] of 3.5%. [L: Rep.]									
19.	1.6. Depreciation: [R: Cat.]									
20.	Depreciation [L: Rep.] is calculated [L: Rep.] on a straight line [L: Rep.] basis. [L: Rep.]									
21.	Firstly, [C: Enhancement: Temp.] for the [R: Def.] first machine it is assumed [L: Rep.] that the [R: Def.] machine will be sold for 0.2 million [L: Rep.] and [C: Extension: Add.] it <sic> [R: Pro] residual value is not affected by inflation [L: Rep.] and [C: Extension: Add.] its [R: Poss.] historical cost [L: Rep.] is 2.2 and [C: Extension: Add.] its [R: Poss.] economic life is 4 years .									

⁴² Refer to Appendix 19 for the procedures followed in cohesion analysis of the texts.

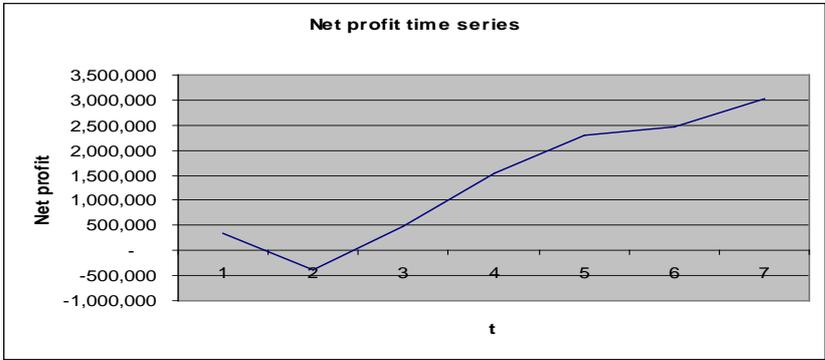
22.	Therefore, [C: Enhancement: Caus.] depreciation [L: Rep.] expense accounts for 0.5 million. [L: Rep.]																		
23.	Secondly, [C: Enhancement: Temp.]the [R: Def.] new machine [L: Rep.] is expected [L: Rep.] to be purchased for about 2.524 million [L: Rep.] after the [R: Def.] adjustment [L: Rep.] for inflation [L: Rep.] and [C: Extension: Add.] it <sic> [R: Poss.] residual [L: Rep.] value [L: Rep.] is 0.4 million [L: Rep.] and [C: Extension: Add.] it is assumed [L: Rep.] that it [R: Pro.] is adjusted [L: Rep.]for inflation [L: Rep.] and [C: Extension: Add.] its [R: Poss.] economic [L: Rep.] life [L: Rep.] is 4 years.																		
24.	Thus, [C: Enhancement: Caus.] depreciation [L: Rep.] expense [L: Rep.] accounts [L: Rep.] for 0.531 million. [L: Rep.]																		
25.	Table [L: Rep.] 1.3: depreciation expense (in millions) [L: Rep.]																		
26.		First machine	New machine																
	Economic life	4	4																
	Cost	2.2	2.524																
	Residual value	0.2	0.4																
	Depreciation expense	0.5	0.531																
	<ul style="list-style-type: none"> •Machine [L: Rep.] 7 instances •New [L: Rep.] 1 instance •Economic [L: Rep.] 1 instance •Residual [L: Rep.] 1 instance 		<ul style="list-style-type: none"> •Life [L: Rep.] 1 instance •Value [L: Rep.] 1 instance •Cost [L: Rep.] 1 instance •Expense [L: Rep.] 1 instance 																
27.	1.7. Earning before interest and taxes: [R: Cat.]																		
28.	The [R: Def.] time series blow [below] <sic> [R: Cat.] illustrates the [R: Def.] behaviour of EBIT [L: Rep.] through out the [R: Def.] life of the [R: Def.] project.																		
29.	Indeed, [C: Elaboration: Clari .] it [R: Pro.] fluctuates [L: Rep.] as according <sic> [C: Enhancement: Man.] the [R: Def.] fluctuation [L: Rep.] in COGS.																		
30.	Figure 1.1: EBIT [L: Rep.] time [L: Rep.] series [L: Rep.]																		
31.	<p style="text-align: center;">EBIT [L:Rep.]</p> <table border="1"> <thead> <tr> <th>Period (t)</th> <th>EBIT (\$)</th> </tr> </thead> <tbody> <tr><td>1</td><td>500,000</td></tr> <tr><td>2</td><td>400,000</td></tr> <tr><td>3</td><td>-500,000</td></tr> <tr><td>4</td><td>300,000</td></tr> <tr><td>5</td><td>1,250,000</td></tr> <tr><td>6</td><td>950,000</td></tr> <tr><td>7</td><td>1,550,000</td></tr> </tbody> </table>			Period (t)	EBIT (\$)	1	500,000	2	400,000	3	-500,000	4	300,000	5	1,250,000	6	950,000	7	1,550,000
Period (t)	EBIT (\$)																		
1	500,000																		
2	400,000																		
3	-500,000																		
4	300,000																		
5	1,250,000																		
6	950,000																		
7	1,550,000																		
	Cohesion analysis of the graph below (32-38):																		
32.	EBIT for period 1 is \$500,000.																		
33.	In period [L: Rep.] 2, it [R: Pro.] drops to \$400,000. [L: Rep.]																		
34.	In period [L: Rep.] 3, it [R: Pro.] drops sharply to \$-500,000. [L: Rep.]																		
35.	In period [L: Rep.] 4, it [R: Pro.] increases [L: Ant.] sharply to \$300,000. [L: Rep.]																		
36.	In period [L: Rep.] 5, it [R: Pro.] increases [L: Ant.] to \$1,250,000. [L: Rep.]																		
37.	In period [L: Rep.] 6, it [R: Pro.] drops [L: Ant.] to \$950,000. [L: Rep.]																		
38.	In period [L: Rep.] 7, it [R: Pro.] increases [L: Ant.] to \$1,550,000. [L: Rep.]																		
39.	1.8. Tax: [R: Cat.]																		
40.	The [R: Def.] company is taxed [L: Rep.] at the [R: Def.] corporate rate [L: Rep.] of 30%. [L: Rep.]																		
41.	1.9. Net [L: Rep.] profit: [L: Rep.] [R: Cat.]																		
42.	The [R: Def.] time [L: Rep.] series [L: Rep.] blow <sic> [R: Cat.] illustrates [L: Rep.] the [R: Def.] behaviour of Net [L: Rep.] profit [L: Rep.] through out the [R: Def.] life [L: Rep.] of the [R: Def.] project [L: Rep.].																		
43.	Indeed, [C: Elaboration: Clari .] it [R: Pro.] fluctuates [L: Rep.] as according <sic> [C: Enhancement: Man.] the [R: Def.] fluctuation [L: Rep.] in COGS. [L: Rep.]																		

44.	Figure [L: Rep.] 1.2: Net [L: Rep.] profit [L: Rep.] time [L: Rep.] series [L: Rep.]							
45.	<div style="text-align: center;">  <p style="text-align: center;">Net income</p> </div> <p>Cohesion analysis of the graph below (46-52):</p>							
46.	EBIT for period 1 is \$290,000.							
47.	In period [L: Rep.] 2, it [R: Pro.] drops to \$300,000. [L: Rep.]							
48.	In period [L: Rep.] 3, it [R: Pro.] drops sharply to \$-300,000. [L: Rep.]							
49.	In period [L: Rep.] 4, it [R: Pro.] increases [L: Ant.] to \$200,000. [L: Rep.]							
50.	In period [L: Rep.] 5, it [R: Pro.] increases [L: Ant.] to \$850,000. [L: Rep.]							
51.	In period [L: Rep.] 6, it [R: Pro.] drops [L: Ant.] to \$700,000. [L: Rep.]							
52.	In period [L: Rep.] 7, it [R: Pro.] increases [L: Ant.] to \$1,100,000. [L: Rep.]							
53.	1.10. Cash flows: [L: Rep.] [R: Cat.]							
54.	1.10.1. Net [L: Rep.] capital [L: Rep.] spending:[R: Cat.]							
55.	Incremental net capital [L: Rep.] spending [L: Rep.] accounts [L: Rep.] for (2,324,551\$) [L: Rep.] in the [R: Def.] year 2010.							
56.	In fact, [C: Elaboration: Clari .] the purchase of the [R: Def.] first machine [L: Rep.] is regarded to be a sunk cost [L: Rep.] therefore [C: Enhancement: Caus.] it [R: Pro.] has not been considered.							
57.	In addition, [C: Extension: Add.] terminal value [L: Rep.] is equal to salvage value [L: Rep.] because [C: Enhancement: Caus.] it [R: Pro.] has not incurred loss nor gain on the salvage [L: Rep.] value. [L: Rep.]							
58.	Table [L: Rep.] 1.4: Net capital [L: Rep.] spending [L: Rep.]							
59.	Cash flows		2010	2014				
	Sale of Machine		200,000					
	Cost of New Machine		(2,524,551)					
	Terminal value			400,000				
	Net Capital Spending		(2,324,551)	400,000				
	<ul style="list-style-type: none"> • Cash [L: Rep.] 1 instance • Flows [L: Rep.] 1 instance • Machine [L: Rep.] 2 instances • Cost [L: Rep.] 1 instance • New [L: Rep.] 1 instance 				<ul style="list-style-type: none"> • Terminal [L: Rep.] 1 instance • Value [L: Rep.] 1 instance • Net [L: Rep.] 1 instance • Capital [L: Rep.] 1 instance • Spending [L: Rep.] 1 instance 			
60.	1.10.2. Operating cash [L: Rep.] flows: [L: Rep.] [R: Cat.]							
61.	Operating cash [L: Rep.] flows [L: Rep.] are calculated [L: Rep.] and [C: Extension: Add.] represented [L: Rep.] in the [R: Def.] table [L: Rep.] below. [R: Cat.]							
62.	Table [L: Rep.] 1.5: Operating cash [L: Rep.] flows[L: Rep.]							
	Operating cash flows	2008	2009	2010	2011	2012	2013	2014
		850,000	782,100	(176,428)	764,951	1,399,850	1,212,133	1,618,127
	<ul style="list-style-type: none"> • Cash [L: Rep.] 1 instance • Flows [L: Rep.] 1 instance 				<ul style="list-style-type: none"> • Operating [L: Rep.] 1 instance 			

63.	1.10.3. Net [L: Rep.] cash [L: Rep.] flows: [L: Rep.] [R: Cat.]							
64.	Net [L: Rep.] cash [L: Rep.] flow [L: Rep.] are calculated [L: Rep.] by adding net [L: Rep.] capital [L: Rep.] spending [L: Rep.] and [C: Extension: Add.] represented [L: Rep.] in the [R: Def.] table [L: Rep.] below. [R: Cat.]							
65.	Table [L: Rep.] 1.6: Net cash [L: Rep.] flows [L: Rep.]							
66.	Net cash flows	2008	2009	2010	2011	2012	2013	2014
		850,000	782,100	(2,148,122)	764,951	1,399,850	1,212,133	2,018,127
	<ul style="list-style-type: none"> •Cash [L: Rep.] 1 instance •Flows [L: Rep.] 1 instance 					<ul style="list-style-type: none"> •Net [L: Rep.] 1 instance 		
67.	1.11. Capital [L: Rep.] structure:[R: Cat.]							
68.	The cost [L: Rep.] of capital [L: Rep.] is calculated [L: Rep.] on the basis [L: Rep.] of the [R: Def.] given weights.							
69.	In addition, [C: Extension: Add.] it [R: Pro.] is considered that debt and hybrid debt							
70.	i.e. [C: Elaboration: Appos.] mezzanine finance are tax [L: Rep.] deductible.							
71.	In addition, [C: Extension: Add.] the required rate [L: Rep.] of return on common stock is calculated [L: Rep.] by utilising CAPM equation.							
72.	Table [L: Rep.] 1.7: Cost [L: Rep.] of capital [L: Rep.]							
73.	Capital Structure	Weight		Required return		Required return after tax savings		
	Hybrid Debt	15.00%		15.00%		10.5%		
	Debt	35%		12%		8.4%		
	Common Stocks	45%		17.80%		17.80%		
	Preferred stocks	5.00%		14%		14%		
	WACC	-				13.23		
	<ul style="list-style-type: none"> •Capital [L: Rep.] 1 instance •Tax [L: Rep.] 1 instance •Preferred [L: Ant.] ties with Common 					<ul style="list-style-type: none"> •Debt [L: Rep.] 1 instance •Stocks [L: Rep.] 1 instance •% [L: Rep.] 12 instances 		
74.	1.12. Investment criteria:[R: Cat.]							
75.	After the [R: Def.] derivation of cash [L: Rep.] flows [L: Rep.] NPV is calculated [L: Rep.] and [C: Extension: Add.] it [R: Pro.] accounted for 2,853,108 which are positive and [C: Extension: Add.] this [R: Dem.] [Subs.: Cl.] implies that proposal [L: Rep.] is creating value. [L: Rep.]							
76.	Nevertheless [C: Enhancement: Man.] , this [R: Dem.] [Subs.:Cl.] figure [L: Syn.] should be compared to the [R: Def.] NPV* [L: Mer.] [L: Rep.] of the [R: Def.] other alternatives [R: Comp.] which has had different [R: Comp.] time [L: Rep.] periods. * NPV [L: Mer.] ties with value in 61.							
77.	Hence, [C: Enhancement: Caus.] the [R: Def.] NPV [L: Rep.] is regarded to yield a misleading result.							
78.	Thus, [C: Enhancement: Caus.] EAV is calculated [L: Rep.] and [C: Extension: Add.] utilised to choose among those proposals. [R: Dem.] [L: Rep.]							
79.	In addition, [C: Extension: Add.] IRR is not considered because [C: Enhancement: Caus.] the [R: Def.] proposal [L: Rep.] has an unconventional cash [L: Rep.] flow. [L: Rep.]							
80.	Alternatively, [C: Extension: Variat.] MIRR is computed and [C: Extension: Add.] amounted for 33.64%. [L: Rep.]							
81.	Table [L: Rep.] 1.8: investment criteria [L: Rep.]							
82.	Investment criteria	Results						
	NPV	2,853,108\$						
	EAV	649,643\$						
	<ul style="list-style-type: none"> •Criteria [L: Rep.] 1 instance •NPV [L: Rep.] 1 instance •EAV [L: Ant.] ties with Common 					<ul style="list-style-type: none"> •Results [L: Rep.] 1 instance •\$ [L: Rep.] 2 instances 		
83.	1.13. Sensitivity [L: Rep.] analysis:[L: Rep.] [R: Cat.]							
84.	Examining the [R: Def.] sensitivity [L: Rep.] analysis [L: Rep.] outcomes it appears that NPV [L: Rep.] is highly responsive to changes in sells and in cost [L: Rep.] of good [L: Rep.] sold. [L: Rep.]							
85.	On the other hand, [C: Extension: Variat.] it is suggested [L: Rep.] that changes [L: Rep.] in WACC [L: Rep.] and the [R: Def.] cost [L: Rep.] of the [R: Def.] machine [L: Rep.] do not significantly							

	affect NPV. [L: Rep.]																																							
86.	Figure 1.3: Sensitivity [L: Rep.] analysis [L: Rep.]																																							
87.	<p>The graph displays the sensitivity of NPV to changes in four variables: WACC, Sales, COGS, and Machine cost. The x-axis represents the percentage deviation from the base case, ranging from -40% to 40%. The y-axis represents the NPV in dollars, ranging from -\$3,000,000 to \$8,000,000. The base case (0% deviation) is at \$2,500,000. WACC (blue diamonds) and Machine cost (purple crosses) show a slight downward trend. Sales (red squares) shows a strong upward trend. COGS (green triangles) shows a strong downward trend.</p> <table border="1"> <caption>Approximate data points from Figure 1.3</caption> <thead> <tr> <th>Deviation (%)</th> <th>WACC (\$)</th> <th>Sales (\$)</th> <th>COGS (\$)</th> <th>Machine cost (\$)</th> </tr> </thead> <tbody> <tr> <td>-40%</td> <td>2,800,000</td> <td>1,000,000</td> <td>7,000,000</td> <td>2,500,000</td> </tr> <tr> <td>-20%</td> <td>2,700,000</td> <td>1,500,000</td> <td>5,000,000</td> <td>2,500,000</td> </tr> <tr> <td>0%</td> <td>2,500,000</td> <td>2,500,000</td> <td>2,500,000</td> <td>2,500,000</td> </tr> <tr> <td>20%</td> <td>2,300,000</td> <td>4,000,000</td> <td>1,000,000</td> <td>2,500,000</td> </tr> <tr> <td>40%</td> <td>2,100,000</td> <td>5,000,000</td> <td>-1,000,000</td> <td>2,500,000</td> </tr> </tbody> </table>										Deviation (%)	WACC (\$)	Sales (\$)	COGS (\$)	Machine cost (\$)	-40%	2,800,000	1,000,000	7,000,000	2,500,000	-20%	2,700,000	1,500,000	5,000,000	2,500,000	0%	2,500,000	2,500,000	2,500,000	2,500,000	20%	2,300,000	4,000,000	1,000,000	2,500,000	40%	2,100,000	5,000,000	-1,000,000	2,500,000
Deviation (%)	WACC (\$)	Sales (\$)	COGS (\$)	Machine cost (\$)																																				
-40%	2,800,000	1,000,000	7,000,000	2,500,000																																				
-20%	2,700,000	1,500,000	5,000,000	2,500,000																																				
0%	2,500,000	2,500,000	2,500,000	2,500,000																																				
20%	2,300,000	4,000,000	1,000,000	2,500,000																																				
40%	2,100,000	5,000,000	-1,000,000	2,500,000																																				
	Cohesion analysis of the graph below (88-92):																																							
88.	When all of the inputs are set at their [R: Poss.] base-case levels, their [R: Poss.] deviations from the [R: Def.] base are all zero and [C: Extension: Add.] the [R: Def.] NPV [L: Rep.] is \$ 2,500,000.																																							
89.	If [C: Enhancement: Cond.] sales [L: Rep.] price [L: Rep.] is set 30% above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be +\$5,000,000. [L: Rep.]																																							
90.	If [C: Enhancement: Cond.] WACC [L: Rep.] price [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above [L: Rep.] its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be +\$2,500,000. [L: Rep.]																																							
91.	If [C: Enhancement: Cond.] machine [L: Rep.] cost [L: Rep.] price [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above [L: Rep.] its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be +\$2500,000. [L: Rep.]																																							
92.	If [C: Enhancement: Cond.] COGS [L: Rep.] price [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above [L: Rep.] its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be - \$2000,000. [L: Rep.]																																							
93.	Proposal 2: [L: Rep.][R: Cat.]																																							
94.	2.1. Sales [L: Rep.] forecasting [L: Rep.]:																																							
95.	Sales [L: Rep.] are forecasted [L: Rep.] on the basis [L: Rep.] of the [R: Def.] suggested [L: Rep.] growth rates [L: Rep.] in the R: Def.] assignment [L: Rep.] paper. [L: Rep.]																																							
96.	In addition, [C: Extension: Add.] it [sic] assumed [L: Rep.] that inflation [L: Rep.] is incorporated in the [R: Def.] growth rates [L: Rep.].																																							
97.	127. Table [L: Rep.] 2.1: Sales [L: Rep.] Forecasts [L: Rep.]																																							
98.	2008	2009	2010	2011	2012	2013	2014	2015	2016																															
		10%	10%	10%	10%	10%	10%	10%	10%																															
	6,000,000	7,260,000	7,986,000	8,385,300	8,804,565	9,244,793	9,707,033	10,192,385	10,702,004																															
	•% [L: Rep.] 8 instances																																							
99.	2.2. Cost [L: Rep.] of good [L: Rep.] sold [L: Rep.] forecasts: [L: Rep.]																																							
100.	Cost [L: Rep.] of good <sic> sold is forecasted [L: Rep.] as percentage [L: Rep.] of the [R: Def.] cost [L: Rep.] of good [L: Rep.] sold [L: Rep.] of proposal 1 [L: Rep.] as [C: Enhancement: Man.] suggested [L: Rep.] in the [R: Def.] assignment [L: Rep.] paper. [L: Rep.]																																							
101.	Furthermore, [C: Extension: Add.] it is assumed [L: Rep.] that inflation [L: Rep.] is incorporated in those estimates. [R: Dem.][L: Rep.]																																							
102.	Table [L: Rep.] 2.2: cost [L: Rep.] of good [L: Rep.] sold [L: Rep.] forecasts [L: Rep.]																																							
103.	2008	2009	2010	2011	2012	2013	2014	2015	2016																															
	100%	120%	80%	75%	70%	65%	60%	60%	60%																															
	3,600,000	5,148,000	4,646,400	4,002,075	3,361,743	3,550,841	3,176,847	3,335,689	3,502,474																															
	•% [L: Rep.] 9 instances																																							

104.	2.3. Gross [L: Rep.] profit: [L: Rep.] [R: Cat.]		
105.	Gross [L: Rep.] profit [L: Rep.] is calculated [L: Rep.] and [C: Extension: Add.] it appears that it <missing> [R: Pro.] dipped slightly in 2009 then [C: Enhancement: Temp.] it [R: Pro.] grew steadily.		
106.	2.4. Operating cost: [L: Rep.] [R: Cat.]		
107.	Operating [L: Rep.] cost [L: Rep.] is assumed [L: Rep.] to remain constant [L: Rep.] at 1.2 million [L: Rep.] into the [R: Def.] foreseeable [L: Rep.] future. [L: Rep.]		
108.	2.5. Leasing cost: [L: Rep.]		
109.	Leasing [L: Rep.] cost [L: Rep.] is expected [L: Rep.] to rise according to [C: Enhancement: Man.] the [R: Def.] inflation [L: Rep.] rate [L: Rep.] of 3.5%. [L: Rep.]		
110.	Furthermore, [C: Extension: Add.] <sic>		
111.	2.6. Depreciation: [R: Cat.]		
112.	Depreciation is calculated [L: Rep.] on a straight [L: Rep.] line [L: Rep.] basis. [L: Rep.]		
113.	Firstly, [C: Enhancement: Temp.] for [C: Elaboration: Clari.] the [R: Def.] first machine [L: Rep.] it is assumed [L: Rep.] that the [R: Def.] machine [L: Rep.] will be sold for 0.2 million [L: Rep.] and [C: Extension: Add.] it <sic> [R: Poss.] residual [L: Rep.] value [L: Rep.] is not affected by inflation [L: Rep.] and its [R: Poss.] historical cost [L: Rep.] is 2.2 and its [R: Poss.] economic [L: Rep.] life [L: Rep.] is 4 years .		
114.	Therefore, [C: Enhancement: Caus.] depreciation expense [L: Rep.] accounts [L: Rep.] for 0.5 million [L: Rep.] and [C: Extension: Add.] it is assumed [L: Rep.] that it [R: Pro.] will sill <sic> in production up to the [R: Def.] year 2010.		
115.	Secondly, [C: Enhancement: Temp.] the [R: Def.] new [L: Rep.] machine [L: Rep.] is expected [L: Rep.] to be purchased for about 5 million [L: Rep.] and [C: Extension: Add.] its [R: Poss.] residual [L: Rep.] value [L: Rep.] is about 1.053 million [L: Rep.] after the [R: Def.] adjustment [L: Rep.] for inflation [L: Rep.] $(0.5(1.035)^6)$ and it [R: Pro.] is and its [R: Poss.] economic [L: Rep.] life [L: Rep.] is 6 years.		
116.	Thus, depreciation [L: Rep.] expense [L: Rep.] accounts [L: Rep.] for 0.75 million. [L: Rep.]		
117.	Table [L: Rep.] 2.3: depreciation [L: Rep.] expense [L: Rep.] (in millions) [L: Rep.]		
118.		First machine	New machine
	Economic life	4	6
	Cost	2.2	5
	Residual value	0.2	0.517
	Depreciation expense	0.5	0.747
	<ul style="list-style-type: none"> • Machine [L: Rep.] 2 instances • New [L: Rep.] 1 instance • Economic [L: Rep.] 1 instance • Life [L: Rep.] 1 instance • Cost [L: Rep.] 1 instance 		<ul style="list-style-type: none"> • Residual [L: Rep.] 1 instance • Value [L: Rep.] 1 instance • Depreciation [L: Rep.] 1 instance • Expense [L: Rep.] 1 instance
119.	Earning before interest and taxes:[R: Cat.][L: Rep.]		
120.	The [R: Def.] time [L: Rep.] series [L: Rep.] blow <sic> [R: Cat.] illustrates [L: Rep.] the [R: Def.] behaviour [L: Rep.] of EBIT [L: Rep.] through out the [R: Def.] life [L: Rep.] of the [R: Def.] project. [L: Rep.]		
121.	Indeed, [C: Elaboration: Clari.] it [R: Pro.] fluctuates [L: Rep.] as according <sic> [C: Enhancement: Man.] the [R: Def.] fluctuation [L: Rep.] in COGS. [L: Rep.]		
122.	Figure 2.1: EBIT [L: Rep.] time [L: Rep.] series [L: Rep.]		
123.			

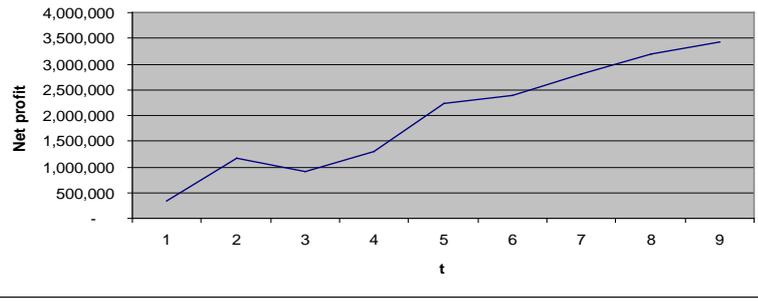
	Cohesion analysis of the graph below (124-130):				
124.	EBIT for period 1 is \$500,000.				
125.	In period [L: Rep.] 2, it [R: Pro.] drops sharply to \$-500,000. [L: Rep.]				
126.	In period [L: Rep.] 3, it [R: Pro.] increases [L: Ant.] to \$800,000. [L: Rep.]				
127.	In period [L: Rep.] 4, it [R: Pro.] increases [L: Rep.] to \$2,300,000. [L: Rep.]				
128.	In period [L: Rep.] 5, it [R: Pro.] increases [L: Rep.] to \$3,300,000. [L: Rep.]				
129.	In period [L: Rep.] 6, it [R: Pro.] increases [L: Rep.] to \$3,350,000. [L: Rep.]				
130.	In period [L: Rep.] 7, it [R: Pro.] increases [L: Rep.] sharply to \$4,400,000. [L: Rep.]				
131.	2.8. Tax:				
132.	The [R: Def.] company [L: Rep.] is taxed [L: Rep.] at the [R: Def.] corporate [L: Rep.] rate [L: Rep.] of 30%. [L: Rep.]				
133.	2.9. Net [L: Rep.] profit: [L: Rep.] [R: Cat.]				
134.	The [R: Def.] time [L: Rep.] series [L: Rep.] blow <sic> [R: Cat.] illustrates [L: Rep.] the [R: Def.] behaviour [L: Rep.] of Net [L: Rep.] profit [L: Rep.] through out the [R: Def.] life [L: Rep.] of the [R: Def.] project. [L: Rep.]				
135.	Indeed, [C: Elaboration: Clari.] it [R: Pro.] fluctuates [L: Rep.] as according <sic> [C: Enhancement: Man.] the [R: Def.] fluctuation [L: Rep.] in COGS. [L: Rep.]				
136.	Figure 2.2: [L: Rep.] Net [L: Rep.] profit [L: Rep.] time [L: Rep.] series [L: Rep.]				
137.	<div style="text-align: center;">  </div> <p>Cohesion analysis of the graph below (138-144):</p>				
138.	EBIT for period 1 is \$400,000.				
139.	In period [L: Rep.] 2, it [R: Pro.] drops sharply to \$-500,000. [L: Rep.]				
140.	In period [L: Rep.] 3, it [R: Pro.] increases [L: Ant.] to \$500,000. [L: Rep.]				
141.	In period [L: Rep.] 4, it [R: Pro.] increases [L: Rep.] sharply [L: Rep.] to \$1,500,000. [L: Rep.]				
142.	In period [L: Rep.] 5, it [R: Pro.] increases [L: Rep.] to \$2,250,000. [L: Rep.]				
143.	In period [L: Rep.] 6, it [R: Pro.] increases [L: Rep.] to \$2,400,000. [L: Rep.]				
144.	In period [L: Rep.] 7, it [R: Pro.] increases [L: Rep.] sharply [L: Rep.] to \$3,000,000. [L: Rep.]				
145.	2.10. Cash [L: Rep.] flows: [L: Rep.] [R: Cat.]				
146.	2.10.1. Net [L: Rep.] capital [L: Rep.] spending: [L: Rep.] [R: Cat.]				
147.	Incremental net [L: Rep.] capital [L: Rep.] spending [L: Rep.] accounts [L: Rep.] for (5,000,000\$) [L: Rep.] in the [R: Def.] year 2008.				
148.	In addition, [C: Extension: Add.] the [R: Def.] old machine [L: Rep.] is sold for 200,000 which is equal to its [R: Poss.] residual [L: Rep.] value [L: Rep.] terminal [L: Rep.] thus [C: Enhancement: Caus.] no tax [L: Rep.] saving.				
149.	Moreover, [C: Extension: Add.] terminal [L: Rep.] value [L: Rep.] of the [R: Def.] new [L: Ant.] machine [L: Rep.] is equal to its residual [L: Rep.] value [L: Rep.] because [C: Enhancement: Caus.] it [R: Pro.] has not incurred loss [L: Rep.] no gain [L: Rep.] on the [R: Def.] salvage [L: Rep.] value. [L: Rep.]				
150.	Table [L: Rep.] 2.4: Net [L: Rep.] capital [L: Rep.] spending [L: Rep.]				
151.	Cash flows	2008	2010	2014	
	Sale of Machine		200,000		
	Cost of New Machine	(5,000,000)			
	Terminal value			517,500	

		Net Capital Spending	(5,000,000)	200,000	517,500				
		<ul style="list-style-type: none"> • Cash [L: Rep.] 1 instance • Capital [L: Syn.] ties with Cash • Flows [L: Rep.] 1 instance • Machine [L: Rep.] 2 instances • Cost [L: Rep.] 1 instance • New [L: Rep.] 1 instance 				<ul style="list-style-type: none"> • Terminal [L: Rep.] 1 instance • Value [L: Rep.] 1 instance • Net [L: Rep.] 1 instance • Capital [L: Rep.] 1 instance • Spending [L: Rep.] 1 instance 			
152.	2.10.2. Operating cash [L: Rep.] flows: [L: Rep.] [R: Cat.]								
153.	Operating [L: Rep.] cash [L: Rep.] flows [L: Rep.] are calculated [L: Rep.] and [C: Extension: Add.] represented [L: Rep.] in the [R: Def.] table [L: Rep.] below. [R: Cat.]								
154.	Table [L: Rep.] 2.5: Operating cash [L: Rep.] flows [L: Rep.]								
155.	Operating cash flows	2008	2009	2010	2011	2012	2013	2014	
		850,000	867,625	1,921,874	1,721,874	3,033,447	3,203,615	3,783,159	
	<ul style="list-style-type: none"> • Cash [L: Rep.] 1 instance 				<ul style="list-style-type: none"> • Flows [L: Rep.] 1 instance 				
156.	2.10.3. Net cash [L: Rep.] flow [L: Rep.]								
157.	Net [L: Rep.] cash [L: Rep.] flow [L: Rep.] are calculated [L: Rep.] by adding net [L: Rep.] capital [L: Rep.] spending [L: Rep.] and [C: Extension: Add.] represented [L: Rep.] in the [R: Def.] table [L: Rep.] below. [R: Cat.]								
158.	Table [L: Rep.] 2.6: Net [L: Rep.] cash [L: Rep.] flows [L: Rep.]								
	Net cash flows	2008	2009	2010	2011	2012	2013	2014	
		(4,150,000)	867,625	1,921,874	2,297,162	3,033,447	3,203,615	4,300,659	
	<ul style="list-style-type: none"> • Cash [L: Rep.] 1 instance • Net [L: Rep.] 1 instance 				<ul style="list-style-type: none"> • Flows [L: Rep.] 1 instance 				
159.	2.11. Capital [L: Rep.] structure: [L: Rep.] [R: Cat.]								
160.	The [R: Def.] cost [L: Rep.] of capital [L: Rep.] and [C: Extension: Add.] the [R: Def.] capital structure [L: Rep.] is assumed [L: Rep.] to remain the [R: Def.] same [Subs.: N.] in proposal 2. [L: Rep.]								
161.	Table [L: Rep.] 2.7: Cost [L: Rep.] of capital [L: Rep.]								
162.	Capital Structure	Weight	Required return	Required return after tax savings					
	Hybrid Debt	15.00%	15.00%	10.5%					
	Debt	35%	12%	8.4%					
	Common Stocks	45%	17.80%	17.80%					
	Preferred stocks	5.00%	14%	14%					
	WACC	-		13.23					
	<ul style="list-style-type: none"> • Capital [L: Rep.] 1 instance • Structure [L: Rep.] 1 instance • Debt [L: Rep.] 1 instance • Preferred [L: Ant.] ties with Common 				<ul style="list-style-type: none"> • Stocks [L: Rep.] 1 instance • WACC [L: Rep.] 1 instance • Tax [L: Rep.] 1 instance • % [L: Rep.] 12 instances 				
163.	2.12. Investment [L: Rep.] criteria: [L: Rep.] [R: Cat.]								
164.	After the [R: Def.] derivation of cash [L: Rep.] flows [L: Rep.] NPV [L: Rep.] is calculated [L: Rep.] and [C: Extension: Add.] it [R: Pro.] accounted for 5,304,861\$ [L: Rep.] and [C: Extension: Add.] it [R: Pro.] is indeed [C: Elaboration: Clari.] massively greater than [R: Comp.] the [R: Def.] NPV [L: Rep.] of proposal 1 [L: Rep.] which only [C: Extension: Variat.] accounts [L: Rep.] for 2,853,108\$. [L: Rep.]								
165.	Nevertheless, [C: Enhancement: Man.] this [Subs.: Cl.] [R: Dem.] figure [L: Rep.] should be compared to the [R: Def.] NPV [L: Rep.] of the [R: Def.] other alternatives [R: Comp.] which has different [R: Comp.] time [L: Rep.] periods. [L: Rep.]								
166.	Hence, [C: Enhancement: Caus.] the [R: Def.] NPV [L: Rep.] is regarded to yield a misleading result. [L: Rep.]								

167.	Thus, [C: Enhancement: Caus.] EAV [L: Rep.] is calculated [L: Rep.] and [C: Extension: Add.] utilised to choose among those proposals. [R: Dem.] [L: Rep.]						
168.	In addition, [C: Extension: Add.] IRR is not considered because [C: Enhancement: Caus.] it [R: Pro.] can not be compared to proposal 1 [L: Rep.] which has unconventional [L: Rep.] cash [L: Rep.] flows. [L: Rep.]						
169.	Table [L: Rep.] 2.8: investment [L: Rep.] criteria [L: Rep.]						
170.	<table border="1"> <thead> <tr> <th>Investment criteria</th> <th>Results</th> </tr> </thead> <tbody> <tr> <td>NPV</td> <td>5,304,861\$</td> </tr> <tr> <td>EAV</td> <td>1,208,086\$</td> </tr> </tbody> </table>	Investment criteria	Results	NPV	5,304,861\$	EAV	1,208,086\$
Investment criteria	Results						
NPV	5,304,861\$						
EAV	1,208,086\$						
	<ul style="list-style-type: none"> • Investment [L: Rep.] 1 instance • Criteria [L: Rep.] 1 instance • Results [L: Rep.] 1 instance <ul style="list-style-type: none"> • NPV [L: Rep.] 1 instance • EAV [L: Rep.] 1 instance • \$ [L: Rep.] 2 instances 						
171.	2.13. Sensitivity [L: Rep.] analysis: [L: Rep.]						
172.	Examining the [R: Def.] sensitivity [L: Rep.] analysis [L: Rep.] outcomes [L: Rep.] it appears that NPV [L: Rep.] is highly responsive to changes [L: Rep.] in sells <sic> [L: Rep.] and in cost [L: Rep.] of good [L: Rep.] sold. [L: Rep.]						
173.	However, [C: Extension: Add.] it is suggested [L: Rep.] that changes [L: Rep.] in WACC [L: Rep.] and the [R: Def.] cost [L: Rep.] of the [R: Def.] machine [L: Rep.] affect NPV [L: Rep.] but [C: Extension: Variat.] moderately.						
174.	Figure 2.3: [L: Rep.] Sensitivity [L: Rep.] analysis [L: Rep.]						
175.	<p style="text-align: center;">Cohesion analysis of the graph below (176-180):</p>						
176.	When all of the inputs are set at their [R: Pos.] base-case levels, their [R: Poss.] deviations from the [R: Def.] base are all zero and [C: Extension: Add.] the [R: Def.] NPV [L: Rep.] is \$ 5,304,861.						
177.	If [C: Enhancement: Cond.] sales [L: Rep.] price [L: Rep.] is set 30% above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be +\$9,000,000. [L: Rep.]						
178.	If [C: Enhancement: Cond.] WACC [L: Rep.] price [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above [L: Rep.] its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be +\$6,500,000. [L: Rep.]						
179.	If [C: Enhancement: Cond.] machine [L: Rep.] cost [L: Rep.] price [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above [L: Rep.] its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be +\$5,500,000. [L: Rep.]						
180.	If [C: Enhancement: Cond.] COGS [L: Rep.] price [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above [L: Rep.] its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$8,800,000. [L: Rep.]						
181.	Proposal [L: Rep.] 3: [R: Cat.]						

182.	3.1. Sales [L: Rep.] forecasting: [L: Rep.][R: Cat.]									
183.	Sales [L: Rep.] are assumed [L: Rep.] to remain the [R: Def.] same [R: Comp.] as proposal [L: Rep.] 2.									
184.	Table [L: Rep.] 2.1: Sales [L: Rep.] Forecasts [L: Rep.]									
185.	2008	2009	2010	2011	2012	2013	2014	2015	2016	
		10%	10%	10%	10%	10%	10%	10%	10%	
	6,000,000	7,260,000	7,986,000	8,385,300	8,804,565	9,244,793	9,707,033	10,192,385	10,702,004	
	•% [L: Rep.] 8 instances									
186.	3.2. Cost [L: Rep.] of good [L: Rep.] sold [L: Rep.] forecasts: [L: Rep.]									
187.	Cost [L: Rep.] of good [L: Rep.] sold [L: Rep.] is forecasted [L: Rep.] as percentage [L: Rep.] of the [R: Def.] cost [L: Rep.] of good [L: Rep.] sold [L: Rep.] of proposal 1 [L: Rep.] as [C: Enhancement: Man.] suggested [L: Rep.] in the [R: Def.] assignment [L: Rep.] paper. [L: Rep.]									
188.	Furthermore, [C: Extension: Add.] it is assumed [L: Rep.] that inflation [L: Rep.] is incorporated in those [R: Dem.] estimates. [L: Rep.]									
189.	Table [L: Rep.] 2.2: cost [L: Rep.] of good [L: Rep.] sold [L: Rep.] forecasts [L: Rep.]									
190.	2008	2009	2010	2011	2012	2013	2014	2015	2016	
	100%	90%	85%	80%	70%	65%	65%	60%	60%	
	3,600,000	3,861,000	4,936,800	4,268,880	3,361,743	3,550,841	3,441,584	3,335,689	3,502,474	
	•% [L: Rep.] 9 instances									
191.	3.3. Gross [L: Rep.] profit: [L: Rep.] [R: Cat.]									
192.	Gross [L: Rep.] profit [L: Rep.] is calculated [L: Rep.] and [C: Extension: Add.] it appears that dipped slightly in 2010 then [C: Enhancement: Temp.] it [R: Pro.] grew steadily.									
193.	3.4. Operating cost: [L: Rep.] [R: Cat.]									
194.	Operating [L: Rep.] cost [L: Rep.] is assumed [L: Rep.] to remain constant [L: Rep.] at 1.2 million [L: Rep.] into the [R: Def.] foreseeable [L: Rep.] future. [L: Rep.]									
195.	3.5. Leasing cost: [L: Rep.]									
196.	Leasing [L: Rep.] cost [L: Rep.] is expected [L: Rep.] to rise according to [C: Enhancement: Man.] the [R: Def.] inflation [L: Rep.] rate [L: Rep.] of 3.5%. [L: Rep.]									
197.	Furthermore, [C: Extension: Add.] <sic>									
198.	3.6. Depreciation: [L: Rep.]									
199.	Depreciation [L: Rep.] is calculated [L: Rep.] on a straight [L: Rep.] line [L: Rep.] basis. [L: Rep.]									
200.	Firstly, [C: Enhancement: Temp.] for [C: Elaboration: Clari.] the [R: Def.] old [L: Rep.] machine [L: Rep.] it is assumed [L: Rep.] that the [R: Def.] machine [L: Rep.] will be sold for 0.8 million [L: Rep.] in 2008 and book value [L: Rep.] is 1.2 million [L: Rep.] its annual depreciation expense [L: Rep.] remain 0.5 million [L: Rep.] as [C: Enhancement: Man.] in proposal 1. [L: Rep.]									
201.	Hence, [C: Enhancement: Caus.] there is tax [L: Rep.] shield which increases cash [L: Rep.] inflows accordingly. [C: Enhancement: Caus.]									
202.	After tax [L: Rep.] salvage [L: Rep.] on the [R: Def.] old [L: Rep.] machine [L: Rep.] = 800,000- 0.3 (800,000- [L: Rep.] 1,200,000)									
203.	After tax [L: Rep.] salvage [L: Rep.] on the [R: Def.] old [L: Rep.] machine [L: Rep.] = [L: Rep.] 920,000.									
204.	Secondly, [C: Enhancement: Temp.] the [R: Def.] new [L: Rep.] machine [L: Rep.] is purchased for 7.4 million [L: Rep.] and [C: Extension: Add.] its estimated [L: Rep.] salvage [L: Rep.] value [L: Rep.] is .8 million [L: Rep.] and it <sic> [R: Poss.] economic [L: Rep.] life [L: Rep.] is 8 years and it [R: Pro.] is depreciated on straight [L: Rep.] line [L: Rep.] basis [L: Rep.] so [C: Elaboration: Appos.] the [R: Def.] depreciation [L: Rep.] expense [L: Rep.] is 825 million. [L: Rep.]									
205.	Table [L: Rep.] 3.3: depreciation expense (in millions) [L: Rep.]									
206.			old machine			New machine				
	Economic life		4			8				
	Cost		2.2			7.4				
	Residual value		0.2			0.8				
	Depreciation expense		0.5			0.825				

	<ul style="list-style-type: none"> •Economic [L: Rep.] 1 instance •Life [L: Rep.] 1 instance •Cost [L: Rep.] 1 instance •Residual [L: Rep.] 1 instance •Value [L: Rep.] 1 instance 	<ul style="list-style-type: none"> •Depreciation [L: Rep.] 1 instance •Expense [L: Rep.] 1 instance •Old [L: Rep.] 1 instance •Machine [L: Rep.] 2 instances •New [L: Ant.] ties with Old
207.	3.7. Opportunity cost: [L: Rep.][R: Cat.]	
208.	Selling the [R: Def.] old [L: Rep.] machine [L: Rep.] has resulted in incurring an opportunity cost [L: Rep.] because [C: Enhancement: Caus.] the [R: Def.] depreciation expense [L: Rep.] which is tax [L: Rep.] deductible has been forgone as a result of [C: Enhancement: Caus.] selling the [R: Def.] old [L: Rep.] machine [L: Rep.] in the [R: 0 Def.] 2008	
209.	therefore [C: Enhancement: Caus.] incremental cash [L: Rep.] flows [L: Rep.] are calculated [L: Rep.] for 325,000 for the [R: Def.] years 2009 and 2010.	
210.	3.8. Earning before interest and taxes:[R: Cat.]	
211.	The [R: Def.] time [L: Rep.] series [L: Rep.] blow <sic> [R: Cat.] illustrates [L: Rep.] the [R: Def.] behaviour [L: Rep.] of EBIT [L: Rep.] through out the [R: Def.] life [L: Rep.] of the [R: Def.] project. [L: Rep.]	
212.	Indeed, [C: Elaboration: Clari .] it [R: Pro.] fluctuates [L: Rep.] as according <sic> [C: Enhancement: Man.] the [R: Def.] fluctuation [L: Rep.] in COGS. [L: Rep.]	
213.	Figure 3.1: EBIT [L: Rep.] time [L: Rep.] series [L: Rep.]	
214.	<p>Cohesion analysis of the graph below (215-223):</p>	
215.	EBIT for period 1 is \$500,000.	
216.	In period [L: Rep.] 2, it [R: Pro.] increases to \$1,500,000. [L: Rep.]	
217.	In period [L: Rep.] 3, it [R: Pro.] drops [L: Ant.] to \$1,200,000. [L: Rep.]	
218.	In period [L: Rep.] 4, it [R: Pro.] increases [L: Ant.] to \$1,800,000. [L: Rep.]	
219.	In period [L: Rep.] 5, it [R: Pro.] increases sharply to \$3,200,000. [L: Rep.]	
220.	In period [L: Rep.] 6, [R: Pro.] it increases to \$3,250,000. [L: Rep.]	
221.	In period [L: Rep.] 7, [R: Pro.] it increases sharply to \$4,000,000. [L: Rep.]	
222.	In period [L: Rep.] 8, it [R: Pro.] increases to \$4,500,000. [L: Rep.]	
223.	In period [L: Rep.] 9, it [R: Pro.] increases sharply to \$4,950,000. [L: Rep.]	
224.	3.9. Tax:	
225.	The [R: Def.] company [L: Rep.] is taxed [L: Rep.] at the [R: Def.] corporate [L: Rep.] rate [L: Rep.] of 30%. [L: Rep.]	
226.	3.10. Net [L: Rep.] profit: [L: Rep.] [R: Cat.]	
227.	The [R: Def.] time [L: Rep.] series [L: Rep.] blow <sic> [R: Cat.] illustrates [L: Rep.] the [R: Def.] behaviour [L: Rep.] of Net [L: Rep.] profit [L: Rep.] through out the [R: Def.] life [L: Rep.] of the [R: Def.] project. [L: Rep.]	
228.	Indeed,[C: Elaboration: Clari .] it [R: Pro.] fluctuates [L: Rep.] as according <sic> [C: Enhancement: Man.] the [R: Def.] fluctuation [L: Rep.]in COGS. [L: Rep.]	
229.	Figure [L: Rep.] 2.2 <sic>: Net [L: Rep.] profit [L: Rep.] time [L: Rep.] series [L: Rep.]	

230.	<p style="text-align: center;">Net profit time series</p> 																				
Cohesion analysis of the graph below (231-239):																					
231.	EBIT for period 1 is \$400,000.																				
232.	In period [L: Rep.] 2, it [R: Pro.] increases to \$1,150,000. [L: Rep.]																				
233.	In period [L: Rep.] 3, it [R: Pro.] drops [L: Ant.] to \$950,000. [L: Rep.]																				
234.	In period [L: Rep.] 4, it [R: Pro.] increases [L: Ant.] to \$1,250,000. [L: Rep.]																				
235.	In period [L: Rep.] 5, it [R: Pro.] increases [L: Rep.] sharply to \$2,250,000. [L: Rep.]																				
236.	In period [L: Rep.] 6, it [R: Pro.] increases [L: Rep.] to \$2,400,000. [L: Rep.]																				
237.	In period [L: Rep.] 7, it [R: Pro.] increases [L: Rep.] to \$2,750,000. [L: Rep.]																				
238.	In period [L: Rep.] 8, it [R: Pro.] increases [L: Rep.] sharply [L: Rep.] to \$3,200,000. [L: Rep.]																				
239.	In period [L: Rep.] 9, it [R: Pro.] increases [L: Rep.] to \$3,400,000. [L: Rep.]																				
240.	3.10. Cash [L: Rep.] flows: [L: Rep.] [R: Cat.]																				
241.	3.10.1. Net [L: Rep.] capital [L: Rep.] spending: [L: Rep.]																				
242.	Incremental net [L: Rep.] capital [L: Rep.] spending [L: Rep.] accounts [L: Rep.] for (5,000,000\$) [L: Rep.] in the [R: Def.] year 2008.																				
243.	. In addition, [C: Extension: Add.] the [R: Def.] old [L: Rep.] machine [L: Rep.] is sold for 200,000 which is equal to its residual [L: Rep.] value [L: Rep.] terminal [L: Rep.] thus [C: Enhancement: Caus.] no tax saving.																				
244.	Moreover, [C: Extension: Add.] terminal [L: Rep.] value [L: Rep.] of the [R: Def.] new [L: Ant.] [L: Rep.] machine [L: Rep.] is equal to [R: Comp.] its [R: Poss.] residual [L: Rep.] value [L: Rep.] because [C: Enhancement: Caus.] it [R: Pro.] has not incurred loss [L: Rep.] nor gain [L: Rep.] on the [R: Def.] salvage [L: Rep.] value. [L: Rep.]																				
245.	Table [L: Rep.] 3.4: Net [L: Rep.] capital [L: Rep.] spending [L: Rep.]																				
246.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Cash flows</th> <th style="text-align: center;">2008</th> <th style="text-align: center;">2014</th> </tr> </thead> <tbody> <tr> <td>Sale of the old Machine</td> <td style="text-align: center;">800,000</td> <td></td> </tr> <tr> <td>After tax salvage on the old machine</td> <td style="text-align: center;">920,000</td> <td></td> </tr> <tr> <td>Cost of New Machine</td> <td style="text-align: center;">(7,400,000)</td> <td></td> </tr> <tr> <td>Terminal value</td> <td></td> <td style="text-align: center;">825,000</td> </tr> <tr> <td>Net Capital Spending</td> <td style="text-align: center;">(6,480,000)</td> <td style="text-align: center;">825,000</td> </tr> </tbody> </table>	Cash flows	2008	2014	Sale of the old Machine	800,000		After tax salvage on the old machine	920,000		Cost of New Machine	(7,400,000)		Terminal value		825,000	Net Capital Spending	(6,480,000)	825,000		
Cash flows	2008	2014																			
Sale of the old Machine	800,000																				
After tax salvage on the old machine	920,000																				
Cost of New Machine	(7,400,000)																				
Terminal value		825,000																			
Net Capital Spending	(6,480,000)	825,000																			
	<ul style="list-style-type: none"> • Cash [L: Rep.] 1 instance • Flows [L: Rep.] 1 instance • The [R: Def.] 2 instances • Old [L: Rep.] 2 instances • Machine [L: Rep.] 3 instances • Salvage [L: Rep.] 1 instance • Cost [L: Rep.] 1 instance 	<ul style="list-style-type: none"> • New [L: Ant.] ties with Old • Terminal [L: Rep.] 1 instance • Value [L: Rep.] 1 instance • Net [L: Rep.] 1 instance • Capital [L: Rep.] 1 instance • Spending [L: Rep.] 1 instance 																			
247.	3.10.2. Operating cash [L: Rep.] flows: [L: Rep.] [R: Cat.]																				
248.	Operating [L: Rep.] cash [L: Rep.] flows [L: Rep.] are calculated [L: Rep.] and [C: Extension: Add.] represented [L: Rep.] in the [R: Def.] table [L: Rep.] below. [R: Cat.]																				
249.	Table [L: Rep.] 3.4: Operating cash [L: Rep.] flows [L: Rep.]																				
250.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Operating cash flows</th> <th style="text-align: center;">2008</th> <th style="text-align: center;">2009</th> <th style="text-align: center;">2010</th> <th style="text-align: center;">2011</th> <th style="text-align: center;">2012</th> <th style="text-align: center;">2013</th> <th style="text-align: center;">2014</th> </tr> </thead> <tbody> <tr> <td></td> <td style="text-align: center;">850,000</td> <td style="text-align: center;">1,491,900</td> <td style="text-align: center;">1,241,969</td> <td style="text-align: center;">2,133,773</td> <td style="text-align: center;">3,056,822</td> <td style="text-align: center;">3,226,990</td> <td style="text-align: center;">2,796,218</td> </tr> </tbody> </table>	Operating cash flows	2008	2009	2010	2011	2012	2013	2014		850,000	1,491,900	1,241,969	2,133,773	3,056,822	3,226,990	2,796,218				
Operating cash flows	2008	2009	2010	2011	2012	2013	2014														
	850,000	1,491,900	1,241,969	2,133,773	3,056,822	3,226,990	2,796,218														
	<ul style="list-style-type: none"> • Cash [L: Rep.] 1 instance 	<ul style="list-style-type: none"> • Operating [L: Rep.] 1 																			

	•Flows [L: Rep.] 1 instance		instance					
251.	3.10.3. Net cash [L: Rep.] flows: [L: Rep.] [R: Cat.]							
252.	Net cash [L: Rep.] flow [L: Rep.] are calculated [L: Rep.] by adding net [L: Rep.] capital [L: Rep.] spending [L: Rep.] and [C: Extension: Add.] represented [L: Rep.] in the [R: Def.] table [L: Rep.] below. [R: Cat.]							
253.	Table [L: Rep.] 3.5: Net cash [L: Rep.] flows [L: Rep.]							
254.	Net cash flows	2008 (5,630,000)	2009 1,491,900	2010 1,241,969	2011 2,133,773	2012 3,056,822	2013 3,226,990	2014 3,621,218
	•Cash [L: Rep.] 1 instance				•Flows [L: Rep.] 1 instance			
255.	3.11. Capital [L: Rep.] structure: [L: Rep.] [R: Cat.]							
256.	The [R: Def.] cost [L: Rep.] of capital [L: Rep.] and the [R: Def.] capital structure [L: Rep.] is assumed [L: Rep.] to remain the [R: Def.] same [Subs.: N.] in proposal 3. [L: Rep.]							
257.	Table [L: Rep.] 1.6: Cost [L: Rep.] of capital [L: Rep.]							
258.	Capital [Structure]	Weight		Required return	Required return after tax savings			
	Hybrid Debt	15.00%		15.00%	10.5%			
	Debt	35%		12%	8.4%			
	Common Stocks	45%		17.80%	17.80%			
	Preferred stocks	5.00%		14%	14%			
	WACC	-			13.23			
	<ul style="list-style-type: none"> •Capital [L: Rep.] 1 instance •Structure [L: Rep.] 1 instance •Debt [L: Rep.] 1 instance •Preferred [L: Ant.] ties with Common 				<ul style="list-style-type: none"> •Stocks [L: Rep.] 1 instance •WACC [L: Rep.] 1 instance •Debt [L: Rep.] 1 instance •% [L: Rep.] 12 instances 			
259.	3.12. Investment [L: Rep.] criteria: [L: Rep.] [R: Cat.]							
260.	After [C: Enhancement: Temp.] the [R: Def.] derivation of cash [L: Rep.] flows [L: Rep.] NPV [L: Rep.] is calculated [L: Rep.] and [C: Extension: Add.] it [R: Pro.] accounted for about 6,999,826\$ [L: Rep.] and [C: Extension: Add.] it [R: Pro.] is indeed [C: Elaboration: Clari.] massively greater than [R: Comp] the [R: Def.] NPV [L: Rep.] of proposal 1 [L: Rep.] which only [C: Extension: Variat.] accounts [L: Rep.] for 2,853,108\$. [L: Rep.] and considerably higher than [R: Comp] proposal 2 [L: Rep.] which accounts [L: Rep.] for 2,853,108\$. [L: Rep.]							
261.	Nevertheless, [C: Enhancement: Man.] this [R: Dem.] [Subs.: Cl.] figure [L: Rep.] should be compared to the NPV [L: Rep.] of the [R: Def.] other [R: Comp.] alternatives [R: Comp.] which has different [R: Comp.] time [L: Rep.] periods. [L: Rep.]							
262.	Hence, [C: Enhancement: Caus.] the [R: Def.] NPV [L: Rep.] is regarded to yield a misleading result. [L: Rep.]							
263.	Thus, [C: Enhancement: Caus.] EAV [L: Rep.] is calculated [L: Rep.] and [C: Extension: Add.] utilised to choose among those proposals. [R: Dem.] [L: Rep.]							
264.	In addition, [C: Extension: Add.] IRR is not considered because [C: Enhancement: Caus.] it [R: Pro.] can not be compared to proposal 1 [L: Rep.] which has unconventional [L: Rep.] cash [L: Rep.] flows. [L: Rep.]							
265.	Table [L: Rep.] 3.7: investment [L: Rep.] criteria [L: Rep.]							
266.	Investment criteria				Results			
	NPV				6,999,826\$			
	EAV				1,375,733\$			
	<ul style="list-style-type: none"> •Investment [L: Rep.] 1 instance •Criteria [L: Rep.] 1 instance •NPV [L: Rep.] 1 instance 				<ul style="list-style-type: none"> •EAV [L: Rep.] 1 instance •Results [L: Rep.] 1 instance •\$ [L: Rep.] 2 instances 			
267.	3.13. Sensitivity [L: Rep.] analysis :[L: Rep.] [R: Cat.]							
268.	Examining the [R: Def.] sensitivity [L: Rep.] analysis [L: Rep.] outcomes [L: Rep.] it appears that NPV [L: Rep.] is highly responsive to changes [L: Rep.] in sells <sic> [L: Rep.] and in cost [L: Rep.] of good [L: Rep.] sold. [L: Rep.]							
269.	However, [C: Extension: Add.] it is suggested [L: Rep.] that changes [L: Rep.] in WACC [L: Rep.] and the [R: Def.] cost [L: Rep.] of the [R: Def.] machine [L: Rep.] affect NPV							

	[L: Rep.] but [C: Extension: Variat.] moderately.			
270.	Figure [L: Rep.] 3.3: Sensitivity [L: Rep.] analysis [L: Rep.]			
271.	<p style="text-align: center;">Cohesion analysis of the graph below (272-276):</p>			
272.	When all of the inputs are set at their [R: Poss.] base-case levels, their [R: Poss.] deviations from the [R: Def.] base are all zero and [C: Extension: Add.] the [R: Def.] NPV [L: Rep.] is \$ 6,999,826.			
273.	If [C: Enhancement: Cond.] sales [L: Rep.] price [L: Rep.] is set 30% above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$+11,500,000. [L: Rep.]			
274.	If [C: Enhancement: Cond.] WACC [L: Rep.] price [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above [L: Rep.] its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$+8,400,000. [L: Rep.]			
275.	If [C: Enhancement: Cond.] machine [L: Rep.] cost [L: Rep.] price [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above [L: Rep.] its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$+7,800,000. [L: Rep.]			
276.	If [C: Enhancement: Cond.] COGS [L: Rep.] price [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above [L: Rep.] its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$10,200,000. [L: Rep.]			
277.	4. Conclusion: [R: Cat.]			
278.	Examining the [R: Def.] investment [L: Rep.] criteria [L: Rep.] for [C: Elaboration: Clari.] the [R: Def.] three proposals [L: Rep.] it appears that proposal [L: Rep.] 3 is [L: Rep.] the [R: Def.] favourable one [Subs.:Cl.] since [C: Enhancement: Caus.] his [R: Poss.] EAV [L: Rep.] is greater than [R: Comp.] both proposal [L: Rep.] 1 and 2.			
279.	Consequently, [C: Enhancement: Caus.] it is recommended that proposal 3 [L: Rep.] to be implemented.			
280.		Proposal 1	Proposal 2	Proposal 3
	NPV	2,853,108\$	5,304,861\$	6,999,826\$
	EAV	649,643\$	1,208,086\$	1,375,733\$
	<ul style="list-style-type: none"> • NPV [L: Rep.] 1 instance • Proposal [L: Rep.] 3 instances 			<ul style="list-style-type: none"> • EAV [L: Rep.] 1 instance • \$ [L: Rep.] 6 instances

Appendix 50: Cohesion analysis of Group 2's finance text⁴³

Title	Major Assignment - Semester 1, 2009																																	
Pseudonym	Abdulrahman and Jiang (Group 2)																																	
Type of Analysis	Cohesion Analysis																																	
Program	Master of Commerce																																	
Module	<i>Principles of Finance</i>																																	
Number of Words	1975 words																																	
Notes	Excluding cover sheet, T.O.C., and the appendix																																	
1.	Introduction: [R: Cat.]																																	
2.	Salon spa is faced with the [R: Def.] problem of evaluating whether to go ahead with the [R: Def.] proposed foray into the [R: Def.] tanning [L: Rep.] business and [C: Extension: Add.] if [C: Enhancement: Cond.] yes, to decide as to which alternative amongst the [R: Def.] two models (Dome Unit and Tanning [L: Rep.] Bed) would be more suitable. [R: Comp.]																																	
3.	For [C: Elaboration: Clari.] this [Subs.:Cl.] [R: Dem.] we [R: Pro.] would have to compute [L: Rep.] the [R: Def.] projected operating cash flows for the [R: Def.] two alternatives [R: Def.] [L: Rep.] and [C: Extension: Add.] discount them [R: Pro.] to the [R: Def.] present value using the [R: Def.] firm's cost of capital.																																	
4.	Analysis of the [R: Def.] two [L: Rep.] proposals of tanning [L: Rep.] equipment for Salon spa [L: Rep.]																																	
5.	Finding WACC:																																	
6.	We [R: Pro.] take the [R: Def.] latest balance sheet of the [R: Def.] firm and [C: Extension: Add.] derive figures for short, long term debt [L: Rep.] and equity to derive the [R: Def.] weighted average of capital [L: Rep.] cost [L: Rep.] (WACC) [L: Rep.]																																	
7.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">Calculation of Cost [L: Rep.] of capital [L: Rep.]</th> </tr> <tr> <th style="text-align: left;">Particulars</th> <th style="text-align: right;">Amt(\$)</th> </tr> </thead> <tbody> <tr> <td>Long-term debt (D)</td> <td style="text-align: right;">200,000</td> </tr> <tr> <td>Current debt (D)</td> <td style="text-align: right;">20,000</td> </tr> <tr> <td>Equity (E)</td> <td style="text-align: right;">280,000</td> </tr> <tr> <td>Total</td> <td style="text-align: right;">500,000</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td>Pre-tax cost of debt</td> <td style="text-align: right;">10%</td> </tr> <tr> <td>Tax Rate</td> <td style="text-align: right;">30%</td> </tr> <tr> <td>Post-Tax Cost of debt</td> <td style="text-align: right;">7%</td> </tr> <tr> <td>Proportion of debt</td> <td style="text-align: right;">44%</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td>Pre-tax cost of equity</td> <td style="text-align: right;">20%</td> </tr> <tr> <td>Proportion of equity.</td> <td style="text-align: right;">56%</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td>Cost of Capital</td> <td style="text-align: right;">14.28%</td> </tr> </tbody> </table>		Calculation of Cost [L: Rep.] of capital [L: Rep.]		Particulars	Amt(\$)	Long-term debt (D)	200,000	Current debt (D)	20,000	Equity (E)	280,000	Total	500,000			Pre-tax cost of debt	10%	Tax Rate	30%	Post-Tax Cost of debt	7%	Proportion of debt	44%			Pre-tax cost of equity	20%	Proportion of equity.	56%			Cost of Capital	14.28%
Calculation of Cost [L: Rep.] of capital [L: Rep.]																																		
Particulars	Amt(\$)																																	
Long-term debt (D)	200,000																																	
Current debt (D)	20,000																																	
Equity (E)	280,000																																	
Total	500,000																																	
Pre-tax cost of debt	10%																																	
Tax Rate	30%																																	
Post-Tax Cost of debt	7%																																	
Proportion of debt	44%																																	
Pre-tax cost of equity	20%																																	
Proportion of equity.	56%																																	
Cost of Capital	14.28%																																	
	<ul style="list-style-type: none"> • Long-term debt (D), [L: Mer.] Current debt (D) [L: Mer.] & Equity (E) [L: Mer.] tie with Total debt [L: Hyp.] • % [L: Rep.] 6 instances • Long-term [L: Rep.] 1 instance • Debt (D) [L: Rep.] 5 instances • Cost [L: Rep.] 4 instances 	<ul style="list-style-type: none"> • Tax [L: Rep.] 2 instances • Post-Tax [L: Ant.] ties with Pre-tax • Pre-tax [L: Ant.] ties with Post-Tax • Equity [L: Rep.] 3 instances • Proportion [L: Rep.] 1 instance • Capital [L: Rep.] 1 instance • \$ [L: Rep.] 1 instance 																																
8.	$\text{WACC [L: Rep.]} = \frac{E}{E+D} \cdot \text{Re} + \frac{D}{E+D} \cdot \text{Rd} \cdot (1-t) = \frac{280,000}{500,000} \cdot 20\% + \frac{220,000}{500,000} \cdot 10\% \cdot (1-0.3) = 14.28\%$																																	
9.	Working Hours: [L: Rep.] [R: Cat.]																																	
10.	Then [C: Enhancement: Temp.], we [R: Pro.] calculate the [R: Def.] working [L: Rep.] hours [L: Rep.] per annum [L: Rep.] using the [R: Def.] given information: [R: Cat.]																																	

⁴³ Refer to Appendix 19 for the procedures followed in cohesion analysis of the texts.

11.	Calculation [L: Rep.] of working [L: Rep.] hours [L: Rep.] p.a.		
	Day	Time	Hours
	Tues-Thur	9 am - 7 pm	30
	Friday	9 am - 5 pm	8
	Saturday	9 am - 2 pm	5
	Hours per week		43
	No of weeks		48
	Hours p.a.		2064
	<ul style="list-style-type: none"> • <i>Tues-Thurs, [L: Mer.] Friday, [L: Mer.] & Saturday [L: Mer.] tie with days of week [L: Hyp.]</i> • <i>9 am - 7 pm, [L: Mer.] 9 am - 5 pm, [L: Mer.] 9 am - 2 pm, [L: Mer.] & Hours [L: Mer.] tie with time [L: Hyp.]</i> 	<ul style="list-style-type: none"> • <i>A. = Annum [L: Rep.] 1 instance</i> • <i>Week(s) [L: Rep.] 1 instance</i> • <i>Hours [L: Rep.] 3 instances</i> • <i>per [L: Rep.] 2 instances</i> 	
11.	The [R: Def.] maximum number of operation hours [L: Rep.] during a year is		
12.	$HRS_{year} = HRS_{week} \cdot N_{weeks} = (0 + 0 + 10 + 10 + 10 + 8 + 5) \cdot 48 = 2064$		
	<ul style="list-style-type: none"> • <i>HRS [L: Rep.] 1 instance</i> • <i>Week(s) [L: Rep.] 1 instance</i> 	<ul style="list-style-type: none"> • <i>= sign [L: Rep.] 2 instances</i> • <i>+ sign [L: Rep.] 5 instances</i> 	
13.	Total Revenue: [R: Cat.]		
14.	Based on [C: Enhancement: Man.] the [R: Def.] hours [L: Rep.] calculated, we [R: Pro.] compute [L: Rep.] the [R: Def.] revenue [L: Rep.] from tanning [L: Rep.] under [C: Enhancement: Man.] the [R: Def.] base case of 100% occupancy by multiplying the [R: Def.] hours [L: Rep.] by the [R: Def.] number of sessions and [C: Extension: Add.] then [Enhancement: Temp.] by the [R: Def.] price per [L: Rep.] visit.		
15.	Calculation [L: Rep.] of Revenue [L: Rep.] in yr 1 under [C: Enhancement: Man.] the [R: Def.] two options		
	Particulars	Dome Unit	Tanning Bed
	Hours p.a.	2064	2064
	No of Sessions per hour	3	2
	No of Sessions @ 100% occupancy	6192	4128
	Price per visit (\$)	8	8
	Revenue from tanning	\$49,536	\$33,024
		<ul style="list-style-type: none"> • <i>Particulars [L: Rep.] 1 instance</i> • <i>Hour(s) [L: Rep.] 2 instances</i> • <i>p. = per [L: Rep.] 3 instances</i> • <i>a. = annum [L: Rep.] 1 instance</i> • <i>Sessions [L: Rep.] 2 instances</i> • <i>% [L: Rep.] 1 instance</i> 	<ul style="list-style-type: none"> • <i>Revenue [L: Rep.] 1 instance</i> • <i>Tanning [L: Rep.] 2 instances</i> • <i>Unit [L: Rep.] 1 instance</i> • <i>Bed [L: Rep.] 1 instance</i> • <i>\$ [L: Rep.] 3 instances</i> • <i>Dome [L: Rep.] 1 instance</i>
16.	We [R: P ro.] then [C: Enhancement: Temp.] compute [L: Rep.] the [R: Def.] other [R: Comp.] income [L: Syn.] at base case [L: Rep.] derived from sale of bottles by dividing the [R: Def.] no of sessions [L: Rep.] by 5 (as [C: Enhancement: Man.] stated in question) and [C: Extension: Add.] multiplying [L: Rep.] by contribution of \$2 [L: Rep.] per [L: Rep.] bottle: [R: Cat.]		
17.	Calculation [L: Rep.] of Other [R: Comp.] Income under [C: Enhancement: Man.] the [R: Def.] two options [L: Rep.]		
	Particulars	Dome Unit	Tanning Bed
	Hours p.a.	2064	2064
	No of Sessions per hr	3	2
	No of Sessions @ 100% occupancy	6192	4128
	No of Bottles sold (1 bottle/5 sessions)	1238	826
	Profit from sale	\$2,477	\$1,651
		<ul style="list-style-type: none"> • <i>Particulars [L: Rep.] 1 instance</i> • <i>Hour(s)/hr [L: Rep.] 2 instances</i> 	<ul style="list-style-type: none"> • <i>Bottles [L: Rep.] 1 instance</i> • <i>Profit [L: Syn.] ties with Income</i>

	<ul style="list-style-type: none"> • <i>p.</i> = per & / [L: Rep.] 3 instances • <i>a.</i> = annum [L: Rep.] 1 instance • Sessions [L: Rep.] 3 instances • % [L: Rep.] 1 instance • Dome [L: Rep.] 1 instance 	<ul style="list-style-type: none"> • Unit [L: Rep.] 1 instance • Bed [L: Rep.] 1 instance • Tanning [L: Rep.] 1 instance • \$ [L: Rep.] 2 instances 																																				
18.	Variable Costs: [L: Rep.] [R: Cat.]																																					
19.	Variable [L: Rep.] costs [L: Rep.] of tanning [L: Rep.] session [L: Rep.] include electricity costs [L: Rep.] plus bulbs costs. [L: Rep.]																																					
20.	a) Electricity [L: Rep.] Cost [L: Rep.] (No of Sessions* [L: Rep.] Rate per [L: Rep.] Session [L: Rep.]) and annual growth @ 3% [L: Rep.] in line with [C: Enhancement: Man.] given data on inflation.																																					
21.	b) Bulb [L: Rep.] Cost [L: Rep.] (No of Hours [L: Rep.] * 56*50/800) for Dome [L: Rep.] Unit [L: Rep.] and (No of Hours [L: Rep.] * 28*50/800) for Tanning [L: Rep.] Unit [L: Rep.]. Annual [L: Rep.] growth [L: Rep.] @ 3% [L: Rep.] in line with [C: Enhancement: Man.] given data [L: Rep.] on inflation [L: Rep.].																																					
22.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3" style="text-align: center;">Variable [L: Rep.] Costs [L: Rep.] per [L: Rep.] Session [L: Rep.]</th> </tr> <tr> <th style="width: 50%;">Particulars</th> <th style="width: 25%;">Dome Unit</th> <th style="width: 25%;">Tanning Bed</th> </tr> </thead> <tbody> <tr> <td>Electricity cost per session</td> <td style="text-align: right;">-\$3.00</td> <td style="text-align: right;">-\$1.50</td> </tr> <tr> <td>Number of sessions per hour</td> <td style="text-align: center;">3</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Number of bulbs needed</td> <td style="text-align: center;">56</td> <td style="text-align: center;">28</td> </tr> <tr> <td>Cost per bulb</td> <td style="text-align: right;">-\$50.00</td> <td style="text-align: right;">-\$50.00</td> </tr> <tr> <td>Bulb life (hours)</td> <td style="text-align: center;">800</td> <td style="text-align: center;">800</td> </tr> <tr> <td>Unit life (years)</td> <td style="text-align: center;">8</td> <td style="text-align: center;">5</td> </tr> <tr> <td>Electricity</td> <td style="text-align: right; color: red;">-\$3.00</td> <td style="text-align: right; color: red;">-\$1.50</td> </tr> <tr> <td>Bulbs</td> <td style="text-align: right; color: red;">-\$1.17</td> <td style="text-align: right; color: red;">-\$0.88</td> </tr> <tr> <td colspan="3" style="text-align: center;">Total variable costs per session</td> </tr> <tr> <td>Electricity + Bulbs</td> <td style="text-align: right; color: red;">-\$4.17</td> <td style="text-align: right; color: red;">-\$2.38</td> </tr> </tbody> </table>		Variable [L: Rep.] Costs [L: Rep.] per [L: Rep.] Session [L: Rep.]			Particulars	Dome Unit	Tanning Bed	Electricity cost per session	-\$3.00	-\$1.50	Number of sessions per hour	3	2	Number of bulbs needed	56	28	Cost per bulb	-\$50.00	-\$50.00	Bulb life (hours)	800	800	Unit life (years)	8	5	Electricity	-\$3.00	-\$1.50	Bulbs	-\$1.17	-\$0.88	Total variable costs per session			Electricity + Bulbs	-\$4.17	-\$2.38
Variable [L: Rep.] Costs [L: Rep.] per [L: Rep.] Session [L: Rep.]																																						
Particulars	Dome Unit	Tanning Bed																																				
Electricity cost per session	-\$3.00	-\$1.50																																				
Number of sessions per hour	3	2																																				
Number of bulbs needed	56	28																																				
Cost per bulb	-\$50.00	-\$50.00																																				
Bulb life (hours)	800	800																																				
Unit life (years)	8	5																																				
Electricity	-\$3.00	-\$1.50																																				
Bulbs	-\$1.17	-\$0.88																																				
Total variable costs per session																																						
Electricity + Bulbs	-\$4.17	-\$2.38																																				
	<ul style="list-style-type: none"> • Particulars [L: Rep.] 1 instance • Electricity [L: Rep.] 2 instances • <i>p.</i> = per = / [L: Rep.] 4 instances • Cost [L: Rep.] 2 instances • Session(s) [L: Rep.] 3 instances • Hour(s) [L: Rep.] 2 instances • \$ [L: Rep.] 10 instances • Life [L: Rep.] 1 instance 	<ul style="list-style-type: none"> • Number [L: Rep.] 1 instance • Bulb [L: Rep.] 4 instances • Bed [L: Rep.] 1 instance • Tanning [L: Rep.] 1 instance • Unit [L: Rep.] 1 instance • Variable [L: Rep.] 1 instance • Dome [L: Rep.] 1 instance • Years [L: Rep.] 1 instance 																																				
23.	Computation Methodology for calculating the [R: Def.] operating [L: Rep.] cash [L: Rep.] flows [L: Rep.]																																					
24.	C) Machine and Set up Costs [L: Rep.] for Dome [L: Rep.] Unit [L: Rep.] are (25000 + [L: Rep.] 1500= [L: Rep.] \$26,500) [L: Rep.] and [C: Extension: Add.] (15000 + [L: Rep.] 1500= [L: Rep.] \$16,500) [L: Rep.] for Tanning [L: Rep.] Unit [L: Rep.].																																					
25.	D) Revenue [L: Rep.] from tanning [L: Rep.] business [L: Rep.] as [C: Enhancement: Man.] computed [L: Rep.] above [R: Ana.]																																					
26.	E) Revenue [L: Rep.] from sale of bottles [L: Rep.] as [C: Enhancement: Man.] computed [L: Rep.] above [R: Ana.]																																					
27.	F) Advertising Costs [L: Rep.] in Yellow pages and other [R: Comp.] advertisements are (\$6,000+ [L: Rep.] \$6,000 [L: Rep.] = \$12,000 p.a) [L: Rep.]																																					
28.	G) Depreciation is calculated [L: Rep.] on a straight line basis and [C: Extension: Add.] computed [L: Rep.] by dividing the [R: Def.] prime cost by estimated useful life [L: Rep.] for both [R: Comp.] projects.																																					
29.	H) Taxes [L: Rep.] at 30% [L: Rep.]																																					
30.	I) For calculating [L: Rep.] operating [L: Rep.] cash [L: Rep.] flows [L: Rep.], add back depreciation [L: Rep.] to profit after taxes [L: Rep.] as [C: Enhancement: Caus.] it [R: Pro.] is a non-cash [L: Rep.] expense.																																					
31.	J) NPV is computed [L: Rep.] by using discount [L: Rep.] rate of 14.28% [L: Rep.] as [C: Enhancement: Man.] computed [L: Rep.] above [R: Ana.].																																					

32.	Incremental Cash [L: Rep.] Flows [L: Rep.]:										
33.	Discounted [L: Rep.] Incremental operating [L: Rep.] cash [L: Rep.] flows [L: Rep.] at 14.28% [L: Rep.] of the [R: Def.] alternative [L: Rep.] machines [L: Rep.] for three scenarios are calculated [L: Rep.] and [C: Extension: Add.] represented in the [R: Def.] tables [R: Def.] below: [R: Cat.]										
34.	Full Capacity 100% [L: Rep.] (Base Case [L: Rep.]): [R: Cat.]										
35.		Particulars	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8
		Dome Unit (PV)	(\$26,500)	\$9,575	\$8,761	\$8,010	\$7,319	\$6,684	\$6,101	\$5,565	\$5,074
		Tanning Bed (PV)	(\$16,500)	\$8,750	\$8,030	\$7,363	\$6,747	\$6,177	-	-	-
	<ul style="list-style-type: none"> •Particulars [L: Rep.] 1 instance •Dome [L: Rep.] 1 instance •Unit [L: Rep.] 1 instance •Bed [L: Rep.] 1 instance 						<ul style="list-style-type: none"> •Tanning [L: Rep.] 1 instance •PV [L: Rep.] 1 instance •Yr [L: Rep.] 8 instances •\$ [L: Rep.] 14 instances 				
36.	81. 70% [L: Rep.] Capacity (Most Likely Case): [L: Rep.]										
37.		Particulars	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8
		Dome Unit (PV)	(\$26,500)	\$4,759	\$4,431	\$4,118	\$3,821	\$3,539	\$3,273	\$3,023	\$2,788
		Tanning Bed (PV)	(\$16,500)	\$4,180	\$3,919	\$3,665	\$3,419	\$3,183	-	-	-
	<ul style="list-style-type: none"> •Particulars [L: Rep.] 1 instance •Dome [L: Rep.] 1 instance •Unit [L: Rep.] 1 instance •Bed [L: Rep.] 1 instance 						<ul style="list-style-type: none"> •Tanning [L: Rep.] 1 instance •PV [L: Rep.] 2 instances •Yr [L: Rep.] 9 instances •\$ [L: Rep.] 15 instances 				
38.	40% [L: Rep.] Capacity (Worst Case [L: Rep.]): [R: Cat.]										
39.		Particulars	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8
		Dome Unit (PV)	(\$26,500)	(\$1,326)	(\$942)	(\$628)	(\$372)	(\$166)	(\$1)	\$129	\$229
		Tanning Bed (PV)	(\$16,500)	(\$1,795)	(\$1,357)	(\$996)	(\$698)	(\$454)	-	-	-
	<ul style="list-style-type: none"> •Particulars [L: Rep.] 1 instance •Dome [L: Rep.] 1 instance •Unit [L: Rep.] 1 instance •Bed [L: Rep.] 1 instance 						<ul style="list-style-type: none"> •Tanning [L: Rep.] 1 instance •PV [L: Rep.] 2 instances •Yr [L: Rep.] 9 instances •\$ [L: Rep.] 15 instances 				
40.	Calculation [L: Rep.] for NPV [L: Rep.], Payback Period and IRR is as follows: [R: Cat.]										
41.		Investment Criteria	100% Base case		70% Most Likely		40% Worst Case				
			Dome Unit	Tanning Bed	Dome Unit	Tanning Bed	Dome Unit	Tanning Bed			
		NPV	\$30,589	\$20,567	\$3,251	\$1,866	(\$29,576)	(\$21,800.54)			
		PP	2.34 Yrs	1.64 Yrs	4.38 Yrs	3.24 Yrs	NA*	NA*			
		IRR	42.26%	57.51%	17.61%	18.70%	-38.91%	NA*			
	<ul style="list-style-type: none"> •Base [L: Rep.] 1 instance •Dome [L: Rep.] 3 instances •Case [L: Rep.] 2 instances •Bed [L: Rep.] 3 instances •IRR [L: Rep.] 1 instance •Unit [L: Rep.] 3 instances •Worst [L: Rep.] 1 instance 						<ul style="list-style-type: none"> •Tanning [L: Rep.] 3 instances •NPV [L: Rep.] 1 instance •Yrs [L: Rep.] 4 instances •\$ [L: Rep.] 6 instances •% [L: Rep.] 8 instances •Most likely [Ellip.] 				
42.	* [R: Ana.] (3 instances) Cannot be calculated [L: Rep.]										
43.	Recommendation: [R: Cat.]										
44.	It can be seen that NPV [L: Rep.] of investing into a Dome Unit [L: Rep.] is higher.										
45.	The [R: Def.] projects [L: Rep.] are mutually exclusive since [C: Enhancement: Caus.] the [R: Def.] company is unlikely to attract a sufficient number of customers on the [R: Def.]										

	competitive market to employ two or more tanning [L: Rep.] machines [L: Rep.] .																																									
46.	Therefore [C: Enhancement: Caus.], NPV [L: Rep.] should be more important [R: Comp.] characteristic than IRR [L: Rep.] and payback [L: Rep.] period [L: Rep.] .																																									
47.	As [C: Enhancement: Man.] per [L: Rep.] our [R: Pro.] analysis, [L: Rep.] Dome Unit's [L: Rep.] [R: Poss.] present [L: Rep.] value [L: Rep.] under [C: Enhancement: Man.] the [R: Def.] base [L: Rep.] case [L: Rep.] is \$30,589 [L: Rep.] as [C: Enhancement: Man.] compared to \$20,567 under [C: Enhancement: Man.] the [R: Def.] Tanning [L: Rep.] Bed [L: Rep.] Base Case [L: Rep.] .																																									
48.	However [C: Extension: Add.], since [C: Enhancement: Caus.] project [L: Rep.] lives are different [R: Comp.] and [C: Extension: Add.] they [R: Pro.] are mutually exclusive, [L: Rep.] the [R: Def.] regular NPV [L: Rep.] method may not indicate the [R: Def.] better [R: Comp.] project, [L: Rep.]																																									
49.	therefore, [C: Enhancement: Caus.] we [R: Pro.] calculate [L: Rep.] the [R: Def.] Equivalent Annual [L: Rep.] Annuities (EAA) by using the [R: Def.] NPV of each project [L: Rep.] over its [R: Poss.] stated life [L: Rep.] and [C: Extension: Add.] then [Enhancement: Temp.] found the [R: Def.] constant [L: Rep.] annual [L: Rep.] cash [L: Rep.] flow [L: Rep.] that this [Subs.: Cl.] [R: Dem.] NPV [L: Rep.] would provide over the [R: Def.] project [L: Rep.] initial life. [L: Rep.]																																									
50.	Since [C: Enhancement: Caus.] the [R: Def.] projects [L: Rep.] would be presumably being repeated indefinitely, those annuity [L: Rep.] payments [R: Dem.] would continue indefinitely and [C: Extension: Add.] the [R: Def.] project [L: Rep.] that provided the higher [R: Comp.] stream is the better [R: Comp.] option.																																									
51.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="text-align: center;">Equivalent Annual Annuity (EAA)</th> </tr> <tr> <th colspan="4" style="text-align: center;">Base case</th> </tr> <tr> <th style="width: 30%;"></th> <th style="width: 20%;">Dome Unit</th> <th style="width: 10%;"></th> <th style="width: 20%;">Tanning Bed</th> </tr> </thead> <tbody> <tr> <td>Present Value (PV)</td> <td style="text-align: right;">-30588.79</td> <td></td> <td style="text-align: right;">-20567.36</td> </tr> <tr> <td>Number of Years (N)</td> <td style="text-align: center;">8</td> <td></td> <td style="text-align: center;">5</td> </tr> <tr> <td>Discount Rate (K)</td> <td style="text-align: center;">14.28%</td> <td></td> <td style="text-align: center;">14.28%</td> </tr> <tr> <td>Future Value (FV)</td> <td style="text-align: center;">0</td> <td></td> <td style="text-align: center;">0</td> </tr> <tr> <td>Annual Payment (PMT)</td> <td style="text-align: right;">\$6,656</td> <td></td> <td style="text-align: right;">\$6,031</td> </tr> </tbody> </table>										Equivalent Annual Annuity (EAA)				Base case					Dome Unit		Tanning Bed	Present Value (PV)	-30588.79		-20567.36	Number of Years (N)	8		5	Discount Rate (K)	14.28%		14.28%	Future Value (FV)	0		0	Annual Payment (PMT)	\$6,656		\$6,031
Equivalent Annual Annuity (EAA)																																										
Base case																																										
	Dome Unit		Tanning Bed																																							
Present Value (PV)	-30588.79		-20567.36																																							
Number of Years (N)	8		5																																							
Discount Rate (K)	14.28%		14.28%																																							
Future Value (FV)	0		0																																							
Annual Payment (PMT)	\$6,656		\$6,031																																							
	<ul style="list-style-type: none"> • Annual [L: Rep.] 2 instances • Annuity [L: Rep.] 1 instance • EEA [L: Rep.] 1 instance • Base [L: Rep.] 1 instance • Case [L: Rep.] 1 instance • Present [L: Rep.] 1 instance • Value [L: Rep.] 2 instances • PV [L: Rep.] 1 instance 					<ul style="list-style-type: none"> • Rate [L: Rep.] 1 instance • Discount [L: Rep.] 1 instance • \$ [L: Rep.] 2 instances • % [L: Rep.] 2 instances • Dome [L: Rep.] 1 instance • Unit [L: Rep.] 1 instance • Tanning [L: Rep.] 1 instance • Bed [L: Rep.] 1 instance 																																				
52.	As [C: Enhancement: Man.] we [R: Pro.] see in the [R: Def.] table [R: Cat.] according to [C: Enhancement: Man.] Equivalent Annual [L: Rep.] Annuity [L: Rep.] (EAA), [L: Rep.] investing in Dome Unit [L: Rep.] still is the [R: Def.] best [R: Comp.] choice because [C: Enhancement: Caus.] its [R: Poss.] annual [L: Rep.] payments [L: Rep.] are higher [R: Comp.] than Tanning [L: Rep.] Bed [L: Rep.] annual [L: Rep.] payments.																																									
53.	Sensitivity Analysis [L: Rep.]																																									
54.	For [C: Elaboration: Clari.] the [R: Def.] both [R: Comp.] tanning [L: Rep.] options, [L: Rep.] we [R: Pro.] perform sensitivity [L: Rep.] analysis [L: Rep.] under [C: Enhancement: Man.] most likely case (70% [L: Rep.] occupancy). [L: Rep.]																																									
55.	For [C: Elaboration: Clari.] this [Subs.: Cl.] [R: Dem.] we [R: Pro.] compute [L: Rep.] the likely scenario [L: Rep.] for an increase [L: Rep.] as well as [C: Extension: Add.] decrease [L: Ant.] in revenues [L: Rep.] to the extent of 10%. [L: Rep.]																																									
56.	Sensitivity [L: Rep.] Analysis [L: Rep.] (Revenue [L: Rep.] + [L: Rep.] 10%) [L: Rep.]																																									
57.	Discounted [L: Rep.] Incremental [L: Rep.] Cash [L: Rep.] Flows [L: Rep.] at 14.28% [L: Rep.]																																									
58.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Particulars</th> <th style="width: 10%;">Yr 0</th> <th style="width: 10%;">Yr 1</th> <th style="width: 10%;">Yr 2</th> <th style="width: 10%;">Yr 3</th> <th style="width: 10%;">Yr 4</th> <th style="width: 10%;">Yr 5</th> <th style="width: 10%;">Yr 6</th> <th style="width: 10%;">Yr 7</th> <th style="width: 10%;">Yr 8</th> </tr> </thead> <tbody> <tr> <td>Dome Unit (CFs)</td> <td style="text-align: right;">(\$26500)</td> <td style="text-align: right;">\$6,989</td> <td style="text-align: right;">\$6,438</td> <td style="text-align: right;">\$5,925</td> <td style="text-align: right;">\$5,447</td> <td style="text-align: right;">\$5,003</td> <td style="text-align: right;">\$4,591</td> <td style="text-align: right;">\$4,209</td> <td style="text-align: right;">\$3,856</td> </tr> </tbody> </table>										Particulars	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Dome Unit (CFs)	(\$26500)	\$6,989	\$6,438	\$5,925	\$5,447	\$5,003	\$4,591	\$4,209	\$3,856												
Particulars	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8																																	
Dome Unit (CFs)	(\$26500)	\$6,989	\$6,438	\$5,925	\$5,447	\$5,003	\$4,591	\$4,209	\$3,856																																	

	Tanning Bed (CFs)	(\$16500)	\$5,667	\$5,257	\$4,869	\$4,503	\$4,159	-	-	-
	<ul style="list-style-type: none"> •Particulars [L: Rep.] 1 instance •Dome [L: Rep.] 1 instance •Unit [L: Rep.] 1 instance •Bed [L: Rep.] 1 instance 					<ul style="list-style-type: none"> •Tanning [L: Rep.] 1 instance •CFs [L: Rep.] 2 instances •Yr [L: Rep.] 9 instances •\$ [L: Rep.] 15 instances 				
59.	Sensitivity [L: Rep.] Analysis [L: Rep.] (Revenue [L: Rep.] -10%) [L: Rep.]									
60.	Discounted [L: Rep.] Incremental [L: Rep.] Cash [L: Rep.] Flows [L: Rep.] at 14.28% [L: Rep.]									
61.	Particulars	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8
	Dome Unit (CFs)	(\$26500)	\$2,370	\$2,376	\$2,311	\$2,194	\$2,075	\$1,955	\$1,837	\$1,720
	Tanning Bed (CFs)	(\$16500)	\$2,610	\$2,581	\$2,460	\$2,335	\$2,207	-	-	-
	<ul style="list-style-type: none"> •Particulars [L: Rep.] 1 instance •Dome [L: Rep.] 1 instance •Unit [L: Rep.] 1 instance •Bed [L: Rep.] 1 instance 					<ul style="list-style-type: none"> •Tanning [L: Rep.] 1 instance •CFs [L: Rep.] 2 instances •Yr [L: Rep.] 9 instances •\$ [L: Rep.] 15 instances 				
62.	Calculation [L: Rep.] for NPV, Payback [L: Rep.] Period [L: Rep.] and IRR is as follows: [R: Cat.]									
63.	Investment Criteria	Revenue (-10%)		70% Most Likely		Revenue (+10%)				
		Dome Unit	Tanning Bed	Dome Unit	Tanning Bed	Dome Unit	Tanning Bed			
	NPV	(\$9,662)	(\$4,306)	\$3,251	\$1,866.49	\$15,957	\$7,956			
	PP	7.08 Yrs	4.58 Yrs	4.38 Yrs	3.24 Yrs	3.14 Yrs	2.47 Yrs			
	IRR	3.00%	3.37%	17.61%	18.70%	29.60%	32.18%			
	<ul style="list-style-type: none"> •Investment [L: Rep.] 1 instance •NPV [L: Rep.] 1 instance •Criteria [L: Rep.] 1 instance •PP [L: Rep.] 1 instance •IRR [L: Rep.] 1 instance •Dome [L: Rep.] 3 instances •Unit [L: Rep.] 3 instances 					<ul style="list-style-type: none"> •Bed [L: Rep.] 3 instances •Tanning [L: Rep.] 3 instances •Revenue [L: Rep.] 2 instances •% [L: Rep.] 9 instances •\$ [L: Rep.] 6 instances •Yrs [L: Rep.] 6 instances •Most likely [Ellip.] 				
64.	The sensitivity [L: Rep.] analysis [L: Rep.] is type of risk analysis. [L: Rep.]									
65.	This [R: Dem.] analysis [L: Rep.] shows us [R: Pro.] what will happen if [C: Enhancement: Conc.] one [Subs.: N.] of variable [L: Rep.] factors has been changed.									
66.	As [C: Enhancement: Man.] we [R: Pro.] see in the [R: Def.] table [L: Rep.] [R: Ana.] a change in revenue [L: Rep.] of the [R: Def.] most [R: Comp.] likely case 70% [L: Rep.] caused [C: Enhancement: Caus.] the [R: Def.] NPV [L: Rep.] to change.									
67.	The [R: Def.] table [L: Rep.] [R: Ana.] showed that when the [R: Def.] revenue [L: Rep.] increased [L: Rep.] by 10% [L: Rep.] the [R: Def.] NPV* [L: Rep.] [L: Mer.] increased [L: Rep.] as well [C: Extension: Add.]. *NPV [L: Mer.] ties with revenue in 66.									
68.	However [C: Extension: Add.], when the [R: Def.] revenue [L: Rep.] turns out to be 10% [L: Rep.] below the [R: Def.] most [R: Comp.] likely case, [L: Rep.] both [R: Comp.] projects [L: Rep.] must be rejected because [C: Enhancement: Caus.] NPV* [L: Rep.] [L: Mer.] is negative. *NPV [L: Mer.] ties with revenue in 67.									
69.	In fact [C: Elaboration: Clari.], NPV* [L: Rep.] [L: Mer.] is very sensitive [L: Rep.] to changes in the [R: Def.] revenue [L: Rep.] volume. *NPV [L: Mer.] ties with revenue in 68.									
70.	Furthermore [C: Extension: Add.], Dome Unit [L: Rep.] is more sensitive [L: Rep.] [R: Comp.] to changes in its [R: Poss.] cash [L: Rep.] flows [L: Rep.] more than [R: Comp.] Tanning [L: Rep.] bed [L: Rep.] because [C: Enhancement: Caus.] it [R: Pro.] has the [R: Def.] highest [R: Comp.] amount either negative or [C: Elaboration: Clari.] positive in the both [R: Comp.] cases, [L: Rep.] but [C: Extension: Variat.] we [R: Pro.]									

	<p>should not ignore that the [R: Def.] projects [L: Rep.] lifetime [L: Rep.] are playing a major role in NPV* [L: Rep.] [L: Mer.] calculation [L:Rep.], the [R: Def.] evidence for that is Dome Unit [L: Rep.] life, [L: Rep.] this [R: Dem.] [Subs.: Cl.] machine [L: Rep.] will last for 8 years, [L: Rep.] therefore [C: Enhancement: Caus.] it [R: Pro.] is more sensitive [L: Rep.] [R: Comp.] than Tanning [L: Rep.] bed [L: Rep.] which will last for five years. [L: Rep.]</p> <p><i>*NPV [L: Mer.] ties with revenue in 69.</i></p>
71.	Some externalities and other [R: Comp.] relevant issues that could affect the [R: Def.] decision:[R: Def.]
72.	Although [C: Enhancement: Man.] the [R: Def.] fact that tanning [L: Rep.] business [L: Rep.] could very well complement her [R: Pro.] existing salon [L: Rep.] business [L: Rep.] and [C: Extension: Add.] also [C: Extension: Add.] the [R: Def.] calculations [L: Rep.] cause us to believe that the [R: Def.] dome unit [L: Rep.] would yield positive contributions [L: Rep.] to the [R: Def.] firm's revenue [L: Rep.], Patsy's lack of knowledge about the [R: Def.] tanning [L: Rep.] business [L: Rep.] could come in the way of her [R: Pro.] reaping benefits from the [R: Def.] business [L: Rep.] to its [R: Poss.] full potential.
73.	Also [C: Extension: Add.] it is mentioned that over the [R: Def.] past year [L: Rep.] a number of new salons [L: Rep.] and [C: Extension: Add.] nail spas had come up in the [R: Def.] city.
74.	Thus [C: Enhancement: Caus.] the threat of external competition poses a significant downside to the [R: Def.] investment [L: Rep.] decision
75.	Other [R: Comp.] relevant [L: Rep.] issues [L: Rep.]:
76.	It should be noted that capital [L: Rep.] budgeting results are not the [R: Def.] only [C: Extension: Variat.] evidence the [R: Def.] manager has to rely on.
77.	Other [R: Comp.] important issues [L: Rep.] regarding this [R: Dem.] [Subs.: Cl.] investment: [L: Rep.] [R: Cat.]
78.	1. Tanning [L: Rep.] bed [L: Rep.] can be bought from the [R: Def.] available cash [L: Rep.], but [C: Extension: Variat.] dome unit [L: Rep.] requires debt [L: Rep.] financing since [C: Enhancement: Caus.] there is only \$20,000 [L: Rep.] in cash [L: Rep.] according to [C: Enhancement: Man.] the [R: Def.] balance [L: Rep.] sheet. [L: Rep.]
79.	Therefore [C: Enhancement: Caus.], tanning [L: Rep.] bed [L: Rep.] may be preferable if [C: Enhancement: Cond.] payable debt [L: Rep.] financing [L: Rep.] is not available.
80.	2. Dome unit [L: Rep.] and tanning [L: Rep.] bed [L: Rep.] have different [R: Comp.] space requirements which have also [C: Extension: Add.] to be considered.
81.	If [C: Enhancement: Cond.] a particular project [L: Rep.] cannot be implemented because [C: Enhancement: Caus.] of space requirements [L: Rep.], favorable results of capital [L: Rep.] budgeting [L: Rep.] are worthless.
82.	3. It is not clearly stated in the [R: Def.] description how many (additional) worker-hours [L: Rep.] are needed for Operating [L: Rep.] tanning [L: Rep.] facilities.
83.	If [C: Enhancement: Cond.] every hour [L: Rep.] of operation requires one worker to be paid \$30, [L: Rep.] then [C: Enhancement: Caus.] the [R: Def.] recommended [L: Rep.] price \$8.00 [L: Rep.] per [L: Rep.] session [L: Rep.] is too low.
84.	Assumptions: [R: Cat.]
85.	For [C: Elaboration: Clari.] our calculation [L: Rep.] purposes, we [R: Pro.] assume [L: Rep.] revenues [L: Rep.] from tanning [L: Rep.] to grow in line with [C: Enhancement: Man.] inflation [L: Rep.] i.e. @ 3% [L: Rep.] p.a. [L: Rep.] Profit from sale of tanning [L: Rep.] lotion, being of the nature of "Other [R: Comp.] Income" is assumed [L: Rep.] to be constant [L: Rep.]
86.	Similarly [C: Enhancement: Man.] we [R: Pro.] assume [L: Rep.] electricity [L: Rep.] costs [L: Rep.], but [L: Rep.] costs [L: Rep.] to grow in line with [C: Enhancement: Man.] inflation [L: Rep.] @ 3% [L: Rep.]
87.	In the [R: Def.] absence of relevant information, we [R: Pro.] ignore the space requirement for the [R: Def.] two alternatives [L: Rep.] and [C: Extension: Add.] do not include it [R: Pro.] in the [R: Def.] computation
88.	In the [R: Def.] absence of certainty regarding the recruitment of part-time [L: Rep.] labour force, the [R: Def.] same [Subs.: N.] is ignored in the [R: Def.] computation
89.	Revenues [L: Rep.] and variable [L: Rep.] costs [L: Rep.] are adjusted for inflation [L: Rep.]
90.	Advertisement costs [L: Rep.] are assumed [L: Rep.] to be fixed at the [R: Def.] level \$12000 [L: Rep.] a year [L: Rep.] and [C: Extension: Add.] do not depend on inflation [L: Rep.].

91.	We [R: Pro.] assume [L: Rep.] that the [R: Def.] occupancy [L: Rep.] is constant [L: Rep.] throughout the [R: Def.] lifetime [L: Rep.] of equipment [L: Rep.] and [C: Extension: Add.] equal 100% [L: Rep.] (Best [L: Rep.] Case) [L: Rep.], 70% [L: Rep.] (Most Likely Case) [L: Rep.] and 40% [L: Rep.] (Worst [L: Rep.] Case) [L: Rep.] of the [R: Def.] maximum occupancy.
92.	Conclusion: [R: Cat.]
93.	Patsy [L: Rep.] is considering expanding her business. [L: Rep.]
94.	She [R: Pro.] has two choices, a Dome Unit [L: Rep.] or a Tanning [L: Rep.] Bed [L: Rep.] .
95.	Both [R: Comp.] projects [L: Rep.] can produce the [R: Def.] same [Subs.: N.] product.
96.	She [R: Pro.] has to choose one [Subs.: N.] of them [R: Pro.] as [C: Enhancement: Caus.] it [R: Pro.] is a mutually exclusive [L: Rep.] investMent. [L: Rep.]
97.	As a result [C: Enhancement: Caus.], she [R: Pro.] has to accept one [Subs.: N.] project [L: Rep.] and [C: Extension: Add.] reject another project. [L: Rep.]
98.	According to [C: Enhancement: Man.] the [R: Def.] base [L: Rep.] case [L: Rep.] financial results, we [R: Pro.] compared between the [R: Def.] two machines [L: Rep.], we [R: Pro.] recommend [L: Rep.] that Patsy [L: Rep.] should accept the [R: Def.] Dome Unit [L: Rep.] over the [R: Def.] Tanning [L: Rep.] Bed [L: Rep.] because [C: Enhancement: Caus.] it [R: Pro.] provides not only [C: Extension: Variat.] highest positive NPV [L: Rep.] but also [C: Enhancement: Conc.] provides the [R: Def.] highest [R: Comp.] IRR [L: Rep.] that exceeds the [R: Def.] required return (WACC) [L: Rep.] and [C: Extension: Add.] calculated [L: Rep.] shorter payback [L: Rep.] period. [L: Rep.]

Appendix 51: Cohesion analysis of Group 3's finance text⁴⁴

Title	Major Assignment - Semester 2 2010
Pseudonym	Ibrahim, Hasan, Sharon and Tracey (Group 3)
Type of Analysis	Cohesion Analysis
Program	Master of Commerce
Module	<i>Principles of Finance</i>
Number of Words	3387
Notes	Excluding appendices, T.O.C., List of illustrations & Reference list
1.	Executive summary
2.	Rubber Man Ltd [L: Hyp.] is a rubber [L: Rep.] products company which owns 2 factories in Australia.
3.	In order to [C: Enhancement: Caus.] make maximum profit to the [R: Def.] company [L: Mer.] , [L: Rep.] the [R: Def.] Board [L: Mer.] decides to accept an investment proposal among three proposals.[L: Rep.] <ul style="list-style-type: none"> • <i>Company & Board tie with Rubber Man Ltd</i>
4.	In this [R: Dem.] report, firstly, [C: Enhancement: Temp.] in order to [C: Enhancement: Caus.] help the [R: Def.] Rubber [L: Rep.] Man Ltd [L: Rep.] to analyze the [R: Def.] cash flow several assumptions [L: Rep.] are mentioned.
5.	Secondly, [C: Enhancement: Temp.] three proposals [L: Rep.] are analyzed by the [R: Def.] incremental after-tax net operating cash [L: Rep.] flow [L: Rep.] which could calculate the [R: Def.] NPVs, IRRs and PPs respectively.
6.	Thirdly, [C: Enhancement: Temp.] according to [C: Enhancement: Man.] the [R: Def.] results of cash [L: Rep.] flow,[L: Rep.] the [R: Def.] company [L: Rep.] could make sensitivity analysis for each proposal [L: Rep.] by increasing or decreasing [L: Ant.] the [R: Def.] percentage.
7.	Fourthly, [C: Enhancement: Temp.] the [R: Def.] company [L: Rep.] needs to consider about the [R: Def.] intangible or qualitative factors in proposal [L: Rep.] 3.
8.	Finally, [C: Enhancement: Temp.] the [R: Def.] recommendation could be suggested for the [R: Def.] company. [L: Rep.]
9.	The [R: Def.] aim of this [R: Dem.] paper is to analyze NPV [L: Rep.] & IRR [L: Rep.] sensitivity [L: Rep.] analysis [L: Rep.] and recommendation [L: Rep.] for each proposal. [L: Rep.]
10.	After a series of operating cash [L: Rep.] flows [L: Rep.] calculation, the [R: Def.] company [L: Rep.] should accept proposal [L: Rep.] 2 which has greatest [R: Comp.] NPV, [L: Rep.] the [R: Def.] biggest [R: Comp.] IRR, [L: Rep.] and shortest [R: Comp.] PP [L: Rep.] as well. [C: Extension: Add.]
11.	Considering all above [R: Ana.] the [R: Def.] aspect, this [R: Dem.] paper [L: Rep.] indicates that it [R: Pro.] is quite necessary to accept proposal [L: Rep.] 2 for Rubber [L: Rep.] Man Ltd.[L: Rep.]
12.	<u>1. Introduction</u>
13.	Rubber [L: Rep.] Man Ltd [L: Rep.] is a Brisbane-based company [L: Rep.] which has another [R: Comp.] factory [L: Rep.] in Adelaide.
14.	It [R: Pro.] produces a range of rubber [L: Rep.] products for building, playgrounds and sport facilities.
15.	According to [C: Enhancement: Man.] the [R: Def.] economic downturn, the [R: Def.] company [L: Rep.] decides to make an investment [L: Rep.] decision for company's [L: Rep.] future developMent. In this [R: Dem.] report, [L: Rep.] the [R: Def.] company [L: Rep.] has three proposals. [L: Rep.]
16.	Firstly, [C: Enhancement: Temp.] remove the [R: Def.] factory [L: Rep.] from Adelaide [L: Rep.] to Thailand; [L: Rep.] secondly, [C: Enhancement: Temp.] replace IT system; thirdly, [C: Enhancement: Temp.] hire new employees to improve product quality and [C: Extension: Add.] design new product. Therefore [C: Enhancement: Caus.], through this [R: Dem.] report, [L: Rep.] the [R: Def.] company [L: Rep.] would make a final, reasonable and efficient decision for running their [R: Poss.] business in next ten years.

⁴⁴ Refer to Appendix 19 for the procedures followed in cohesion analysis of the texts.

17.	For analysis of [C: Enhancement: Caus.] each proposal, [L: Rep.] Rubber [L: Rep.] Man Ltd [L: Rep.] uses the [R: Def.] incremental [L: Rep.] after-tax [L: Rep.] net operating cash [L: Rep.] flow [L: Rep.] to calculate the [R: Def.] Net Present Value (NPV), [L: Rep.] Internal Rate of Return (IRR) [L: Rep.] and Payback Period [L: Rep.] (PP) [L: Rep.] to make a decision. In addition, [C: Extension: Add.] the [R: Def.] analysis is base on the [R: Def.] “Operating Cash [L: Rep.] Flow [L: Rep.] (OCF) = Earnings before Interest and [Ellip: Cl.] [C: Extension: Add.] Tax [L: Rep.] (EBIT) – Taxes [L: Rep.] + Depreciation and amortisation charges”.
18.	This [R: Dem.] report [L: Rep.] will put toward on NPV [L: Rep.] & IRR [L: Rep.] analysis, sensitivity [L: Rep.] analysis [L: Rep.] and recommendation [L: Rep.] for each proposal. [L: Rep.]
19.	<u>2. Assumptions</u>
20.	All these [R: Dem.] proposals [L: Rep.] are based on several same [Subs.: N.] assumptions.
21.	Firstly, [C: Enhancement: Temp.] all cash [L: Rep.] flows [L: Rep.] are calculated incremental [L: Rep.] cash [L: Rep.] flows [L: Rep.] at the [R: Def.] end of each year. [L: Rep.]
22.	Moreover, [C: Extension: Add.] current yearly [L: Rep.] revenue [L: Rep.] is \$ 10 million [L: Rep.] which could influenced by 5% growth rate, [L: Rep.] discount rate [L: Rep.] (12%), tax [L: Rep.] rate [L: Rep.] (30%) and inflation rate [L: Rep.] (3.5%) each year. [L: Rep.]
23.	Secondly, [C: Enhancement: Temp.] discount [L: Rep.] rate [L: Rep.] 12% [L: Rep.] should be treated as a nominal interest rate [L: Rep.] which means for all the [R: Def.] proposals [L: Rep.] no need to multiply the [R: Def.] real rate [L: Rep.] and inflation rate [L: Rep.] again.
24.	Thirdly, [C: Enhancement: Temp.] incremental [L: Rep.] working capital requirement and incremental [L: Rep.] working capital contribution which are restored annually are based on sales revenue. [L: Rep.]
25.	Finally, [C: Enhancement: Temp.] in order to [C: Enhancement: Caus.] convenience illustrate the [R: Def.] calculation process, all the [R: Def.] analysis figures are based on the [R: Def.] before tax [L: Rep.] effect.
26.	<u>3. Proposal [L: Rep.] 1</u>
27.	In proposal [L: Rep.] 1, the [R: Def.] company [L: Rep.] aims to beat the [R: Def.] margin squeeze by cutting labour cost, they [R: Pro.] would relocate Adelaide [L: Rep.] factory [L: Rep.] to Thailand. [L: Rep.]
28.	In addition, [C: Extension: Add.] the [R: Def.] company [L: Rep.] is required to decide two scenarios: firstly, [C: Enhancement: Temp.] lease Adelaide [L: Rep.] Factory [L: Rep.] with proper lease [L: Rep.] revenue; [L: Rep.] secondly, [C: Enhancement: Temp.] sale [L: Rep.] Adelaide [L: Rep.] Factory [L: Rep.] after Thailand [L: Rep.] fully operational.
29.	In order to [C: Enhancement: Caus.] analyse the [R: Def.] two scenarios, [L: Rep.] this [R: Dem.] report [L: Rep.] assume that the [R: Def.] company [L: Rep.] will pay Thailand [L: Rep.] Factory [L: Rep.] lease [L: Rep.] expense at the [R: Def.] beginning of each year [L: Rep.] from year [L: Rep.] 0.
30.	3.1. Leasing [L: Rep.] scenario:[L: Rep.] [R: Cat.]
31.	The [R: Def.] report [L: Rep.] assumes that the [R: Def.] company [L: Rep.] will receive Adelaide [L: Rep.] Factory [L: Rep.] leasing [L: Rep.] revenue [L: Rep.] at the [R: Def.] beginning of each year [L: Rep.] from year [L: Rep.] 2.
32.	Implementing leasing [L: Rep.] scenario [L: Rep.] would affect the [R: Def.] company [L: Rep.] cash [L: Rep.] inflows. [L: Syn.]
33.	Firstly, [C: Enhancement: Temp.] the [R: Def.] company [L: Rep.] could lease [L: Rep.] Adelaide [L: Rep.] Factory [L: Rep.] , and [C: Extension: Add.] it [R: Pro.] could generate a cash [L: Rep.] inflow [L: Rep.] which is estimated 4.4 % [L: Rep.] of Adelaide [L: Rep.] annual sales [L: Rep.] contribution that can be translated to \$ 2.9 [L: Rep.] M during ten years [L: Rep.] period. [L: Rep.]
34.	In addition, [C: Extension: Add.] cash [L: Rep.] inflows [L: Rep.] under [C: Enhancement: Man.] leasing [L: Rep.] scenario [L: Rep.] could be increased by Adelaide [L: Rep.] Factory [L: Rep.] salvage value [L: Rep.] at the [R: Def.] end of year [L: Rep.] 10. It could contribute to company [L: Rep.] \$ 1 [L: Rep.] M [L: Rep.] which equals to 1.5% [L: Rep.] of Adelaide [L: Rep.] annual sales [L: Rep.] contribution. [L: Rep.]
35.	Furthermore, [C: Extension: Add.] leasing [L: Rep.] scenario [L: Rep.] might increase the [R: Def.] cash [L: Rep.] inflows [L: Rep.] sharply due to a huge saving in operating cost by \$

	16.5 [L: Rep.] M [L: Rep.] which is equals to 25% [L: Rep.] of Adelaide [L: Rep.] annual [L: Rep.] [L: Syn.] sales [L: Rep.] contribution.[L: Rep.]
36.	There are many factors [L: Rep.] that might influence leasing [L: Rep.] scenario [L: Rep.] cash [L: Rep.] outflows.[L: Ant.]
37.	Firstly, [C: Enhancement: Temp.] according to [C: Enhancement: Man.] Australian labour law, the [R: Def.] company [L: Rep.] must pay redundancy package \$ 2.5 [L: Rep.] M [L: Rep.] to Adelaide [L: Rep.] Factory's [L: Rep.] employees, [L: Rep.] and [C: Extension: Add.] this [R: Dem.] [Subs.:Cl.] incremental [L: Rep.] outflow [L: Rep.] would equal to approximately 3.8% [L: Rep.] of Adelaide [L: Rep.] annual [L: Rep.] sales [L: Rep.] contribution. [L: Rep.]
38.	Moreover, [C: Extension: Add.] if [C: Enhancement: Cond.] the [R: Def.] company [L: Rep.] decides to lease [L: Rep.] Adelaide [L: Rep.] Factory [L: Rep.], it means this [R: Dem.] [Subs.:Cl.] factory [L: Rep.] could not be sold which is treated it [R: Pro.] as an opportunity cost \$ 4 [L: Rep.] M [L: Rep.] by approximately 6% [L: Rep.] (Adelaide [L: Rep.] factory [L: Rep.] salvage [L: Rep.] value [L: Rep.] revenue [L: Rep.] / Adelaide [L: Rep.] annual [L: Rep.] sales [L: Rep.] contribution) [L: Rep.] of Adelaide [L: Rep.] annual [L: Rep.] sales [L: Rep.] contribution. [L: Rep.]
39.	3.2. Selling [L: Ant.] scenario [L: Rep.]
40.	Selling Adelaide [L: Rep.] Factory [L: Rep.] would generate cash [L: Rep.] inflow [L: Rep.] from Adelaide [L: Rep.] Factory [L: Rep.] salvage [L: Rep.] value [L: Rep.] and incremental [L: Rep.] depreciation.
41.	If the [R: Def.] company [L: Rep.] sells Adelaide [L: Rep.] factory [L: Rep.] they [R: Pro.] would receive \$ 4 [L: Rep.] M [L: Rep.] which equals to 6 % [L: Rep.] of Adelaide [L: Rep.] annual [L: Rep.] sales [L: Rep.] contribution. [L: Rep.]
42.	Furthermore, [C: Extension: Add.] this [R: Dem.] [Subs.:Cl.] scenario [L: Rep.] still could produce cash [L: Rep.] inflow [L: Rep.] from Thailand [L: Rep.] salvage [L: Rep.] at the [R: Def.] end year [L: Rep.] 10 with an amount [L: Rep.] of \$ 1[L: Rep.] M. [L: Rep.]
43.	In addition, [C: Extension: Add.] the [R: Def.] incremental [L: Rep.] depreciation [L: Rep.] could bring a huge cash [L: Rep.] inflow [L: Rep.] from \$ 83 [L: Rep.] k to \$ 750 [L: Rep.] k.
44.	This [R: Dem.] process can support this [R: Dem.] [Subs.:Cl.] proposal [L: Rep.] to create cash [L: Rep.] inflow [L: Rep.] from tax [L: Rep.] saving after year [L: Rep.] 2 that can be translated to \$ 225 [L: Rep.] k [L: Rep.] instead of [C: Enhancement: Man.] \$ 25 [L: Rep.] k. [L: Rep.]
45.	On the other hand, [C: Extension: Variat.] there [R: Dem.] are some difference cash [L: Rep.] outflows [L: Ant.] between selling and leasing [L: Rep.] scenario. [L: Rep.]
46.	For [C: Elaboration: Clari.] the [R: Def.] selling [L: Ant.] scenario, [L: Rep.] it [R: Pro.] would be affected by two opportunity cost.
47.	Firstly, [C: Enhancement: Temp.] if [C: Enhancement: Cond.] the [R: Def.] company [L: Rep.] will not be able to lease [L: Rep.] Adelaide [L: Rep.] Factory [L: Rep.], the [R: Def.] cash [L: Rep.] outflow [L: Rep.] will increase up to \$ 4 [L: Rep.] M. [L: Rep.]
48.	Secondly, [C: Enhancement: Temp.] \$1 [L: Rep.] M [L: Rep.] should be considered as opportunity [L: Rep.] cost [L: Rep.] which means the [R: Def.] company [L: Rep.] would lose the [R: Def.] leasing [L: Rep.] revenue [L: Rep.] from year [L: Rep.] 2.
49.	<u>4. Proposal [L: Rep.] 2</u>
50.	Proposal [L: Rep.] 2 supposes that both [R: Comp.] two factories [L: Rep.] would install a new IT [L: Rep.] system [L: Rep.] for all the [R: Def.] production [L: Rep.] lines.
51.	Under [C: Enhancement: Man.] the [R: Def.] streamline internal ordering and despatch functions, the [R: Def.] company [L: Rep.] could increase the [R: Def.] efficiency of production [L: Rep.] and transportation.
52.	According to [C: Enhancement: Man.] the [R: Def.] results of NPV [L: Rep.] \$ 254,961, IRR [L: Rep.] 13.50%, [L: Rep.] and PP [L: Rep.] 5.25 years, [L: Rep.] the [R: Def.] proposal [L: Rep.] 2 provides company [L: Rep.] a positive value [L: Rep.], greater return [L: Rep.] rate [L: Rep.] than [R: Comp.] discount rate [L: Rep.] 12% [L: Rep.] and [C: Extension: Add.] shorter [R: Comp.] time to recover its initial cost.
53.	In propose 2, the [R: Def.] report [L: Rep.] assumes that there are no book value [L: Rep.] and no salvage [L: Rep.] value [L: Rep.] in the [R: Def.] previous IT [L: Rep.] system [L: Rep.] when new system [L: Rep.] was installed at year [L: Rep.] 0.
54.	There are three incremental [L: Rep.] cash [L: Rep.] inflows [L: Rep.] refer to the [R: Def.]

	new IT [L: Rep.] system. [L: Rep.]
55.	First of all, [C: Enhancement: Temp.] new system [L: Rep.] could lead a decrease working capital requirement from 15% [L: Rep.] to 7% [L: Rep.] of forecasted sales [L: Rep.] each year.[L: Rep.]
56.	That is to say, there is an incremental [L: Rep.] working capital contribution up to \$1.3M, and [C: Extension: Add.] then [C: Enhancement: Temp.] recovers it [R: Pro.] at the [R: Def.] end of the [R: Def.] year. [L: Rep.]
57.	Moreover, [C: Extension: Add.] rising production [L: Rep.] processes could reduce labour cost by 7.5% [L: Rep.] of sales [L: Rep.] revenue [L: Rep.] per year [L: Rep.] which equals to \$ 9.9 [L: Rep.] million. [L: Rep.]
58.	Furthermore, [C: Extension: Add.] company [L: Rep.] should concern about \$ 0.4 [L: Rep.] M [L: Rep.] salvage [L: Rep.] value [L: Rep.] during the [R: Def.] ten-year [L: Rep.] life.
59.	The [R: Def.] company [L: Rep.] insists that the [R: Def.] book [L: Rep.] value [L: Rep.] would be zero when the [R: Def.] new system [L: Rep.] still has a salvage [L: Rep.] value [L: Rep.] at the [R: Def.] end of year [L: Rep.] 10.
60.	Thus, the [R: Def.] salvage [L: Rep.] value [L: Rep.] could treat as a cash [L: Rep.] inflow [L: Rep.] at the [R: Def.] last year [L: Rep.] in the [R: Def.] Incomes Tax [L: Rep.] Rules.
61.	On the other hand, [C: Extension: Variat.] there are several outflows [L: Ant.] in the [R: Def.] proposal [L: Rep.] 2.
62.	For [C: Elaboration: Clari.] each factory [L: Rep.], the [R: Def.] advance technology would cost \$ 3 million [L: Rep.] for initial cost and \$ 1 million [L: Rep.] for set-up cost.
63.	Similarly, [C: Enhancement: Man.] the [R: Def.] depreciation for new system [L: Rep.] would follow straight-line rule which equals to \$ 0.5 [L: Rep.] million [L: Rep.] per year [L: Rep.] and [C: Extension: Add.] have a zero book [L: Rep.] value [L: Rep.] at the [R: Def.] end of year [L: Rep.] 10.
64.	In addition, [C: Extension: Add.] there is an incremental [L: Rep.] maintenance cost (cash [L: Rep.] outflow [L: Rep.]) per year [L: Rep.] which is increasing by the [R: Def.] inflation [L: Rep.] rate. [L: Rep.]
65.	<u>5. Proposal [L: Rep.] 3</u>
66.	Proposal [L: Rep.] 3 supposes that the [R: Def.] company [L: Rep.] would hire seven new engineers to develop new product [L: Rep.] and [C: Extension: Add.] improve quality in ten years. [L: Rep.]
67.	Meanwhile, [C: Enhancement: Temp.] the [R: Def.] market share for company [L: Rep.] could be improved by the [R: Def.] new product [L: Rep.] which remains until year [L: Rep.] 10.
68.	Through the [R: Def.] analysis, the [R: Def.] expected NPV [L: Rep.] is \$ 122,018, [L: Rep.] IRR [L: Rep.] is 13.14% [L: Rep.] and [C: Extension: Add.] PP [L: Rep.] is 6.35 years [L: Rep.] for this [R: Dem.] [Subs.:Cl.] proposal. [L: Rep.]
69.	The [R: Def.] seven new engineers could create 6% [L: Rep.] increase on the [R: Def.] yearly [L: Rep.] sales [L: Rep.] revenue [L: Rep.] which result in a cash [L: Rep.] inflow [L: Rep.] \$ 7.3 [L: Rep.] million from the [R: Def.] year [L: Rep.] 2.
70.	Moreover, [C: Extension: Add.] the [R: Def.] new product [L: Rep.] also could bring another cash [L: Rep.] inflow [L: Rep.] from the [R: Def.] enhancing market share \$ 15 [L: Rep.] million [L: Rep.] which equals to 12% [L: Rep.] of the [R: Def.] total project revenue. [L: Rep.]
71.	Conversely, [C: Extension: Variat.] it is necessary to consider cash [L: Rep.] outflows [L: Ant.] in proposal [L: Rep.] 3.
72.	Firstly, [C: Enhancement: Temp.] seven employees [L: Rep.] cost the [R: Def.] company [L: Rep.] \$0.53 [L: Rep.] M [L: Rep.] from year [L: Rep.] 1 increased by the [R: Def.] inflation [L: Rep.] rate [L: Rep.] to year [L: Rep.] 10 totally \$ 6 [L: Rep.] M. [L: Rep.]
73.	Secondly, [C: Enhancement: Temp.] the [R: Def.] cost of sales [L: Rep.] for new product [L: Rep.] takes up 40% [L: Rep.] of sales [L: Rep.] revenue [L: Rep.] which totally equals to \$ 9 [L: Rep.] million.[L: Rep.]
74.	Thirdly, [C: Enhancement: Temp.] it [R: Pro.] could assume that upgrade cost should be treated as an asset which could be depreciated \$ 0.15 [L: Rep.] M [L: Rep.] per year.
75.	Fourthly, [C: Enhancement: Temp.] administration cost could be increased by inflation [L: Rep.] rate [L: Rep.] up to \$ 0.18 [L: Rep.] M [L: Rep.] totally.
76.	Moreover, [C: Extension: Add.] there is a negative [L: Rep.] working capital contribution \$

	0.46 [L: Rep.] M [L: Rep.] from the [R: Def.] difference between old product [L: Rep.] and new product, [L: Rep.] and [C: Extension: Add.] then [C: Enhancement: Temp.] it [R: Pro.] would recover at the [R: Def.] end of year. [L: Rep.]																																																																					
77.	The [R: Def.] last cash [L: Rep.] outflow [L: Rep.] is opportunity [L: Rep.] cost [L: Rep.] which means new product [L: Rep.] sales [L: Rep.] revenue [L: Rep.] will replace the [R: Def.] old product [L: Rep.] sales [L: Rep.] revenue. [L: Rep.]																																																																					
78.	Consequently, [C: Enhancement: Caus.] the [R: Def.] company [L: Rep.] need to treat old product [L: Rep.] sales [L: Rep.] revenue [L: Rep.] as an opportunity [L: Rep.] cost [L: Rep.] for cash [L: Rep.] outflow [L: Rep.] by \$1.7 [L: Rep.] M [L: Rep.] (after tax). [L: Rep.]																																																																					
79.	Finally, [C: Enhancement: Temp.] the [R: Def.] company [L: Rep.] assumes that old [L: Rep.] products [L: Rep.] have no initial cost as [C: Enhancement: Man.] a sunk cost in the [R: Def.] year [L: Rep.] 0.																																																																					
80.	6. Proposals [L: Rep.] Sensitivity [L: Rep.] analysis [L: Rep.]																																																																					
81.	Generally, Sensitivity [L: Rep.] analysis [L: Rep.] is the [R: Def.] calculating procedure which is used widely in investment [L: Rep.] decision [L: Rep.] making.																																																																					
82.	This [R: Dem.] procedure is used for prediction of effect of changes of input (sales [L: Rep.] revenue, [L: Rep.] operating costs [L: Rep.] saving, salvage [L: Rep.] value [L: Rep.], etc) data on output results of one model. After inputting some variable values, [L: Rep.] the [R: Def.] investment [L: Rep.] -project [L: Rep.] evaluation can be presented in a range interval, like NPV [L: Rep.] 1, NPV [L: Rep.] 2, NPV [L: Rep.] 3, etc.																																																																					
83.	6.1. Proposal [L: Rep.] 1																																																																					
84.	6.1.1. Leasing [L: Rep.] scenario [L: Rep.]																																																																					
85.	It is discovered by sensitivity [L: Rep.] analysis [L: Rep.] that, proposal [L: Rep.] 1 (leasing [L: Rep.] scenario), [L: Rep.] expected NPV [L: Rep.] is \$-4.8 [L: Rep.] M [L: Rep.] and [C: Extension: Add.] IRR [L: Rep.] is 2.10%. [L: Rep.]																																																																					
86.	There are three negative [L: Rep.] correlation [L: Rep.] factors [L: Rep.] and four positive [L: Rep.] correlation [L: Rep.] factors. [L: Rep.]																																																																					
87.	For example, [C: Elaboration: Appos.] Incremental [L: Rep.] Adelaide [L: Rep.] factory [L: Rep.] leasing [L: Rep.] revenue [L: Rep.] and [C: Extension: Add.] incremental [L: Rep.] cost saving are obvious positive [L: Rep.] [L: Ant.] correlation [L: Rep.] factors. [L: Rep.]																																																																					
88.	If the [R: Def.] Incremental [L: Rep.] cost [L: Rep.] saving [L: Rep.] increase by 30%, [L: Rep.] the [R: Def.] NPV* [L: Rep.] [L: Mer.] will change from \$-4.8 [L: Rep.] M [L: Rep.] to \$-2.9 [L: Rep.] M. [L: Rep.] * NPV [L: Mer.] ties with value																																																																					
89.	However, [C: Extension: Add.] as [C: Enhancement: Man.] positive [L: Rep.] correlation [L: Rep.] factors, [L: Rep.] the [R: Def.] incremental [L: Rep.] revenue [L: Rep.] and [C: Extension: Add.] incremental [L: Rep.] cost [L: Rep.] saving [L: Rep.] have not put huge impacts on NPV [L: Rep.] and IRR. [L: Rep.]																																																																					
90.	As [C: Enhancement: Caus.] there [R: Dem.] are several outflows [L: Rep.] factors, [L: Rep.] like Incremental [L: Rep.] leasing [L: Rep.] cost [L: Rep.] (Thailand [L: Rep.] factory) [L: Rep.] and opportunity [L: Rep.] cost [L: Rep.] (if [C: Enhancement: Cond.] lease [L: Rep.] Adelaide [L: Rep.] factory [L: Rep.]).																																																																					
91.	Table 1: Sensitivity [L: Rep.] analysis [L: Rep.] for Proposal [L: Rep.] 1- leasing [L: Rep.] scenario [L: Rep.] (changing in NPV) [L: Rep.]																																																																					
92.	<table border="1"> <thead> <tr> <th rowspan="2">Base level</th> <th colspan="7">Resulting NPV (000s)</th> </tr> <tr> <th>Inc. Adelaide leasing Rev.</th> <th>Inc. cost saving</th> <th>Inc. leasing cost (Thailand)</th> <th>Inc. dep. cost (Ade. & Thai)</th> <th>Gain on salvage (Adelaide)</th> <th>Gain on salvage (Thailand)</th> <th>Opportunity (Adelaide leased)</th> </tr> </thead> <tbody> <tr> <td>30%</td> <td>- 4,524,655</td> <td>- 2,989,345</td> <td>- 5,071,718</td> <td>- 4,756,679</td> <td>- 4,794,168</td> <td>- 4,807,691</td> <td>- 5,826,068</td> </tr> <tr> <td>20%</td> <td>- 4,637,031</td> <td>- 3,613,491</td> <td>- 5,001,740</td> <td>- 4,791,713</td> <td>- 4,816,706</td> <td>- 4,825,721</td> <td>- 5,504,639</td> </tr> <tr> <td>10%</td> <td>- 4,749,407</td> <td>- 4,237,637</td> <td>- 4,931,761</td> <td>- 4,826,748</td> <td>- 4,839,244</td> <td>- 4,843,752</td> <td>- 5,183,211</td> </tr> <tr> <td>0%</td> <td>- 4,861,782</td> </tr> <tr> <td>-10%</td> <td>- 4,974,158</td> <td>- 5,485,928</td> <td>- 4,791,804</td> <td>- 4,896,817</td> <td>- 4,884,320</td> <td>- 4,879,813</td> <td>- 4,540,354</td> </tr> <tr> <td>-20%</td> <td>- 5,086,534</td> <td>- 6,110,074</td> <td>- 4,721,825</td> <td>- 4,931,851</td> <td>- 4,906,859</td> <td>- 4,897,843</td> <td>- 4,218,925</td> </tr> </tbody> </table>							Base level	Resulting NPV (000s)							Inc. Adelaide leasing Rev.	Inc. cost saving	Inc. leasing cost (Thailand)	Inc. dep. cost (Ade. & Thai)	Gain on salvage (Adelaide)	Gain on salvage (Thailand)	Opportunity (Adelaide leased)	30%	- 4,524,655	- 2,989,345	- 5,071,718	- 4,756,679	- 4,794,168	- 4,807,691	- 5,826,068	20%	- 4,637,031	- 3,613,491	- 5,001,740	- 4,791,713	- 4,816,706	- 4,825,721	- 5,504,639	10%	- 4,749,407	- 4,237,637	- 4,931,761	- 4,826,748	- 4,839,244	- 4,843,752	- 5,183,211	0%	- 4,861,782	- 4,861,782	- 4,861,782	- 4,861,782	- 4,861,782	- 4,861,782	- 4,861,782	-10%	- 4,974,158	- 5,485,928	- 4,791,804	- 4,896,817	- 4,884,320	- 4,879,813	- 4,540,354	-20%	- 5,086,534	- 6,110,074	- 4,721,825	- 4,931,851	- 4,906,859	- 4,897,843	- 4,218,925
Base level	Resulting NPV (000s)																																																																					
	Inc. Adelaide leasing Rev.	Inc. cost saving	Inc. leasing cost (Thailand)	Inc. dep. cost (Ade. & Thai)	Gain on salvage (Adelaide)	Gain on salvage (Thailand)	Opportunity (Adelaide leased)																																																															
30%	- 4,524,655	- 2,989,345	- 5,071,718	- 4,756,679	- 4,794,168	- 4,807,691	- 5,826,068																																																															
20%	- 4,637,031	- 3,613,491	- 5,001,740	- 4,791,713	- 4,816,706	- 4,825,721	- 5,504,639																																																															
10%	- 4,749,407	- 4,237,637	- 4,931,761	- 4,826,748	- 4,839,244	- 4,843,752	- 5,183,211																																																															
0%	- 4,861,782	- 4,861,782	- 4,861,782	- 4,861,782	- 4,861,782	- 4,861,782	- 4,861,782																																																															
-10%	- 4,974,158	- 5,485,928	- 4,791,804	- 4,896,817	- 4,884,320	- 4,879,813	- 4,540,354																																																															
-20%	- 5,086,534	- 6,110,074	- 4,721,825	- 4,931,851	- 4,906,859	- 4,897,843	- 4,218,925																																																															

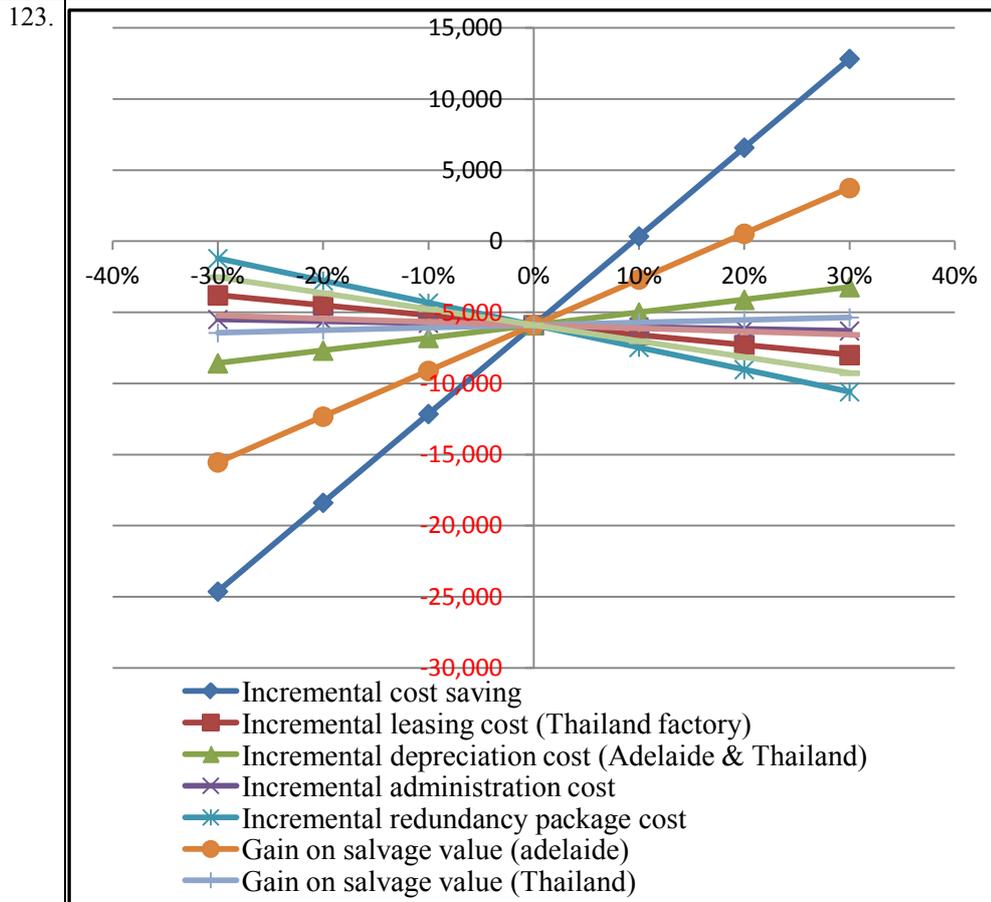
		-30%	-5,198,909	-6,734,219	-4,651,846	-4,966,886	-4,929,397	-4,915,874	-3,897,497
	<ul style="list-style-type: none"> • % [L: Rep.] 7 instances • Inc. [L: Rep.] 3 instances • Leasing [L: Rep.] 1 instance • Adelaide/Ade. [L: Rep.] 3 instances • Thailand/Thai. [L: Rep.] 2 instances 	<ul style="list-style-type: none"> • Gain [L: Rep.] 1 instance • Cost [L: Rep.] 2 instances • Salvage [L: Rep.] 1 instance • NPV [L: Rep.] 1 instance 							
93.	Figure1: Sensitivity [L: Rep.] analysis [L: Rep.] for Proposal [L: Rep.] 1-leasing [L: Rep.] scenario [L: Rep.] (changing in NPV) [L: Rep.]								
94.	<p>Thousands</p> <p>—40% —30% —20% —10% 0% 10% 20% 30% 40%</p> <p>—1,000 —2,000 —3,000 —4,000 —5,000 —6,000 —7,000 —8,000</p> <p> ■ Inc. Adelaide fac. leasing Rev. ◆ Incremental cost saving ▲ Incremental leasing cost (Thailand factory) ✕ Incremental depreciation cost (Adelaide & Thailand) ✱ Gain on salvage value (adelaide) ● Gain on salvage value (Thailand) + Oppertunity (if lease Adelaide factory) </p>								
	Cohesion analysis of the graph below (95-102):								
95.	When all of the [R: Def.] inputs are set at their [R: Poss.] base-case levels, their [R: Poss.] deviations from the [R: Def.] base are all zero and [C: Extension: Add.] the NPV [L: Rep.] is \$ xxx.								
96.	If [C: Enhancement: Cond.] Inc. Adelaide [L: Rep.] leasing [L: Rep.] Rev.[L: Rep.] is set 30% above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]								
97.	If [C: Enhancement: Cond.] Inc. [L: Rep.] cost [L: Rep.] saving is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]								
98.	If [C: Enhancement: Cond.] Inc. [L: Rep.] leasing [L: Rep.] cost [L: Rep.] (Thailand) [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]								
99.	If [C: Enhancement: Cond.] Inc. [L: Rep.] dep. [L: Rep.] cost [L: Rep.] (Ade. [L: Rep.] & Thai) [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]								
100.	If [C: Enhancement: Cond.] Gain [L: Rep.] on salvage [L: Rep.] (Adelaide) [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]								
101.	If [C: Enhancement: Cond.] Gain [L: Rep.] on salvage [L: Rep.] (Thailand) [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]								

		Cohesion analysis of the graph below (107-114):									
107.	When all of the inputs are set at their [R: Poss.] base-case levels, their [R: Poss.] deviations from the base are all zero and [C: Extension: Add.] the NPV [L: Rep.] is \$ xxx.										
108.	If [C: Enhancement: Cond.] Inc. Adelaide [L: Rep.] leasing [L: Rep.] Rev.[L: Rep.] is set 30% above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]										
109.	If [C: Enhancement: Cond.] Inc. [L: Rep.] leasing [L: Rep.] cost [L: Rep.] (Thailand) [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]										
110.	If [C: Enhancement: Cond.] Gain [L: Rep.] on salvage [L: Rep.] (Adelaide) [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]										
111.	If [C: Enhancement: Cond.] Opportunity [L: Rep.] (Adelaide [L: Rep.] leased) [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]										
112.	If [C: Enhancement: Cond.] Inc. [L: Rep.] cost [L: Rep.] saving is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]										
113.	If [C: Enhancement: Cond.] Inc. dep. [L: Rep.] cost [L: Rep.] (Ade. [L: Rep.] & Thai) [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]										
114.	If [C: Enhancement: Cond.] Gain [L: Rep.] on salvage [L: Rep.] (Thailand) [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]										
115.	6.1.2. Selling scenario:[L: Rep.] [R: Cat.]										
116.	For [C: Elaboration: Clari.] the [R: Def.] selling [L: Rep.] scenario, [L: Rep.] if [C: Enhancement: Cond.] both incremental [L: Rep.] revenue [L: Rep.] and [C: Extension: Add.] gain on salvage [L: Rep.] (Adelaide) [L: Rep.] could increase to 30% [L: Rep.] respectively, the [R: Def.] NPV [L: Rep.] for selling [L: Rep.] scenario [L: Rep.] would become positive [L: Rep.] \$1.3 [L: Rep.] M [L: Rep.] and \$0.37 [L: Rep.] M [L: Rep.] respectively.										
117.	Similarly, [C: Enhancement: Man.] if [C: Enhancement: Cond.] incremental [L: Rep.] cost [L: Rep.] saving [L: Rep.] will increase 10%, [L: Rep.] the [R: Def.] NPV* [L: Rep.] [L: Mer.] would be from -\$0.58 [L: Rep.] M [L: Rep.] to \$0.035 [L: Rep.] M, [L: Rep.] and [C: Extension: Add.] the [R: Def.] maximum figure is \$1.28M which mean the [R: Def.] company [L: Rep.] would have greater benefits than [R: Comp.] before. * NPV [L: Mer.] ties with revenue										
118.	Conversely, [C: Extension: Variat.] the [R: Def.] rest of the [R: Def.] variable [L: Rep.] may lead a negative [L: Rep.] NPV [L: Rep.] and [Ellip: V.] unacceptable IRR. [L: Rep.]										
119.	For example, [C: Elaboration: Appos.] if [C: Enhancement: Cond.] the [R: Def.] negative [L: Rep.] correlation [L: Rep.] factor 'redundancy cost' will increase 30%, [L: Rep.] the [R: Def.] NPV [L: Rep.] would have an apparent change [L: Rep.] from -\$0.58 [L: Rep.] M [L: Rep.] to \$1.05 [L: Rep.] M. [L: Rep.]										
120.	Table 3: Sensitivity [L: Rep.] analysis [L: Rep.] for Proposal [L: Rep.] 1-selling [L: Rep.] scenario [L: Rep.] (changing in NPV) [L: Rep.]										
121.	Base level	Resulting NPV (000s)									
		Inc. cost saving	Inc. leasing cost (Thai)	Inc. dep. cost (Ade. & Thai)	Inc. adm. Cost	Inc. redundancy cost	Gain on salvage (Adelaide)	Gain on salvage (Thai)	Opp. Cost on salvage (leasing)	Opp. cost (sales)	
		30%	1,283,333	-799,040	-321,285	-629,559	-1,057,854	375,182	-535,013	-656,718	-926,231
		20%	659,187	-729,061	-410,558	-616,074	-901,604	53,753	-553,043	-634,180	-813,856
		10%	35,042	-659,083	-499,831	-602,589	-745,354	-267,676	-571,074	-611,642	-701,480
		0%	-589,104	-589,104	-589,104	-589,104	-589,104	-589,104	-589,104	-589,104	-589,104
		-	-	-	-	-	-432,854	-910,533	-	-	-

10%	1,213,250	519,125	678,377	575,619				607,135	566,566	476,728
-20%	-1,837,395	-449,147	-767,650	-562,134	-276,604	-	1,231,961	-625,165	-544,028	-364,353
-30%	-2,461,541	-379,168	-856,923	-548,649	-120,354	-	1,553,390	-643,196	-521,490	-251,977

- % [L: Rep.] 6 instances
- Inc. [L: Rep.] 4 instances
- Adelaide /Ade.[L: Rep.] 1 instance
- Thailand/Thai. [L: Rep.] 2 instances
- Gain [L: Rep.] 1 instance
- Opportunity/Opp.[L: Rep.] 1 instance
- Cost [L: Rep.] 6 instances
- Salvage [L: Rep.] 1 instance
- Leasing [L: Rep.] 1 instance
- NPV [L: Rep.] 1 instance

122. Figure 3: Sensitivity [L: Rep.] analysis [L: Rep.] for Proposal [L: Rep.] 1-selling [L: Rep.] scenario [L: Rep.] (changing in NPV) [L: Rep.]



124. When all of the inputs are set at their [R: Poss.] base-case levels, their [R: Poss.] deviations from the base are all zero and [C: Extension: Add.] the NPV [L: Rep.] is \$ xxx.

125. If [C: Enhancement: Cond.] Inc. [L: Rep.] cost [L: Rep.] saving is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]

126. If [C: Enhancement: Cond.] Inc. [L: Rep.] leasing [L: Rep.] cost [L: Rep.] (Thailand) [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]

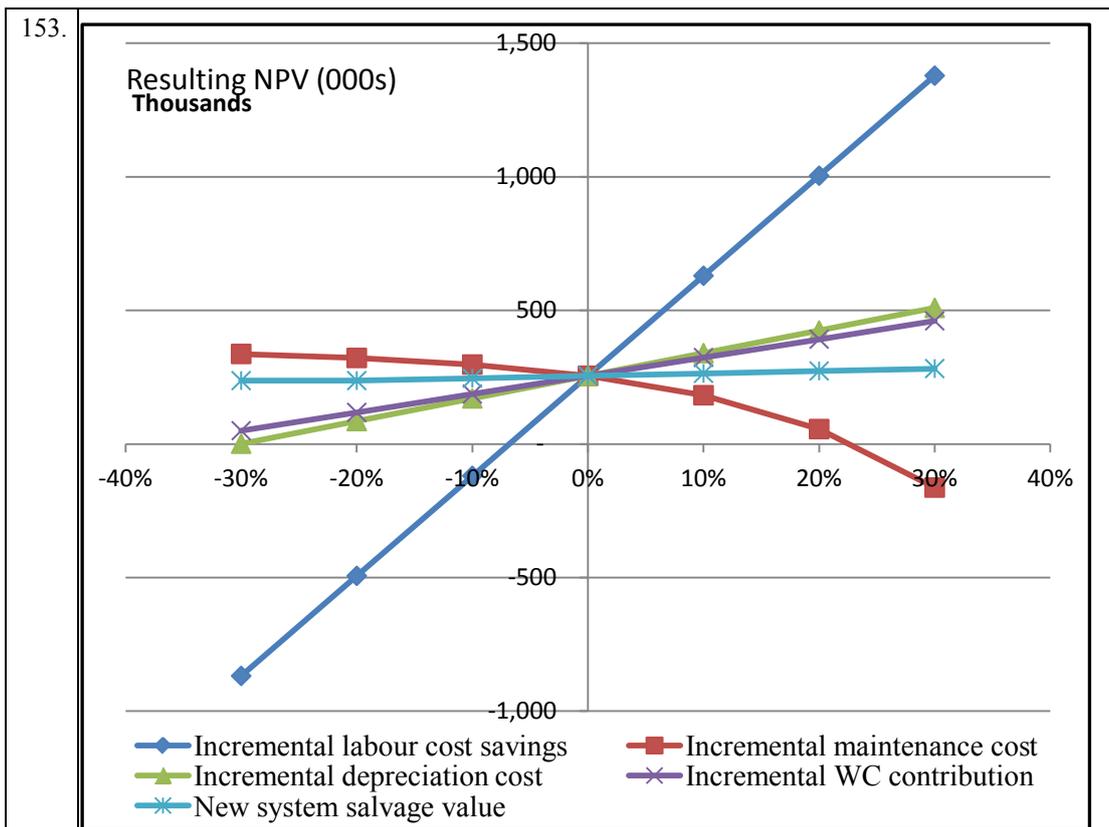
127. If [C: Enhancement: Cond.] Inc. [L: Rep.] administration [L: Rep.] cost [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]

128. If [C: Enhancement: Cond.] Inc. [L: Rep.] redundancy [L: Rep.] package [L: Rep.] cost [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]

129. If [C: Enhancement: Cond.] Gain [L: Rep.] on salvage [L: Rep.] (Adelaide) [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]

	<i>Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]</i>																																																																																									
130.	<i>If [C: Enhancement: Cond.] Gain [L: Rep.] on salvage [L: Rep.] (Thailand) [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]</i>																																																																																									
131.	<i>If [C: Enhancement: Cond.] Opportunity [L: Rep.] on salvage [L: Rep.] value [L: Rep.] (Adelaide [L: Rep.] leased) [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]</i>																																																																																									
132.	Table 4: Sensitivity [L: Rep.] analysis [L: Rep.] for Proposal [L: Rep.] 1-selling [L: Rep.] scenario [L: Rep.] (changing in IRR) [L: Rep.]																																																																																									
133.	<table border="1"> <thead> <tr> <th rowspan="2">Base level</th> <th colspan="9">Resulting IRR (000s)</th> </tr> <tr> <th>Inc. cost saving</th> <th>Inc. leasing cost (Thai)</th> <th>Inc. dep. cost (Ade. & Thai)</th> <th>Inc. adm. Cost</th> <th>Inc. redundancy cost</th> <th>Gain on salvage (Adelaide)</th> <th>Gain on salvage (Thai)</th> <th>Opp. Cost on salvage (leasing)</th> <th>Opp. cost (sales)</th> </tr> </thead> <tbody> <tr> <td>30%</td> <td>16.35%</td> <td>9.07%</td> <td>10.85%</td> <td>9.69%</td> <td>8.27%</td> <td>13.49%</td> <td>10.07%</td> <td>9.56%</td> <td>8.56%</td> </tr> <tr> <td>20%</td> <td>14.29%</td> <td>9.33%</td> <td>10.52%</td> <td>9.74%</td> <td>8.78%</td> <td>12.21%</td> <td>9.99%</td> <td>9.65%</td> <td>8.99%</td> </tr> <tr> <td>10%</td> <td>12.12%</td> <td>9.59%</td> <td>10.19%</td> <td>9.79%</td> <td>9.31%</td> <td>10.99%</td> <td>9.92%</td> <td>9.75%</td> <td>9.42%</td> </tr> <tr> <td>0%</td> <td>9.84%</td> <td>9.84%</td> <td>9.84%</td> <td>9.84%</td> <td>9.84%</td> <td>9.84%</td> <td>9.84%</td> <td>9.84%</td> <td>9.84%</td> </tr> <tr> <td>-10%</td> <td>7.41%</td> <td>10.10%</td> <td>9.50%</td> <td>9.89%</td> <td>10.39%</td> <td>8.75%</td> <td>9.77%</td> <td>9.94%</td> <td>10.26%</td> </tr> <tr> <td>-20%</td> <td>4.79%</td> <td>10.36%</td> <td>9.14%</td> <td>9.94%</td> <td>10.96%</td> <td>7.72%</td> <td>9.69%</td> <td>10.03%</td> <td>10.68%</td> </tr> <tr> <td>-30%</td> <td>1.92%</td> <td>10.62%</td> <td>8.78%</td> <td>10.00%</td> <td>11.54%</td> <td>6.74%</td> <td>9.62%</td> <td>10.12%</td> <td>11.09%</td> </tr> </tbody> </table>	Base level	Resulting IRR (000s)									Inc. cost saving	Inc. leasing cost (Thai)	Inc. dep. cost (Ade. & Thai)	Inc. adm. Cost	Inc. redundancy cost	Gain on salvage (Adelaide)	Gain on salvage (Thai)	Opp. Cost on salvage (leasing)	Opp. cost (sales)	30%	16.35%	9.07%	10.85%	9.69%	8.27%	13.49%	10.07%	9.56%	8.56%	20%	14.29%	9.33%	10.52%	9.74%	8.78%	12.21%	9.99%	9.65%	8.99%	10%	12.12%	9.59%	10.19%	9.79%	9.31%	10.99%	9.92%	9.75%	9.42%	0%	9.84%	9.84%	9.84%	9.84%	9.84%	9.84%	9.84%	9.84%	9.84%	-10%	7.41%	10.10%	9.50%	9.89%	10.39%	8.75%	9.77%	9.94%	10.26%	-20%	4.79%	10.36%	9.14%	9.94%	10.96%	7.72%	9.69%	10.03%	10.68%	-30%	1.92%	10.62%	8.78%	10.00%	11.54%	6.74%	9.62%	10.12%	11.09%
Base level	Resulting IRR (000s)																																																																																									
	Inc. cost saving	Inc. leasing cost (Thai)	Inc. dep. cost (Ade. & Thai)	Inc. adm. Cost	Inc. redundancy cost	Gain on salvage (Adelaide)	Gain on salvage (Thai)	Opp. Cost on salvage (leasing)	Opp. cost (sales)																																																																																	
30%	16.35%	9.07%	10.85%	9.69%	8.27%	13.49%	10.07%	9.56%	8.56%																																																																																	
20%	14.29%	9.33%	10.52%	9.74%	8.78%	12.21%	9.99%	9.65%	8.99%																																																																																	
10%	12.12%	9.59%	10.19%	9.79%	9.31%	10.99%	9.92%	9.75%	9.42%																																																																																	
0%	9.84%	9.84%	9.84%	9.84%	9.84%	9.84%	9.84%	9.84%	9.84%																																																																																	
-10%	7.41%	10.10%	9.50%	9.89%	10.39%	8.75%	9.77%	9.94%	10.26%																																																																																	
-20%	4.79%	10.36%	9.14%	9.94%	10.96%	7.72%	9.69%	10.03%	10.68%																																																																																	
-30%	1.92%	10.62%	8.78%	10.00%	11.54%	6.74%	9.62%	10.12%	11.09%																																																																																	
	<ul style="list-style-type: none"> • % [L: Rep.] 70 instances • Inc. [L: Rep.] 4 instances • Adealide /Ade.[L: Rep.] 1 instance • Thailand/Thai. [L: Rep.] 2 instances • Gain [L: Rep.] 1 instance <ul style="list-style-type: none"> • Opportunity/Opp.[L: Rep.] 1 instance • Cost [L: Rep.] 6 instances • Salvage [L: Rep.] 1 instance • Leasing [L: Rep.] 1 instance • IRR [L: Rep.] 1 instance 																																																																																									
134.	Figure 4: Sensitivity [L: Rep.] analysis [L: Rep.] for Proposal [L: Rep.] 1-selling [L: Rep.] scenario [L: Rep.] (changing in IRR) [L: Rep.]																																																																																									
135.	<p>Cohesion analysis of the graph below (136-144):</p>																																																																																									
136.	<i>When all of the inputs are set at their [R: Poss.] base-case levels, their [R: Poss.] deviations from the base are all zero and [C: Extension: Add.] the [R: Def.] NPV [L: Rep.] is \$ xxx.</i>																																																																																									

137.	If [C: Enhancement: Cond.] Inc. [L: Rep.] cost [L: Rep.] saving is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]																																																									
138.	If [C: Enhancement: Cond.] Inc. [L: Rep.] leasing [L: Rep.] cost [L: Rep.] (Thailand) [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]																																																									
139.	If [C: Enhancement: Cond.] Inc. [L: Rep.] dep. [L: Rep.] cost [L: Rep.] (Ade. [L: Rep.] & Thai) [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]																																																									
140.	If [C: Enhancement: Cond.] Inc. [L: Rep.] adminsitration [L: Rep.] cost [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]																																																									
141.	If [C: Enhancement: Cond.] Inc. [L: Rep.] redundancy [L: Rep.] package [L: Rep.] cost [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]																																																									
142.	If [C: Enhancement: Cond.] Gain [L: Rep.] on salvage [L: Rep.] (Adelaide) [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]																																																									
143.	If [C: Enhancement: Cond.] Gain [L: Rep.] on salvage [L: Rep.] (Thailand) [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]																																																									
144.	If [C: Enhancement: Cond.] Opportunity [L: Rep.] on salvage [L: Rep.] value [L: Rep.] (Adelaide [L: Rep.] leased) [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]																																																									
145.	6.2. Proposal [L: Rep.] 2																																																									
146.	The [R: Def.] expected NPV [L: Rep.] is \$0.25 [L: Rep.] M [L: Rep.] and [C: Extension: Add.] IRR [L: Rep.] is 13.50% [L: Rep.] respectively in proposal [L: Rep.] 2.																																																									
147.	There are three positive [L: Rep.] correlation [L: Rep.] factors [L: Rep.] and one negative [L: Rep.] correlation [L: Rep.] factor [L: Rep.] in this [R: Dem.] [Subs.:Cl.] proposal. [L: Rep.]																																																									
148.	For example, [C: Elaboration: Appos.] it [R: Pro.] has the [R: Def.] greatest [R: Comp.] NPV [L: Rep.] equals to \$1.35M which contributed by increase 30% [L: Rep.] incremental [L: Rep.] costs [L: Rep.] of savings. [L: Rep.]																																																									
149.	On the other hand, [C: Extension: Variat.] the [R: Def.] only one negative [L: Rep.] correlation [L: Rep.] factor, [L: Rep.] incremental [L: Rep.] maintenance cost, [L: Rep.] would lead a decreasing change [L: Rep.] in NPV [L: Rep.] equals to \$-0.16 [L: Rep.] M [L: Rep.] when this [R: Dem.] [Subs.:Cl.] parameter decreases [L: Ant.] 30%. [L: Rep.]																																																									
150.	Table 5: Sensitivity [L: Rep.] analysis [L: Rep.] for Proposal [L: Rep.] 2 (changing in NPV) [L: Rep.]																																																									
151.	<table border="1"> <thead> <tr> <th rowspan="2">Base level</th> <th colspan="5">Resulting NPV (000s)</th> </tr> <tr> <th>Incremental labour cost savings</th> <th>Incremental maintenance cost</th> <th>Incremental depreciation cost</th> <th>Incremental WC contribution</th> <th>New system salvage value</th> </tr> </thead> <tbody> <tr> <td>30%</td> <td>1,378,423</td> <td>-163,448</td> <td>509,221</td> <td>460,394</td> <td>282,007</td> </tr> <tr> <td>20%</td> <td>1,003,936</td> <td>55,412</td> <td>424,468</td> <td>391,916</td> <td>272,991</td> </tr> <tr> <td>10%</td> <td>629,448</td> <td>182,107</td> <td>339,714</td> <td>323,439</td> <td>263,976</td> </tr> <tr> <td>0%</td> <td>254,961</td> <td>254,961</td> <td>254,961</td> <td>254,961</td> <td>254,961</td> </tr> <tr> <td>-10%</td> <td>-119,526</td> <td>297,014</td> <td>170,208</td> <td>186,483</td> <td>245,946</td> </tr> <tr> <td>-20%</td> <td>-494,014</td> <td>321,730</td> <td>85,454</td> <td>118,006</td> <td>236,930</td> </tr> <tr> <td>-30%</td> <td>-868,501</td> <td>336,761</td> <td>701</td> <td>49,528</td> <td>236,930</td> </tr> </tbody> </table>					Base level	Resulting NPV (000s)					Incremental labour cost savings	Incremental maintenance cost	Incremental depreciation cost	Incremental WC contribution	New system salvage value	30%	1,378,423	-163,448	509,221	460,394	282,007	20%	1,003,936	55,412	424,468	391,916	272,991	10%	629,448	182,107	339,714	323,439	263,976	0%	254,961	254,961	254,961	254,961	254,961	-10%	-119,526	297,014	170,208	186,483	245,946	-20%	-494,014	321,730	85,454	118,006	236,930	-30%	-868,501	336,761	701	49,528	236,930
Base level	Resulting NPV (000s)																																																									
	Incremental labour cost savings	Incremental maintenance cost	Incremental depreciation cost	Incremental WC contribution	New system salvage value																																																					
30%	1,378,423	-163,448	509,221	460,394	282,007																																																					
20%	1,003,936	55,412	424,468	391,916	272,991																																																					
10%	629,448	182,107	339,714	323,439	263,976																																																					
0%	254,961	254,961	254,961	254,961	254,961																																																					
-10%	-119,526	297,014	170,208	186,483	245,946																																																					
-20%	-494,014	321,730	85,454	118,006	236,930																																																					
-30%	-868,501	336,761	701	49,528	236,930																																																					
	<ul style="list-style-type: none"> • % [L: Rep.] 6 instances • Incremental [L: Rep.] 3 instances 			<ul style="list-style-type: none"> • Cost [L: Rep.] 2 instances • NPV [L: Rep.] 																																																						
152.	Figure 5: Sensitivity [L: Rep.] analysis [L: Rep.] for Proposal [L: Rep.] 2 (changing in NPV) [L: Rep.]																																																									



Cohesion analysis of the graph below (154-159):

154. When all of the inputs are set at their [R: Poss.] base-case levels, their [R: Poss.] deviations from the base are all zero and [C: Extension: Add.] the [R: Def.] NPV [L: Rep.] is \$ xxx.

155. If [C: Enhancement: Cond.] Inc. [L: Rep.] labour [L: Rep.] cost [L: Rep.] savings [L: Rep.] is set 30% above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]

156. If [C: Enhancement: Cond.] Inc. [L: Rep.] WC [L: Rep.] contribution [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]

157. If [C: Enhancement: Cond.] Inc. [L: Rep.] maintenance [L: Rep.] cost [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]

158. If [C: Enhancement: Cond.] new [L: Rep.] system [L: Rep.] salvage [L: Rep.] value [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]

159. If [C: Enhancement: Cond.] Inc. [L: Rep.] depreciation [L: Rep.] cost [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ x [L: Rep.]

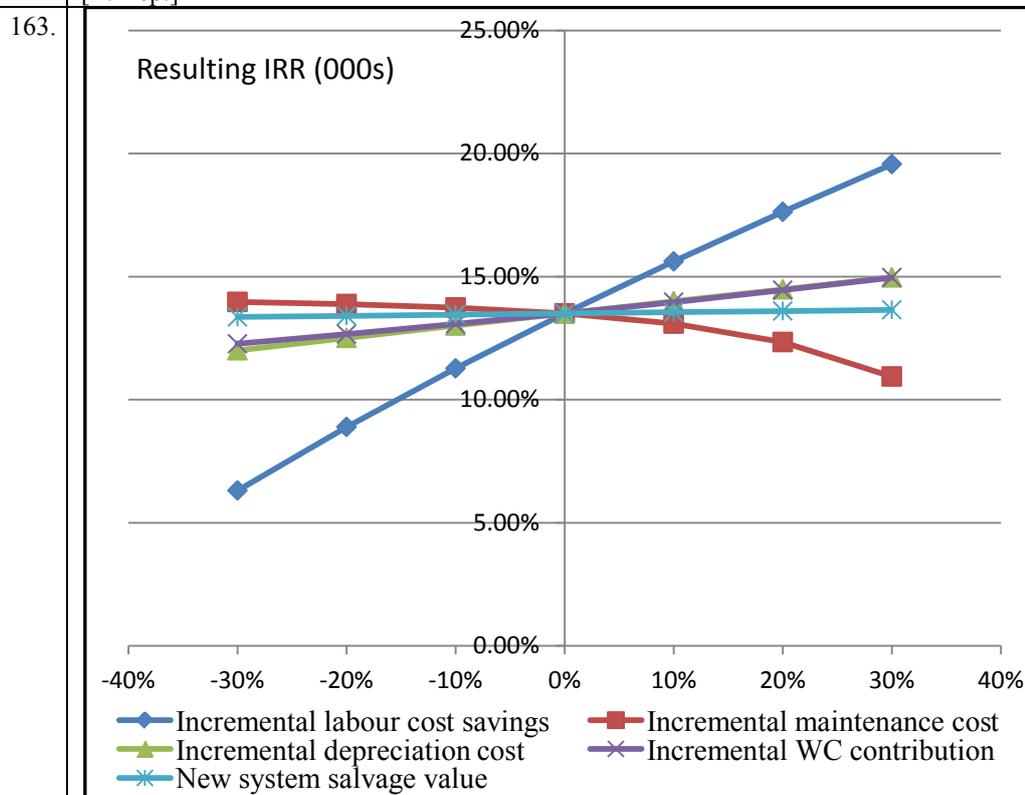
160. Table 6: Sensitivity [L: Rep.] analysis [L: Rep.] for Proposal [L: Rep.] 2 (changing in IRR) [L: Rep.]

Base level	Resulting IRR (000s)				
	Incremental labour cost savings	Incremental maintenance cost	Incremental depreciation cost	Incremental WC contribution	New system salvage value
30%	19.57%	10.94%	14.96%	14.96%	13.65%
20%	17.63%	12.34%	14.48%	14.45%	13.60%
10%	15.62%	13.09%	14.00%	13.96%	13.55%
0%	13.50%	13.50%	13.50%	13.50%	13.50%
-10%	11.27%	13.74%	13.01%	13.07%	13.46%

-20%	8.89%	13.88%	12.51%	12.66%	13.41%
-30%	6.31%	13.97%	12.00%	12.27%	13.36%

- % [L: Rep.] 41 instances
- Incremental [L: Rep.] 3 instances
- Cost [L: Rep.] 2 instances
- IRR [L: Rep.] 1 instance

162. Figure 6: Sensitivity [L: Rep.] analysis [L: Rep.] for Proposal [L: Rep.] 2 (changing in IRR) [L: Rep.]



Cohesion analysis of the graph below (164-169):

164. When all of the inputs are set at their [R: Poss.] base-case levels, their [R: Poss.] deviations from the base are all zero and [C: Extension: Add.] the [R: Def.] NPV [L: Rep.] is \$ xxx.

165. If [C: Enhancement: Cond.] Inc. [L: Rep.] labour [L: Rep.] cost [L: Rep.] savings [L: Rep.] is set 30% above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]

166. If [C: Enhancement: Cond.] Inc. [L: Rep.] WC [L: Rep.] contribution [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]

167. If [C: Enhancement: Cond.] Inc. [L: Rep.] maintenance [L: Rep.] cost [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]

168. If [C: Enhancement: Cond.] new [L: Rep.] system [L: Rep.] salvage [L: Rep.] value [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]

169. If [C: Enhancement: Cond.] Inc. [L: Rep.] depreciation [L: Rep.] cost [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]

170. 6.3. Proposal [L: Rep.] 3

171. The [R: Def.] proposal [L: Rep.] 3 also [C: Extension: Add.] provides company [L: Rep.] a positive [L: Rep.] NPV* [L: Rep.] [L: Mer.] \$0.12M and better [R: Comp.] IRR [L: Rep.] 13.14% [L: Rep.] than discount [L: Rep.] rate. [L: Rep.]
* NPV [L: Mer.] ties with value

172. When each incremental [L: Rep.] sales [L: Rep.] from employees [L: Rep.] and new products, [L: Rep.] and [C: Extension: Add.] incremental [L: Rep.] depreciation cost [L: Rep.] increase 10%, [L: Rep.] the [R: Def.] NPV [L: Rep.] would increase to \$0.902

[L: Rep.] M, [L: Rep.] \$1.77 [L: Rep.] M [L: Rep.] and \$0.19 [L: Rep.] M [L: Rep.] respectively.

173. In contrast, [C: Extension: Variat.] for the [R: Def.] negative [L: Rep.] correlation [L: Rep.] factor, [L: Rep.] if [C: Enhancement: Cond.] incremental [L: Rep.] cost [L: Rep.] of sales [L: Rep.] increase [L: Rep.] 30%, [L: Rep.] the [R: Def.] NPV [L: Rep.] would have a dramatically change [L: Rep.] from \$0.12 [L: Rep.] M [L: Rep.] to -\$0.85 [L: Rep.] M. [L: Rep.]

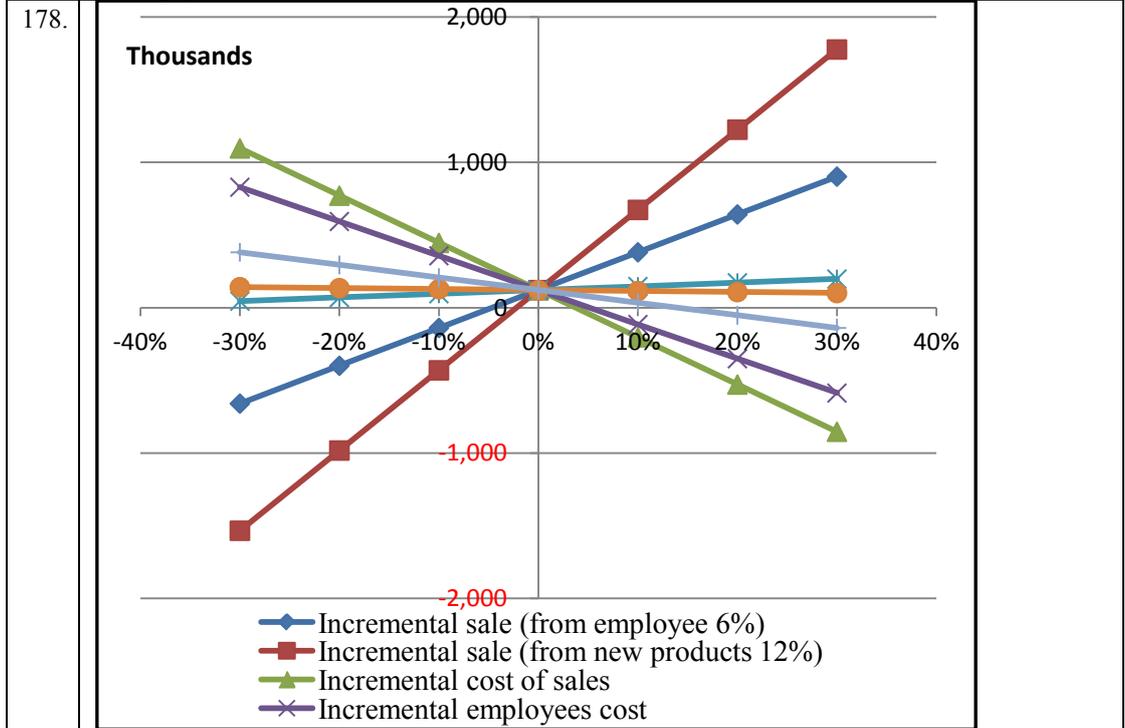
174. Therefore [C: Enhancement: Caus.] , if [C: Enhancement: Cond.] any variable [L: Rep.] have a tiny change, [L: Rep.] the [R: Def.] NPV [L: Rep.] and [C: Extension: Add.] IRR [L: Rep.] would change [L: Rep.] in proposal [L: Rep.] 3.

175. Table 7: Sensitivity [L: Rep.] analysis [L: Rep.] for Proposal [L: Rep.] 3 (changing in NPV) [L: Rep.]

Base level	Resulting NPV (000s)						
	Inc. sale (employee)	Inc. sale (new products)	Inc. cost of sales	Inc. employees cost	Inc. dep. Cost	Inc. adm. Cost	Opportun ity cost (old product)
30%	902,662	1,776,984	-852,227	-585,949	198,296	101,790	-138,197
20%	642,447	1,225,329	-527,479	-349,960	172,870	108,533	-51,459
10%	382,233	673,673	-202,731	-113,971	147,444	115,275	35,279
0%	\$122,018	\$122,018	\$122,018	\$122,018	\$122,018	\$122,018	\$122,018
-10%	-138,197	-429,638	446,766	358,007	96,592	128,760	208,756
-20%	-398,412	-981,294	771,514	593,996	71,166	135,503	295,494
-30%	-658,627	-1,532,949	1,096,262	829,985	45,740	142,245	382,233

- Old [L: Ant.] ties with new
- % [L: Rep.] 6 instances
- \$ [L: Rep.] 6 instances
- Inc.[L: Rep.] 5 instances
- Sale [L: Rep.] 2 instances
- Employee [L: Rep.] 1 instance
- Cost [L: Rep.] 4 instances
- NVP [L: Rep.] 1 instance

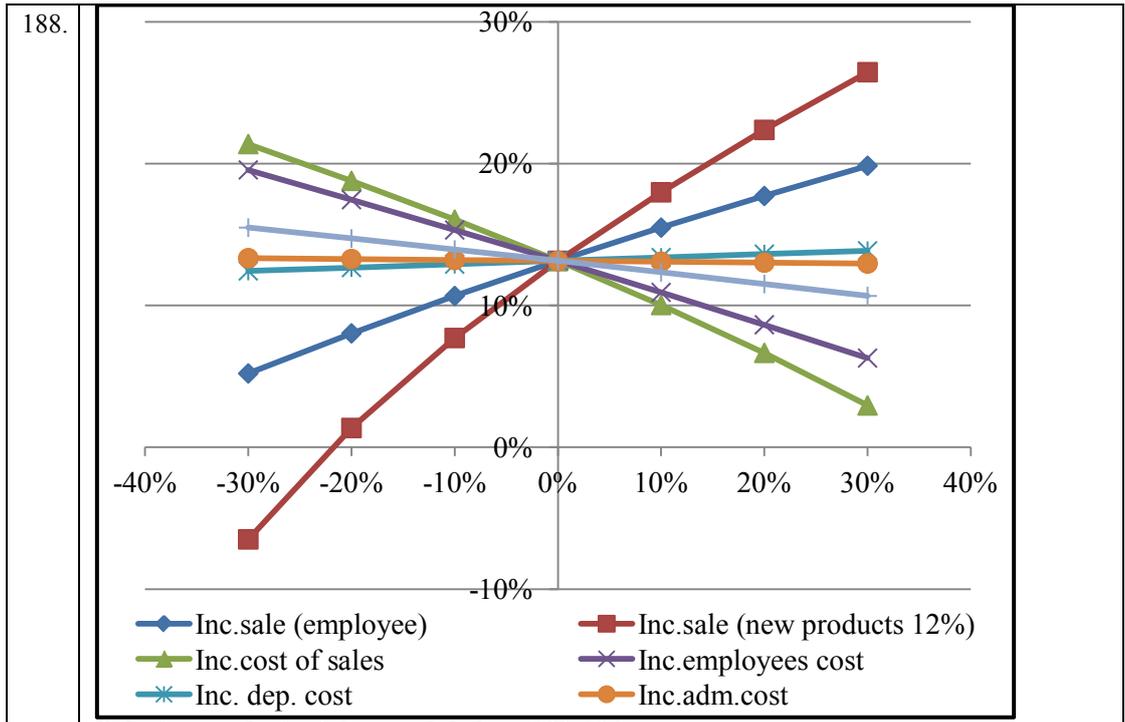
177. Figure 7: Sensitivity [L: Rep.] analysis [L: Rep.] for Proposal [L: Rep.] 3 (changing in NPV) [L: Rep.]



Cohesion analysis of the graph below (179-184):

179. When all of the inputs are set at their [R: Poss.] base-case levels, their [R: Poss.]

	<i>deviations from the base are all zero and [C: Extension: Add.] the [R: Def.] NPV [L: Rep.] is \$ xxx.</i>							
180.	<i>If [C: Enhancement: Cond.] Inc. [L: Rep.] sale [L: Rep.] (from employee 6%) is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]</i>							
181.	<i>If [C: Enhancement: Cond.] Inc. [L: Rep.] cost [L: Rep.] of sales [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]</i>							
182.	<i>If [C: Enhancement: Cond.] Inc. [L: Rep.] dep. [L: Rep.] cost [L: Rep.] (old [L: Rep.] product [L: Rep.] contribution) [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]</i>							
183.	<i>If [C: Enhancement: Cond.] Inc. [L: Rep.] sale [L: Rep.] (from new [L: Rep.] products [L: Rep.] 12%) is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]</i>							
184.	<i>If [C: Enhancement: Cond.] Inc. [L: Rep.] adminsitration [L: Rep.] cost [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]</i>							
185.	Table 8: Sensitivity [L: Rep.] analysis [L: Rep.] for Proposal [L: Rep.] 3 (changing in IRR) [L: Rep.]							
186.	Base level	Resulting IRR (000s)						
		Inc. Sale (employee)	Inc. Sale (new products 12%)	Inc. cost of sales	Inc. employees cost	Inc. dep. Cost	Inc. adm. Cost	Opportunity cost (old product)
	30%	19.85%	26.44%	2.95%	6.29%	13.85%	12.95%	10.67%
	20%	17.72%	22.38%	6.66%	8.64%	13.62%	13.02%	11.51%
	10%	15.49%	17.98%	10.03%	10.92%	13.38%	13.08%	12.33%
	0%	13.14%	13.14%	13.14%	13.14%	13.14%	13.14%	13.14%
	-10%	10.67%	7.70%	16.05%	15.32%	12.91%	13.21%	13.94%
	-20%	8.03%	1.36%	18.79%	17.45%	12.67%	13.27%	14.72%
	-30%	5.20%	-6.50%	21.38%	19.55%	12.43%	13.33%	15.49%
	<ul style="list-style-type: none"> • % [L: Rep.] 55 instances • Inc [L: Rep.] 5 instances • Sale [L: Rep.] 2 instances • Cost [L: Rep.] 4 instances 					<ul style="list-style-type: none"> • Employee [L: Rep.] 1 instance • Product [L: Rep.] 1 instance • Old [L: Ant.] ties with new • IRR [L: Rep.] 1 instance 		
187.	Figure 8: Sensitivity [L: Rep.] analysis [L: Rep.] for Proposal [L: Rep.] 3 (changing in IRR) [L: Rep.]							



Cohesion analysis of the graph below (189-196):

189.	When all of the inputs are set at their [R: Poss.] base-case levels, their [R: Poss.] deviations from the base are all zero and [C: Extension: Add.] the [R: Def.] NPV [L: Rep.] is \$ xxx.
190.	If [C: Enhancement: Cond.] Inc. [L: Rep.] sale [L: Rep.] (employee) [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]
191.	If [C: Enhancement: Cond.] Inc. [L: Rep.] employees [L: Rep.] cost [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]
192.	If [C: Enhancement: Cond.] opportunity [L: Rep.] cost [L: Rep.] old [L: Rep.] product [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]
193.	If [C: Enhancement: Cond.] Inc. [L: Rep.] sale [L: Rep.] (new [L: Rep.] products [L: Rep.] 12%) is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]
194.	If [C: Enhancement: Cond.] Inc. [L: Rep.] depreciation [L: Rep.] cost [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]
195.	If [C: Enhancement: Cond.] Inc. [L: Rep.] cost [L: Rep.] of sales [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]
196.	If [C: Enhancement: Cond.] Inc. [L: Rep.] administration [L: Rep.] cost [L: Rep.] is set [L: Rep.] 30% [L: Rep.] above its [R: Poss.] expected [L: Rep.] price [L: Rep.] the [R: Def.] NPV [L: Rep.] would be \$ xxx. [L: Rep.]
197.	After analysing three proposals, [L: Rep.] it [R: Pro.] shows incremental [L: Rep.] depreciation [L: Rep.] cost [L: Rep.] and [C: Extension: Add.] salvage [L: Rep.] value [L: Rep.] (except proposal [L: Rep.] 1-senario [L: Rep.] 2) didn't put much influence on the [R: Def.] NPV [L: Rep.] and IRR. [L: Rep.]
198.	For [C: Elaboration: Clari.] the [R: Def.] depreciation cost, it [R: Pro.] depends on the [R: Def.] outlays which just relates to tax [L: Rep.] effect. [L: Rep.]
199.	For [C: Elaboration: Clari.] another factor, [L: Rep.] salvage [L: Rep.] value, [L: Rep.] the [R: Def.] influence on the [R: Def.] NPV [L: Rep.] is not apparent [L: Rep.] too. [C: Extension: Add.]
200.	The [R: Def.] reason is that salvage [L: Rep.] value [L: Rep.] for both [R: Comp.] amounts of old system [L: Rep.] and [C: Extension: Add.] new system [L: Rep.] is a tiny change

	[L: Rep.] and [C: Extension: Add.] only [C: Extension: Variat.] calculate at the [R: Def.] end of the [R: Def.] life.
201.	<u>7. Intangible or qualitative factors</u> [L: Rep.]
202.	There are one intangible and one qualitative factor [L: Rep.] in proposal [L: Rep.] 3 when considering operating cash [L: Rep.] flows. [L: Rep.]
203.	Proposal [L: Rep.] 3 focus on company's [L: Rep.] brand influence which will bring cash [L: Rep.] inflows [L: Rep.] in future.
204.	Moreover, [C: Extension: Add.] the [R: Def.] responsibility for new engineers improves product [L: Rep.] quality (qualitative factor) [L: Rep.] in future as well. [C: Extension: Add.]
205.	It seems that if [C: Enhancement: Cond.] the [R: Def.] brand is familiar for customers and [C: Extension: Add.] the [R: Def.] goods quality would be improved, which sales [L: Rep.] revenue [L: Rep.] would be boosted more than [R: Comp.] 6% [L: Rep.] gradually per year.[L: Rep.]
206.	<u>8. Recommendation</u> [L: Rep.]
207.	Base on analysis, this [R: Dem.] report [L: Rep.] would recommend proposal [L: Rep.] 2 to the [R: Def.] company [L: Rep.] due to three major reasons.
208.	Firstly, [C: Enhancement: Temp.] NPV [L: Rep.] for proposal [L: Rep.] 2 is \$ 254 K comparing to proposal [L: Rep.] 1(leasing [L: Rep.] scenario) [L: Rep.] NPV [L: Rep.] \$ -4.8 [L: Rep.] M, [L: Rep.] proposal [L: Rep.] 1(selling [L: Rep.] scenario) [L: Rep.] NPV [L: Rep.] \$ -582 k and proposal [L: Rep.] 3 NPV [L: Rep.] \$122 k. [L: Rep.]
209.	The [R: Def.] financial management goal is to increase owners' wealth.
210.	Therefore [C: Enhancement: Caus.] , proposal [L: Rep.] 2 could support the [R: Def.] company [L: Rep.] to achieve their goal by totally \$ 254 k to shareholder wealth.
211.	Secondly, [C: Enhancement: Temp.] the [R: Def.] proposal [L: Rep.] 2 shows that IRR [L: Rep.] is 13.5% [L: Rep.] which more than [R: Comp.] 12% discount [L: Rep.] rate. [L: Rep.]
212.	In addition, [C: Extension: Add.] the [R: Def.] acceptability of any projects [L: Rep.] determined by comparing the [R: Def.] internal [L: Rep.] rate [L: Rep.] of return [L: Rep.] with required rate [L: Rep.] of return. [L: Rep.]
213.	Moreover, [C: Extension: Add.] any project [L: Rep.] has greater [R: Comp.] IRR [L: Rep.] than [R: Comp.] the [R: Def.] required rate [L: Rep.] of return [L: Rep.] should be accepted or otherwise [C: Enhancement: Conc.] .
214.	Therefore [C: Enhancement: Caus.] , this [R: Dem.] report [L: Rep.] would recommend that the [R: Def.] company [L: Rep.] should accept proposal [L: Rep.] 2.
215.	For [C: Elaboration: Clari.] proposal [L: Rep.] 1 and [Ellip: N.] 3 should be rejected because [C: Enhancement: Caus.] they [R: Pro.] generate lower IRR [L: Rep.] comparing with required rate [L: Rep.] of return. [L: Rep.]
216.	Finally, [C: Enhancement: Temp.] it seems clear that proposal [L: Rep.] 2 has a shorter time [L: Rep.] of PP [L: Rep.] (approximately 5.25 years). [L: Rep.]
217.	In contrast, [C: Extension: Variat.] proposal [L: Rep.] 1 leasing [L: Rep.] scenario, [L: Rep.] selling [L: Ant.] scenario [L: Rep.] and [C: Extension: Add.] proposal [L: Rep.] 3 need more than [R: Comp.] 5.25 years [L: Rep.] to recover its initial cost which means company [L: Rep.] should reject three of them. [R: Pro.]
218.	<u>9. Conclusion</u>
219.	From all the [R: Def.] analysis, Rubber [L: Rep.] Man Ltd [L: Rep.] should accept [L: Ant.] proposal [L: Rep.] 2.
220.	As [C: Enhancement: Caus.] the [R: Def.] new IT [L: Rep.] system, [L: Rep.] could increase the [R: Def.] efficiency of the [R: Def.] whole process, and [C: Extension: Add.] it [R: Pro.] could decrease the [R: Def.] working capital and labour cost when the [R: Def.] advance technology [L: Rep.] runs.
221.	Under [C: Enhancement: Man.] the [R: Def.] greatest [R: Comp.] NPV, [L: Rep.] IRR [L: Rep.] and PP, [L: Rep.] the [R: Def.] company [L: Rep.] could have an improvement which could help them [R: Pro.] to recover their [R: Poss.] economy during the [R: Def.] next ten years.[L: Rep.]

Appendix 52: A screenshot of Abdulrahman's literacy activity in the finance module

first 3 years

steady revenue 500 000

service 40 units weekly with average ticket 120

Expansion

plan to give customers opportunity to come within 15-20 mins

50% commission to professional of revenue

budget less than to be done but its it take long time for an equivalent than previous

done cost more, does the job better, last longer

Salon hours Sun & non closed

Tue - Thur	9am - 7pm	3 x 11 Hrs = 33
Fri	9am - 5pm	1 x 9 Hrs = 9
Sat	9am - 2pm	1 x 5 = 5
		47

* Ads cost \$80 per month (yellow pages) 500 monthly (other advertisement)

* Dep: straight line Sys. * Tax = 30%

* party's by tax equity cost of equity: 20% per year

* Long term debt 10% per year

Balance sheet

cash 20 000	current debt 20 000
other current asset 100 000	Long term debt 200 000
Non-current asset 280 000	equity 280 000
Total 500 000	Total liabilities & equity 500 000

Per Unit	Ave	Tanning Bed
Cost (including shipping)	25 000	15 000
set up cost	1 500	1 500
electricity cost per session	3.00	1.50
Number of sessions per hour	3	2
Number of bulbs needed	56	28
cost per bulb	50	50
Bulb life (hours)	200	200
unit life (years)	8	5
suggested price per visit	8	8
space requirement	9x5x8	10x10x8
other income:		
Tanning lotion	10 P/bottle (1 bottle/session)	
profit per		
profit per set		\$2.00

requirements:

- * OCF for Best case (100%) $\geq 0\%$ (most likely) 40% (worst case)
 - * (NPV), (PP), (IRR) for each tanning option under the various scenarios.
 - * an analysis of findings, recommendation? Why?
 - * sensitivity analysis for both options (using most likely case)
 - * what are some extraneous issues & other relevant issues that could affect the decision?
 - * assumption related to your calculations & findings.
-
- * assume 4 working weeks per month & 48 working weeks per year
 - * estimate the bulb cost & Total bulb cost per year = bulb cost per session x total sessions per year
 - * part time worker cost \$20 per hour
 - * Inflation rate 3% per year

Appendix 53: Transcription of Abdulrahman's interview

	Title	Interview with Abdulrahman
	Module	Management Accounting
	Date	March 17, 2011
	Duration	12:22
	Setting	Abdulrahman's house
Line No.	Note	R= Researcher & An= Abdulrahman

1. R How were you influenced by your previous literacy and numeracy skills? Were there other writing contexts that influenced you while doing this assignment? Not necessarily conceptual knowledge, any skills
- 2.
- 3.
- 4.
5. An Skills were related to my 2-years working career, such as how to make financial statements, what are the basic components,
- 6.
7. R Is there anything you would like to add?
8. An In real work situations we face situations that need further investigation, not like in the university since we apply what we have taken in the textbook in doing the assignment.
- 9.
- 10.
11. R How were you influenced by your lecturer?
12. An The tutor gives us the basics and we are required to look for answers for things we do not understand. As MA students the tutor gives us the key points and then we have to work on our own.
- 13.
- 14.
15. R How were you influenced by your lecturer?
16. An Unfortunately our tutor was not helpful
17. R Were the Power Point slides clearly presented?
18. An In fact the slides were provided by the author of the textbook, not by the tutor.
- 19.
20. R So they were ready made?
21. An Yahn, they belonged to the author of the textbook. The slides were clear but they were lengthy, the syllabus was too. Each topic covers two chapters. The syllabus was long and tough. It is the lengthiest syllabus I have studied.
- 22.
- 23.
- 24.
25. R Are the slides available in a CD?
26. An I think when the textbook is Australian the publisher gives the tutor the slides and the answers to the exercise in the book.
- 27.
28. R I noticed some books include a card that enable you to log-in into the publisher's site to study.
- 29.
30. An They give you just exercises but not the answers are given only to the tutor. Now I am taking this module again and our tutor uploads the answers every week.
- 31.
- 32.
33. R What about the tutor?
34. An Frankly, in this course I haven't benefited from the lecturer or the tutor. The lecturer was the worst staff I have ever met. Did you attend any lectures in this course?
- 35.
- 36.
37. R No
38. An If you attend you'll see yourself. He reads from the slides. If you have two- hour lecture or 120 minutes in which you will explain 70 slides. If we say that each slide will take 1-1.5 minutes then there is no time for explanations.
- 39.
- 40.
- 41.
42. R So the slides were textually dense
43. An A minute. Let's say the tutor takes 15 minutes to start the lecture plus 10 minutes break after 60 minutes, then he has only 80 minutes left to go over 70 slides. He spends one minute for reading only.
- 44.
- 45.
46. R Why, he does not explain any points?
47. An No, I see some lecturers who are good in their field, in knowledge, and giving answers, but lack the ability to provide clear explanations. I have met another tutor in other course who was excellent. His explanations were very clear.
- 48.
- 49.
- 50.

51. R Did you experience significant difficulties in undertaking the
52. assignment task? Were there any aspects that you found difficult
53. in the assignment task? What are the problems that you experienced
54. with writing at the university?
55. An We didn't face any difficulty in this assignment because we had an
56. example which is approximately, nearly 90%, similar to this.
57. Example in the tutor's material.
58. R Which material?
59. An The handout. I can say it is one of the easiest assignments I have
60. ever had because it is 85-90% similar to the example we had. May
61. be we faced one problem related to the interest, a financial aspect,
62. present value and how to calculate compound interest. May be this
63. aspect is the only trick we faced in the assignment.
64. R Did you experience significant difficulties in using Excel
65. spreadsheet software?
66. An Frankly my use of Excel is poor.
67. R You haven't used it
68. An No, I did but my experience is rudimentary
69. R Ahhh
70. An Then the tutor amended the requirement so that we had to change the
71. formulas.
72. R Why didn't he give you Excel template to use
73. An Who
74. R The tutor
75. An No, i did 50% of the calculations, some were done manually with
76. calculator except the totals, and then e-mailed the spreadsheet to
77. Abdullah and Steve and they completed the work. They criticised
78. my Excel use and they re-worked it.
79. R What is the role of this kind of task in real life? How do you think
80. this task will relate to your future career?
81. An What is the purpose of making a budget in real life situations? To
82. balance your plans with real expenditures. For example, I planned
83. to spend \$30 this day and I spent \$50 the \$20 difference will oblige
84. me to study the causes of the increase in expense. Was it due to
85. wrong budgeting or to unnecessary expenditures? So it's a study
86. of budgets.
87. R Anyone uses budgeting in life?
88. An Yahn, but in accounting we include materials budgeting, labour,
89. budgeting, how many unit will be produced?

Appendix 54: Transcription of Abdullah's interview

	Title	Interview with Abdullah
	Module	Management Accounting
	Date	March 19, 2011
	Duration	20:38
	Setting	A coffee shop
Line No.	Note	R= Researcher & A=Abdullah

1. R How did you start to do the assignment?
2. A First I read the whole task sheet
3. R How many times?
4. A One time, extracted the main ideas. The task was on one chapter
5. R Budgeting
6. A Yah
7. R ..and then i studied it.
8. A So you read the chapter in the textbook. Then we decided everone of
9. the three will read the task and the chapter. Abdulrahman suggested
10. he will do the first draft for the calculations.
11. R You had ten schedules
12. A Yah. Abdulrahman did the calculations in Excel, and then I revised it
13. with Steve, corrected the simple mistakes.
14. R What kind of mistakes did Abdulrahman make?
15. A In fact we had to do the calculation afresh after we received the e-
16. mail from the tutor. We asked Abdulrahman not to worry as we'll
17. do it. First drafts usually contain some mistakes. Then we re-
18. Designed the schedules. One day before submitting the assignment
19. we agreed to write the MEMO.
20. R The task sheet didn't require you to write the MEMO
21. A Our perspective is how we are going to submit report free budgeting
22. schedules. Imagine you are in a company and your manager asks you
23. to do budgeting calculations, will you give him the schedules
24. without at least writing an introduction mentioning what you have
25. done? This is the usual practice in businesses.
26. R But the tutor did not assess the MEMO
27. A He has written nothing
28. R He concentrated on calculations only, as marks were assigned next to
29. the final calculation in each category.
30. A This is a point of weakness in assessment. Everyone knows how to
31. write numbers but who knows how to analyse.
32. R I think he did this because he based his assessment of the sheets on a
33. preset marking scheme in order to save marking time.
34. A This is the problem. This is the problem. In addition to the
35. introduction any budgeting schedules should have footnotes
36. giving the basics underlying the calculations.
37. R Do bank budgeting schedules contain any footnotes?
38. A Ya, it's impossible to overlook the basics underlying the
39. calculations. The MEMO was our own opinion as one cannot submit
40. schedules without attaching a MEMO.
41. R I want to ask you how did you learn to use Excel? Before coming to
42. Adelaide?
43. A During my work in Sabic Company before working at the university
44. as a tutor.
45. R Did you experience significant difficulties in undertaking the
46. assignment task?
47. A I sent e-mail to the tutor asking him about depreciation but I didn't
48. receive a response from him. Four days before the deadline he
49. sent an e-mail to all students clarifying this point.

50. R He sent an e-mail to all students
51. A To all students
52. R And you e-mailed him but he didn't reply?
53. A He didn't. They usually do not reply, except when it is related to assignment submission.
54. A
55. R What other difficulties?
56. A He asked us not to include depreciation in the first year since the machinery will be used in training. From the perspective of
57. accounting this is wrong. Depreciation is based on the concepts of
58. economical benefit and reduction in assets value. Does an asset has
59. the same value now as after a year?
60. A
61. R May be he asked you not to include it in order to simplify the
62. calculations.
63. A We are postgraduates and an accounting principle shouldn't be
64. breached for the sake of simplification. We have to follow
65. workplace management accounting practices
66. R Are there any other difficulties?
67. A No
68. R How were you influenced by your previous literacy and numeracy
69. skills? Were there other writing contexts that influenced you
70. while doing this assignment?
71. A In general I have studied this course during my undergraduate study.
72. R Or any literacies in lectures or tutorials?
73. A I do not attend the lectures
74. R No even once
75. A I just attended two lectures at the beginning and one at the end of the
76. semester. The lecturer reads out from the PowerPoint® Presentation
77. slides. Why should I waste my time in attendance while I can read
78. the content myself?
79. R Can you download the slides from MyUni?
80. A The slides are in the course Outline Book. I got credit in this course.
81. Abdulrahman failed the course and Omar got a supplementary exam
82. which he passed. The lecturer informed us that the final test will not
83. include theoretical questions and he asked us to study only the
84. theoretical questions in the tutorial. During the whole term I have
85. been reading from the textbook. Most of the questions in the final
86. test were elicited from the textbook's theoretical questions. I got a
87. credit and got rid from this course.
88. R Were there any previous literacy and numeracy skills that influenced
89. you
90. while doing this assignment?
91. A I have studied this course during my undergraduate study but there
92. some topics which i study for the first time.
93. R Did you study 'budgeting'?
94. A Just an introduction
95. R What is the purpose of the text?
96. A We have financial statements for next year. ...in management we
97. prepare next year's budgeted balance sheets to meet expected
98. obligations, such as paying out salaries, and to assess whether the
99. target has been reached or not, such as selling 1000 units or earning
100. 100,000. These reports are internal. Budgeting balance sheet
101. summarises all the schedules. Cash for example is affected by two
102. things: the time given to clients to pay their credit balance and the
103. amount owing to other companies. This aids in deciding whether
104. there will be a deficit or not, i.e. will the company need to apply for
105. financing or not.
106. R What is the role of this kind of task in real life?
107. A We didn't learn to use personal budgets until we came here.
108. R Because we are in a foreign country
109. A Yes and so that I know how I am going to spend my monthly salary.

110. R So you construct a personal budget?
111. A Yah I do it.
112. R Me too I use excel
113. A When I worked back home I used to get 11000 and I did not think
114. about making a budget as I lived in my father's house but this
115. changed when I came to Australia.
116. R Ya when you run out of money you won't be in trouble as here
117. A Not like if you were here
118. R Did you use/post comments in the module's forum?
119. A I asked the tutor about depreciation when he didn't reply to my e-
120. mail. I decided to embarrass him in case he overlooks my enquiry
121. there. The questions posted were from my point of view basic.
122. R What was your reaction to the grade you got?
123. A We expected to get full mark as there were no mistakes. Indeed 45/50 equals 90% is fair since it is not below 90%.

Appendix 55: Transcription of Omar's interview

Line No.	Title	Interview with Omar
	Module	Management Accounting
	Date	March 13, 2011
	Duration	05:46
	Setting	A coffee shop
	Note	R= Researcher & O=Omar

1. R What is the purpose of the text?
2. O To make budgets that predicts next year's expenses. You add inflation rate and
3. consider other economical issues. Let me give you an example, Pepsi Cola
4. increased its prices 50%. They haven't done so until they were confirmed that
5. there is high demand for their product. They claim the cost prices have
6. increased. Even though but 50% increase also increases their profit margin.
7. Expectations also depend on ones experience in the company's performance.
8. If i want to sell Coal first I have to investigate the age group that drinks this
9. product. In Saudi Arabia we have 70% youth who like Cola. Sometimes when
10. I serve my dad Cola he refuses and at other times he accepts. We have large age
11. groups who like Cola. If we have a new project with no past performance, how
12. do we make budget? Here we have to be very detailed. We research the market,
13. peoples' income, their social situation, economic situation, how consumers are
14. going to treat the product, what are the alternatives. This relates to new
15. businesses but If the business is run since some time, we use the past
16. performance, last year's budget and the real one and accordingly make
17. next year's budget. There will be no more work.
18. R What is the role of this kind of task in real life?
19. O This task aids in taking decisions in life. A decision you don't know about its
20. results now. It is helpful both in real life and in the workplace, for example,
21. we can predict sales based on past quarters' performance
22. R You mean accounting decisions?
23. O Yahh accounting. They can be applied to daily life decisions, based on
24. experience, financial status. For example, when you want to buy shares you use
25. your own experience in the company you are interested in. From what you
26. hear from people, such as the company is healthy and during the past it recorded
27. profits. This is also related to expectations.
28. R How do you think this task will relate to your future career?
29. O If I am CEO and have fund to be dispersed to departments. How do I predict
30. that your department needs 2000,0000? Presumably a public relations
31. department which advertises in local and international magazines and meets
32. corporate guests. We make predictions as we don't know how much the
33. department will need. So we need budgeting which may end with surplus or
34. deficit. In case of surplus we have to investigate whether the plans have been
35. implemented or not. Alternatively if there is a deficit we also have to find out
36. the cause underlying the department's deficit, such as high shipment coast due
37. to increase in energy prices. Budgets are always flexible since they are based on
38. expectations. I am fond of budgeting because it's the guide.
39. R Did you experience significant difficulties in undertaking the assignment task?
40. Were there any aspects that you found difficult in the assignment task?
41. What are the problems that you experienced with writing at the university?
42. O It was a very easy task and the writing requirements were very clear except for
43. one thing; we sent an e-mail to the lecturer to make sure if we had to add
44. depreciation to our calculations or not, and he replied negatively.

Appendix 56: Transitivity analysis of Group 1's Management Accounting text

Title	Major Assignment - Semester 2 2010				
Pseudonym	Abdulrahman, Abdullah & Steve (Group 1)				
Type of Analysis	Transitivity Analysis				
Program	Master of Commerce				
Module	Management Accounting				
Number of Words	894				
Notes					
1.	Material Costs			Cost	2011 Year
	Metal Strips (per metre)			\$ 3.00	
	Glass Sheet (per unit)			\$ 8.00	
	Bill of Materials				
	Metal Strip (metres)	Notes	S Frame	L Frame	
		a)	2/3	1	
	Glass Sheet (units)	b)	1/4	1/2	
		c)			
		Token	Pr: Implicit, Rel, Ident	Value	
			(6 instances)		
2.	a) wasting from production process		is assumed	negotiable.	
		Senser	Pr: Ment	Phenomenon (fact)	
3.	b) allowing for normal breakage and scrap glass				
4.	c) Other raw materials, such as cardboard backing,		are	insignificant in cost	
		Carrier	Pr: Rel, Attrib	Attribute	
5.	and		are treated as	indirect materials.	
		Token	Pr: Rel, Ident	Value	
6.	Projected Manufacturing Costs				
	Metal Strips	Notes	S Frame	L Frame	
	S: 2/3 metre @ \$3 per metre		\$ 2.00		
	L: 1 metre @ \$3 per metre			\$ 3.00	
	Glass Sheets				
	S: 1/4 sheet @ \$8 per sheet		2.00		
	L: 1/2 sheet @ \$8 per sheet			4.00	
	Direct Labour				
	0.1 hours @ \$20 per hour		2.00	2.00	
	Manufacturing Overhead				
	0.1 direct labour hour @ \$10 per hour		1.00	1.00	
	Total Manufacturing Cost Per Unit		\$ 7.00	\$ 10.00	
		Token	Pr: Implicit, Rel, Ident	Value	
			(10 instances)		
7.	Manufacturing Overhead Budget				2011
		Qtr1	Qtr2	Qtr3	Qtr4
	Indirect Materials d)	\$ 10,200.00	\$ 11,200.00	\$ 12,200.00	\$ 13,200.00
	Indirect Labour d)	40,800.00	44,800.00	48,800.00	52,800.00
	Other Overhead d)	31,000.00	36,000.00	41,000.00	46,000.00
	Depreciation	20,000.00	20,000.00	20,000.00	20,000.00
	Total Overhead e)	\$ 102,000.00	\$ 112,000.00	\$ 122,000.00	\$ 132,000.00
		Year			
					\$ 468,000.00
		Token	Pr: Implicit, Rel, Ident	Value	
			(25 instances)		
8.	d) A linear relationship proportional to the increase in production volume		is assumed.		

		Phenomenon	Pr: Ment																																																																																																														
9.	e) For every unit increase in production of either product,	a \$1 increase in total overhead costs	is incurred.																																																																																																														
	Circ: Contingency	Goal	Pr: Mat																																																																																																														
10.	<p style="text-align: center;">Frame-it Ltd Projected Statement of Financial Position as at 31 December 2010</p> <p style="text-align: center;">Notes</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">Current assets</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>Cash at bank</td> <td></td> <td></td> <td style="text-align: right;">\$ 95,000.00</td> <td></td> </tr> <tr> <td></td> <td>Accounts receivable</td> <td></td> <td></td> <td style="text-align: right;">132,000.00</td> <td></td> </tr> <tr> <td></td> <td>Inventory:</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td> Raw materials</td> <td></td> <td style="text-align: right;">59,200.00</td> <td></td> <td></td> </tr> <tr> <td></td> <td> Finished goods</td> <td></td> <td style="text-align: right;">167,000.00</td> <td></td> <td></td> </tr> <tr> <td></td> <td> Total inventory</td> <td></td> <td></td> <td style="text-align: right;">226,200.00</td> <td></td> </tr> <tr> <td></td> <td> Total current assets</td> <td></td> <td></td> <td style="text-align: right;">\$ 453,200.00</td> <td></td> </tr> <tr> <td colspan="2">Non-current assets</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>Plant and equipment (net of depreciation)</td> <td></td> <td></td> <td style="text-align: right;">8,000,000.00</td> <td></td> </tr> <tr> <td></td> <td>Total assets</td> <td></td> <td></td> <td style="text-align: right;">\$ 8,453,200.00</td> <td></td> </tr> <tr> <td colspan="2">Liabilities</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>Accounts Payable</td> <td></td> <td></td> <td style="text-align: right;">99,400.00</td> <td></td> </tr> <tr> <td></td> <td>Net Assets</td> <td></td> <td></td> <td style="text-align: right;">\$ 8,353,800.00</td> <td></td> </tr> <tr> <td colspan="2">Equity</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>Ordinary shares</td> <td></td> <td></td> <td style="text-align: right;">5,000,000.00</td> <td></td> </tr> <tr> <td></td> <td>retained Earnings</td> <td></td> <td></td> <td style="text-align: right;">3,353,800.00</td> <td></td> </tr> <tr> <td></td> <td>Total equity</td> <td></td> <td></td> <td style="text-align: right;">\$ 8,353,800.00</td> <td></td> </tr> </table>					Current assets							Cash at bank			\$ 95,000.00			Accounts receivable			132,000.00			Inventory:						Raw materials		59,200.00				Finished goods		167,000.00				Total inventory			226,200.00			Total current assets			\$ 453,200.00		Non-current assets							Plant and equipment (net of depreciation)			8,000,000.00			Total assets			\$ 8,453,200.00		Liabilities							Accounts Payable			99,400.00			Net Assets			\$ 8,353,800.00		Equity							Ordinary shares			5,000,000.00			retained Earnings			3,353,800.00			Total equity			\$ 8,353,800.00	
Current assets																																																																																																																	
	Cash at bank			\$ 95,000.00																																																																																																													
	Accounts receivable			132,000.00																																																																																																													
	Inventory:																																																																																																																
	Raw materials		59,200.00																																																																																																														
	Finished goods		167,000.00																																																																																																														
	Total inventory			226,200.00																																																																																																													
	Total current assets			\$ 453,200.00																																																																																																													
Non-current assets																																																																																																																	
	Plant and equipment (net of depreciation)			8,000,000.00																																																																																																													
	Total assets			\$ 8,453,200.00																																																																																																													
Liabilities																																																																																																																	
	Accounts Payable			99,400.00																																																																																																													
	Net Assets			\$ 8,353,800.00																																																																																																													
Equity																																																																																																																	
	Ordinary shares			5,000,000.00																																																																																																													
	retained Earnings			3,353,800.00																																																																																																													
	Total equity			\$ 8,353,800.00																																																																																																													
		Token	Pr: Implicit, Rel, Ident (13 instances)	Value																																																																																																													
11.	Sales Budget				2011 Year																																																																																																												
		Qtr1	Qtr2	Qtr3	Qtr4																																																																																																												
	Budgeted Sale - S frames (units)	f) 55,000.00	60,000.00	65,000.00	70,000.00	250,000.00																																																																																																											
	Unit Sales Price	g) 10.00	10.00	10.00	10.00	10.00																																																																																																											
		\$ 550,000.00	\$ 600,000.00	\$ 650,000.00	\$ 700,000.00	\$ 2,500,000.00																																																																																																											
	Budgeted Sales - L frames (units)	f) 45,000.00	50,000.00	55,000.00	60,000.00	210,000.00																																																																																																											
	Unit Sales Price	g) 15.00	15.00	15.00	15.00	15.00																																																																																																											
		\$ 675,000.00	\$ 750,000.00	\$ 825,000.00	\$ 900,000.00	\$ 3,150,000.00																																																																																																											
	Total Budgeted Sales	\$ 1,225,000.00	\$ 1,350,000.00	\$ 1,475,000.00	\$ 1,600,000.00	\$ 5,650,000.00																																																																																																											
		Token	Pr: Implicit, Rel, Ident (35 instances)	Value																																																																																																													
12.		f) Sales for each product	will grow	by 5000 units	each quarter.																																																																																																												
		Goal	Pr: Mat	Range	Circ: Extent (temporal)																																																																																																												
13.		g) Product sales price	will remain	constant	over 2011.																																																																																																												
		Carrier	Pr: Rel, Attrib	Attribute	Circ: Location (temporal)																																																																																																												

14.	Cash Receipts Budget						2011	
		Notes	Qtr1	Qtr2	Qtr3	Qtr4	Year	Qtr1 2012
	Accounts Receivable 31/12/2010	h)	\$ 132,000.00				\$ 132,000.00	
	Cash Sales	i)	490,000.00	\$ 540,000.00	\$ 590,000.00	\$ 640,000.00	2,260,000.00	0
	Credit Sales	j), k)					-	
	Qtr1		588,000.00	147,000.00			735,000.00	
	Qtr2			648,000.00	162,000.00		810,000.00	
	Qtr3				708,000.00	177,000.00	885,000.00	
	Qtr4					768,000.00	768,000.00	#####
	Total Cash Receipts		\$ 1,210,000.00	\$ 1,335,000.00	\$ 1,460,000.00	\$ 1,585,000.00	\$ 5,590,000.00	0
		Token		Pr: Implicit, Rel, Ident (23 instances)		Value		
15.		h) It		is assumed				
		Phenomenon		Pr: Ment				
16.	that	the ending account receivables 2010		will be		completely		collected.
		Goal		Pr: Mat				Pr: Mat
17.		I) 40% of quarterly sales		are expected to be paid for		in cash.		
		Goal		Pr: Mat		Range		
18.		J) 80% of credit sales		are expected to be received				in the same quarter as the sale.
		Goal		Pr: Mat				Circ: Location (temporal)
19.		The remaining 20% of credit sales		is expected to be received				the following quarter.
		Goal		Pr: Mat				Circ: Location (temporal)
20.	K) For simplicity	it		is assumed				
		Phenomenon		Pr: Ment				
21.	that	100% of accounts receivables		are collected.				
		Goal		Pr: Mat				
22.	Production Budget						2011	
		Notes	Qtr1	Qtr2	Qtr3	Qtr4	Year	Qtr1 2012
	S frames							
	Sales (units)		55,000.00	60,000.00	65,000.00	70,000.00	250,000.00	#####
	add: Ending finished goods inventory	l)	12,000.00	13,000.00	14,000.00	15,000.00	15,000.00	#####
	Total needed		67,000.00	73,000.00	79,000.00	85,000.00	265,000.00	#####
	less: Begining finished Goods Inventory	m)	11,000.00	12,000.00	13,000.00	14,000.00	11,000.00	#####
	Units to be produced		56,000.00	61,000.00	66,000.00	71,000.00	254,000.00	#####

	L frames							
	Sales (units)		45,000.00	50,000.00	55,000.00	60,000.00	210,000.00	#####
	add: Ending Finished Goods Inventory	l)	10,000.00	11,000.00	12,000.00	13,000.00	13,000.00	#####
	Total needed		55,000.00	61,000.00	67,000.00	73,000.00	223,000.00	#####
	less: Beginning finished Goods Inventory	m)	9,000.00	10,000.00	11,000.00	12,000.00	9,000.00	#####
	Units to be produced		46,000.00	51,000.00	56,000.00	61,000.00	214,000.00	#####
	Pr: Mat (4 instances)	Token	Pr: Implicit, Rel, Ident (50 instances)			Value		
23.		L) 20% of next quarter's production	is required					in ending finished goods inventory.
		Goal	Pr: Mat					Circ: Location (spatial)
24.			M) Calculated as			20% of 1 st quarter sales		for 2011.
		Token	Pr: Rel, Ident			Value		Circ: Location
25.	Direct Materials Budget							2011
		Notes	Qtr1	Qtr2	Qtr3	Qtr4	Year	
	Budgeted cost of glass sheets							Qtr1 2012
	S Frame							
	Units to be produced	n)	56,000.00	61,000.00	66,000.00	71,000.00	254,000.00	#####
	Glass sheets per unit		1/4	1/4	1/4	1/4	1/4	0.25
	Production needs in units		14,000.00	15,250.00	16,500.00	17,750.00	63,500.00	#####
	L Frames							
	Units to be produced	n)	46,000.00	51,000.00	56,000.00	61,000.00	214,000.00	#####
	Glass sheets per unit		1/2	1/2	1/2	1/2	1/2	0.50
	Production needs in units		23,000.00	25,500.00	28,000.00	30,500.00	107,000.00	#####
	Total glass sheets needed for production		37,000.00	40,750.00	44,500.00	48,250.00	170,500.00	#####
	add: Glass sheet ending inventory	o)	8,150.00	8,900.00	9,650.00	10,400.00	10,400.00	
	less: Glass Sheet Beginning Inventory	p)	7,400.00	8,150.00	8,900.00	9,650.00	7,400.00	
	Glass sheets to be purchased		37,750.00	41,500.00	45,250.00	49,000.00	173,500.00	
	Cost per sheet		8.00	8.00	8.00	8.00	8.00	
	Total cost of glass sheets purchase		\$ 302,000.00	\$ 332,000.00	\$ 362,000.00	\$ 392,000.00	\$ 1,388,000.00	
	Budgeted cost of metal strip							
	S Frame							
	Units to be produced	n)	56,000.00	61,000.00	66,000.00	71,000.00	254,000.00	#####
	Metal strip meters per unit		2/3	2/3	2/3	2/3	2/3	2/3
	Production needs in meters		37,333.33	40,666.67	44,000.00	47,333.33	169,333.33	#####
	L Frame							
	Units to be produced	n)	46,000.00	51,000.00	56,000.00	61,000.00	214,000.00	#####

	Metal strip meters per unit	1	1	1	1	1	1
	Production needs in meters	46,000.00	51,000.00	56,000.00	61,000.00	214,000.00	#####
	Total metal strip meters needed for production	83,333.33	91,666.67	100,000.00	108,333.33	383,333.33	#####
	add: Metal strip ending inventory	q) -	-	-	-	-	
	less: Metal strip beginning inventory	q) -	-	-	-	-	
	Metal strip meters to be purchased	83,333.33	91,666.67	100,000.00	108,333.33	383,333.33	
	Cost per meter	3.00	3.00	3.00	3.00	3.00	
	Total cost of metal strip purchase	\$ 250,000.00	275,000.00	300,000.00	325,000.00	1,150,000.00	
	Total purchase cost	\$ 552,000.00	607,000.00	662,000.00	717,000.00	2,538,000.00	
	Pr: Mat (4 instances)	Token	Pr: Implicit, Rel, Ident (125 instances)		Value		
26.		N)	Refer to		production budget.		
			Pr: Behav		Behaviour/Range		
27.		O) 20% of next quarter's glass sheet production needs	is required			in ending raw materials inventory.	
		Goal	Pr: Mat			Circ: Location (spatial)	
28.		P) 20% of total glass sheets production needs for 1 st quarter.					
29.		Q) Just-in-time purchasing, inventory	is		negligible.		
		Carrier	Pr: Rel, Attrib		Attribute		
30.	Cash Disbursements Budget - Materials					2011	
		Notes	Qtr1	Qtr2	Qtr3	Qtr4	Year
	Accounts Payable 31/12/2010	r)	\$ 99,400.00				\$ 99,400.00
	Cash disbursements	s)					
		Qtr1	441,600.00	\$ 110,400.00			552,000.00
		Qtr2		485,600.00	\$ 121,400.00		607,000.00
		Qtr3			529,600.00	\$ 132,400.00	662,000.00
		Qtr4				573,600.00	573,600.00
	Total cash disbursements		\$ 541,000.00	\$ 596,000.00	\$ 651,000.00	\$ 706,000.00	\$ 2,494,000.00
		Token	Pr: Implicit, Rel, Ident (18 instances)		Value		
31.		R) It	is assumed to be completely paid			in first quarter 2011.	
		Goal	Pr: Mat			Circ: Location (temporal)	
32.		S) All purchases	are		on credit.		
		Token	Pr: Rel, Ident		Value		
33.		80% of purchases	are settled			in the	

						quarter of purchase,	
		Goal	Pr: Mat			Circ: Location (temporal)	
34.		the remaining balance	is settled			the following quarter.	
		Goal	Pr: Mat			Circ: Location (temporal)	
35.	Summary Cash Budget					2011	
		Notes	Qtr1	Qtr2	Qtr3	Qtr4	Year
	Beginning cash balance	t)	\$ 95,000.00	\$ 53,000.00	\$ 57,250.00	\$ 107,750.00	\$ 95,000.00
	add: Cash receipts from sales		1,210,000.00	1,335,000.00	1,460,000.00	1,585,000.00	5,590,000.00
	Total cash available		\$ 1,305,000.00	\$ 1,388,000.00	\$ 1,517,250.00	\$ 1,692,750.00	\$ 5,903,000.00
	less: Disbursements						
	Direct Materials		541,000.00	596,000.00	651,000.00	706,000.00	2,494,000.00
	Direct Labour	u)	204,000.00	224,000.00	244,000.00	264,000.00	936,000.00
	Indirect Material		10,200.00	11,200.00	12,200.00	13,200.00	46,800.00
	Indirect Labour		40,800.00	44,800.00	48,800.00	52,800.00	187,200.00
	Other overhead		31,000.00	36,000.00	41,000.00	46,000.00	154,000.00
	Selling and Administrative Expenses		100,000.00	100,000.00	100,000.00	100,000.00	400,000.00
	Dividend		50,000.00	50,000.00	50,000.00	50,000.00	200,000.00
	Equipment purchase		1,000,000.00				1,000,000.00
	Total disbursement		\$ 1,977,000.00	\$ 1,062,000.00	\$ 1,147,000.00	\$ 1,232,000.00	\$ 5,418,000.00
	Surplus (Deficit)		\$ (672,000.00)	\$ 326,000.00	\$ 370,250.00	\$ 460,750.00	\$ 485,000.00
	Financing						
	Borrowing	v)	1,000,000.00				1,000,000.00
	Repayments		(250,000.00)	(250,000.00)	(250,000.00)	(250,000.00)	(1,000,000.00)
	Interest	w)	(25,000.00)	(18,750.00)	(12,500.00)	(6,250.00)	(62,500.00)
	Ending cash balance		\$ 53,000.00	\$ 57,250.00	\$ 107,750.00	\$ 204,500.00	\$ 204,500.00
	Pr: Mat (2 instances)	Token	Pr: Implicit, Rel, Ident (85 instances)		Value		
36.		T) First quarter figure	extracted		from balance sheet		as at 31 December 2010.
		Actor	Pr: Mat		Goal		Circ: Location (temporal)
37.		U)	Refer to		production budget.		
			Pr: Behav		Behaviour/Range		
38.		Calculation: units produced	x		direct labour cost per unit		
		Actor	Pr: Mat		Goal		

39.			V) To finance	equipment purchase.		
			Pr: Mat	Goal		
40.		W) Interest	is paid on	the amount outstanding	at a particular date.	
		Carrier	Pr: Rel, Attrib	Attribute	Circ: Location (temporal)	
41.		Calculations: Interest Payment for 1 st quarter	=	\$1,000,000		
		Token	Pr: Rel, Ident	Value		
42.			x	10%		
			Pr: Mat	Goal		
43.			x	1/4		
			Pr: Mat	Goal		
44.			=	\$25,000		
			Pr: Rel, Ident	Value		
45.		(Calculations:) Interest Payment for 2 nd quarter	=	(\$1,000,000-250,000)		
		Token	Pr: Rel, Ident	Value		
46.			x	10%		
			Pr: Mat	Goal		
47.			x	1/4		
			Pr: Mat	Goal		
48.			=	\$18,750		
			Pr: Rel, Ident	Value		
49.		(Calculations:) Interest Payment for 3 rd quarter	=	(\$1,000,000-250,000-250,000)		
		Token	Pr: Rel, Ident	Actor		
50.			x	10%		
			Pr: Mat	Goal		
51.			x	1/4		
			Pr: Mat	Goal		
52.			=	\$12,500		
			Pr: Rel, Ident	Value		
53.		(Calculations:) Interest Payment for 4 th quarter	=	(\$250,000 balance		
54.		Token	Pr: Rel, Ident	Actor		
			x	10%		
			Pr: Mat	Goal		
55.			x	1/4		
			Pr: Mat	Goal		
56.			=	\$6,250		
			Pr: Rel, Ident	Value		
57.	Budgeted Schedule of Cost of Goods Manufactured					2011
		Notes	Qtr1	Qtr2	Qtr3	Qtr4
	Direct materials					
		Beginning raw materials inventory	\$ 59,200.00	\$ 65,200.00	\$ 71,200.00	\$ 77,200.00
		add: Purchases of raw material	552,000.00	607,000.00	662,000.00	717,000.00
		Raw material	611,200.00	672,200.00	733,200.00	794,200.00
						2,810,800.00

	available for use						
	less: Ending raw materials inventory	65,200.00	71,200.00	77,200.00	83,200.00	83,200.00	
	Direct raw material used	\$ 546,000.00	\$ 601,000.00	\$ 656,000.00	\$ 711,000.00	\$ 2,514,000.00	
	Direct labour	204,000.00	224,000.00	244,000.00	264,000.00	936,000.00	
	Manufacturing overhead	102,000.00	112,000.00	122,000.00	132,000.00	468,000.00	
	Total manufacturing overhead	\$ 852,000.00	\$ 937,000.00	\$ 1,022,000.00	\$ 1,107,000.00	\$ 3,918,000.00	
	Beginning work in process inventory	x) -	-	-	-	-	
	Total manufacturing cost to account for	852,000.00	937,000.00	1,022,000.00	1,107,000.00	3,918,000.00	
	less: Ending work in process inventory	x) -	-	-	-	-	
	Cost of goods manufactured	\$ 852,000.00	\$ 937,000.00	\$ 1,022,000.00	\$ 1,107,000.00	\$ 3,918,000.00	
	Pr: Mat (3 instances)			Pr: Implicit, Rel, Ident (50 instances)			
58.	x) it			is assumed			
	Phenomenon			Pr: Ment			
59.	that	work in process		is	negligible.		
	Carrier			Pr: Rel, Attrib	Attribute		
60.	Budgeted Schedule of Cost of Goods Sold						2011
		Notes	Qtr1	Qtr2	Qtr3	Qtr4	Year
	Beginning finished goods inventory		\$ 167,000.00	\$ 184,000.00	\$ 201,000.00	\$ 218,000.00	\$ 167,000.00
	add: Cost of good manufactured		852,000.00	937,000.00	1,022,000.00	1,107,000.00	3,918,000.00
	Cost fo goods available for sale		\$ 1,019,000.00	\$ 1,121,000.00	\$ 1,223,000.00	\$ 1,325,000.00	\$ 4,085,000.00
	less: Ending finished goods inventory		184,000.00	201,000.00	218,000.00	235,000.00	235,000.00
	Cost of goods sold		\$ 835,000.00	\$ 920,000.00	\$ 1,005,000.00	\$ 1,090,000.00	\$ 3,850,000.00
	Pr: Mat (2 instances)			Pr: Implicit, Rel, Ident (25 instances)			
61.	Frame-it Ltd Budgeted Statement of Comprehensive Income for the year ended 31 December 2011						
		Notes					
	Sales Revenue					\$ 5,650,000.00	
	less: Cost of goods sold					3,850,000.00	
	Gross margin					\$ 1,800,000.00	
	Operating Expenses						
	Selling and Administration expenses			\$ 400,000.00			
	Interest expense			62,500.00			
	Total operating expenses					\$ 462,500.00	
	Operating income					\$ 1,337,500.00	
	Frame-it Ltd Budgeted Statement of Retained Earning for the year ended 31 December 2011						
		Notes					
	Retained earning 1 Jan 2011					\$ 3,353,800.00	
	add: Operating income					1,337,500.00	
	less: Dividend					200,000.00	
	Retained earning 31 Dec 2011					\$ 4,491,300.00	
	Pr: Mat (3 instances)			Pr: Implicit, Rel, Ident (11 instances)			
62.	Frame-it Ltd Budgeted Statement of Financial Position as at 31 December 2011						
		Notes					
	Current assets						
	Cash at bank			\$ 204,500.00			
	Accounts			192,000.00			

		receivable			
		Inventory:			
		Raw materials	83,200.00		
		Finished goods	235,000.00		
		Total inventory	318,200.00		
		Total current assets	\$ 714,700.00		
		Non-current assets			
		Plant and equipment (net of depreciation)	8,920,000.00		
		Total assets	\$ 9,634,700.00		
		Liabilities			
		Accounts Payable	143,400.00		
		Net Assets	\$ 9,491,300.00		
		Equity			
		Ordinary shares	5,000,000.00		
		retained Earnings	4,491,300.00		
		Total equity	\$ 9,491,300.00		
			Pr: Implicit, Rel, Ident (13 instances)		
63.	y)	Plant and Equipment Calculation:			
64.		Plant and equipment 1 Jan 2011	(is)	8,000,000.00	
		Token	Pr: Rel, Ident	Value	
65.			add:		
			Pr: Mat	Goal	
66.		Purchased plant and equipment	(is)	1,000,000.00	
		Token	Pr: Rel, Ident	Value	
67.			less:		
			Pr: Mat	Goal	
68.		depreciation for the year	(is)	z) 80,000.00	
		Token	Pr: Rel, Ident	Value	
69.		Plant and equipment 31 Dec 2011 (net of depreciation)	(is)	8,920,000.00	
		Token	Pr: Rel, Ident	Value	
70.	Z) No depreciation for the robot in 2011 because	it	will take	most of year (2011)	
		Carrier	Pr: Rel, Attrib	Attribute	
71.			to train	staff	
			Pr: Mat	Goal	
72.	and		gain	benefits	in 2012.
			Pr: Mat	Goal	Circ: Location (temporal)
73.	MEMO				
74.	15 October 2010				
75.	Dear Uncle George,				
76.	Please		find attached	the documentation	

			Pr: Mat	Goal	
77.			to support	the finance application for the purchase of the industrial robot.	
			Pr: Ment	Phenomenon	
78.		Included	is	the Budgeted Balance Sheet	for the period ending 31 December 2011
		Token	Pr: Rel, Ident	Value	Circ: Extent (temporal)
79.	and	supporting schedules	used	in the calculations.	
		Goal	Pr: Mat	Client	
80.		Purchase of the industrial robot at a cost of \$1,000,000	will occur		on January 2, 2011.
		Goal	Pr: Mat		Circ: Location
81.		Financing for the proposal	is assumed	over a one year period,	at a 10% per annum interest rate.
		Senser	Pr: Ment	Phenomenon	Circ: Manner
82.		Repayment of the financing amount	is expected to occur	within the year,	
		Goal	Pr: Mat	Range	
83.	and		consists of	four equal quarterly instalments.	
		Token	Pr: Rel, Ident	Value	
84.		Interest payments	will be	quarterly as well.	
		Token	Pr: Rel, Ident	Value	
85.	Other assumptions:				
86.		Sales in the fourth quarter of 2010	are expected to be	50,000 S frames and 40,000 L frames.	
		Token	Pr: Rel, Ident	Value	
87.		Sales in each product line over the next two years	are predicted to grow	by 5,000 units each quarter over the previous quarter.	
		Goal	Pr: Mat	Range	
88.		It	<sic> anticipated		
		Senser	Pr: Ment	Phenomenon	
89.	that	dividends of \$50,000	will be declared		
		Receiver: Target	Pr: Verb.		
90.	and		paid	in cash	each quarter of financial year 2011.
			Pr: Mat	Range	Circ: Extent

					(temporal)
91.		It	will take	most of the year	
		Carrier	Pr: Rel, Attrib	Attribute	
92.			to train	personnel	
			Pr: Mat	Goal	
93.	and		reorganise	the production process	
			Pr: Mat	Goal	
94.	in order		to gain	the full benefits of the new equipment,	
			Pr: Mat	Goal	
95.	therefore	no depreciation of the asset	is accounted for		during FY 2011.
		Phenomenon	Pr: Ment		Circ: Location (time)

Appendix 57: Transitivity analysis of Group 2's Management Accounting text

Title	Major Assignment - Semester 2 2010						
Pseudonym	Omar & Peter (Group 2)						
Type of Analysis	Transitivity Analysis						
Program	Master of Commerce						
Module	Management Accounting						
Number of Words	1292						
Notes							
1.		<i>1. Sales budget</i>					
2.		The sales budget	was calculated		in accordance with the projections provided.		
		Goal	Pr: Mat		Circ: Manner (quality)		
3.	For the S line,	Q1 2011 sales	were calculated	at 55,000,	based on the instructions		
		Goal	Pr: Mat	Range	Circ: Manner (quality)		
4.		where 50,000 units	were budgeted		in Q4 2010		
		Goal	Pr: Mat		Circ: Location		
5.	and		were projected to				
			Pr: Ment				
6.	then		grow	at 5,000 units per quarter.			
			Pr: Mat	Range			
7.	For the L line,	Q1 2011 sales	were calculated	at 45,000,	based on the instructions		
		Goal	Pr: Mat	Range	Circ: Manner (quality)		
8.		where 40,000 units	were budgeted		in Q4 2010		
		Goal	Pr: Mat		Circ: Location		
9.	and		were projected to				
			Pr: Mat				
10.	then		grow	at 5,000 units per quarter.			
			Pr: Mat	Range			
11.		These calculations	resulted in	total projected sales revenue for the 2011 year of \$5,650,000,			
		Actor	Pr: Mat	Goal			
12.			comprised of	\$2,500,000 for S (sold at \$10 per unit) and \$3,150,000 for L (sold at \$15 per unit).			
		Token: Identified	Pr: Rel, Ident	Value: Identifier			
13.		The results	are shown	below	in Table 1:		
		Senser	Pr: Ment	Phenomenon	Circ: Location		
14.		Sales Budget S					
			Qtr1	Qtr2	Qtr3	Qtr4	Total
		Sale units	55,000.00	60,000.00	65,000.00	70,000.00	250,000.00
		Selling [L: Rep.] price per unit (\$)	10.00	10.00	10.00	10.00	10.00
		Total revenue (\$)	\$ 550,000.00	\$ 600,000.00	\$ 650,000.00	\$ 700,000.00	\$ 2,500,000.00
			Sales Budget L				

			Qtr1	Qtr2	Qtr3	Qtr4	Total
		Sale units	45,000.00	50,000.00	55,000.00	60,000.00	210,000.00
		Selling [L: Rep.] price per unit (\$)	15.00	15.00	15.00	15.00	15.00
		Total revenue (\$)	\$ 675,000.00	\$ 750,000.00	\$ 825,000.00	\$ 900,000.00	\$ 3,150,000.00
		Total sales (\$) [L: Rep.]	\$ 1,225,000.00	\$ 1,350,000.00	\$ 1,475,000.00	\$ 1,600,000.00	\$ 5,650,000.00
	Token: Identified		Pr: Implicit, Rel, Ident (15 instances)		Value: Identifier		
15.		<i>2. Cash receipts budget</i>					
16.		The cash receipt budget	was calculated			based on the instructions provided.	
		Goal	Pr: Mat			Circ: Manner (quality)	
17.	For both lines,	60% of quarterly receipts	were sold		on credit		
		Goal	Pr: Mat		Range		
18.	and	40%	were paid		in cash.		
		Goal	Pr: Mat		Range		
19.		20% of the credit sales	were collected			in the following quarter,	
		Goal	Pr: Mat			Circ: Extent	
20.	while	80%	were collected			in same quarter.	
		Goal	Pr: Mat			Circ: Extent	
21.	For the S line,	Q1 sales	were budgeted		at \$550,000,	based on Table 1.	
		Actor	Pr: Mat		Goal	Circ: Manner (quality)	
22.	Of these sales	60%	were sold		on credit,		
		Goal	Pr: Mat		Client		
23.	and	80% of those [R: Dem.] sales	were collected			in Q1	
		Goal	Pr: Mat			Circ: Extent	
24.			resulting in		a sum of \$264,000.		
		Actor	Pr: Mat		Goal		
25.		40% of Q1 sales	were paid		in cash,		
		Goal	Pr: Mat		Range		
26.			resulting in		a sum of \$220,000.		
		Actor	Pr: Mat		Goal		
27.	In addition,	20% of the credit sales from the previous quarter	were		included,		
		Carrier	Pr: Rel, Attrib		Attribute		
28.		which	amounted to		\$60,000.		
		Token: Identified	Pr: Rel, Ident		Value: Identifier		
29.	In total,	the cash receipts for the S line	amounted to		\$544,000.		
		Token: Identified	Pr: Rel, Ident		Value: Identifier		
30.		This process	was then repeated			for each of the following quarters in the 2011 year.	
		Actor	Pr: Mat			Circ: Extent (temporal)	
31.	For the L line,	Q1 sales	were budgeted		at \$675,000,	based on Table 1.	
		Recipient	Pr: Mat		Goal	Circ: Manner	

32.	Of these sales	60%	were sold	on credit,	(quality)			
		Goal	Pr: Mat	Client				
33.	and	80% of those [R: Dem.] sales	were collected		in Q1			
		Goal	Pr: Mat		Circ: Extent			
34.			resulting in	a sum of \$324,000.				
		Actor	Pr: Mat	Goal				
35.		40% of Q1 sales	were paid	in cash,				
		Goal	Pr: Mat	Range				
36.			resulting in	a sum of \$270,000.				
		Actor	Pr: Mat	Goal				
37.	In addition,	20% of the credit sales			from the previous quarter			
		Actor			Circ: Extent			
38.			were	included,				
		Carrier	Pr: Rel, Attrib	Attribute				
39.		which	amounted to	\$72,000.				
		Token: Identified	Pr: Rel, Ident	Value: Identifier				
40.	In total,	the cash receipts for the L line	amounted to.	\$666,000				
		Token: Identified	Pr: Rel, Ident	Value: Identifier				
41.		This process	was then repeated	for each of the following quarters	in the 2011 year.			
		Actor	Pr: Mat	Goal	Circ: Location			
42.	For both the S & L lines,	Q1 cash receipts	amounted to	a total of \$1,210,000.				
		Token: Identified	Pr: Rel, Ident	Value: Identifier				
43.		Figures for the full year	are shown	in Table 2	on the following page:			
		Senser	Pr: Ment	Phenomenon	Circ: Location			
44.	Cash Receipts Budget S							
			Qtr1	Qtr2	Qtr3	Qtr4	Total	Q1 2012
			\$	\$	\$	\$	\$	
	Q1 Sales							
	Q4 2010- (60% *500,000) * 20%		60,000,00				60,000,00	
	Credit- (60% *600,000) * 80%		624,000,00				624,000,00	
	Cash – 40% * 550,000		220,000,00				220,000,00	
	Q2 Sales							
	Q1 2011- (60% *550,000) * 20%			66,000,00			66,000,00	
	Credit- (60% *600,000) * 80%			288,000,00			288,000,00	
	Cash – 40% * 600,000			240,000,00			240,000,00	
	Q3 Sales							
	Q2 2011- (60% *600,000) * 20%				72,000,00		72,000,00	
	Credit- (60% *650,000) * 80%				312,000,00		312,000,00	
	Cash – 40% * 650,000				260,000,00		260,000,00	
	Q4 Sales							
	Q3 2011- (60% *650,000) * 20%					78,000,00	78,000,00	84,000,00

	Credit- (60% *700,000) * 80%				336,000,00	336,000,00	420,000,00
	Cash – 40% * 700,000				280,000,00	280,000,00	
	Total cash receipt (S)	544,000,00	594,000,00	644,000,00	694,000,00	2,476,000,00	
	Cash Receipts Budget L						
		Qtr1	Qtr2	Qtr3	Qtr4	Total	
		\$	\$	\$	\$	\$	
	Q1 Sales						
	Q4 2010- (60% *600,000) * 20%	72,000,00				72,000,00	
	Credit- (60% *675,000) * 80%	324,000,00				324,000,00	
	Cash – 40% * 675,000	270,000,00				270,000,00	
	Q2 Sales						
	Q1 2011- (60% *675,000) * 20%		81,000,00			81,000,00	
	Credit- (60% *675,000) * 80%		360,000,00			360,000,00	
	Cash – 40% * 750,000		300,000,00			300,000,00	
	Q3 Sales						
	Q2 2011- (60% *750,000) * 20%			90,000,00		90,000,00	
	Credit- (60% *825,000) * 80%			396,000,00		396,000,00	
	Cash – 40% * 825,000			330,000,00		330,000,00	
	Q4 Sales						
	Q3 2011- (60% *825,000) * 20%				99,000,00	99,000,00	108,000,00
	Credit- (60% *900,000) * 80%				432,000,00	432,000,00	540,000,00
	Cash – 40% * 900,000				360,000,00	360,000,00	
	Total cash receipt (L)	666,000,00	741,000,00	816,000,00	891,000,00	3,114,000,00	
	Total cash receipt	1,210,000,00	1,335,000,00	1,460,000,00	1,585,000,00	5,590,000,00	
	Pr: Mat (40 instances) (*): X times Y	Token: Identified		Pr: Implicit, Rel, Ident (70 instances)		Value: Identifier	
45.		3. Production budget					
46.	In order to		calculate		the required units		in the production budget,
			Pr: Mat		Goal		Circ: Location
47.		sales	were recorded				in accordance with the calculations in Table 1.
		Goal	Pr: Mat				Circ: Manner (quality)
48.		Desired ending inventory	was calculated		at 20%		of the following quarters' sales units.
		Goal	Pr: Mat		Range		Circ: Extent
49.	For the S line in Q1 2011,	this	resulted in		total inventory needed of 67,000 units		
		Actor	Pr: Mat		Goal		
50.		(55,000	+		(60,000		
		Actor	Pr: Mat		Goal		
51.			*		20%)).		
		Actor	Pr: Mat		Goal		
52.		Beginning inventory	is shown as		the ending inventory for the previous		

				quarter.					
		Token	Pr: Rel, Ident	Value					
53.	For the S line in Q1 2011,	this	amounted to	11,000 units,					
		Token: Identified	Pr: Rel, Ident	Value: Identifier					
54.			resulting in	units					
		Actor	Pr: Mat	Goal					
55.			to be started	in the quarter	of 56,000.				
			Pr: Mat	Circ: Location (temporal)	Goal				
56.		This calculated was then	repeated	for each of the following quarters	in the 2011 year.				
		Goal	Pr: Mat	Goal	Circ: Location (temporal)				
57.	For the L line in Q1 2011,	total inventory needed	amounted to	55,000 units					
		Circ:	Token: Identified	Pr: Rel, Ident	Value: Identifier				
58.		(45,000	+	(50,000 * 20%)).					
		Actor	Pr: Mat	Goal					
59.		Beginning inventory	is shown as	the ending inventory for the previous quarter.					
		Token	Pr: Rel, Ident	Value					
60.	For the L line in Q1 2011,	this	amounted to	9,000 units,					
		Circ:	Token: Identified	Pr: Rel, Ident	Value: Identifier				
61.			resulting in	units					
		Actor	Pr: Mat	Goal					
62.			to be started	in the quarter	of 46,000.				
			Pr: Mat	Circ: Location (temporal)	Goal				
63.		This calculated	was then repeated	for each of the following quarters	in the 2011 year.				
		Goal	Pr: Mat	Circ: Extent	Circ: Location (temporal)				
64.		Figures for the 2011 year	are shown	in Table 3 below:					
		Senser	Pr: Ment	Phenomenon					
65.			Production Budget S						
			Q4 2010	Q1	Q2	Q3	Q4	Total	Q1 2012
		Sales in units	50,000.00	55,000.00	60,000.00	65,000.00	70,000.00	250,000.00	75,000.00
		Add: desired end. Inventory	11,000.00	12,000.00	13,000.00	14,000.00	15,000.00	54,000.00	16,000.00
		Total needed	61,000.00	67,000.00	73,000.00	79,000.00	85,000.00	304,000.00	91,000.00
		Less: beg. inventory	10,000.00	11,000.00	12,000.00	13,000.00	14,000.00	50,000.00	15,000.00
		Units to be started	51,000.00	56,000.00	61,000.00	66,000.00	71,000.00	254,000.00	76,000.00
			Production Budget L						
			Q4 2010	Q1	Q2	Q3	Q4	Total	Q1 2012
		Sales in units	40,000.00	45,000.00	50,000.00	55,000.00	60,000.00	210,000.00	65,000.00
		Add: desired end. Inventory	9,000.00	10,000.00	11,000.00	12,000.00	13,000.00	46,000.00	14,000.00
		Total needed	49,000.00	55,000.00	61,000.00	67,000.00	73,000.00	256,000.00	79,000.00
		Less: beg. inventory	8,000.00	9,000.00	10,000.00	11,000.00	12,000.00	42,000.00	13,000.00

		Units to be started	41,000.00	46,000.00	51,000.00	56,000.00	61,000.00	214,000.00	66,000.00	
		Total units to be started		102,000.00	112,000.00	122,000.00	132,000.00	468,000.00		
		Pr: Mat (4 instances) & Pr: Implicit, Rel, Ident (75 instances)		Token: Identified		Pr: Rel, Ident		Value: Identifier		
66.		<i>4. Direct material budget</i>								
67.		<i>Metal strips – S line</i>								
68.		Total units		to be started						in Q1
		Goal		Pr: Mat						Circ: Location (temporal)
69.				amounted to		56,000 units,				
		Token: Identified		Pr: Rel, Ident		Value: Identifier				
70.		as		shown		in the calculations				
		Senser		Pr: Ment		Phenomenon				
71.				set out						in Table 3.
				Pr: Mat						Circ: Location
72.		The requirements per unit		were		2/3 of a metre.				
		Token		Pr: Rel, Ident		Value				
73.		This		results in		production needs in Q1 of 37,333 metres of metal strips.				
		Actor		Pr: Mat		Goal				
74.		There		is		no ending or beginning inventory for the metal strips				
		Actor		Pr: Exist.		Existent				
75.	since	they		are purchased on		a just-in-time basis,				
		Goal		Pr: Mat						
76.		material		to be purchased						
		Goal		Pr: Mat						
77.	so also			amounts to		37,333 metres.				
		Token		Pr: Rel, Ident		Value				
78.		The cost per metre		is		\$3,				
		Token		Pr: Rel, Ident		Value				
79.				resulting in		total budgeted cost				for Q1 of \$112,000.
		Actor		Pr: Mat		Goal				Circ: Extent (temporal)
80.		<i>Glass sheets – S line</i>								
81.		Total units to be started		amounted to		56,000 units,				
		Token		Pr: Rel, Ident		Value				
82.		as		shown		in the calculations				
		Senser		Pr: Ment		Phenomenon				
83.				set out						in Table 3.
				Pr: Mat						Circ: Location
84.		The requirements per unit		amounted to		1/4 of a sheet.				
		Token		Pr: Rel, Ident		Value				
85.		This		results in		initial production needs in Q1 of 14,000 glass sheets.				
		Actor		Pr: Mat		Goal				
86.		The desired ending		is calculated		at 20% of the				

		inventory for Q1		following quarters' production (15,250*20%).	
		Goal	Pr: Mat	Range	
87.		The beginning inventory	is calculated as	the ending inventory for the previous quarter.	
		Token	Pr: Rel, Ident	Value	
88.	When adjusted for opening and closing inventory,	the total material	to be purchased amounts to	14,250 glass sheets.	
		Token	Pr: Rel, Ident	Value	
89.		The cost per sheet	is	\$8,	
		Token	Pr: Rel, Ident	Value	
90.			resulting in	total budgeted cost	for Q1 of \$114,000.
		Actor	Pr: Mat	Goal	Circ: Extent
91.	For metal strips and glass sheets in the S line,	total purchase costs for Q1	amount to	\$226,000.	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	
92.		This process	is repeated		for each subsequent quarter.
		Goal	Pr: Mat		Circ: Extent (temporal)
93.		<i>Metal strips – L line</i>			
94.		Total units to be started in Q1	amounted to	46,000 units,	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	
95.		as	shown	in the calculations	
		Senser	Pr: Ment	Phenomenon	
96.			set out		in Table 3.
			Pr: Mat		Circ: Location
97.		The requirements per unit	amounted to	1 metre.	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	
98.		This	results in	production needs in Q1 of 46,000 metres of metal strips.	
		Actor	Pr: Mat	Goal	
99.		There	is	no ending or beginning inventory for the metal strips	
			Pr: Exist.	Existent	
100.	since	they	are purchased	on a just-in-time basis,	
		Actor	Pr: Mat	Goal	
101.	so	material to be purchased also	amounts to	46,000 metres.	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	
102.		The cost per metre	is	\$3,	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	
103.			resulting in	total budgeted cost for Q1 of \$138,000.	

		Actor	Pr: Mat	Goal	
104.		<i>Glass sheets – L line</i>			
		Total units to be started	amounted to	46,000 units,	
105.		Token: Identified	Pr: Rel, Ident	Value: Identifier	
106.		as	shown	in the calculations	
		Senser	Pr: Ment	Phenomenon	
107.			set out		in Table 3.
			Pr: Mat		Circ: Location
108.		The requirements per unit	amounted to	1/2 of a sheet.	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	
109.		This	results in	initial production needs in Q1 of 23,000 glass sheets.	
		Actor	Pr: Mat	Goal	
110.		The desired ending inventory for Q1	is calculated		at 20% of the following quarters' production (25,500*20%).
		Goal	Pr: Mat		Circ: Extent
111.		The beginning inventory	is calculated as	the ending inventory for the previous quarter.	
		Token	Pr: Rel, Ident	Value	
112.	When adjusted for opening and closing inventory,	the total material to be purchased	amounts to	23,500 glass sheets.	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	
113.		The cost per sheet	is	\$8,	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	
114.			resulting in	total budgeted cost	for Q1 of \$188,000.
		Actor	Pr: Mat	Goal	Circ: Extent
115.	For metal strips and glass sheets in the L line,	total purchase costs for Q1	amount to	\$326,000.	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	
116.		This process	is repeated		for each subsequent quarter.
		Actor	Pr: Mat		Circ: Extent (temporal)
117.		The total purchase cost across both lines in Q1	amounted to	\$552,000.	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	
118.		The total purchase costs for the 2011 year	are budgeted to amount to	\$2,538,000,	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	
119.		as	shown	in Table 4	on the following page:
		Senser	Pr: Ment	Phenomenon	Circ: Location
120.			Direct Materials Budget S		

		Q1	Q2	Q3	Q4	Total	Q1 2012
	Metal strips						
	Production in units	56,000	61,000	66,000	71,000	254,000	
	Metal strips per unit	0.67	0.67	0.67	0.67	0.67	
	Production needs	37,333	40,667	44,000	47,333	169,333	
	Add: desired ending inventory	0	0	0	0	0	
	Total needed	37,333	40,667	44,000	47,333	169,333	
	Less: beginning inventory	0	0	0	0	0	
	Material to be purchased	37,333	40,667	44,000	47,333	169,333	
	Cost per unit	\$3	\$3	\$3	\$3	\$3	
	Total cost	\$112,000	\$122,000	\$132,000	\$142,000	\$508,000	
	Glass sheets						
	Production in units	56,000	61,000	66,000	71,000	254,000	76,000
	Glass sheets per unit- in metre	0.25	0.25	0.25	0.25	0.25	0.25
	Production needs	14,000	15,250	16,500	17,750	63,500	19,000
	Add: desired ending inventory	3,050	3,300	3,550	3,800	13,700	
	Total production needs	17,050	18,550	20,050	21,550	77,200	
	Less: beginning inventory	2,800	3,050	3,300	3,550	12,700	
	Material to be purchased	14,250	15,500	16,750	18,000	64,500	
	Cost per unit	\$8.00	\$8.00	\$8.00	\$8.00	\$8.00	
	Total purchase cost	\$ 114,000	\$ 124,000	\$ 134,000	\$ 144,000	\$516,000	
	Total purchase cost- S	\$ 226,000	\$ 246,000	\$ 266,000	\$ 286,000	\$ 1,024,000	
	Direct Materials Budget L						
		Q1	Q2	Q3	Q4	Total	Q1 2012
	Metal strips						
	Production in units	46,000	51,000	56,000	61,000	214,000	
	Metal strips per unit- in metre	1	1	1	1	1	
	Production needs	46,000	51,000	56,000	61,000	214,000	
	Add: desired ending inventory	0	0	0	0	0	
	Total needed	46,000	51,000	56,000	61,000	214,000	
	Less: beginning inventory	0	0	0	0	0	
	Material to be purchased	46,000	51,000	56,000	61,000	214,000	
	Cost per unit	\$3	\$3	\$3	\$3	\$3	
	Total cost of Material strips	\$138,000	\$153,000	\$168,000	\$183,000	\$642,000	
	Glass sheets						
	Production in units	46,000	51,000	56,000	61,000	214,000	\$66,000
	Glass sheets per unit- in metre	0.50	0.50	0.50	0.50	0.50	0.50
	Production needs	23,000	25,500	28,000	30,500	107,000	33,000
	Add: desired ending inventory	5,100	5,600	6,100	6,600	23,400	
	Total production needs	28,100	31,100	34,100	37,100	130,400	
	Less: beginning inventory	5,460	5,100	5,600	6,100	21,400	
	Material to be purchased	23,500	26,000	28,500	31,000	109,000	
	Cost per unit	\$8	\$8	\$8	\$8	\$8	
	Total cost of Material strips	\$188,000	\$208,000	\$228,000	\$248,000	\$872,000	
	Total purchase cost- L	\$326,000	\$361,000	\$396,000	\$431,000	\$1,514,000	
	Total purchase cost- (S and L)	\$552,000	\$607,000	\$662,000	\$717,000	\$2,538,000	
	Pr: Mat (8 instances) (*)	Token: Identified		Pr: Implicit, Rel, Ident (201 instances)		Value: Identifier	
121.		5. Cash disbursements budget					
122.		The cash disbursements budget	was calculated				based on the assumptions
		Goal	Pr: Mat			Circ: Manner (quality)	
123.	where	80% of purchases	are paid		in cash	in the same quarter,	
		Goal	Pr: Mat		Range	Circ: Location (temporal)	
124.	and	the other 20%	is paid			in the next quarter.	
		Goal	Pr: Mat			Circ: Location	

						(temporal)	
125.	For Q1,	cash purchases	amounted to	80% of purchases totaling \$552,000			
		Token	Pr: Rel, Ident	Value			
126.		(as	shown	in Table 4),			
		Senser	Pr: Ment	Phenomenon			
127.	which		equates to	\$441,600.			
		Token	Pr: Rel, Ident	Value			
128.	In addition,	accounts payable carrying over from the previous quarter	was shown	in the balance sheet			
		Senser	Pr: Ment	Phenomenon			
129.	as	at 31 December 2010	to be	\$99,400.			
			Pr: Exist.	Existent			
130.	Subsequently,	total cash disbursements in Q1	are budgeted to be	\$541,000.			
		Actor	Pr: Exist.	Existent			
131.	For Q2 cash disbursements,	the 20% of purchases					
		Actor		Goal			
132.		that	weren't paid for			in Q1	
			Pr: Mat			Circ: Location (temporal)	
133.			are subsequently paid,				
			Pr: Mat				
134.	and	80% of Q2 purchases (\$607,000, taken from Table 4)	are also paid				
		Goal	Pr: Mat				
135.		and	amount to	\$485,600.			
		Token: Identified	Pr: Rel, Ident	Value: Identifier			
136.		This process	is then repeated			for each of the following quarters,	
		Actor	Pr: Mat			Circ: Extent (temporal)	
137.			leading to	cash disbursements		for the 2011 year	
		Actor	Pr: Mat	Goal		Circ: Extent (temporal)	
138.			budgeted to amount to	\$2,494,000,			
		Token: Identified	Pr: Rel, Ident	Value: Identifier			
139.	as		shown	in Table 5 below:			
		Senser	Pr: Ment	Phenomenon			
140.			Cash Disbursements budget				
			Q1	Q2	Q3	Q4	Total
			\$	\$	\$	\$	\$
		Accounts payable- Q4 2010	99,400				99,400
		Q1 purchases					
		80% * 552,000	441,600				441,600
		20% * 552,000		110,400			110,400
		Q2 purchases					
		80% * 607,000		485,600			485,600

	20% * 607,000			121,400		121,400	
	Q3 purchases						
	80% * 662,000			529,600		529,600	
	20% * 662,000				132,400	132,400	
	Q4 purchases						
	80% * 717,000				573,700	573,700	
	Total cash payments for materials	541,000	596,000	651,000	706,000	2,494,000	
	Pr: Mat (7 instances) (*)		Token: Identified		Pr: Implicit, Rel, Ident (21 instances)		Value: Identifier
141.	<i>Direct labour</i>						
142.	Direct labour		is calculated				
	Actor		Pr: Mat				
143.	as		shown		in Table 6 below:		
			Pr: Ment		Phenomenon		
144.			Direct-Labour Budget				
			Q1	Q2	Q3	Q4	Total
			\$	\$	\$	\$	\$
	Production in units		102,000	112,000	122,000	132,000	468,000
	Direct-Labour hour		0.10	0.10	0.10	0.10	0.10
	Labour hours required		10,200	11,200	12,200	13,200	46,800
	Wage rate		\$20	\$20	\$20	\$20	\$20
	Total direct-Labour cost		\$204,000	\$224,000	\$244,000	\$264,000	\$936,000
	Token: Identified		Pr: Implicit, Rel, Ident (25 instances)		Value: Identifier		
145.			<i>6. Summary cash budget</i>				
146.	The opening cash balance for Q1		is		\$95,000,		
	Token		Pr: Rel, Ident		Value		
147.	as		shown		in the balance sheet		as at 31 December 2010.
			Pr: Ment		Phenomenon		Circ: Extent (temporal)
148.	Cash collections for Q1		amount to		\$1,210,000,		
	Token		Pr: Rel, Ident		Value		
149.	which		is taken		from Table 2.		
	Goal		Pr: Mat		Range		
150.	Total cash available subsequently		amounts to		\$1,305,000.		
	Token		Pr: Rel, Ident		Value		
151.	It is then necessary		to subtract		disbursements, comprised of materials costs, direct labour and manufacturing overhead.		
	Actor		Pr: Mat		Goal		
152.	Materials disbursements for Q1		amounted to		\$541,000,		
	Token		Pr: Rel, Ident		Value		
153.	as		shown		in Table 5.		
			Pr: Ment		Phenomenon		
154.	Direct labour		amounted to		\$204,000,		

		disbursements for Q1			
		Token	Pr: Rel, Ident	Value	
155.	as		shown	in Table 6.	
			Pr: Ment	Phenomenon	
156.		Manufacturing overhead figures	are	provided.	
		Carrier	Pr: Rel, Attrib	Attribute	
157.	For Q1,	they	are comprised of	the following: indirect material (\$10,200); indirect labour (\$40,800); other overheads (\$31,000); selling & admin expenses (\$100,000) and dividends paid (\$50,000).	
		Actor	Pr: Mat	Goal	
158.		It	is also necessary to include	the equipment purchase in Q1,	
		Actor	Pr: Mat	Goal	
159.	as	it	was purchased		on 2 January 2011.
		Goal	Pr: Mat		Circ: Location (temporal)
160.		This	amounts to	an additional one-off expense of \$1,000,000.	
		Token	Pr: Rel, Ident	Value	
161.		Total disbursements for Q1 subsequently	amounted to	(\$1,977,000),	
		Token	Pr: Rel, Ident	Value	
162.		which	led to	a deficiency of cash	at the end of Q1 of (\$672,000).
		Actor	Pr: Mat	Goal	Circ: Extent (temporal)
163.	To complete the summary cash budget,	we	must then	adjust	for financing costs.
		Actor		Pr: Mat	Goal
164.	For Q1,	it	includes	a positive amount of \$1,000,000	corresponding with the loan expense.
		Circ: Extent (temporal)	Actor	Pr: Mat	Goal
		Actor	Pr: Mat	Goal	Circ: Manner (quality)
165.		A repayment of (\$250,000)	is also paid		at the end of Q1, based on the quarterly installment repayment plan.
		Goal	Pr: Mat		Circ: Extent (temporal)
166.		Interest on the loan for Q1	amounts to	\$25,000,	in accordance with the interest rate terms of 10% per annum.
		Token	Pr: Rel, Ident	Value	Circ: Manner (quality)
167.		Interest	is subsequently reduced		in each quarter,

			Pr: Mat	Goal	Circ: Location (temporal)																																																																																																																																																																															
168.					corresponding with the repayments of the loan.																																																																																																																																																																															
			Pr: Mat	Goal	Circ: Manner (quality)																																																																																																																																																																															
169.	Based on these adjustments,	the ending cash balance for Q1	amounts to	\$53,000.																																																																																																																																																																																
		Token	Pr: Rel, Ident	Value																																																																																																																																																																																
170.		Details for the 2011 year	are shown	below	in Table 7.																																																																																																																																																																															
		Senser	Pr: Ment	Phenomenon	Circ: Location																																																																																																																																																																															
171.	<table border="1"> <thead> <tr> <th colspan="7">Summary Cash Budget</th> </tr> <tr> <th></th> <th></th> <th></th> <th>Qtr1</th> <th>Qtr2</th> <th>Qtr3</th> <th>Qtr4</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Beginning cash balance</td> <td></td> <td></td> <td>\$ 95,000</td> <td>\$ 53,000</td> <td>\$ 57,250</td> <td>\$ 107,750</td> <td>\$ 95,000</td> </tr> <tr> <td>add: Cash collections</td> <td></td> <td></td> <td>1,210,000</td> <td>1,335,000</td> <td>1,460,000</td> <td>1,585,000</td> <td>5,590,000</td> </tr> <tr> <td>Total cash available</td> <td></td> <td></td> <td>\$ 1,305,000</td> <td>\$ 1,388,000</td> <td>\$ 1,517,250</td> <td>\$ 1,692,750</td> <td>\$ 5,903,000</td> </tr> <tr> <td>less: Disbursements</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Materials</td> <td></td> <td></td> <td>541,000</td> <td>596,000</td> <td>651,000</td> <td>706,000</td> <td>2,494,000</td> </tr> <tr> <td>Direct</td> <td></td> <td></td> <td>204,000</td> <td>224,000</td> <td>244,000</td> <td>264,000</td> <td>936,000</td> </tr> <tr> <td>Mfg. overhead</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Indirect Material</td> <td></td> <td></td> <td>10,200</td> <td>11,200</td> <td>12,200</td> <td>13,200</td> <td>46,800</td> </tr> <tr> <td>Indirect Labour</td> <td></td> <td></td> <td>40,800</td> <td>44,800</td> <td>48,800</td> <td>52,800</td> <td>187,200</td> </tr> <tr> <td>Other overhead [</td> <td></td> <td></td> <td>31,000</td> <td>36,000</td> <td>41,000</td> <td>46,000</td> <td>154,000</td> </tr> <tr> <td>Selling and Admin</td> <td></td> <td></td> <td>100,000</td> <td>100,000</td> <td>100,000</td> <td>100,000</td> <td>400,000</td> </tr> <tr> <td>Equipment purchase[</td> <td></td> <td></td> <td>1,000,000</td> <td>0</td> <td>0</td> <td>0</td> <td>1,000,000</td> </tr> <tr> <td>Dividend</td> <td></td> <td></td> <td>50,000.00</td> <td>50,000.00</td> <td>50,000.00</td> <td>50,000.00</td> <td>200,000.00</td> </tr> <tr> <td>Total disbursement</td> <td></td> <td></td> <td>\$ 1,977,000</td> <td>\$ 1,062,000</td> <td>\$ 1,147,000</td> <td>\$ 1,232,000</td> <td>\$ 5,418,000</td> </tr> <tr> <td>Excess (deficiency) of cash available over disbursements</td> <td></td> <td></td> <td>\$ (672,000)</td> <td>\$ 326,000</td> <td>\$ 370,250</td> <td>\$ 460,750</td> <td>\$ 485,000</td> </tr> <tr> <td>Financing</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Borrowing</td> <td></td> <td></td> <td>1,000,000.00</td> <td>0</td> <td>0</td> <td>0</td> <td>1,000,000.00</td> </tr> <tr> <td>Repayments</td> <td></td> <td></td> <td>(250,000)</td> <td>(250,000)</td> <td>(250,000)</td> <td>(250,000)</td> <td>(1,000,000)</td> </tr> <tr> <td>Interest</td> <td></td> <td></td> <td>(25,000)</td> <td>(18,750)</td> <td>(12,500)</td> <td>(6,250)</td> <td>(62,500)</td> </tr> <tr> <td>Ending cash balance</td> <td></td> <td></td> <td>\$ 53,000</td> <td>\$ 57,250</td> <td>\$ 107,750</td> <td>\$ 204,500</td> <td>\$ 204,500</td> </tr> </tbody> </table>					Summary Cash Budget										Qtr1	Qtr2	Qtr3	Qtr4	Total	Beginning cash balance			\$ 95,000	\$ 53,000	\$ 57,250	\$ 107,750	\$ 95,000	add: Cash collections			1,210,000	1,335,000	1,460,000	1,585,000	5,590,000	Total cash available			\$ 1,305,000	\$ 1,388,000	\$ 1,517,250	\$ 1,692,750	\$ 5,903,000	less: Disbursements								Materials			541,000	596,000	651,000	706,000	2,494,000	Direct			204,000	224,000	244,000	264,000	936,000	Mfg. overhead								Indirect Material			10,200	11,200	12,200	13,200	46,800	Indirect Labour			40,800	44,800	48,800	52,800	187,200	Other overhead [31,000	36,000	41,000	46,000	154,000	Selling and Admin			100,000	100,000	100,000	100,000	400,000	Equipment purchase[1,000,000	0	0	0	1,000,000	Dividend			50,000.00	50,000.00	50,000.00	50,000.00	200,000.00	Total disbursement			\$ 1,977,000	\$ 1,062,000	\$ 1,147,000	\$ 1,232,000	\$ 5,418,000	Excess (deficiency) of cash available over disbursements			\$ (672,000)	\$ 326,000	\$ 370,250	\$ 460,750	\$ 485,000	Financing								Borrowing			1,000,000.00	0	0	0	1,000,000.00	Repayments			(250,000)	(250,000)	(250,000)	(250,000)	(1,000,000)	Interest			(25,000)	(18,750)	(12,500)	(6,250)	(62,500)	Ending cash balance			\$ 53,000	\$ 57,250	\$ 107,750	\$ 204,500	\$ 204,500
Summary Cash Budget																																																																																																																																																																																				
			Qtr1	Qtr2	Qtr3	Qtr4	Total																																																																																																																																																																													
Beginning cash balance			\$ 95,000	\$ 53,000	\$ 57,250	\$ 107,750	\$ 95,000																																																																																																																																																																													
add: Cash collections			1,210,000	1,335,000	1,460,000	1,585,000	5,590,000																																																																																																																																																																													
Total cash available			\$ 1,305,000	\$ 1,388,000	\$ 1,517,250	\$ 1,692,750	\$ 5,903,000																																																																																																																																																																													
less: Disbursements																																																																																																																																																																																				
Materials			541,000	596,000	651,000	706,000	2,494,000																																																																																																																																																																													
Direct			204,000	224,000	244,000	264,000	936,000																																																																																																																																																																													
Mfg. overhead																																																																																																																																																																																				
Indirect Material			10,200	11,200	12,200	13,200	46,800																																																																																																																																																																													
Indirect Labour			40,800	44,800	48,800	52,800	187,200																																																																																																																																																																													
Other overhead [31,000	36,000	41,000	46,000	154,000																																																																																																																																																																													
Selling and Admin			100,000	100,000	100,000	100,000	400,000																																																																																																																																																																													
Equipment purchase[1,000,000	0	0	0	1,000,000																																																																																																																																																																													
Dividend			50,000.00	50,000.00	50,000.00	50,000.00	200,000.00																																																																																																																																																																													
Total disbursement			\$ 1,977,000	\$ 1,062,000	\$ 1,147,000	\$ 1,232,000	\$ 5,418,000																																																																																																																																																																													
Excess (deficiency) of cash available over disbursements			\$ (672,000)	\$ 326,000	\$ 370,250	\$ 460,750	\$ 485,000																																																																																																																																																																													
Financing																																																																																																																																																																																				
Borrowing			1,000,000.00	0	0	0	1,000,000.00																																																																																																																																																																													
Repayments			(250,000)	(250,000)	(250,000)	(250,000)	(1,000,000)																																																																																																																																																																													
Interest			(25,000)	(18,750)	(12,500)	(6,250)	(62,500)																																																																																																																																																																													
Ending cash balance			\$ 53,000	\$ 57,250	\$ 107,750	\$ 204,500	\$ 204,500																																																																																																																																																																													
	Pr: Mat (2 instances)	Token: Identified	Pr: Implicit, Rel, Ident (90 instances)	Value: Identifier																																																																																																																																																																																
172.	7. Budgeted schedule of cost of goods manufactured and sold																																																																																																																																																																																			
173.	In order to		calculate	budgeted cost of goods manufactured,																																																																																																																																																																																
			Pr: Mat	Goal																																																																																																																																																																																
174.		it	is necessary to first calculate	manufacturing overhead.																																																																																																																																																																																
		Actor	Pr: Mat	Goal																																																																																																																																																																																
175.		These figures	are provided, and are budgeted to amount to	\$468,000	for the 2011 year.																																																																																																																																																																															
		Token: Identified	Pr: Rel, Ident	Value: Identifier	Circ: Extent																																																																																																																																																																															
176.		The costs of goods manufactured	are calculated																																																																																																																																																																																	
		Goal	Pr: Mat																																																																																																																																																																																	
177.	as		shown	below	in Table 8:																																																																																																																																																																															

	Senser		Pr: Ment			Phenomenon	Circ: Location
178.	Manufacturing overhead	Q1	Q2	Q3	Q4	Total	
	Indirect Materials	10,200	11,200	12,200	13,200	46,800	
	Indirect Labour	40,800	44,800	48,800	52,800	187,200	
	Other Overhead	31,000	36,000	41,000	46,000	154,000	
	Depreciation	20,000	20,000	20,000	20,000	80,000	
	Total	102,000	112,000	122,000	132,000	468,000	
	Direct materials	Q1	Q2	Q3	Q4	Total	
	Beginning direct materials	59,200	65,200	71,200	77,200	59,200	
	add: Purchases	552,000	607,000	662,000	717,000	2,538,000	
	Raw material available for use	611,200	672,200	733,200	794,200	2,810,800	
	less: closing direct materials	65,200	71,200	77,200	83,200	83,200	
	Direct materials used	546,000	601,000	656,000	711,000	2,514,000	
	Direct labour	204,000	224,000	244,000	264,000	936,000	
	Total manufacturing overhead	102,000	112,000	122,000	132,000	468,000	
	Total manufacturing costs	852,000	937,000	1,022,000	1,107,000	3,918,000	
	Add: Beginning WIP	0	0	0	0	0	
	Less: Ending WIP	0	0	0	0	0	
Cost of goods manufactured	852,000	937,000	1,022,000	1,107,000	3,918,000		
	Pr: Mat (4 instances)		Token: Identified		Pr: Implicit, Rel, Ident (80 instances)		Value: Identifier
179.		The above table	shows		the schedule of manufacturing overhead, and the calculations for direct material costs.		
		Senser	Pr: Ment		Phenomenon		
180.		These costs	can be explained				as follows:
		Phenomenon	Pr: Behav.				Circ: Role
181.		The beginning direct materials	are calculated		from the direct material budget		
		Goal	Pr: Mat		Client		
182.			shown		in Table 4.		
		Senser	Pr: Ment		Phenomenon		
183.	For Q1,	this	is calculated as		beginning inventory - glass sheets - for both the S and L lines, multiplied by the price per sheet		
		Token	Pr: Rel, Ident		Value		
184.		((2800	+		4600)		
		Actor	Pr: Mat		Goal		
185.			*		(\$8).		
		Actor	Pr: Mat		Goal		
186.		There	is		no beginning or ending inventories		

				for metal strips	
			Pr: Exist.	Existent	
187.	since	they	are purchased	on a just-in-time basis.	
		Goal	Pr: Mat		
188.		The purchased materials	are calculated	from the material budget	
		Goal	Pr: Mat		
189.			shown	in Table 4.	
		Senser	Pr: Ment	Phenomenon	
190.	For Q1,	the total purchase costs for both lines S and L	amounted to	\$552,000.	
		Token	Pr: Rel, Ident	Value	
191.		This	equates to	raw materials available for use	in Q1 of 611,200
		Token	Pr: Rel, Ident	Value	Circ: Extent (temporal)
192.		(59,200	+	552,000).	
		Actor	Pr: Mat	Goal	
193.		The closing direct materials	are calculated	from the direct material budget	
		Goal	Pr: Mat		
194.			shown	in Table 4.	
		Senser	Pr: Ment	Phenomenon	
195.	For Q1,	this	is calculated as	ending inventory - glass sheets- for both the S and L lines, multiplied by the price per sheet	
		Token	Pr: Rel, Ident	Value	
196.		((3,050	+	5,100)	
		Actor	Pr: Mat	Goal	
197.			*	\$8).	
		Actor	Pr: Mat	Goal	
198.		This	equates to	direct materials used in Q1 of 546,000	
		Token	Pr: Rel, Ident	Value	
199.		(611,200	-	65,200).	
		Actor	Pr: Mat	Goal	
200.		Direct labour	is calculated		
		Goal	Pr: Mat		
201.	as		shown	in Table 6,	
		Senser	Pr: Ment	Phenomenon	
202.	and		amounts to	\$204,000 for Q1.	
		Token	Pr: Rel, Ident	Value	
203.		Total manufacturing overhead costs	are provided,		
		Recipient	Pr: Mat		
204.	and		amount to	\$102,000 for Q1.	
		Token	Pr: Rel, Ident	Value	
205.	As		shown	in the table above,	
		Senser	Pr: Ment	Phenomenon	
206.		the total budgeted cost of goods manufactured	amounts to	\$3,918,000.	

		Token	Pr: Rel, Ident				Value	
207.		The costs of goods sold	are calculated					
		Goal	Pr: Mat					
208.	as		shown				below	in Table 9:
		Senser	Pr: Ment				Phenomenon	Circ: Location
209.	New projected manufacturing costs	S-Frame	L-Frame					
	Direct materials	\$	\$					
	Metal strips	2,0	3,0					
	Glass sheets	2,0	4,0					
	Direct labour	2,0	2,0					
	Manufacturing overhead	1,0	1,0					
	Total	7,0	10,0					
	Cost of goods sold	Q1	Q2	Q3	Q4	Total		
		\$	\$	\$	\$	\$		
	Beginning finished goods inventory							
	S-Frame	77000	84000	91000	98000	77000		
	L-Frame	90000	100000	110000	120000	90000		
	Total	1670000	184000	201000	218000			
	Add: cost of goods manufactured	852000	937000	1022000	1107000	3918000		
	cost of goods available for sale	1019000	1121000	1223000	1325000	4688000		
	Less: closing finished goods inventory							
	S-Frame	84000	91000	98000	105000	105000		
	L-Frame	100000	110000	120000	130000	130000		
	Total	184000	201000	218000	235000			
		835000	920000	1005000	1090000	3850000		
	Pr: Mat (2 instances)		Token: Identified		Pr: Implicit, Rel, Ident (53 instances)		Value: Identifier	
210.	In order to		determine		the budgeted cost of goods sold,			
		Senser	Pr: Ment		Phenomenon			
211.		it	is		first	necessary		
		Carrier	Pr: Rel, Attrib		Attribute			
212.			to calculate		the projected manufacturing costs per unit for both the S and L lines.			
			Pr: Mat		Goal			
213.		These figures	are given		in the instructions provided			
		Goal	Pr: Mat		Client			
214.	and		are shown		above.			
		Senser	Pr: Ment		Phenomenon			
215.		The above chart	shows					
		Senser	Pr: Ment					
216.	that	projected manufacturing costs per unit	amount to		\$7.00 and \$10.00		for the S and L lines respectively.	

		Token: Identified	Pr: Rel, Ident	Value: Identifier	Circ: Manner
217.		It	is	then	necessary
		Carrier	Pr: Rel, Attrib		Attribute
218.			to calculate	opening finished goods inventory	for the 2011 year across both the S and L lines.
			Pr: Mat	Goal	Circ: Extent (temporal)
219.		This	is done by multiplying	the cost per unit for each line by the amount of opening stock in each period,	
		Actor	Pr: Mat	Goal	
220.	as		shown	in the production budget in Table 3.	
		Senser	Pr: Ment	Phenomenon	
221.	For the S Line in Q1,	this	amounts to	11,000 units	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	
222.		(11,000	*	\$7.00	
		Actor	Pr: Mat	Goal	
			=	\$77,000).	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	
223.	For the L Line in Q1,	this	amounts to	9,000 units	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	
224.		(9,000	*	\$10.00	
		Actor	Pr: Mat	Goal	
225.			=	\$90,000).	
			Pr: Rel, Ident	Value: Identifier	
226.			To work out	the cost of goods manufactured for each quarter,	
			Pr: Mat	Goal	
227.		we simply	plug in	the figures calculated in the COGM schedule,	
		Actor	Pr: Mat	Goal	
228.			shown	above	in Table 8.
		Senser	Pr: Ment	Phenomenon	Circ: Location
229.		Adding this amount to the opening inventory for each quarter	gives	a budgeted figure for cost of goods available for sale in the 2011 year of \$4,688,000.	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	
230.			Using	a similar process to the calculation of opening finished goods inventory,	
			Pr: Mat	Goal	
231.		we then	calculate	closing finished goods inventory.	
		Actor	Pr: Mat	Goal	
232.		This is done by	multiplying	the cost per unit for each line	
		Actor	Pr: Mat	Goal	

233.			by	the amount of closing stock	in each period,				
		Actor	Pr: Mat	Goal	Circ: Extent				
234.		as	shown	in the production budget	in Table 3.				
		Senser	Pr: Ment	Phenomenon	Circ: Location				
235.	For the S Line in Q4,	this	amounts to	15,000 units					
	Circ:	Token	Pr: Rel, Ident	Value					
236.		(15,000	*	\$7.00					
		Actor	Pr: Mat	Goal					
237.			=	\$105,000).					
			Pr: Rel, Ident	Value: Identifier					
238.	For the L Line in Q4,	this	amounts to	13,000 units					
	Circ:	Token	Pr: Rel, Ident	Value					
239.		(13,000	*	\$10.00					
		Actor	Pr: Mat	Goal					
240.			=	\$130,000).					
			Pr: Rel, Ident	Value: Identifier					
241.		The above table	shows						
		Senser	Pr: Ment						
242.	that		subtracting	closing inventory from the cost of goods available for sale					
		Senser	Pr: Ment	Phenomenon					
243.			gives	a budgeted cost of goods sold figure of \$3,850,000	for the 2011 year.				
		Carrier	Pr: Rel, Attrib	Attribute	Circ: Extent (temporal)				
244.		<i>8. Budgeted Profit & Loss Statement</i>							
245.		The budgeted P & L Statement for Frame-It Ltd for the 2011 year	is shown	below	in Table 10:				
		Senser	Pr: Ment	Phenomenon	Circ: Location				
246.			Q1	Q2	Q3	Q4	Total		
	Sales revenue	1,225,000	1,350,000	1,475,000	1,600,000	5,650,000			
	Cost of goods sold	835,000	920,000	1,005,000	1,090,000	3,850,000			
	Gross margin	390,000	430,000	470,000	510,000	1,800,000			
	Selling and administrative expense	100,000	100,000	100,000	100,000	400,000			
	Operating income	290,000	330,000	370,000	410,000	1,400,000			
	Interest expense	25,000	18,750	12,500	6,250	62,500			
	Net income before tax	265,000	311,250	357,500	403,750	1,337,500			
		Token: Identified	Pr: Implicit, Rel, Ident (35 instances)			Value: Identifier			
247.		The above table	shows						
		Senser	Pr: Ment	Phenomenon					

248.	that	quarterly figures of sales revenue	are taken	from the sales budget	in Table 1.
		Goal	Pr: Mat	Range	Circ: Location
249.		Cost of goods sold, taken from Table 10,	is then subtracted to give	the gross profit figure for each quarter and the full year.	
		Token	Pr: Rel, Ident	Value	
250.		Selling and administrative expenses	are then deducted to give	operating income.	
		Token	Pr: Rel, Ident	Value	
251.		We then	deduct	interest expense,	
		Actor	Pr: Mat	Goal	
252.		which	is taken	from the summary cash budget	in Table 7.
		Goal	Pr: Mat	Range	Circ: Location
253.			Deducting	these expenses from gross profit	
		Actor	Pr: Mat	Goal	
254.			gives	a quarterly net income figure before tax.	
			Pr: Mat	Goal	
255.		The above table	shows		
		Senser	Pr: Ment	Phenomenon	
256.	that	net income before tax for the 2011 year	is budgeted to be	\$1,337,500.	
		Actor	Pr: Exist.	Existent	
257.		<i>9. Budgeted Statement of Retained Earnings</i>			
258.		The budgeted Statement of Retained Earnings for Frame-It Ltd for the 2011 year	is shown	below	in Table 11:
		Senser	Pr: Ment	Phenomenon	Circ: Location
259.		Retained earnings brought forward	3,353,800		
		Add: net budgeted income current year	1,337,500		
		Total	4,691,300		
		Less: dividends paid	200,000		
		Retained earnings carried forward	4,491,300		
		Pr: Mat (2 instances)	Token: Identified	Pr: Implicit, Rel, Ident (5 instances)	Value: Identifier
260.		Opening retained earnings	are brought forward		
		Goal	Pr: Mat		
261.		from the figure	shown	in the balance sheet	as at 31 December 2010.
		Senser	Pr: Ment	Phenomenon	Circ: Extent (temporal)
262.		We then	add	the budgeted figures	for the 2011 year
		Actor	Pr: Mat	Goal	Circ: Extent (temporal)

263.		which	gives	a total of \$4,691,300.																																				
		Token: Identified	Pr: Rel, Ident	Value: Identifier																																				
264.		We then	allow for	\$200,000 of dividends																																				
		Behaver	Pr: Behav	Range																																				
265.			to be paid,		based on the information provided																																			
			Pr: Mat		Circ: Manner (quality)																																			
266.		which	states																																					
		Sayer: Verbiage	Pr: Verb.	Receiver: Target																																				
267.	that	the company	expects to pay	dividends of \$50,000 per quarter	during the 2011 year																																			
		Actor	Pr: Mat	Goal	Circ: Extent																																			
268.		(4	*	\$50,000																																				
		Actor	Pr: Mat	Goal																																				
269.			=	\$200,000).																																				
		Token: Identified	Pr: Rel, Ident	Value: Identifier																																				
270.		The above table	shows																																					
		Senser	Pr: Ment	Phenomenon																																				
271.	that		subtracting	dividends																																				
		Actor	Pr: Mat	Goal																																				
272.			gives	a budgeted statement of retained earnings	for the 2011 year of \$4,491,300.																																			
		Token: Identified	Pr: Rel, Ident	Value: Identifier	Circ: Extent																																			
273.		<i>10. Budgeted Balance Sheet</i>																																						
274.		The budgeted Balance Sheet for Frame-It Ltd as at 31 December 2011	is shown	below	in Table 11:																																			
		Senser	Pr: Ment	Phenomenon	Circ: Location																																			
275.		<table border="1"> <tr> <td colspan="2">Current assets</td> </tr> <tr> <td>Cash</td> <td>204,500</td> </tr> <tr> <td>Accounts receivable</td> <td>192,000</td> </tr> <tr> <td colspan="2"><i>Inventory</i></td> </tr> <tr> <td>Raw materials inventory</td> <td>83,200</td> </tr> <tr> <td>Finished goods inventory</td> <td>235,000</td> </tr> <tr> <td></td> <td>318,200</td> </tr> <tr> <td>Total</td> <td>714,700</td> </tr> <tr> <td colspan="2">Non-current assets</td> </tr> <tr> <td>Plant & equipment</td> <td>9,000,000</td> </tr> <tr> <td>(Accumulated depreciation)</td> <td>80,000</td> </tr> <tr> <td>Total</td> <td>8,920,000</td> </tr> <tr> <td>Total assets</td> <td>9,634,700</td> </tr> <tr> <td colspan="2"> </td> </tr> <tr> <td colspan="2">Liabilities</td> </tr> <tr> <td>Accounts payable</td> <td>143,400</td> </tr> <tr> <td>Total</td> <td>143,400</td> </tr> </table>			Current assets		Cash	204,500	Accounts receivable	192,000	<i>Inventory</i>		Raw materials inventory	83,200	Finished goods inventory	235,000		318,200	Total	714,700	Non-current assets		Plant & equipment	9,000,000	(Accumulated depreciation)	80,000	Total	8,920,000	Total assets	9,634,700			Liabilities		Accounts payable	143,400	Total	143,400		
Current assets																																								
Cash	204,500																																							
Accounts receivable	192,000																																							
<i>Inventory</i>																																								
Raw materials inventory	83,200																																							
Finished goods inventory	235,000																																							
	318,200																																							
Total	714,700																																							
Non-current assets																																								
Plant & equipment	9,000,000																																							
(Accumulated depreciation)	80,000																																							
Total	8,920,000																																							
Total assets	9,634,700																																							
Liabilities																																								
Accounts payable	143,400																																							
Total	143,400																																							

	Net assets	9,491,300		
	Equity			
	Ordinary shares	5,000,000		
	Retained earnings	4,491,300		
	Total	9,491,300		
	Token: Identified	Pr: Implicit, Rel, Ident (16 instances)	Value: Identifier	
276.	Each of the items in the Balance Sheet	can be explained		as follows:
	Phenomenon	Pr: Behav.		Circ: Role
277.	The cash balance of \$204,500	is taken	from the closing cash balance in the summary cash budget,	
	Goal	Pr: Mat	Range	
278.	which	is shown		in Table 7.
	Senser	Pr: Ment	Phenomenon	Circ: Location
279.	Budgeted accounts receivable	are taken	from the cash receipts budget	in Table 2.
	Actor	Pr: Mat	Goal	Circ: Location
280.	This sum	is made up	of the amounts owing at the end Q4 2011 for both the S and L lines.	
	Actor	Pr: Mat	Range	
281.	Of the credit sales made in each quarter,	20%	are paid	in the following quarter.
	Circ:	Actor	Pr: Mat	Goal
282.	In this case,	the amount owing at the end of Q4 for the S line	was	\$84,000,
	Circ:	Token: Identified	Pr: Rel, Ident	Value: Identifier
283.	and	the amount owing for the L line	was	\$108,000.
	Token: Identified	Pr: Rel, Ident	Value: Identifier	
284.	When summed together,	these two figures	amount to	\$192,000,
285.	as	shown		in the table above.
	Senser	Pr: Ment	Phenomenon	Circ: Location
286.	Budgeted raw materials inventory	is taken	from the direct material budget,	
	Goal	Pr: Mat	Range	
287.		shown		in Table 4.
	Senser	Pr: Ment	Phenomenon	Circ: Location
	Actor	Pr: Mat	Goal	
288.	The closing balances for glass sheets in the S and L lines	are multiplied by	their cost per unit,	
	Actor	Pr: Mat	Goal	

289.		which in this case	is	\$8.	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	
290.		This	gives	a figure of \$30,400 for the S line and \$52,800 for the L line,	
		Actor	Pr: Mat	Goal	
291.		which	sums to	\$83,200,	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	
292.		as	shown	in the table above.	
		Senser	Pr: Ment	Phenomenon	
293.		Finished goods inventory	is taken	from the closing balance of inventory for the S and L line in the cost of goods sold schedule	in Table 9.
		Goal	Pr: Mat	Range	Circ: Location
294.		Plant & equipment of \$9,000,000	is made up of	the \$8,000,000 provided in the information, together	with the \$1,000,000 machine purchased on 2 January 2011.
		Token: Identified	Pr: Rel, Ident	Value: Identifier	Circ: Accompaniment
295.		Depreciation of \$80,000	is	simply the sum of budgeted depreciation for each quarter of \$20,000.	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	
296.		Accounts payable	is calculated as	20% of \$717,000,	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	
297.	which		equals	\$143,400.	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	
298.		80% of purchases	are paid for		in the quarter
		Goal	Pr: Mat		Circ: Location (temporal)
299.	in which	they	are made,		
		Goal	Pr: Mat		
300.	while	the remaining 20%	are paid		in the next quarter.
		Goal	Pr: Mat		Circ: Extent (temporal)
301.		The figure of \$717,000	is taken	from the direct materials budget	in Table 4,
		Goal	Pr: Mat	Range	Circ: Location (spatial)
302.		which	shows		
		Senser	Pr: Ment		
303.	that	at the end of Q4 total purchases across both product lines	amounted to	\$717,000.	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	
304.		Equity	is comprised of	ordinary share capital (provided in the information at \$5,000,000) and	

				retained earnings,	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	
305.		which	is taken	from the figure	in Table 11
		Goal	Pr: Mat	Range	Circ: Location (spatial)
306.	and		amounts to	\$4,491,300.	
		Token: Identified	Pr: Rel, Ident	Value: Identifier	

Appendix 58: Cohesion analysis of Group 1's Management Accounting text⁴⁵

Title	Major Assignment - Semester 2 2010		
Pseudonym	Abdulrahman, Abdullah & Steve (Group 1)		
Type of Analysis	Cohesion Analysis		
Program	Master of Commerce		
Module	Management Accounting		
Number of Words	894		
Notes			
1.	Material Costs		2011 Year
	Metal Strips (per metre)	Cost \$ 3.00	
	Glass Sheet (per unit)	\$ 8.00	
	Bill of Materials		
		Notes	S Frame L Frame
	Metal Strip (metres)	a)	2/3 1
	Glass Sheet (units)	b)	1/4 1/2
		c)	
	<ul style="list-style-type: none"> • <i>Metal Strips (per metre) [L: Mer.] & Glass Sheet (per unit) [L: Mer.] tie with Material Costs [L: Hyp.]</i> • <i>Cost [L: Rep.] 1 instance</i> • <i>Materials [L: Rep.] 1 instance</i> • <i>Metal [L: Rep.] 1 instance</i> • <i>Glass [L: Rep.] 1 instance</i> 		<ul style="list-style-type: none"> • <i>Sheet [L: Rep.] 1 instance</i> • <i>Unit(s) [L: Rep.] 1 instance</i> • <i>Strip [L: Rep.] 1 instance</i> • <i>Metre(s) [L: Rep.] 1 instance</i> • <i>Frame [L: Rep.] 1 instance</i>
2.	a) wasting from production process is assumed negotiable.		
3.	b) allowing for normal breakage and [Ellip.: V.] scrap glass [L: Rep.]		
4.	c) Other raw materials [L: Rep.], such as [C: Elaboration: Appos.] cardboard backing, are insignificant in cost [L: Rep.]		
5.	and [C: Extension: Add.] are treated as <u>indirect</u> materials. [L: Rep.]		
6.	Projected Manufacturing Costs		
	Metal Strips	Notes	S Frame L Frame
	S: 2/3 metre @ \$3 per metre		\$ 2.00
	L: 1 metre @ \$3 per metre		\$ 3.00
	Glass Sheets		
	S: 1/4 sheet @ \$8 per sheet		2.00
	L: 1/2 sheet @ \$8 per sheet		4.00
	Direct Labour		
	0.1 hours @ \$20 per hour		2.00 2.00
	Manufacturing Overhead		
	0.1 direct labour hour @ \$10 per hour		1.00 1.00
	Total Manufacturing Cost Per Unit		\$ 7.00 \$ 10.00
	<ul style="list-style-type: none"> • <i>S: 2/3 metre @ \$3 per metre [L: Mer.] & L: 1 metre @ \$3 per metre [L: Mer.] tie with Metal Strips [L: Hyp.]</i> • <i>S: 1/4 sheet @ \$8 per sheet [L: Mer.] & L: 1/2 sheet @ \$8 per sheet [L: Mer.] tie with Glass Sheets [L: Hyp.]</i> • <i>0.1 hours @ \$20 per hour [L: Mer.] ties with Direct Labour [L: Hyp.]</i> • <i>0.1 direct labour hour @ \$10 per hour [L: Mer.] ties with Manufacturing Overhead [L: Hyp.]</i> • <i>Metal Strips, Glass Sheets, Direct Labour, & Manufacturing Overhead tie with Projected Manufacturing Costs</i> • <i>[L: Hyper.] & Total Manufacturing Cost Per Unit [L:</i> 		<ul style="list-style-type: none"> • <i>Metal [L: Rep.] 1 instance</i> • <i>Strips [L: Rep.] 1 instance</i> • <i>Metre [L: Rep.] 4 instances</i> • <i>Glass [L: Rep.] 1 instance</i> • <i>Sheet(s) [L: Rep.] 4 instances</i> • <i>Manufacturing [L: Rep.] 2 instances</i> • <i>Labour [L: Rep.] 1 instance</i> • <i>Direct [L: Rep.] 1 instance</i> • <i>Unit [L: Rep.] 1 instance</i> • <i>Per [L: Rep.] 6 instances</i>

⁴⁵ Refer to Appendix 19 for the procedures followed in cohesion analysis of the texts.

	<i>Hyper.]</i> <ul style="list-style-type: none"> • <i>direct [L: Ant.] ties with indirect</i> • <i>Cost(s) [L: Rep.] 2 instances</i> 	<ul style="list-style-type: none"> • <i>Notes [L: Rep.] 1 instance</i> • <i>Frame [L: Rep.] 2 instances</i> • <i>\$ [L: Rep.] 9 instances</i> 																																																												
7.	<p>Manufacturing Overhead Budget 2011</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%; text-align: center;">Qtr1</th> <th style="width: 10%; text-align: center;">Qtr2</th> <th style="width: 10%; text-align: center;">Qtr3</th> <th style="width: 10%; text-align: center;">Qtr4</th> <th style="width: 10%; text-align: center;">Year</th> </tr> </thead> <tbody> <tr> <td>Indirect Materials</td> <td style="text-align: right;">\$ 10,200.00</td> <td style="text-align: right;">\$ 11,200.00</td> <td style="text-align: right;">\$ 12,200.00</td> <td style="text-align: right;">\$ 13,200.00</td> <td style="text-align: right;">\$ 46,800.00</td> </tr> <tr> <td style="padding-left: 20px;">d)</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Indirect Labour</td> <td style="text-align: right;">40,800.00</td> <td style="text-align: right;">44,800.00</td> <td style="text-align: right;">48,800.00</td> <td style="text-align: right;">52,800.00</td> <td style="text-align: right;">187,200.00</td> </tr> <tr> <td style="padding-left: 20px;">d)</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other Overhead</td> <td style="text-align: right;">31,000.00</td> <td style="text-align: right;">36,000.00</td> <td style="text-align: right;">41,000.00</td> <td style="text-align: right;">46,000.00</td> <td style="text-align: right;">154,000.00</td> </tr> <tr> <td style="padding-left: 20px;">d)</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Depreciation</td> <td style="text-align: right;">20,000.00</td> <td style="text-align: right;">20,000.00</td> <td style="text-align: right;">20,000.00</td> <td style="text-align: right;">20,000.00</td> <td style="text-align: right;">80,000.00</td> </tr> <tr> <td style="padding-left: 20px;">e)</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Total Overhead</td> <td style="text-align: right;">\$ 102,000.00</td> <td style="text-align: right;">\$ 112,000.00</td> <td style="text-align: right;">\$ 122,000.00</td> <td style="text-align: right;">\$ 132,000.00</td> <td style="text-align: right;">\$ 468,000.00</td> </tr> </tbody> </table>		Qtr1	Qtr2	Qtr3	Qtr4	Year	Indirect Materials	\$ 10,200.00	\$ 11,200.00	\$ 12,200.00	\$ 13,200.00	\$ 46,800.00	d)						Indirect Labour	40,800.00	44,800.00	48,800.00	52,800.00	187,200.00	d)						Other Overhead	31,000.00	36,000.00	41,000.00	46,000.00	154,000.00	d)						Depreciation	20,000.00	20,000.00	20,000.00	20,000.00	80,000.00	e)						Total Overhead	\$ 102,000.00	\$ 112,000.00	\$ 122,000.00	\$ 132,000.00	\$ 468,000.00	<ul style="list-style-type: none"> • <i>Indirect Materials, [L: Mer.] Indirect Labour, [L: Mer.] Other Overhead [L: Mer.] & Depreciation [L: Mer.] tie with Manufacturing Overhead Budget [L: Hyp.] & Total Overhead [L: Hyp.]</i> • <i>Manufacturing [L: Rep.] 1 instance</i> • <i>Overhead [L: Rep.] 3 instances</i> • <i>Materials [L: Rep.] 1 instance</i> • <i>Total [L: Rep.] 1 instance</i> • <i>Qtr [L: Rep.] 3 instances</i> • <i>Indirect [L: Rep.] 1 instance</i> • <i>Labour [L: Rep.] 1 instance</i> • <i>\$ [L: Rep.] 9 instances</i>
	Qtr1	Qtr2	Qtr3	Qtr4	Year																																																									
Indirect Materials	\$ 10,200.00	\$ 11,200.00	\$ 12,200.00	\$ 13,200.00	\$ 46,800.00																																																									
d)																																																														
Indirect Labour	40,800.00	44,800.00	48,800.00	52,800.00	187,200.00																																																									
d)																																																														
Other Overhead	31,000.00	36,000.00	41,000.00	46,000.00	154,000.00																																																									
d)																																																														
Depreciation	20,000.00	20,000.00	20,000.00	20,000.00	80,000.00																																																									
e)																																																														
Total Overhead	\$ 102,000.00	\$ 112,000.00	\$ 122,000.00	\$ 132,000.00	\$ 468,000.00																																																									
8.	d) A linear relationship proportional to the [R: Def.] increase in production volume is assumed.																																																													
9.	e) For [C: Elaboration: Clari.] every unit [L: Rep.] increase [L: Rep.] in production [L: Rep.] of either product, a \$1 [L: Rep.] increase [L: Rep.] in total [L: Rep.] overhead [L: Rep.] costs [L: Rep.] is incurred.																																																													
10.	<p>Frame -it Ltd</p> <p>Projected Statement of Financial Position</p> <p>as at 31 December 2010</p> <p>Notes</p> <table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td colspan="2">Current assets</td> </tr> <tr> <td style="padding-left: 20px;">Cash at bank</td> <td style="text-align: right;">\$ 95,000.00</td> </tr> <tr> <td style="padding-left: 20px;">Accounts receivable</td> <td style="text-align: right;">132,000.00</td> </tr> <tr> <td style="padding-left: 20px;">Inventory:</td> <td></td> </tr> <tr> <td style="padding-left: 40px;">Raw materials</td> <td style="text-align: right;">59,200.00</td> </tr> <tr> <td style="padding-left: 40px;">Finished goods</td> <td style="text-align: right;">167,000.00</td> </tr> <tr> <td style="padding-left: 20px;">Total inventory</td> <td style="text-align: right;">226,200.00</td> </tr> <tr> <td style="padding-left: 20px;">Total current assets</td> <td style="text-align: right;">\$ 453,200.00</td> </tr> <tr> <td colspan="2">Non-current assets</td> </tr> <tr> <td style="padding-left: 20px;">Plant and equipment (net of depreciation)</td> <td style="text-align: right;">8,000,000.00</td> </tr> <tr> <td>Total assets</td> <td style="text-align: right;">\$ 8,453,200.00</td> </tr> <tr> <td colspan="2">Liabilities</td> </tr> <tr> <td style="padding-left: 20px;">Accounts Payable</td> <td style="text-align: right;">99,400.00</td> </tr> <tr> <td>Net Assets</td> <td style="text-align: right;">\$ 8,353,800.00</td> </tr> <tr> <td colspan="2">Equity</td> </tr> <tr> <td style="padding-left: 20px;">Ordinary shares</td> <td style="text-align: right;">5,000,000.00</td> </tr> <tr> <td style="padding-left: 20px;">retained Earnings</td> <td style="text-align: right;">3,353,800.00</td> </tr> <tr> <td>Total equity</td> <td style="text-align: right;">\$ 8,353,800.00</td> </tr> </tbody> </table>		Current assets		Cash at bank	\$ 95,000.00	Accounts receivable	132,000.00	Inventory:		Raw materials	59,200.00	Finished goods	167,000.00	Total inventory	226,200.00	Total current assets	\$ 453,200.00	Non-current assets		Plant and equipment (net of depreciation)	8,000,000.00	Total assets	\$ 8,453,200.00	Liabilities		Accounts Payable	99,400.00	Net Assets	\$ 8,353,800.00	Equity		Ordinary shares	5,000,000.00	retained Earnings	3,353,800.00	Total equity	\$ 8,353,800.00																								
Current assets																																																														
Cash at bank	\$ 95,000.00																																																													
Accounts receivable	132,000.00																																																													
Inventory:																																																														
Raw materials	59,200.00																																																													
Finished goods	167,000.00																																																													
Total inventory	226,200.00																																																													
Total current assets	\$ 453,200.00																																																													
Non-current assets																																																														
Plant and equipment (net of depreciation)	8,000,000.00																																																													
Total assets	\$ 8,453,200.00																																																													
Liabilities																																																														
Accounts Payable	99,400.00																																																													
Net Assets	\$ 8,353,800.00																																																													
Equity																																																														
Ordinary shares	5,000,000.00																																																													
retained Earnings	3,353,800.00																																																													
Total equity	\$ 8,353,800.00																																																													
	<ul style="list-style-type: none"> • <i>Cash at bank, [L: Mer.] Accounts receivable [L: Mer.] & Inventory [L: Mer.] tie with Current assets [L: Hyp] & Total Current assets [L: Hyp]</i> • <i>Raw materials [L: Mer.] & Finished goods [L: Mer.] tie with Inventory [L: Hyp.] & Total inventory [L: Hyp.]</i> • <i>Plant and equipment (net of depreciation) [L: Mer.] ties with Non-current assets [L: Hyp.]</i> • <i>Non-current assets [L: Ant.] ties with Current assets</i> • <i>Current assets, Total Current assets & Non-current assets tie with Total assets [L: Hyper.]</i> • <i>Accounts Payable [L: Mer.] ties with Liabilities [L: Hyp.]</i> • <i>Ordinary shares [L: Mer.] & retained Earnings [L: Mer.] tie with Equity [L: Hyp.] & Total Equity</i> 	<ul style="list-style-type: none"> • <i>Equity & Total Equity tie with Net Assets [L: Hyper.]</i> • <i>Total assets Less Liabilities ties with Net Assets</i> • <i>Frame [L: Rep.] 1 instance</i> • <i>Notes [L: Rep.] 1 instance</i> • <i>Materials [L: Rep.] 1 instance</i> • <i>Total [L: Rep.] 4 instances</i> • <i>Inventory [L: Rep.] 1 instance</i> • <i>Current [L: Rep.] 1 instance</i> • <i>Non-current [L: Rep.] 1 instance</i> • <i>Assets [L: Rep.] 5 instances</i> • <i>Liabilities [L: Rep.] 1 instance</i> • <i>Accounts [L: Rep.] 1 instance</i> • <i>Equity [L: Rep.] 1 instance</i> 																																																												

	[L: Hyp.] • \$ [L: Rep.] 4 instances	• Depreciation) [L: Rep.] 1 instance																																																																										
11.	<p>Sales Budget</p> <table border="1"> <thead> <tr> <th></th> <th></th> <th>Qtr1</th> <th>Qtr2</th> <th>Qtr3</th> <th>Qtr4</th> <th>2011 Year</th> </tr> </thead> <tbody> <tr> <td>Budgeted Sale- S frames (units)</td> <td>f)</td> <td>55,000.00</td> <td>60,000.00</td> <td>65,000.00</td> <td>70,000.00</td> <td>250,000.00</td> </tr> <tr> <td>Unit Sales Price</td> <td>g)</td> <td>10.00</td> <td>10.00</td> <td>10.00</td> <td>10.00</td> <td>10.00</td> </tr> <tr> <td>Total Budgeted Sales for S frames</td> <td></td> <td>\$ 550,000.00</td> <td>\$ 600,000.00</td> <td>\$ 650,000.00</td> <td>\$ 700,000.00</td> <td>\$ 2,500,000.00</td> </tr> <tr> <td colspan="7"><missing entry></td> </tr> <tr> <td>Budgeted Sales - L frames (units)</td> <td>f)</td> <td>45,000.00</td> <td>50,000.00</td> <td>55,000.00</td> <td>60,000.00</td> <td>210,000.00</td> </tr> <tr> <td>Unit Sales Price</td> <td>g)</td> <td>15.00</td> <td>15.00</td> <td>15.00</td> <td>15.00</td> <td>15.00</td> </tr> <tr> <td>Total Budgeted Sales for L frames</td> <td></td> <td>\$ 675,000.00</td> <td>\$ 750,000.00</td> <td>\$ 825,000.00</td> <td>\$ 900,000.00</td> <td>\$ 3,150,000.00</td> </tr> <tr> <td colspan="7"><missing entry></td> </tr> <tr> <td>Total Budgeted Sales</td> <td></td> <td>\$ 1,225,000.00</td> <td>\$ 1,350,000.00</td> <td>\$ 1,475,000.00</td> <td>\$ 1,600,000.00</td> <td>\$ 5,650,000.00</td> </tr> </tbody> </table>								Qtr1	Qtr2	Qtr3	Qtr4	2011 Year	Budgeted Sale- S frames (units)	f)	55,000.00	60,000.00	65,000.00	70,000.00	250,000.00	Unit Sales Price	g)	10.00	10.00	10.00	10.00	10.00	Total Budgeted Sales for S frames		\$ 550,000.00	\$ 600,000.00	\$ 650,000.00	\$ 700,000.00	\$ 2,500,000.00	<missing entry>							Budgeted Sales - L frames (units)	f)	45,000.00	50,000.00	55,000.00	60,000.00	210,000.00	Unit Sales Price	g)	15.00	15.00	15.00	15.00	15.00	Total Budgeted Sales for L frames		\$ 675,000.00	\$ 750,000.00	\$ 825,000.00	\$ 900,000.00	\$ 3,150,000.00	<missing entry>							Total Budgeted Sales		\$ 1,225,000.00	\$ 1,350,000.00	\$ 1,475,000.00	\$ 1,600,000.00	\$ 5,650,000.00
		Qtr1	Qtr2	Qtr3	Qtr4	2011 Year																																																																						
Budgeted Sale- S frames (units)	f)	55,000.00	60,000.00	65,000.00	70,000.00	250,000.00																																																																						
Unit Sales Price	g)	10.00	10.00	10.00	10.00	10.00																																																																						
Total Budgeted Sales for S frames		\$ 550,000.00	\$ 600,000.00	\$ 650,000.00	\$ 700,000.00	\$ 2,500,000.00																																																																						
<missing entry>																																																																												
Budgeted Sales - L frames (units)	f)	45,000.00	50,000.00	55,000.00	60,000.00	210,000.00																																																																						
Unit Sales Price	g)	15.00	15.00	15.00	15.00	15.00																																																																						
Total Budgeted Sales for L frames		\$ 675,000.00	\$ 750,000.00	\$ 825,000.00	\$ 900,000.00	\$ 3,150,000.00																																																																						
<missing entry>																																																																												
Total Budgeted Sales		\$ 1,225,000.00	\$ 1,350,000.00	\$ 1,475,000.00	\$ 1,600,000.00	\$ 5,650,000.00																																																																						
	<ul style="list-style-type: none"> • Budgeted Sale - S frames (units) [L: Mer.] & Unit Sales Price [L: Mer.] tie with Total Budgeted Sales for S frames [L: Hyp.] • Budgeted Sale - L frames (units) [L: Mer.] & Unit Sales Price [L: Mer.] tie with Total Budgeted Sales for L frames [L: Hyp.] • Total Budgeted Sales for S frames & Total Budgeted Sales for L frames tie with Total Budgeted Sales [L: Hyper.] & Sales Budget [L: Hyper.] • \$ [L: Rep.] 15 instances 	<ul style="list-style-type: none"> • Budget (ed) [L: Rep.] 4 instances • Sale(s) [L: Rep.] 5 instances • frames [L: Rep.] 2 instances • Unit(s) [L: Rep.] 4 instances • Total [L: Rep.] 1 instance • Qtr [L: Rep.] 3 instances • Price [L: Rep.] 1 instance 																																																																										
12.	f) Sales [L: Rep.] for each product will grow by 5000 units [L: Rep.] each quarter. [L: Rep.]																																																																											
13.	g) Product sales [L: Rep.] price [L: Rep.] will remain constant over 2011.																																																																											
14.	<p>Cash Receipts Budget</p> <table border="1"> <thead> <tr> <th></th> <th>Notes</th> <th>Qtr1</th> <th>Qtr2</th> <th>Qtr3</th> <th>Qtr4</th> <th>2011 Year</th> </tr> </thead> <tbody> <tr> <td>Accounts Receivable 31/12/2010</td> <td>h)</td> <td>\$ 132,000.00</td> <td></td> <td></td> <td></td> <td>\$ 132,000.00</td> </tr> <tr> <td>Cash Sales</td> <td>i)</td> <td>490,000.00</td> <td>\$ 540,000.00</td> <td>\$ 590,000.00</td> <td>\$ 640,000.00</td> <td>2,260,000.00</td> </tr> <tr> <td>Credit Sales</td> <td>j), k)</td> <td></td> <td></td> <td></td> <td></td> <td>-</td> </tr> <tr> <td> Qtr1</td> <td></td> <td>588,000.00</td> <td>147,000.00</td> <td></td> <td></td> <td>735,000.00</td> </tr> <tr> <td> Qtr2</td> <td></td> <td></td> <td>648,000.00</td> <td>162,000.00</td> <td></td> <td>810,000.00</td> </tr> <tr> <td> Qtr3</td> <td></td> <td></td> <td></td> <td>708,000.00</td> <td>177,000.00</td> <td>885,000.00</td> </tr> <tr> <td> Qtr4</td> <td></td> <td></td> <td></td> <td></td> <td>768,000.00</td> <td>768,000.00</td> </tr> <tr> <td>Total Cash Receipts</td> <td></td> <td>\$ 1,210,000.00</td> <td>\$ 1,335,000.00</td> <td>\$ 1,460,000.00</td> <td>\$ 1,585,000.00</td> <td>\$ 5,590,000.00</td> </tr> </tbody> </table>							Notes	Qtr1	Qtr2	Qtr3	Qtr4	2011 Year	Accounts Receivable 31/12/2010	h)	\$ 132,000.00				\$ 132,000.00	Cash Sales	i)	490,000.00	\$ 540,000.00	\$ 590,000.00	\$ 640,000.00	2,260,000.00	Credit Sales	j), k)					-	Qtr1		588,000.00	147,000.00			735,000.00	Qtr2			648,000.00	162,000.00		810,000.00	Qtr3				708,000.00	177,000.00	885,000.00	Qtr4					768,000.00	768,000.00	Total Cash Receipts		\$ 1,210,000.00	\$ 1,335,000.00	\$ 1,460,000.00	\$ 1,585,000.00	\$ 5,590,000.00							
	Notes	Qtr1	Qtr2	Qtr3	Qtr4	2011 Year																																																																						
Accounts Receivable 31/12/2010	h)	\$ 132,000.00				\$ 132,000.00																																																																						
Cash Sales	i)	490,000.00	\$ 540,000.00	\$ 590,000.00	\$ 640,000.00	2,260,000.00																																																																						
Credit Sales	j), k)					-																																																																						
Qtr1		588,000.00	147,000.00			735,000.00																																																																						
Qtr2			648,000.00	162,000.00		810,000.00																																																																						
Qtr3				708,000.00	177,000.00	885,000.00																																																																						
Qtr4					768,000.00	768,000.00																																																																						
Total Cash Receipts		\$ 1,210,000.00	\$ 1,335,000.00	\$ 1,460,000.00	\$ 1,585,000.00	\$ 5,590,000.00																																																																						
	<ul style="list-style-type: none"> • Accounts Receivable 31/12/2010, [L: Mer.] Cash Sales [L: Mer.] & Credit Sales for Qtr1 [L: Mer.] Qtr2 [L: Mer.] Qtr3 [L: Mer.] & Qtr4 [L: Mer.] tie with Cash Receipts Budget [L: Hyp.] & Total Cash Receipts [L: Hyp.] • Cash [L: Rep.] 3 instances • Budget [L: Rep.] 1 instance • Accounts [L: Rep.] 1 instance • \$ [L: Rep.] 12 instances 	<ul style="list-style-type: none"> • Receivable 1 instance • Receipts [L: Rep.] 1 instance • Sales [L: Rep.] 2 instances • Total [L: Rep.] 1 instance • Notes [L: Rep.] 1 instance • Qtr [L: Rep.] 3 instances • Year [L: Rep.] 1 instance 																																																																										
15.	h) It is assumed that the [R: Def.] ending account [L: Rep.] receivables [L: Rep.] 2010 will be completely collected.																																																																											
16.	I) 40% of quarterly [L: Rep.] sales [L: Rep.] are expected to be paid for in cash. [L: Rep.]																																																																											
17.	J) 80% [L: Rep.] of credit sales [L: Rep.] are expected [L: Rep.] to be received [L: Rep.] in the [R: Def.] same [C: Enhancement: Temp.] quarter [L: Rep.] as [C: Enhancement: Man.] the [R: Def.] sale. [L: Rep.]																																																																											
18.	The [R: Def.] remaining 20% [L: Rep.] of credit [L: Rep.] sales [L: Rep.] is expected [L: Rep.] to be received [L: Rep.] the [R: Def.] following quarter. [L: Rep.]																																																																											
19.	K) For [C: Elaboration: Clari.] simplicity it is assumed that 100% [L: Rep.] of accounts [L: Rep.] receivables [L: Rep.] are collected.																																																																											
20.	Production Budget																																																																											
						2011																																																																						

	Notes	Qtr1	Qtr2	Qtr3	Qtr4	Year
S frames						
Sales (units)						
		55,000.00	60,000.00	65,000.00	70,000.00	250,000.00
add: Ending finished goods inventory	l)	12,000.00	13,000.00	14,000.00	15,000.00	15,000.00
Total needed		67,000.00	73,000.00	79,000.00	85,000.00	265,000.00
less: Begining finished Goods Inventory	m)	11,000.00	12,000.00	13,000.00	14,000.00	11,000.00
Units to be produced		56,000.00	61,000.00	66,000.00	71,000.00	254,000.00
L frames						
Sales (units)		45,000.00	50,000.00	55,000.00	60,000.00	210,000.00
add: Ending Finished Goods Inventory	l)	10,000.00	11,000.00	12,000.00	13,000.00	13,000.00
Total needed		55,000.00	61,000.00	67,000.00	73,000.00	223,000.00
less: Begining finished Goods Inventory	m)	9,000.00	10,000.00	11,000.00	12,000.00	9,000.00
Units to be produced		46,000.00	51,000.00	56,000.00	61,000.00	214,000.00
<ul style="list-style-type: none"> • S frames Sales (units) [L: Mer.] & add: Ending finished goods inventory [L: Mer.] tie with Total needed [L: Hyp.] • S frames Total needed [L: Mer.] less: Begining finished Goods Inventory [L: Mer.] tie with S frames Units to be produced [L: Hyp.] • Less [L: Ant.] ties with Add • L frames Sales (units) [L: Mer.] & add: Ending finished goods inventory [L: Mer.] tie with Total needed [L: Hyp.] • L frames Sales Total needed [L: Mer.] & less: Begining finished Goods Inventory [L: Mer.] tie with L frames Units to be produced [L: Hyp.] • Less [L: Ant.] ties with Add • S frames Units to be produced [L: Hyp.] & L frames Units to be produced [L: Hyp.] tie with 		<ul style="list-style-type: none"> Production Budge [L: Hyper.] • S frames [L: Hyp.] & L frames [L: Hyp.] tie with Production Budget [L: Hyper.] • Budget [L: Rep.] 1 instance • Notes [L: Rep.] 1 instance • Qtr [L: Rep.] 3 instances • Year [L: Rep.] 1 instance • Frames [L: Rep.] 2 instances • Sales [L: Rep.] 2 instances • Units [L: Rep.] 3 instances • Goods [L: Rep.] 4 instances • Inventory [L: Rep.] 4 instances • Total [L: Rep.] 2 instances • Needed [L: Rep.] 1 instance • Produced [L: Rep.] 1 instance • Units [L: Rep.] 3 instances 				
21.	L) 20% [L: Rep.] of next quarter's [L: Rep.] production is required in ending finished goods [L: Rep.] inventory. [L: Rep.]					
22.	M) Calculated as 20% [L: Rep.] of 1 st quarter [L: Rep.] sales [L: Rep.] for 2011.					
23.	Direct Materials Budget					
	Notes	Qtr1	Qtr2	Qtr3	Qtr4	2011 Year
Budgeted cost of glass sheets						
S Frame						
Units to be produced	n)	56,000.00	61,000.00	66,000.00	71,000.00	254,000.00
Glass sheets per unit		1/4	1/4	1/4	1/4	1/4
Production needs in units		14,000.00	15,250.00	16,500.00	17,750.00	63,500.00
L Frames						
Units to be produced	n)	46,000.00	51,000.00	56,000.00	61,000.00	214,000.00
Glass sheets per unit		1/2	1/2	1/2	1/2	1/2
Production needs in units		23,000.00	25,500.00	28,000.00	30,500.00	107,000.00
Total glass sheets needed for production		37,000.00	40,750.00	44,500.00	48,250.00	170,500.00
add: Glass sheet ending inventory	o)	8,150.00	8,900.00	9,650.00	10,400.00	10,400.00
less: Glass Sheet Begining Inventory	p)	7,400.00	8,150.00	8,900.00	9,650.00	7,400.00
Glass sheets to be purchased		37,750.00	41,500.00	45,250.00	49,000.00	173,500.00
Cost per sheet		8.00	8.00	8.00	8.00	8.00

	Total cost of glass sheets purchase	\$ 302,000.00	\$ 332,000.00	\$ 362,000.00	\$ 392,000.00	\$ 1,388,000.00
	<ul style="list-style-type: none"> • Production needs in units (for S Frame) [L: Mer.] ties with Units to be produced [L: Hyp.] • Production needs in units (for L Frames) [L: Mer.] ties with Units to be produced [L: Hyp.] • Production needs in units (for L Frames) & Production needs in units (for S Frame) tie with Total glass sheets needed for production [L: Hyp.] • Total glass sheets needed for production, Add: sheet ending inventory, [L: Mer.] less: Glass Sheet Beginning Inventory, [L: Mer.] Glass sheets to be purchased [L: Mer.] & Cost per sheet tie [L: Mer.] with Total cost of glass sheets purchase [L: Hyp.] & Budgeted cost of glass sheets [L: Hyp.] • Beginning Inventory [L: Ant.] ties with ending inventory • Total cost of glass sheets purchase [L: Hyper.] & Budgeted cost of glass sheets [L: Hyp.] tie with 	<i>Direct Materials Budget [L: Hyper.]</i> <ul style="list-style-type: none"> • Less [L: Ant.] ties with Add • Notes [L: Rep.] 1 instance • Qtr [L: Rep.] 3 instances • Year [L: Rep.] 1 instance • Materials [L: Rep.] 1 instance • Budget(ed) [L: Rep.] 2 instances • Inventory [L: Rep.] 2 instances • Total [L: Rep.] 2 instances • Need(ed) [L: Rep.] 3 instances • Produced [L: Rep.] 2 instances • Unit(s) [L: Rep.] 6 instances • Glass [L: Rep.] 8 instances • Sheet(s) [L: Rep.] 9 instances • Cost [L: Rep.] 3 instances • Purchase [L: Rep.] 1 instance • Frame [L: Rep.] 2 instances 				
24.	<p>Budgeted cost of metal strip</p> <p>S Frame</p> <p>Units to be produced n) 56,000.00 61,000.00 66,000.00 71,000.00 254,000.00</p> <p>Metal strip meters per unit 2/3 2/3 2/3 2/3 2/3</p> <p>Production needs in meters 37,333.33 40,666.67 44,000.00 47,333.33 169,333.33</p> <p>L Frame</p> <p>Units to be produced n) 46,000.00 51,000.00 56,000.00 61,000.00 214,000.00</p> <p>Metal strip meters per unit 1 1 1 1 1</p> <p>Production needs in meters 46,000.00 51,000.00 56,000.00 61,000.00 214,000.00</p> <p>Total metal strip meters needed for production 83,333.33 91,666.67 100,000.00 108,333.33 383,333.33</p> <p>add: Metal strip ending inventory q) - - - - -</p> <p>less: Metal strip beginning inventory q) - - - - -</p> <p>Metal strip meters to be purchased 83,333.33 91,666.67 100,000.00 108,333.33 383,333.33</p> <p>Cost per meter 3.00 3.00 3.00 3.00 3.00</p> <p>Total cost of metal strip purchase \$ 250,000.00 \$ 275,000.00 \$ 300,000.00 \$ 325,000.00 \$ 1,150,000.00</p> <p>Total purchase cost \$ 552,000.00 \$ 607,000.00 \$ 662,000.00 \$ 717,000.00 \$ 2,538,000.00</p>					
	<ul style="list-style-type: none"> • Production needs in meters (for S Frame) [L: Mer.] ties with Units to be produced [L: Hyp.] • Production needs in meters (for L Frames) [L: Mer.] ties with Units to be produced [L: Hyp.] • Production needs in meters (for L Frames) & Production needs in meters (for S Frame) tie with Total metal strip meters needed for production [L: Hyp.] • Total metal strip meters needed for production, Add: metal strips ending inventory, [L: Mer.] less: metal strips Beginning Inventory, [L: Mer.] metal strips meters to be purchased [L: Mer.] & Cost per meter [L: Mer.] tie with Total cost of metal strip purchase [L: Hyp.] • Less [L: Ant.] ties with Add • Total cost of metal strip purchase, Budgeted cost of 	<i>metal strip, Total cost of glass sheets purchase & Budgeted cost of glass sheets tie with Total purchase cost [L: Hyper.] & Direct Materials Budget [L: Hyper.]</i> <ul style="list-style-type: none"> • Beginning Inventory ties with ending inventory • Budgeted [L: Rep.] 1 instance • Cost [L: Rep.] 4 instances • Metal [L: Rep.] 8 instances • Strip [L: Rep.] 8 instances • Frame [L: Rep.] 2 instances • Unit(s) [L: Rep.] 4 instances • Purchase(d) [L: Rep.] 3 instances • Total [L: Rep.] 3 instances • Inventory [L: Rep.] 2 instances • Produced [L: Rep.] 2 instances • Beginning [L: Ant.] ties with ending • \$ [L: Rep.] 10 instances 				
25.	N) Refer to production budget. [L: Rep.]					
26.	O) 20% [L: Rep.] of next quarter's [L: Rep.] glass sheet [L: Rep.] production needs is required in ending raw materials [L: Rep.] inventory. [L: Rep.]					
27.	P) 20% [L: Rep.] of total [L: Rep.] glass [L: Rep.] sheets [L: Rep.] production needs for 1 st quarter.					

	[L: Rep.]						
28.	Q) Just-in-time purchasing, [L: Rep.] inventory [L: Rep.] is negligible.						
29.	Cash Disbursements Budget– Materials		Qtr1	Qtr2	Qtr3	Qtr4	2011 Year
		Notes					
	Accounts Payable 31/12/2010	r)	\$ 99,400.00				\$ 99,400.00
	Cash disbursements	s)					
	Qtr1		441,600.00	\$ 110,400.00			552,000.00
	Qtr2			485,600.00	\$ 121,400.00		607,000.00
	Qtr3				529,600.00	\$ 132,400.00	662,000.00
	Qtr4					573,600.00	573,600.00
	Total cash disbursements		\$ 541,000.00	\$ 596,000.00	\$ 651,000.00	\$ 706,000.00	\$ 2,494,000.00
	<ul style="list-style-type: none"> • Accounts Payable 31/12/2010 [L: Mer.] & Cash disbursements for Qtr1 [L: Mer.], Qtr2 [L: Mer.], Qtr3 [L: Mer.], & Qtr4 [L: Mer.], tie with Cash Disbursements Budget – Materials [L: Hyp.] & Total cash disbursements [L: Hyp.] • Cash [L: Rep.] 3 instances • Budget [L: Rep.] 1 instance • Disbursement(s) [L: Rep.] 2 instances 			<ul style="list-style-type: none"> • Materials [L: Rep.] 1 instance • Qtr [L: Rep.] 8 instances • Notes [L: Rep.] 1 instance • Year [L: Rep.] 1 instance • Total [L: Rep.] 1 instance • Payable [L: Rep.] 1 instance • \$ [L: Rep.] 9 instances 			
30.	R) It is assumed to be completely paid in first quarter [L: Rep.] 2011.						
31.	S) All purchases [L: Rep.] are on credit.						
32.	80% [L: Rep.] of purchases[L: Rep.] are settled in the [R: Def.] quarter [L: Rep.] of purchase, [L: Rep.]						
33.	the [R: Def.] remaining balance is settled the [R: Def.] following [L: Rep.] quarter. [L: Rep.]						
34.	Summary Cash Budget		Qtr1	Qtr2	Qtr3	Qtr4	2011 Year
		Notes					
	Beginning cash balance	t)	\$ 95,000.00	\$ 53,000.00	\$ 57,250.00	\$ 107,750.00	\$ 95,000.00
	add: Cash receipts from sales		1,210,000.00	1,335,000.00	1,460,000.00	1,585,000.00	5,590,000.00
	Total cash available		\$ 1,305,000.00	\$ 1,388,000.00	\$ 1,517,250.00	\$ 1,692,750.00	\$ 5,903,000.00
	less: Disbursements						
	Direct Materials		541,000.00	596,000.00	651,000.00	706,000.00	2,494,000.00
	Direct Labour	u)	204,000.00	224,000.00	244,000.00	264,000.00	936,000.00
	Indirect Material		10,200.00	11,200.00	12,200.00	13,200.00	46,800.00
	Indirect Labour		40,800.00	44,800.00	48,800.00	52,800.00	187,200.00
	Other overhead		31,000.00	36,000.00	41,000.00	46,000.00	154,000.00
	Selling and Administrative Expenses		100,000.00	100,000.00	100,000.00	100,000.00	400,000.00
	Dividend		50,000.00	50,000.00	50,000.00	50,000.00	200,000.00
	Equipment purchase		1,000,000.00				1,000,000.00
	Total disbursement		\$ 1,977,000.00	\$ 1,062,000.00	\$ 1,147,000.00	\$ 1,232,000.00	\$ 5,418,000.00
	Surplus (Deficit)		\$ (672,000.00)	\$ 326,000.00	\$ 370,250.00	\$ 460,750.00	\$ 485,000.00
	Financing						
	Borrowing	v)	1,000,000.00				1,000,000.00
	Repayments		(250,000.00)	(250,000.00)	(250,000.00)	(250,000.00)	(1,000,000.00)
	Interest	w)	(25,000.00)	(18,750.00)	(12,500.00)	(6,250.00)	(62,500.00)
	Ending cash balance		\$ 53,000.00	\$ 57,250.00	\$ 107,750.00	\$ 204,500.00	\$ 204,500.00
	<ul style="list-style-type: none"> • Beginning cash balance [L: Mer.] & add: Cash receipts from sales [L: Mer.] tie with Total cash available [L: Hyp.] • Direct Materials, [L: Mer.] Direct Labour, [L: Mer.] Indirect Materials, [L: Mer.] Indirect Labour, [L: Mer.] Other overhead, [L: Mer.] Selling 			<ul style="list-style-type: none"> • Notes [L: Rep.] 1 instance • Year [L: Rep.] 1 instance • Cash [L: Rep.] 5 instances • Budget [L: Rep.] 1 instance 			

	<p>and Administrative Expenses,[L: Mer.] Dividend [L: Mer.] & Equipment purchase [L: Mer.] tie with Disbursements [L: Hyp.] & Total Disbursements [L: Hyp.]</p> <ul style="list-style-type: none"> • Less [L: Ant.] ties with Add • Borrowing, [L: Mer.] Repayments, [L: Mer.] & Interest [L: Mer.] tie with Financing [L: Hyp.] • Total cash available Less Total Disbursements , Surplus (Deficit) [L: Hyp.] & Financing tie with Ending cash balance [L: Hyper.] • Indirect Materials [L: Ant.] ties with Direct Materials • Indirect Labour [L: Ant.] ties with Direct Labour • Purchase [L: Ant.] ties with Selling • Qtr [L: Rep.] 4 instances 	<ul style="list-style-type: none"> • Disbursement(s) [L: Rep.] 2 instances • Total [L: Rep.] 2 instances • Balance [L: Rep.] 2 instances • Receipts [L: Rep.] 1 instance • Materials [L: Rep.] 2 instances • Direct [L: Rep.] 1 instance • Overhead [L: Rep.] 1 instance • Labour [L: Rep.] 2 instances • Sales [L: Rep.] 1 instance • Ending [L: Ant.] ties with Beginning • Purchase [L: Rep.] 1 instance • \$ [L: Rep.] 25 instances 					
35.	T) First quarter [L: Rep.] figure extracted from balance [L: Rep.] sheet [L: Rep.] as at 31 December 2010.						
36.	U) Refer to production budget. [L: Rep.]						
37.	Calculation: units [L: Rep.] produced x direct [L: Rep.] labour [L: Rep.] cost [L: Rep.] per unit [L: Rep.]						
38.	V) To finance equipment purchase. [L: Rep.]						
39.	W) Interest is paid on the [R: Def.] amount outstanding at a particular date.						
40.	Calculations: Interest Payment for 1 st quarter [L: Rep.]= \$1,000,000 [L: Rep.] x [L: Rep.]10% [L: Rep.]						
41.	x [L: Rep.]1/4						
42.	= [L: Rep.] \$25,000 [L: Rep.]						
43.	(Calculations:) Interest Payment for 2 nd quarter [L: Rep.]= (\$1,000,000 [L: Rep.] -250,000)						
44.	x [L: Rep.]10% [L: Rep.]						
45.	x [L: Rep.]1/4						
46.	= [L: Rep.] \$18,750 [L: Rep.]						
47.	(Calculations:) Interest Payment for 3 rd quarter [L: Rep.]= [L: Rep.] (\$1,000,000 [L: Rep.] - [L: Rep.] 250,000						
48.	- [L: Rep.] 250,000)						
49.	x [L: Rep.]10% [L: Rep.]						
50.	x [L: Rep.] 1/4						
51.	= [L: Rep.] \$12,500 [L: Rep.]						
52.	(Calculations:) Interest Payment for 4 th quarter [L: Rep.]= (\$250,000 [L: Rep.] balance [L: Rep.] x [L: Rep.] 10% [L: Rep.]						
53.	x [L: Rep.] 1/4						
54.	= [L: Rep.] \$6,250 [L: Rep.]						
55.	Budgeted Schedule of Cost of Goods Manufactured						2011
	Notes	Qtr1	Qtr2	Qtr3	Qtr4	Year	
	Direct materials						
	Beginning raw materials inventory	\$ 59,200.00	\$ 65,200.00	\$ 71,200.00	\$ 77,200.00	\$ 59,200.00	
	add: Purchases of raw material	552,000.00	607,000.00	662,000.00	717,000.00	2,538,000.00	
	Raw material available for use	611,200.00	672,200.00	733,200.00	794,200.00	2,810,800.00	
	less: Ending raw materials inventory	65,200.00	71,200.00	77,200.00	83,200.00	83,200.00	
	Direct raw material used	\$ 546,000.00	\$ 601,000.00	\$ 656,000.00	\$ 711,000.00	\$ 2,514,000.00	
	Direct labour	204,000.00	224,000.00	244,000.00	264,000.00	936,000.00	
	Manufacturing overhead	102,000.00	112,000.00	122,000.00	132,000.00	468,000.00	
	Total manufacturing overhead	\$ 852,000.00	\$ 937,000.00	\$ 1,022,000.00	\$ 1,107,000.00	\$ 3,918,000.00	

	Beginning work in process inventory x) - - - - - Total manufacturing cost to account for \$ 852,000.00 \$ 937,000.00 \$ 1,022,000.00 \$ 1,107,000.00 \$ 3,918,000.00 less: Ending work in process inventory x) - - - - - Cost of goods manufactured \$ 852,000.00 \$ 937,000.00 \$ 1,022,000.00 \$ 1,107,000.00 \$ 3,918,000.00	
	<ul style="list-style-type: none"> Beginning raw materials inventory [L: Mer.] & add: Purchases of raw material [L: Mer.] tie with Raw material available for use [L: Hyp.] Beginning raw materials inventory, add: Purchases of raw material, less: Ending raw materials inventory tie with Direct raw material used [L: Hyp.] Beginning raw materials inventory, add: Purchases of raw material, less: Ending raw materials inventory, [L: Mer.] Direct labour, [L: Mer.] & Manufacturing overhead [L: Mer.] tie with Total manufacturing overhead [L: Hyp.] Beginning raw materials inventory, add: Purchases of raw material, less: Ending raw materials inventory, Direct labour, Manufacturing overhead, & Beginning work in process inventory [L: Mer.] tie with Total manufacturing cost to account for [L: Hyp.] Beginning raw materials inventory, add: Purchases of raw material, less: Ending raw materials inventory, Direct labour, Manufacturing overhead, Beginning work in process inventory less: Ending work in process inventory [L: Mer.] tie with Cost of goods manufactured [L: Hyp.] \$ [L: Rep.] 25 instances 	<ul style="list-style-type: none"> Beginning [L: Ant.] ties with Ending Ending [L: Ant.] ties with Beginning (2 instances) Less [L: Ant.] ties with Add Notes [L: Rep.] 1 instance Year [L: Rep.] 1 instance Qtr [L: Rep.] 4 instances Budgeted [L: Rep.] 1 instance Cost [L: Rep.] 3 instances Goods [L: Rep.] 2 instances Manufacture (ed/ing) [L: Rep.] 6 instances Materials [L: Rep.] 6 instances Inventory [L: Rep.] 4 instances Purchases [L: Rep.] 1 instance Raw [L: Rep.] 4 instances Direct [L: Rep.] 1 instance Labour [L: Rep.] 1 instance Process [L: Rep.] 2 instances overhead [L: Rep.] 2 instances Total [L: Rep.] 2 instances
56.	X) It is assumed that work in process [L: Rep.] is negligible.	
57.	Budgeted Schedule of Cost of Goods Sold Notes Qtr1 Qtr2 Qtr3 Qtr4 Year Beginning finished goods inventory \$ 167,000.00 \$ 184,000.00 \$ 201,000.00 \$ 218,000.00 \$ 167,000.00 add: Cost of good <sic> manufactured 852,000.00 937,000.00 1,022,000.00 1,107,000.00 3,918,000.00 Cost fo goods available for sale \$ 1,019,000.00 \$ 1,121,000.00 \$ 1,223,000.00 \$ 1,325,000.00 \$ 4,085,000.00 less: Ending finished goods inventory 184,000.00 201,000.00 218,000.00 235,000.00 235,000.00 Cost of goods sold \$ 835,000.00 \$ 920,000.00 \$ 1,005,000.00 \$ 1,090,000.00 \$ 3,850,000.00	2011
	<ul style="list-style-type: none"> Beginning finished goods inventory [L: Mer.] & add: Cost of good manufactured [L: Mer.] tie with Cost fo goods available for sale [L: Hyp.] Beginning finished goods inventory, add: Cost of good manufactured less: Ending finished goods inventory [L: Mer.] tie with Cost of goods sold [L: Hyp.] Ending [L: Ant.] ties with Beginning Less [L: Ant.] ties with Add Goods [L: Rep.] 6 instances Inventory [L: Rep.] 2 instances Budgeted [L: Rep.] 1 instance 	<ul style="list-style-type: none"> Schedule [L: Rep.] 1 instance Cost [L: Rep.] 4 instances Sold/Sale [L: Rep.] 3 instances Manufactured [L: Rep.] 1 instance Notes [L: Rep.] 1 instance Year [L: Rep.] 1 instance Qtr [L: Rep.] 4 instances \$ [L: Rep.] 15 instances
58.	Frame -it Ltd Budgeted Statement of Comprehensive Income for the year ended 31 December 2011 Notes Sales Revenue \$ 5,650,000.00 less: Cost of goods sold 3,850,000.00 Gross margin \$ 1,800,000.00 Operating Expenses Selling and Administration expenses \$ 400,000.00 Interest expense 62,500.00	

	Total operating expenses	\$ 462,500.00	
	Operating income	\$ 1,337,500.00	
	<ul style="list-style-type: none"> • Sales Revenue [L: Mer.] less: Cost of goods sold [L: Mer.] ties with Gross margin [L: Hyp.] • Selling and Administration expenses [L: Mer.] & Interest expense [L: Mer.] tie with Operating Expenses [L: Hyp.] & Total operating expenses [L: Hyp.] • Gross margin [L: Hyp.] Less Operating Expenses & Total operating expenses tie with Operating income [L: Hyper.] • Income [L: Ant.] ties with Expenses • Frame [L: Rep.] 1 instance • Budgeted [L: Rep.] 1 instance 		<ul style="list-style-type: none"> • Statement [L: Rep.] 1 instance • The [R: Def.] 1 instance • Notes [L: Rep.] 1 instance • Sales/Selling/Sold [L: Rep.] 4 instances • Total [L: Rep.] 1 instance • Operating [L: Rep.] 1 instance • Expenses [L: Rep.] 4 instances • Cost [L: Rep.] 1 instance • Goods [L: Rep.] 1 instance • \$ [L: Rep.] 5 instances
59.	Frame -it Ltd Budgeted Statement of Retained Earning for the year ended 31 December 2011 Notes		
	Retained earning 1 Jan 2011	\$ 3,353,800.00	
	add: Operating income	1,337,500.00	
	less: Dividend	200,000.00	
	Retained earning 31 Dec 2011	\$ 4,491,300.00	
	<ul style="list-style-type: none"> • Retained earning 1 Jan 2011, [L: Mer.] add: Operating income, [L: Mer.] & less: Dividend [L: Mer.] tie with Retained earning 31 Dec 2011 [L: Hyp.] • Income [L: Syn.] ties with earning • Less [L: Ant.] ties with Add • Budgeted [L: Rep.] 1 instance • \$ [L: Rep.] 2 instances 		<ul style="list-style-type: none"> • Statement [L: Rep.] 1 instance • Earning [L: Rep.] 4 instances • The [R: Def.] 1 instance • Notes [L: Rep.] 1 instance • Frame [L: Rep.] 1 instance • Year [L: Rep.] 1 instance
60.	Frame-it Ltd Budgeted Statement of Financial Position as at 31 December 2011 Notes		
	Current assets		
	Cash at bank	\$ 204,500.00	
	Accounts receivable	192,000.00	
	Inventory:		
	Raw materials	83,200.00	
	Finished goods	235,000.00	
	Total inventory	318,200.00	
	Total current assets	\$ 714,700.00	
	Non-current assets		
	Plant and equipment (net of depreciation)	8,920,000.00	
	Total assets	\$ 9,634,700.00	
	Liabilities		
	Accounts Payable	143,400.00	
	Net Assets	\$ 9,491,300.00	
	Equity		
	Ordinary shares	5,000,000.00	
	retained Earnings	4,491,300.00	
	Total equity	\$ 9,491,300.00	
	<ul style="list-style-type: none"> • Cash at bank, [L: Mer.] Accounts receivable [L: Mer.] & Total inventory [L: Mer.] tie with Current assets [L: Hyp.] & Total Current assets [L: Hyp.] • Raw materials [L: Mer.] & Finished Goods [L: Mer.] tie with Inventory [L: Hyp.] & Total inventory [L: Hyp.] 		<ul style="list-style-type: none"> • Assets [L: Rep.] 5 instances • Bank [L: Rep.] 1 instance • Goods [L: Rep.] 1 instance • Receivable [L: Rep.] 1 instance

	<ul style="list-style-type: none"> • Plant and equipment (net of depreciation) [L: Mer.] ties with Non-current assets [L: Hyp.] • Non-current [L: Ant.] ties with Current • Accounts Payable [L: Mer.] ties with Liabilities [L: Hyp.] • Ordinary shares [L: Mer.] & retained Earnings [L: Mer.] tie with Equity [L: Hyp.] , Total equity [L: Hyp.] & Net Assets [L: Hyp.] • Equity & Total equity tie with Net Assets [L: Hyper.] • TOTAL ASSETS Less TOTAL LIABILITIES ties with NET ASSETS , Equity & Total equity • Frame [L: Rep.] 1 instance • Budgeted [L: Rep.] 1 instance • Statement [L: Rep.] 1 instance • Notes [L: Rep.] 1 instance • Current [L: Rep.] 1 instance • Cash [L: Rep.] 1 instance 	<ul style="list-style-type: none"> • Raw [L: Rep.] 1 instance • Materials [L: Rep.] 1 instance • Plant [L: Rep.] 1 instance • Equipment [L: Rep.] 1 instance • Shares [L: Rep.] 1 instance • Accounts [L: Rep.] 2 instances • Total [L: Rep.] 4 instances • Liabilities [L: Rep.] 1 instance • Inventory [L: Rep.] 2 instances • Current [L: Rep.] 1 instance • Depreciation [L: Rep.] 1 instance • Payable [L: Rep.] 1 instance • Equity [L: Rep.] 2 instances • Earnings [L: Rep.] 1 instance • \$ [L: Rep.] 5 instances 								
61.	<p>y) Plant and Equipment Calculation:</p> <table> <tr> <td>Plant and equipment 1 Jan 2011</td> <td>8,000,000.00</td> </tr> <tr> <td>add: Purchased plant and equipment</td> <td>1,000,000.00</td> </tr> <tr> <td>less: depreciation for the year</td> <td>z) 80,000.00</td> </tr> <tr> <td>Plant and equipment 31 Dec 2011 (net of depreciation)</td> <td>8,920,000.00</td> </tr> </table>	Plant and equipment 1 Jan 2011	8,000,000.00	add: Purchased plant and equipment	1,000,000.00	less: depreciation for the year	z) 80,000.00	Plant and equipment 31 Dec 2011 (net of depreciation)	8,920,000.00	
Plant and equipment 1 Jan 2011	8,000,000.00									
add: Purchased plant and equipment	1,000,000.00									
less: depreciation for the year	z) 80,000.00									
Plant and equipment 31 Dec 2011 (net of depreciation)	8,920,000.00									
	<ul style="list-style-type: none"> • Plant and equipment 1 Jan 2011, [L: Mer.] add: Purchased plant and Equipment, [L: Mer.] & less: depreciation for the year [L: Mer.] tie with Plant and Equipment Calculation: [L: Hyp.] & Plant and equipment 31 Dec 2011 (net of depreciation) [L: Hyp.] • Less [L: Ant.] ties with Add 	<ul style="list-style-type: none"> • Plant [L: Rep.] 4 instances • Equipment [L: Rep.] 4 instances • Purchased [L: Rep.] 1 instance • Depreciation [L: Rep.] 2 instances • The [R: Def.] 1 instance 								
62.	Z) No depreciation [L: Rep.] for the [R: Def.] robot in 2011 because [C: Enhancement: Caus.] it [R: Pro.] will take most of year (2011) to train staff and [C: Extension: Add.] gain benefits in 2012.									
63.	MEMO									
64.	15 October 2010									
65.	Dear Uncle George,									
66.	Please find attached the documentation to support the finance application for the purchase of the industrial robot.									
67.	Included is the Budgeted Balance Sheet for the period ending 31 December 2011 and [C: Extension: Add.] supporting schedules used in the calculations.									
68.	Purchase [L: Rep.] of the industrial [L: Rep.] robot [L: Rep.] at a cost of \$1,000,000 [L: Rep.] will occur on January 2, 2011. [L: Rep.]									
69.	Financing for the proposal is assumed over a one year period, [L: Rep.] at a 10% [L: Rep.] per annum interest rate.									
70.	Repayment of the financing [L: Rep.] amount [L: Rep.] is expected to occur within the year, and consists of four equal quarterly instalments.									
71.	Interest payments will be quarterly [L: Rep.] as well. [C: Extension: Add.]									
72.	Other assumptions:									
73.	Sales [L: Rep.] in the fourth quarter [L: Rep.] of 2010 are expected to be 50,000 S frames [L: Rep.] and 40,000 L frames.[L: Rep.]									
74.	Sales [L: Rep.] in each product line over the next two years [L: Rep.] are predicted to grow by 5,000 units each quarter [L: Rep.] over the previous quarter. [L: Rep.]									
75.	It anticipated that dividends of \$50,000 [L: Rep.] will be declared and [C: Extension: Add.] paid in cash each quarter [L: Rep.] of financial year 2011. [L: Rep.]									
76.	It will take most of the year to train personnel and [C: Extension: Add.] reorganise the production process in order [C: Enhancement: Caus.] to gain the full benefits of the new equipment, therefore [C: Enhancement: Caus.] no depreciation of the asset is accounted for during FY 2011. [L: Rep.]									

Appendix 59: Cohesion analysis of Group 2's Management Accounting text⁴⁶

Title	Major Assignment - Semester 2 2010																																																																																	
Pseudonym	Omar & Peter (Group 2)																																																																																	
Type of Analysis	Cohesion Analysis																																																																																	
Program	Master of Commerce																																																																																	
Module	Management Accounting																																																																																	
Number of Words	1292																																																																																	
Notes																																																																																		
1.		<i>I. Sales budget</i>																																																																																
2.	The [R: Def.] sales [L: Rep.] budget [L: Rep.] was calculated in accordance with [C: Enhancement: Man.] the [R: Def.] projections provided.																																																																																	
3.	For [C: Elaboration: Clari.] the [R: Def.] S line, Q1 2011 sales [L: Rep.] were calculated [L: Rep.] at 55,000, based on [C: Enhancement: Man.] the [R: Def.] instructions where 50,000 units were budgeted [L: Rep.] in Q4 [L: Rep.] 2010 and [C: Extension: Add.] were projected [L: Rep.] to then [C: Enhancement: Temp.] grow at 5,000 units [L: Rep.] per quarter.[L: Rep.]																																																																																	
4.	For [C: Elaboration: Clari.] the [R: Def.] L line, [L: Rep.] Q1 [L: Rep.] sales [L: Rep.] 2011 sales [L: Rep.] were calculated [L: Rep.] at 45,000, based on [C: Enhancement: Man.] the [R: Def.] instructions where 40,000 units [L: Rep.] were budgeted [L: Rep.] in Q4 [L: Rep.] 2010 and [C: Extension: Add.] were projected [L: Rep.] to <sic> then [C: Enhancement: Temp.] grow at 5,000 units [L: Rep.] per quarter.[L: Rep.]																																																																																	
5.	These [R: Dem.] calculations [L: Rep.] resulted in total projected [L: Rep.] sales [L: Rep.] revenue for the [R: Def.] 2011 year of \$5,650,000, comprised of \$2,500,000 for S (sold at \$10 per unit) [L: Rep.] and [Ellip: V.] \$3,150,000 for L (sold at \$15 per unit).[L: Rep.]																																																																																	
6.	The [R: Def.] results [L: Rep.] are shown below [R: Cat.] in Table 1: [R: Cat.]																																																																																	
7.	<table border="1"> <thead> <tr> <th colspan="7">Sales Budget S</th> </tr> <tr> <th></th> <th>Qtr1</th> <th>Qtr2</th> <th>Qtr3</th> <th>Qtr4</th> <th>Total</th> <th></th> </tr> </thead> <tbody> <tr> <td>Sale units</td> <td>55,000.00</td> <td>60,000.00</td> <td>65,000.00</td> <td>70,000.00</td> <td>250,000.00</td> <td></td> </tr> <tr> <td>Selling price per unit (\$)</td> <td>10.00</td> <td>10.00</td> <td>10.00</td> <td>10.00</td> <td>10.00</td> <td></td> </tr> <tr> <td>Total revenue (\$)</td> <td>\$ 550,000.00</td> <td>\$ 600,000.00</td> <td>\$ 650,000.00</td> <td>\$ 700,000.00</td> <td>\$ 2,500,000.00</td> <td></td> </tr> <tr> <th colspan="7">Sales Budget L</th> </tr> <tr> <th></th> <th>Qtr1</th> <th>Qtr2</th> <th>Qtr3</th> <th>Qtr4</th> <th>Total</th> <th></th> </tr> <tr> <td>Sale units</td> <td>45,000.00</td> <td>50,000.00</td> <td>55,000.00</td> <td>60,000.00</td> <td>210,000.00</td> <td></td> </tr> <tr> <td>Selling price per unit (\$)</td> <td>15.00</td> <td>15.00</td> <td>15.00</td> <td>15.00</td> <td>15.00</td> <td></td> </tr> <tr> <td>Total revenue (\$)</td> <td>\$ 675,000.00</td> <td>\$ 750,000.00</td> <td>\$ 825,000.00</td> <td>\$ 900,000.00</td> <td>\$ 3,150,000.00</td> <td></td> </tr> <tr> <td>Total sales (\$)</td> <td>\$ 1,225,000.00</td> <td>\$ 1,350,000.00</td> <td>\$ 1,475,000.00</td> <td>\$ 1,600,000.00</td> <td>\$ 5,650,000.00</td> <td></td> </tr> </tbody> </table>					Sales Budget S								Qtr1	Qtr2	Qtr3	Qtr4	Total		Sale units	55,000.00	60,000.00	65,000.00	70,000.00	250,000.00		Selling price per unit (\$)	10.00	10.00	10.00	10.00	10.00		Total revenue (\$)	\$ 550,000.00	\$ 600,000.00	\$ 650,000.00	\$ 700,000.00	\$ 2,500,000.00		Sales Budget L								Qtr1	Qtr2	Qtr3	Qtr4	Total		Sale units	45,000.00	50,000.00	55,000.00	60,000.00	210,000.00		Selling price per unit (\$)	15.00	15.00	15.00	15.00	15.00		Total revenue (\$)	\$ 675,000.00	\$ 750,000.00	\$ 825,000.00	\$ 900,000.00	\$ 3,150,000.00		Total sales (\$)	\$ 1,225,000.00	\$ 1,350,000.00	\$ 1,475,000.00	\$ 1,600,000.00	\$ 5,650,000.00	
Sales Budget S																																																																																		
	Qtr1	Qtr2	Qtr3	Qtr4	Total																																																																													
Sale units	55,000.00	60,000.00	65,000.00	70,000.00	250,000.00																																																																													
Selling price per unit (\$)	10.00	10.00	10.00	10.00	10.00																																																																													
Total revenue (\$)	\$ 550,000.00	\$ 600,000.00	\$ 650,000.00	\$ 700,000.00	\$ 2,500,000.00																																																																													
Sales Budget L																																																																																		
	Qtr1	Qtr2	Qtr3	Qtr4	Total																																																																													
Sale units	45,000.00	50,000.00	55,000.00	60,000.00	210,000.00																																																																													
Selling price per unit (\$)	15.00	15.00	15.00	15.00	15.00																																																																													
Total revenue (\$)	\$ 675,000.00	\$ 750,000.00	\$ 825,000.00	\$ 900,000.00	\$ 3,150,000.00																																																																													
Total sales (\$)	\$ 1,225,000.00	\$ 1,350,000.00	\$ 1,475,000.00	\$ 1,600,000.00	\$ 5,650,000.00																																																																													
	<ul style="list-style-type: none"> • Sale units [L: Mer.] & Selling price per unit (\$) [L: Mer.] tie with Total revenue (\$) [L: Hyp.] & Sales Budget S [L: Hyp.] • Sale units [L: Mer.] & Selling price per unit (\$) [L: Mer.] tie with Total revenue (\$) [L: Hyp.] & Sales Budget L [L: Hyp.] • Total revenue (\$) & Total revenue (\$) tie with Total Sales (\$) [L: Hyper.] • Qtr [L: Rep.] 8 instances 		<ul style="list-style-type: none"> • Total [L: Rep.] 5 instances • Sale(s)/Selling [L: Rep.] 7 instances • Budget [L: Rep.] 2 instances • Unit(s) [L: Rep.] 4 instances • Revenue [L: Rep.] 2 instances • \$ [L: Rep.] 20 instances 																																																																															
8.	<i>2. Cash receipts budget</i> [L: Rep.]																																																																																	
9.	The [R: Def.] cash [L: Rep.] receipt [L: Rep.] budget [L: Rep.] was calculated [L: Rep.] based on [C: Enhancement: Man.] the [R: Def.] instructions provided.																																																																																	
10.	For [C: Elaboration: Clari.] both [R: Comp.] lines, [L: Rep.] 60% of quarterly [L: Rep.] receipts [L: Rep.] were sold on credit and [C: Extension: Add.] 40% were paid in cash. [L: Rep.]																																																																																	
11.	20% [L: Rep.] of the [R: Def.] credit [L: Rep.] sales [L: Rep.] were collected in the [R: Def.] following quarter, [L: Rep.]																																																																																	
12.	while [C: Extension: Add.] 80% [L: Rep.] were collected [L: Rep.] in same [C: Enhancement: Temp.] quarter.[L: Rep.]																																																																																	

⁴⁶ Refer to Appendix 19 for the procedures followed in cohesion analysis of the texts.

13.	For [C: Elaboration: Clari.] the [R: Def.] S line, [L: Rep.] Q1 [L: Rep.] sales [L: Rep.] were budgeted [L: Rep.] at \$550,000, [L: Rep.] based on [C: Enhancement: Man.] Table 1. [L: Rep.][R: Cat.]																																																																																																																																												
14.	Of these [R: Dem.] sales [L: Rep.] 60% [L: Rep.] were sold on credit, [L: Rep.] and [C: Extension: Add.] 80% [L: Rep.] of those [R: Dem.] sales [L: Rep.] were collected [L: Rep.] in Q1 [L: Rep.] resulting in [L: Rep.] a sum of \$264,000. [L: Rep.]																																																																																																																																												
15.	40% [L: Rep.] of Q1 [L: Rep.] sales [L: Rep.] were paid in cash, [L: Rep.] resulting in [L: Rep.] a sum of \$220,000. [L: Rep.]																																																																																																																																												
16.	In addition, [C: Extension: Add.] 20% [L: Rep.] of the [R: Def.] credit [L: Rep.] sales [L: Rep.] from the [R: Def.] previous quarter [L: Rep.] were included, which amounted to \$60,000. [L: Rep.]																																																																																																																																												
17.	In total, [L: Rep.] the [R: Def.] cash [L: Rep.] receipts [L: Rep.] for the [R: Def.] S line [L: Rep.] amounted to [L: Rep.] \$544,000. [L: Rep.]																																																																																																																																												
18.	This [R: Dem.] process was then [C: Enhancement: Temp.] repeated for each of the [R: Def.] following [L: Rep.][L: Ant.] quarters [L: Rep.] in the [R: Def.] 2011 year.[L: Rep.]																																																																																																																																												
19.	For [C: Elaboration: Clari.] the [R: Def.] L line, [L: Rep.] Q1 [L: Rep.] sales [L: Rep.] were budgeted [L: Rep.] at \$675,000, [L: Rep.] based on [C: Enhancement: Man.] Table 1. [L: Rep.][R: Cat.]																																																																																																																																												
20.	Of these [R: Dem.] sales [L: Rep.] 60% [L: Rep.] were sold on credit, [L: Rep.]																																																																																																																																												
21.	and [C: Extension: Add.] 80% [L: Rep.] of those [R: Dem.] sales [L: Rep.] were collected [L: Rep.] in Q1 [L: Rep.] resulting in [L: Rep.] a [R: Def.] sum of \$324,000. [L: Rep.]																																																																																																																																												
22.	40% [L: Rep.] of Q1 [L: Rep.] sales [L: Rep.] were paid in cash, [L: Rep.] resulting in [L: Rep.] a [R: Def.] sum of \$270,000. [L: Rep.]																																																																																																																																												
23.	In addition, [C: Extension: Add.] 20% [L: Rep.] of the [R: Def.] credit [L: Rep.] sales [L: Rep.] from the [R: Def.] previous quarter [L: Rep.] were included, which amounted to [L: Rep.] \$72,000. [L: Rep.]																																																																																																																																												
24.	In total, [L: Rep.] the [R: Def.] cash [L: Rep.] receipts [L: Rep.] for the [R: Def.] L line [L: Rep.] amounted to [L: Rep.]. \$666,000 [L: Rep.]																																																																																																																																												
25.	This [R: Dem.] process [L: Rep.] was then [C: Enhancement: Temp.] repeated for each of the [R: Def.] following [L: Rep.] quarters [L: Rep.] in the [R: Def.] 2011 year.[L: Rep.]																																																																																																																																												
26.	For [C: Elaboration: Clari.] both [R: Comp.] the [R: Def.] S & L lines, [L: Rep.] Q1 cash [L: Rep.] receipts [L: Rep.] amounted to [L: Rep.] a total [L: Rep.] of \$1,210,000. [L: Rep.]																																																																																																																																												
27.	Figures [L: Rep.] for the [R: Def.] full year [L: Rep.] are shown [L: Rep.] in Table 2 [R: Cat.] [L: Rep.] on the [R: Def.] following [L: Rep.] page:[R: Cat.]																																																																																																																																												
28.	<table border="1"> <thead> <tr> <th colspan="7">Cash Receipts Budget S</th> </tr> <tr> <th></th> <th>Qtr1</th> <th>Qtr2</th> <th>Qtr3</th> <th>Qtr4</th> <th>Total</th> <th>Q1 2012</th> </tr> <tr> <th></th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th>\$</th> <th></th> </tr> </thead> <tbody> <tr> <td>Q1 Sales</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Q4 2010- (60% * 500,000) * 20%</td> <td>60,000,00</td> <td></td> <td></td> <td></td> <td>60,000,00</td> <td></td> </tr> <tr> <td>Credit-(60% * 600,000) * 80%</td> <td>624,000,00</td> <td></td> <td></td> <td></td> <td>624,000,00</td> <td></td> </tr> <tr> <td>Cash – 40% * 550,000</td> <td>220,000,00</td> <td></td> <td></td> <td></td> <td>220,000,00</td> <td></td> </tr> <tr> <td>Q2 Sales</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Q1 2011- (60% * 550,000) * 20%</td> <td></td> <td>66,000,00</td> <td></td> <td></td> <td>66,000,00</td> <td></td> </tr> <tr> <td>Credit-(60% * 600,000) * 80%</td> <td></td> <td>288,000,00</td> <td></td> <td></td> <td>288,000,00</td> <td></td> </tr> <tr> <td>Cash – 40% * 600,000</td> <td></td> <td>240,000,00</td> <td></td> <td></td> <td>240,000,00</td> <td></td> </tr> <tr> <td>Q3 Sales</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Q2 2011- (60% * 600,000) * 20%</td> <td></td> <td></td> <td>72,000,00</td> <td></td> <td>72,000,00</td> <td></td> </tr> <tr> <td>Credit-(60% * 650,000) * 80%</td> <td></td> <td></td> <td>312,000,00</td> <td></td> <td>312,000,00</td> <td></td> </tr> <tr> <td>Cash – 40% * 650,000</td> <td></td> <td></td> <td>260,000,00</td> <td></td> <td>260,000,00</td> <td></td> </tr> <tr> <td>Q4 Sales</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Q3 2011- (60% * 650,000) * 20%</td> <td></td> <td></td> <td></td> <td>78,000,00</td> <td>78,000,00</td> <td>84,000,00</td> </tr> <tr> <td>Credit-(60% * 700,000) * 80%</td> <td></td> <td></td> <td></td> <td>336,000,00</td> <td>336,000,00</td> <td>420,000,00</td> </tr> <tr> <td>Cash – 40% * 700,000</td> <td></td> <td></td> <td></td> <td>280,000,00</td> <td>280,000,00</td> <td></td> </tr> <tr> <td>Total cash receipt (S)</td> <td>544,000,00</td> <td>594,000,00</td> <td>644,000,00</td> <td>694,000,00</td> <td>2,476,000,00</td> <td></td> </tr> </tbody> </table>	Cash Receipts Budget S								Qtr1	Qtr2	Qtr3	Qtr4	Total	Q1 2012		\$	\$	\$	\$	\$		Q1 Sales							Q4 2010- (60% * 500,000) * 20%	60,000,00				60,000,00		Credit-(60% * 600,000) * 80%	624,000,00				624,000,00		Cash – 40% * 550,000	220,000,00				220,000,00		Q2 Sales							Q1 2011- (60% * 550,000) * 20%		66,000,00			66,000,00		Credit-(60% * 600,000) * 80%		288,000,00			288,000,00		Cash – 40% * 600,000		240,000,00			240,000,00		Q3 Sales							Q2 2011- (60% * 600,000) * 20%			72,000,00		72,000,00		Credit-(60% * 650,000) * 80%			312,000,00		312,000,00		Cash – 40% * 650,000			260,000,00		260,000,00		Q4 Sales							Q3 2011- (60% * 650,000) * 20%				78,000,00	78,000,00	84,000,00	Credit-(60% * 700,000) * 80%				336,000,00	336,000,00	420,000,00	Cash – 40% * 700,000				280,000,00	280,000,00		Total cash receipt (S)	544,000,00	594,000,00	644,000,00	694,000,00	2,476,000,00	
Cash Receipts Budget S																																																																																																																																													
	Qtr1	Qtr2	Qtr3	Qtr4	Total	Q1 2012																																																																																																																																							
	\$	\$	\$	\$	\$																																																																																																																																								
Q1 Sales																																																																																																																																													
Q4 2010- (60% * 500,000) * 20%	60,000,00				60,000,00																																																																																																																																								
Credit-(60% * 600,000) * 80%	624,000,00				624,000,00																																																																																																																																								
Cash – 40% * 550,000	220,000,00				220,000,00																																																																																																																																								
Q2 Sales																																																																																																																																													
Q1 2011- (60% * 550,000) * 20%		66,000,00			66,000,00																																																																																																																																								
Credit-(60% * 600,000) * 80%		288,000,00			288,000,00																																																																																																																																								
Cash – 40% * 600,000		240,000,00			240,000,00																																																																																																																																								
Q3 Sales																																																																																																																																													
Q2 2011- (60% * 600,000) * 20%			72,000,00		72,000,00																																																																																																																																								
Credit-(60% * 650,000) * 80%			312,000,00		312,000,00																																																																																																																																								
Cash – 40% * 650,000			260,000,00		260,000,00																																																																																																																																								
Q4 Sales																																																																																																																																													
Q3 2011- (60% * 650,000) * 20%				78,000,00	78,000,00	84,000,00																																																																																																																																							
Credit-(60% * 700,000) * 80%				336,000,00	336,000,00	420,000,00																																																																																																																																							
Cash – 40% * 700,000				280,000,00	280,000,00																																																																																																																																								
Total cash receipt (S)	544,000,00	594,000,00	644,000,00	694,000,00	2,476,000,00																																																																																																																																								

	<ul style="list-style-type: none"> • Q1 Sales, [L: Mer.] Q4 2010- (60% *500,000) * 20%, [L: Mer.] Credit-(60% *600,000) * 80%, [L: Mer.] Cash – 40% * 550,000, [L: Mer.] Q2 Sales, [L: Mer.] Q1 2011- (60% *550,000) * 20%, [L: Mer.] Credit-(60% *600,000) * 80%, [L: Mer.] Cash – 40% * 600,000, [L: Mer.] Q3 Sales, [L: Mer.] Q2 2011- (60% *600,000) * 20%, [L: Mer.] Credit-(60% *650,000) * 80%, [L: Mer.] Cash – 40% * 650,000, [L: Mer.] Q4 Sales, [L: Mer.] Q3 2011- (60% *650,000) * 20%, [L: Mer.] Credit-(60% *700,000) * 80%, [L: Mer.] & Cash – 40% * 700,000 [L: Mer.] tie with Total Cash Receipts (S) [L: Hyp.] & Cash Receipts Budget S [L: Hyp.] 	<ul style="list-style-type: none"> • Qtr [L: Rep.] 13 instances • Total [L: Rep.] 2 instances • Cash [L: Rep.] 6 instances • Sale [L: Rep.] 4 instances • Receipt(s) [L: Rep.] 2 instances • Budget [L: Rep.] 1 instance • Credit [L: Rep.] 4 instances • % [L: Rep.] 18 instances • * [L: Rep.] 18 instances • \$ [L: Rep.] 5 instances 				
29.	Cash Receipts Budget L					
		Qtr1	Qtr2	Qtr3	Qtr4	Total
		\$	\$	\$	\$	\$
	Q1 Sales					
	Q4 2010- (60% * 600,000) * 20%	72,000,00				72,000,00
	Credit-(60% * 675,000) * 80%	324,000,00				324,000,00
	Cash – 40% * 675,000	270,000,00				270,000,00
	Q2 Sales					
	Q1 2011- (60% * 675,000) * 20%		81,000,00			81,000,00
	Credit- (60% * 675,000) * 80%		360,000,00			360,000,00
	Cash – 40% * 750,000		300,000,00			300,000,00
	Q3 Sales					
	Q2 2011- (60% *750,000) * 20%			90,000,00		90,000,00
	Credit- (60% *825,000) * 80%			396,000,00		396,000,00
	Cash – 40% * 825,000			330,000,00		330,000,00
	Q4 Sales					
	Q3 2011- (60% * 825,000) * 20%				99,000,00	99,000,00
	Credit-(60% * 900,000) * 80%				432,000,00	432,000,00
	Cash– 40% * 900,000				360,000,00	360,000,00
	Total cash receipt (L)	666,000,00	741,000,00	816,000,00	891,000,00	3,114,000,00
	Total cash receipt	1,210,000,00	1,335,000,00	1,460,000,00	1,585,000,00	5,590,000,00
	<ul style="list-style-type: none"> • Q1 Sales, [L: Mer.] Q4 2010- (60% * 600,000) * 20%, [L: Mer.] Credit-(60% *675,000) * 80%, [L: Mer.] Cash – 40% * 675,000, [L: Mer.] Q2 Sales, [L: Mer.] Q1 2011- (60% *675,000) * 20%, [L: Mer.] Credit- (60% *675,000) * 80%, Cash – 40% * 750,000, [L: Mer.] Q3 Sales, [L: Mer.] Q2 2011- (60% *750,000) * 20%, [L: Mer.] Credit- (60% *825,000) * 80%, [L: Mer.] Cash – 40% * 825,000, [L: Mer.] Q4 Sales, [L: Mer.] Q3 2011- (60% *825,000) * 20%, [L: Mer.] Credit-(60% *900,000) * 80%, & Cash– 40% * 900,000 [L: Mer.] tie with Total cash receipt (L) [L: Hyp.] & Cash Receipts Budget L [L: Hyp.] • Total Cash Receipts (S), Cash Receipts Budget S, Total cash receipt (L) & Cash Receipts Budget L tie with Total cash 	<ul style="list-style-type: none"> receipt [L: Hyper.] • Qtr [L: Rep.] 12 instances • Total [L: Rep.] 3 instances • Cash [L: Rep.] 7 instances • Sales [L: Rep.] 4 instances • Receipt(s) [L: Rep.] 3 instances • Budget [L: Rep.] 1 instance • Credit [L: Rep.] 4 instances • % [L: Rep.] 20 instances • * [L: Rep.] 20 instances • \$ [L: Rep.] 5 instances 				
30.	3. Production budget [L: Rep.]					
31.	In order to [C: Enhancement: Caus.] calculate [L: Rep.] the [R: Def.] required units [L: Rep.] in the [R: Def.] production [L: Rep.] budget, [L: Rep.] sales [L: Rep.] were recorded in accordance with [C: Enhancement: Man.] the [R: Def.] calculations [L: Rep.] in Table 1.[L: Rep.][R: Cat.]					
32.	Desired ending inventory was calculated [L: Rep.] at 20% [L: Rep.] of the [R: Def.] following [L: Rep.] quarters' [L: Rep.] sales [L: Rep.] units. [L: Rep.]					
33.	For [C: Elaboration: Clari.] the [R: Def.] S line [L: Rep.] in Q1 [L: Rep.] 2011, this [R: Dem.] resulted in [L: Rep.] total [L: Rep.] inventory [L: Rep.] needed of 67,000 units [L: Rep.] (55,000 + (60,000 * 20%)). [L: Rep.]					
34.	Beginning [L: Ant.] inventory [L: Rep.] is shown [L: Rep.] as [C: Enhancement: Man.] the [R: Def.] ending [L: Ant.] inventory [L: Rep.] for the [R: Def.] previous quarter.[L: Rep.]					
35.	For [C: Elaboration: Clari.] the [R: Def.] S line [L: Rep.] in Q1 [L: Rep.] 2011, this [R: Dem.] amounted to [L: Rep.] 11,000 units, [L: Rep.] resulting in [L: Rep.] units [L: Rep.] to be started in the [R: Def.] quarter [L: Rep.] of 56,000.					
36.	This [R: Dem.]calculated [L: Rep.] was then [C: Enhancement: Temp.] repeated for each of the [R: Def.] following [L: Rep.] quarters [L: Rep.] in the [R: Def.] 2011 year. [L: Rep.]					
37.	For [C: Elaboration: Clari.] the [R: Def.] L line [L: Rep.] in Q1 [L: Rep.] 2011, total [L: Rep.] inventory [L: Rep.] needed amounted to [L: Rep.] 55,000 units [L: Rep.] (45,000 + (50,000 * 20%)). [L: Rep.]					
38.	Beginning [L: Syn.] inventory [L: Rep.] is shown [L: Rep.] as [C: Enhancement: Man.] the [R: Def.] ending [L: Ant.] inventory [L: Rep.] for the [R: Def.] previous quarter. [L: Rep.]					

39.	For [C: Elaboration: Clari.] the [R: Def.] L line [L: Rep.] in Q1 [L: Rep.] 2011, this [R: Dem.] amounted to [L: Rep.] 9,000 units, [L: Rep.] resulting in [L: Rep.] units [L: Rep.] to be started in the [R: Def.] quarter [L: Rep.] of 46,000.																																																																							
40.	This [R: Dem.] calculated [L: Rep.] was then [C: Enhancement: Temp.] repeated for each of the [R: Def.] following [L: Rep.] quarters [L: Rep.] in the [R: Def.] 2011 year. [L: Rep.]																																																																							
41.	Figures [L: Rep.] for the [R: Def.] 2011 year [L: Rep.] are shown [L: Rep.] in Table 3 [L: Rep.] [R: Cat.] below: [R: Cat.]																																																																							
42.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="8">Production Budget S</th> </tr> <tr> <th></th> <th>Q4 2010</th> <th>Q1</th> <th>Q2</th> <th>Q3</th> <th>Q4</th> <th>Total</th> <th>Q1 2012</th> </tr> </thead> <tbody> <tr> <td>Sales in units</td> <td>50,000.00</td> <td>55,000.00</td> <td>60,000.00</td> <td>65,000.00</td> <td>70,000.00</td> <td>250,000.00</td> <td>75,000.00</td> </tr> <tr> <td>Add: desired end. Inventory</td> <td>11,000.00</td> <td>12,000.00</td> <td>13,000.00</td> <td>14,000.00</td> <td>15,000.00</td> <td>54,000.00</td> <td>16,000.00</td> </tr> <tr> <td>Total needed</td> <td>61,000.00</td> <td>67,000.00</td> <td>73,000.00</td> <td>79,000.00</td> <td>85,000.00</td> <td>304,000.00</td> <td>91,000.00</td> </tr> <tr> <td>Less: beg. inventory</td> <td>10,000.00</td> <td>11,000.00</td> <td>12,000.00</td> <td>13,000.00</td> <td>14,000.00</td> <td>50,000.00</td> <td>15,000.00</td> </tr> <tr> <td>Units to be started</td> <td>51,000.00</td> <td>56,000.00</td> <td>61,000.00</td> <td>66,000.00</td> <td>71,000.00</td> <td>254,000.00</td> <td>76,000.00</td> </tr> </tbody> </table>								Production Budget S									Q4 2010	Q1	Q2	Q3	Q4	Total	Q1 2012	Sales in units	50,000.00	55,000.00	60,000.00	65,000.00	70,000.00	250,000.00	75,000.00	Add: desired end. Inventory	11,000.00	12,000.00	13,000.00	14,000.00	15,000.00	54,000.00	16,000.00	Total needed	61,000.00	67,000.00	73,000.00	79,000.00	85,000.00	304,000.00	91,000.00	Less: beg. inventory	10,000.00	11,000.00	12,000.00	13,000.00	14,000.00	50,000.00	15,000.00	Units to be started	51,000.00	56,000.00	61,000.00	66,000.00	71,000.00	254,000.00	76,000.00								
Production Budget S																																																																								
	Q4 2010	Q1	Q2	Q3	Q4	Total	Q1 2012																																																																	
Sales in units	50,000.00	55,000.00	60,000.00	65,000.00	70,000.00	250,000.00	75,000.00																																																																	
Add: desired end. Inventory	11,000.00	12,000.00	13,000.00	14,000.00	15,000.00	54,000.00	16,000.00																																																																	
Total needed	61,000.00	67,000.00	73,000.00	79,000.00	85,000.00	304,000.00	91,000.00																																																																	
Less: beg. inventory	10,000.00	11,000.00	12,000.00	13,000.00	14,000.00	50,000.00	15,000.00																																																																	
Units to be started	51,000.00	56,000.00	61,000.00	66,000.00	71,000.00	254,000.00	76,000.00																																																																	
	<ul style="list-style-type: none"> • Sales in units [L: Mer.] & add: Add: desired end. Inventory [L: Mer.] tie with Total needed [L: Hyp.] • Sales in units, Add: desired end. Inventory Less: beg. inventory [L: Mer.] tie with Units to be started [L: Hyp.] & Production Budget S [L: Hyp.] • Qtr [L: Rep.] 6 instances • Total [L: Rep.] 1 instance • Sales [L: Rep.] 1 instance 				<ul style="list-style-type: none"> • Units [L: Rep.] 2 instances • Budget [L: Rep.] 1 instance • Total [L: Rep.] 1 instance • Production [L: Rep.] 1 instance • Inventory [L: Rep.] 2 instances • Less: [L: Ant.] ties with Add • Beg. [L: Ant.] ties with End. 																																																																			
43.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="8">Production Budget L</th> </tr> <tr> <th></th> <th>Q4 2010</th> <th>Q1</th> <th>Q2</th> <th>Q3</th> <th>Q4</th> <th>Total</th> <th>Q1 2012</th> </tr> </thead> <tbody> <tr> <td>Sales in units</td> <td>40,000.00</td> <td>45,000.00</td> <td>50,000.00</td> <td>55,000.00</td> <td>60,000.00</td> <td>210,000.00</td> <td>65,000.00</td> </tr> <tr> <td>Add: desired end. Inventory</td> <td>9,000.00</td> <td>10,000.00</td> <td>11,000.00</td> <td>12,000.00</td> <td>13,000.00</td> <td>46,000.00</td> <td>14,000.00</td> </tr> <tr> <td>Total needed</td> <td>49,000.00</td> <td>55,000.00</td> <td>61,000.00</td> <td>67,000.00</td> <td>73,000.00</td> <td>256,000.00</td> <td>79,000.00</td> </tr> <tr> <td>Less: beg. inventory</td> <td>8,000.00</td> <td>9,000.00</td> <td>10,000.00</td> <td>11,000.00</td> <td>12,000.00</td> <td>42,000.00</td> <td>13,000.00</td> </tr> <tr> <td>Units to be started</td> <td>41,000.00</td> <td>46,000.00</td> <td>51,000.00</td> <td>56,000.00</td> <td>61,000.00</td> <td>214,000.00</td> <td>66,000.00</td> </tr> <tr> <td>Total units to be started</td> <td></td> <td>102,000.00</td> <td>112,000.00</td> <td>122,000.00</td> <td>132,000.00</td> <td>468,000.00</td> <td></td> </tr> </tbody> </table>								Production Budget L									Q4 2010	Q1	Q2	Q3	Q4	Total	Q1 2012	Sales in units	40,000.00	45,000.00	50,000.00	55,000.00	60,000.00	210,000.00	65,000.00	Add: desired end. Inventory	9,000.00	10,000.00	11,000.00	12,000.00	13,000.00	46,000.00	14,000.00	Total needed	49,000.00	55,000.00	61,000.00	67,000.00	73,000.00	256,000.00	79,000.00	Less: beg. inventory	8,000.00	9,000.00	10,000.00	11,000.00	12,000.00	42,000.00	13,000.00	Units to be started	41,000.00	46,000.00	51,000.00	56,000.00	61,000.00	214,000.00	66,000.00	Total units to be started		102,000.00	112,000.00	122,000.00	132,000.00	468,000.00	
Production Budget L																																																																								
	Q4 2010	Q1	Q2	Q3	Q4	Total	Q1 2012																																																																	
Sales in units	40,000.00	45,000.00	50,000.00	55,000.00	60,000.00	210,000.00	65,000.00																																																																	
Add: desired end. Inventory	9,000.00	10,000.00	11,000.00	12,000.00	13,000.00	46,000.00	14,000.00																																																																	
Total needed	49,000.00	55,000.00	61,000.00	67,000.00	73,000.00	256,000.00	79,000.00																																																																	
Less: beg. inventory	8,000.00	9,000.00	10,000.00	11,000.00	12,000.00	42,000.00	13,000.00																																																																	
Units to be started	41,000.00	46,000.00	51,000.00	56,000.00	61,000.00	214,000.00	66,000.00																																																																	
Total units to be started		102,000.00	112,000.00	122,000.00	132,000.00	468,000.00																																																																		
	<ul style="list-style-type: none"> • Sales in units [L: Mer.] & add: Add: desired end. Inventory [L: Mer.] tie with Total needed [L: Hyp.] • Sales in units, Add: desired end. Inventory Less: beg. inventory [L: Mer.] tie with Units to be started [L: Hyp.] & Production Budget L [L: Hyp.] • Units to be started S, Production Budget S, Units to be started L & Production Budget L tie with Total units to be started [L: Hyper.] • Qtr [L: Rep.] 6 instances 				<ul style="list-style-type: none"> • Total [L: Rep.] 1 instance • Sales [L: Rep.] 1 instance • Units [L: Rep.] 3 instances • Budget [L: Rep.] 1 instance • Total [L: Rep.] 1 instance • Production [L: Rep.] 1 instance • Inventory [L: Rep.] 2 instances • Less: [L: Ant.] ties with Add • Beg. [L: Ant.] ties with End. 																																																																			
44.	4. Direct material budget [L: Rep.]																																																																							
45.	Metal strips – S line [L: Rep.]																																																																							
46.	Total [L: Rep.] units [L: Rep.] to be started in Q1 [L: Rep.] amounted to [L: Rep.] 56,000 units, [L: Rep.] as [C: Enhancement: Man.] shown [L: Rep.] in the [R: Def.] calculations [L: Rep.] set out in Table 3. [L: Rep.] [R: Cat.]																																																																							
47.	The [R: Def.] requirements per unit [L: Rep.] were 2/3 of a metre.																																																																							
48.	This [R: Dem.] results in [L: Rep.] production [L: Rep.] needs in Q1 [L: Rep.] of 37,333 metres of metal [L: Rep.] strips. [L: Rep.]																																																																							
49.	There is no ending or beginning [L: Ant.] inventory [L: Rep.] for the [R: Def.] metal [L: Rep.] strips [L: Rep.] since [C: Enhancement: Caus.] they [R: Pro.] are purchased on a just-in-time basis, so [C: Elaboration: Appos.] material [L: Rep.] to be purchased [L: Rep.] also [C: Extension: Add.] amounts to [L: Rep.] 37,333 metres																																																																							

50.	The [R: Def.] cost per metre is \$3, [L: Rep.] resulting in [L: Rep.] total [L: Rep.] budgeted [L: Rep.] cost [L: Rep.] for Q1 [L: Rep.] of \$112,000. [L: Rep.]
51.	<i>Glass sheets – S line</i> [L: Rep.]
52.	Total [L: Rep.] units [L: Rep.] to be started [L: Rep.] amounted to [L: Rep.] 56,000 units, [L: Rep.] as [C: Enhancement: Man.] shown [L: Rep.] in the [R: Def.] calculations [L: Rep.] set out in Table 3. [R: Cat.]
53.	The [R: Def.] requirements per unit [L: Rep.] amounted to [L: Rep.] 1/4 of a sheet. [L: Rep.]
54.	This [R: Dem.] results in [L: Rep.] initial production [L: Rep.] needs in Q1 [L: Rep.] of 14,000 glass [L: Rep.] sheets. [L: Rep.]
55.	The [R: Def.] desired ending inventory [L: Rep.] for Q1 [L: Rep.] is calculated [L: Rep.] at 20% [L: Rep.] of the [R: Def.] following [L: Rep.] quarters' [L: Rep.] production [L: Rep.] (15,250*20%). [L: Rep.]
56.	The [R: Def.] beginning inventory [L: Rep.] is calculated [L: Rep.] as [C: Enhancement: Man.] the ending [L: Ant.] inventory [L: Rep.] for the [R: Def.] previous quarter. [L: Rep.]
57.	When adjusted for opening and closing inventory, [L: Rep.] the [R: Def.] total [L: Rep.] material [L: Rep.] to be purchased [L: Rep.] amounts to [L: Rep.] 14,250 glass [L: Rep.] sheets. [L: Rep.]
58.	The [R: Def.] cost [L: Rep.] per sheet [L: Rep.] is \$8, [L: Rep.] resulting in [L: Rep.] total [L: Rep.] budgeted [L: Rep.] cost [L: Rep.] for Q1 [L: Rep.] of \$114,000. [L: Rep.]
59.	For [C: Elaboration: Clari.] metal [L: Rep.] strips [L: Rep.] and glass [L: Rep.] sheets [L: Rep.] in the [R: Def.] S line, [L: Rep.] total [L: Rep.] purchase [L: Rep.] costs [L: Rep.] for Q1 [L: Rep.] amount to \$226,000. [L: Rep.]
60.	This [R: Dem.] process [L: Rep.] is repeated for each subsequent quarter. [L: Rep.]
61.	<i>Metal strips</i> [L: Rep.] – <i>L line</i> [L: Rep.]
62.	Total [L: Rep.] units [L: Rep.] to be started [L: Rep.] in Q1 [L: Rep.] amounted to [L: Rep.] 46,000 units, [L: Rep.] as [C: Enhancement: Man.] shown [L: Rep.] in the [R: Def.] calculations [L: Rep.] set out in Table 3. [L: Rep.] [R: Cat.]
63.	The [R: Def.] requirements per unit [L: Rep.] amounted to [L: Rep.] 1 metre.
64.	This [R: Dem.] results in [L: Rep.] production [L: Rep.] needs in Q1 [L: Rep.] of 46,000 metres of metal [L: Rep.] strips. [L: Rep.]
65.	There is no ending or beginning [L: Ant.] inventory [L: Rep.] for the [R: Def.] metal [L: Rep.] strips [L: Rep.] since [C: Enhancement: Caus.] they [R: Pro.] are purchased [L: Rep.] on a just-in-time [L: Rep.] basis, so [C: Elaboration: Appos.] material [L: Rep.] to be purchased [L: Rep.] also [C: Extension: Add.] amounts to [L: Rep.] 46,000 metres.
66.	The [R: Def.] cost [L: Rep.] per metre is \$3, [L: Rep.] resulting in [L: Rep.] total [L: Rep.] budgeted [L: Rep.] cost [L: Rep.] for Q1 [L: Rep.] of \$138,000. [L: Rep.]
67.	<i>Glass [L: Rep.] sheets</i> [L: Rep.] – <i>L line</i> [L: Rep.]
68.	Total [L: Rep.] units [L: Rep.] to be started [L: Rep.] amounted to [L: Rep.] 46,000 units, [L: Rep.] as [C: Enhancement: Man.] shown [L: Rep.] in the [R: Def.] calculations [L: Rep.] set out in Table 3. [L: Rep.] [R: Cat.]
69.	The [R: Def.] requirements per unit [L: Rep.] amounted to [L: Rep.] 1/2 of a sheet. [L: Rep.]
70.	This [R: Dem.] results in [L: Rep.] initial production [L: Rep.] needs [L: Rep.] in Q1 [L: Rep.] of 23,000 glass [L: Rep.] sheets. [L: Rep.]
71.	The [R: Def.] desired ending inventory [L: Rep.] for Q1 [L: Rep.] is calculated [L: Rep.] at 20% [L: Rep.] of the [R: Def.] following [L: Rep.] quarters' [L: Rep.] production [L: Rep.] (25,500*20%). [L: Rep.]
72.	The [R: Def.] beginning inventory [L: Rep.] is calculated [L: Rep.] as [C: Enhancement: Man.] the ending [L: Ant.] inventory [L: Rep.] for the [R: Def.] previous quarter. [L: Rep.]
73.	When adjusted for opening [L: Rep.] and closing [L: Rep.] inventory, [L: Rep.] the total [L: Rep.] material [L: Rep.] to be purchased [L: Rep.] amounts to [L: Rep.] 23,500 glass [L: Rep.] sheets. [L: Rep.]
74.	The [R: Def.] cost [L: Rep.] per sheet [L: Rep.] is \$8, [L: Rep.] resulting in [L: Rep.] total [L: Rep.] budgeted [L: Rep.] cost [L: Rep.] for Q1 of \$188,000. [L: Rep.]
75.	For [C: Elaboration: Clari.] metal [L: Rep.] strips [L: Rep.] and glass [L: Rep.] sheets [L: Rep.] in the [R: Def.] L line, [L: Rep.] total [L: Rep.] purchase [L: Rep.] costs [L: Rep.] for Q1 [L: Rep.] amount to [L: Rep.] \$326,000. [L: Rep.]
76.	This [R: Dem.] process [L: Rep.] is repeated for each subsequent quarter. [L: Rep.]
77.	The [R: Def.] total [L: Rep.] purchase [L: Rep.] cost [L: Rep.] across both [R: Comp.] lines

	[L: Rep.] in Q1 [L: Rep.] amounted to[L: Rep.] \$552,000. [L: Rep.]						
78.	The [R: Def.] total [L: Rep.] purchase [L: Rep.] costs [L: Rep.] for the [R: Def.] 2011 year [L: Rep.] are budgeted [L: Rep.] to amount to [L: Rep.] \$2,538,000, [L: Rep.] as [C: Enhancement: Man.] shown [L: Rep.] in Table 4 [L: Rep.] [R: Cat.] on the [R: Def.] following [L: Rep.] page: [R: Cat.]						
79.	Direct Materials Budget S [L: Hyp.]						
		Q1	Q2	Q3	Q4	Total	Q1 2012
	Metal strips						
	Production in units	56,000	61,000	66,000	71,000	254,000	
	Metal strips per unit	0.67	0.67	0.67	0.67	0.67	
	Production needs	37,333	40,667	44,000	47,333	169,333	
	Add: desired ending inventory	0	0	0	0	0	
	Total needed	37,333	40,66	44,000	47,333	169,333	
	Less: beginning inventory	0	0	0	0	0	
	Material to be purchased	37,333	40,66	44,000	47,333	169,333	
	Cost per unit	\$3	\$3	\$3	\$3	\$3	
	Total cost	\$112,000	\$122,000	\$132,000	\$142,000	\$508,000	
	Glass sheets						
	Production in units	56,000	61,000	66,000	71,000	254,000	76,000
	Glass sheets per unit - in metre	0.25	0.25	0.25	0.25	0.25	0.25
	Production needs	14,000	15,250	16,500	17,750	63,500	19,000
	Add: desired ending inventory	3,050	3,300	3,550	3,800	13,700	
	Total production needs	17,050	8,550	20,050	21,550	77,200	
	Less: beginning inventory	2,800	3,050	3,300	3,550	12,700	
	Material to be purchased	14,250	15,500	16,750	18,000	64,500	
	Cost per unit	\$8.00	\$8.00	\$8.00	\$8.00	\$8.00	
	Total purchase cost	\$ 114,000	\$ 124,000	\$ 134,000	\$ 144,000	\$516,000	
	Total purchase cost- S	\$ 226,000	\$ 246,000	\$ 266,000	\$ 286,000	\$ 1,024,000	
	<ul style="list-style-type: none"> • Metal strips per unit, [L: Mer.] Production needs [L: Mer.], Add: desired ending inventory, [L: Mer.] Total needed, [L: Mer.] & Less: beginning inventory [L: Mer.] tie with Production in units [L: Hyp.] & Total purchase cost [L: Hyp.] • Beginning [L: Ant.] ties with ending (2 instances) • Less [L: Ant.] ties with Add (2 instances) • Material to be purchased [L: Mer.] & cost per unit [L: Mer.] tie with Total purchase cost [L: Hyp.] • Glass sheets per unit- in metre, [L: Mer.] Production needs [L: Mer.], Add: desired ending inventory, [L: Mer.] Total production needs, [L: Mer.] Less: beginning inventory, [L: Mer.] & Material to be purchased [L: Mer.] tie with Production in units [L: Hyp.] & Total purchase cost • Material to be purchased & cost per unit tie with Total purchase cost [L: Hyp.] • Total purchase cost & Total cost tie with Total purchase cost – 				<p>S [L: Hyper.]</p> <ul style="list-style-type: none"> • Qtr [L: Rep.] 5 instances • Total [L: Rep.] 6 instances • Budget [L: Rep.] 1 instance • Material [L: Rep.] 3 instances • Metal [L: Rep.] 2 instances • Glass [L: Rep.] 2 instances • Strips [L: Rep.] 2 instances • Sheets [L: Rep.] 2 instances • Production [L: Rep.] 5 instances • Unit(s) [L: Rep.] 6 instances • Needs [L: Rep.] 3 instances • Purchase(d) [L: Rep.] 4 instances • Cost [L: Rep.] 5 instances • Inventory [L: Rep.] 4 instances • \$ [L: Rep.] 15 instances 		
80.	Direct Materials Budget L						
		Q1	Q2	Q3	Q4	Total	Q1 2012
	Metal strips						
	Production in units	46,000	51,000	56,000	61,000	214,000	

	Metal strips per unit – in metre	1	1	1	1	1	
	Production needs	46,000	51,000	56,000	61,000	214,000	
	Add: desired ending inventory	0	0	0	0	0	
	Total needed	46,000	51,000	56,000	61,000	214,000	
	Less: beginning inventory	0	0	0	0	0	
	Material to be purchased	46,000	51,000	56,000	61,000	214,000	
	Cost per unit	\$3	\$3	\$3	\$3	\$3	
	Total cost of Material strips	\$138,000	\$153,000	\$168,000	\$183,000	\$642,000	
	Glass sheets						
	Production in units	46,000	51,000	56,000	61,000	214,000	\$66,000
	Glass sheets per unit - in metre	0.50	0.50	0.50	0.50	0.50	0.50
	Production needs	23,000	25,500	28,000	30,500	107,000	33,000
	Add: desired ending inventory	5,100	5,600	6,100	6,600	23,400	
	Total production needs	28,100	31,100	34,100	37,100	130,400	
	Less: beginning inventory	54600	5,100	5,600	6,100	21,400	
	Material to be purchased	23,500	26,000	28,500	31,000	109,000	
	Cost per unit	\$8	\$8	\$8	\$8	\$8	
	Total cost of Material strips	\$188,000	\$208,000	\$228,000	\$248,000	\$872,000	
	Total purchase cost - L	\$326,000	\$361,000	\$396,000	\$431,000	\$1,514,000	
	Total purchase cost - (S and L)	\$552,000	\$607,000	\$662,000	\$717,000	\$2,538,000	
	<ul style="list-style-type: none"> • Production in units [L: Mer.] , Metal strips per unit in metre, [L: Mer.] , Production needs [L: Mer.] & Add: desired ending inventory, [L: Mer.] ties with Total needed, [L: Hyp.] • Total needed, Less: beginning inventory [L: Mer.] , Material to be purchased, [L: Mer.] & Cost per unit [L: Mer.] tie with Total cost of Metal strips [L: Hyp.] • Beginning [L: Ant.] ties with ending • Less [L: Ant.] ties with Add • Production in units [L: Mer.] , Glass sheets per unit- in metre [L: Mer.] , Production needs [L: Mer.] & Add: desired ending inventory [L: Mer.] tie with Total production needs [L: Hyp.] • Total production needs , Less: beginning inventory, [L: Mer.] , Material to be purchased [L: Mer.] & cost per unit [L: Mer.] tie with Total cost of Material strips [L: Hyp.] • Less [L: Ant.] ties with Add • Beginning [L: Ant.] ties with ending • Total cost of Material (Metal) strips [L: Hyp.] & Total cost of Material (Glass) sheets [L: Hyp.] tie with Total purchase cost-L [L: Hyper.] 	<ul style="list-style-type: none"> • Total purchase cost –L & Total purchase cost –S tie with Total purchase cost –(S & L) [L: Hyper.] • Qtr [L: Rep.] 5 instances • Total [L: Rep.] 6 instances • Budget [L: Rep.] 1 instance • Material [L: Rep.] 4 instances • Metal [L: Rep.] 2 instances • Glass [L: Rep.] 2 instances • Strips [L: Rep.] 3 instances • Sheets [L: Rep.] 2 instances • Production [L: Rep.] 5 instances • Unit(s) [L: Rep.] 6 instances • Need(s/ed) [L: Rep.] 4 instances • Purchase(d) [L: Rep.] 4 instances • Cost [L: Rep.] 4 instances • Inventory [L: Rep.] 4 instances • \$ [L: Rep.] 30 instances 					
81.	5. Cash [L: Rep.] disbursements budget [L: Rep.]						
82.	The [R: Def.] cash [L: Rep.] disbursements [L: Rep.] budget [L: Rep.] was calculated [L: Rep.] based on [C: Enhancement: Man.] the [R: Def.] assumptions where 80% [L: Rep.] of purchases [L: Rep.] are paid in cash [L: Rep.] in the [R: Def.] same [L: Rep.] [C: Enhancement: Temp.] quarter, [L: Rep.] and [C: Extension: Add.] the [R: Def.] other 20% [L: Rep.] is paid in the [R: Def.] next quarter. [L: Rep.]						
83.	For Q1, [L: Rep.] cash [L: Rep.] purchases [L: Rep.] amounted to [L: Rep.] 80% [L: Rep.] of purchases [L: Rep.] totaling [L: Rep.] \$552,000 [L: Rep.] (as [C: Enhancement: Man.] shown [L: Rep.] in Table 4), [L: Rep.] [R: Cat.] which equates to \$441,600. [L: Rep.]						
84.	In addition, [C: Extension: Add.] accounts payable carrying over from the [R: Def.] previous quarter [L: Rep.] was shown [L: Rep.] in the [R: Def.] balance sheet [L: Rep.] as at 31 December 2010 to be \$99,400. [L: Rep.]						
85.	Subsequently, [C: Enhancement: Temp.] total [L: Rep.] cash [L: Rep.] disbursements [L: Rep.] in Q1 [L: Rep.] are budgeted [L: Rep.] to be \$541,000. [L: Rep.]						
86.	For [C: Elaboration: Clari.] Q2 [L: Rep.] cash [L: Rep.] disbursements, [L: Rep.] the [R: Def.] 20% [L: Rep.] of purchases [L: Rep.] that weren't paid for in Q1 [L: Rep.] are subsequently [C: Enhancement: Temp.] paid, and [C: Extension: Add.] 80% [L: Rep.] of Q2 [L: Rep.] purchases [L: Rep.] (\$607,000, [L: Rep.] taken from Table 4) [L: Rep.] [R: Cat.] are also [C: Extension: Add.] paid and [C: Extension: Add.] amount to [L: Rep.] \$485,600. [L: Rep.]						
87.	This [R: Dem.] process [L: Rep.] is then [C: Enhancement: Temp.] repeated for each of the [R: Def.] following [L: Rep.] quarters, [L: Rep.] leading to cash [L: Rep.] disbursements						

	[L: Rep.] for the [R: Def.] 2011 year [L: Rep.] budgeted [L: Rep.] to amount to [L: Rep.] \$2,494,000, [L: Rep.] as [C: Enhancement: Man.] shown [L: Rep.] in Table 5 [L: Rep.] [R: Cat.] below: [R: Cat.]					
88.	Cash Disbursements budget					
	Q1	Q2	Q3	Q4	Total	
	\$	\$	\$	\$	\$	
Accounts payable- Q4 2010	99,400				99,400	
Q1 purchases						
80% * 552,000	441,600				441,600	
20% * 552,000		110,400			110,400	
Q2 purchases						
80% * 607,000		485,600			485,600	
20% * 607,000			121,400		121,400	
Q3 purchases						
80% * 662,000			529,600		529,600	
20% * 662,000				132,400	132,400	
Q4 purchases						
80% * 717,000				573,700	573,700	
Total cash payments for materials	541,000	596,000	651,000	706,000	2,494,000	
	<ul style="list-style-type: none"> • Accounts Payable [L: Mer.] & Cash disbursements for Qtr1 [L: Mer.] Qtr2 [L: Mer.] Qtr3 [L: Mer.] & Qtr4 [L: Mer.] tie with Cash Disbursements Budget [L: Hyp.] & Total cash payments for materials [L: Hyp.] • Qtr [L: Rep.] 9 instances • Total [L: Rep.] 2 instances • Budget [L: Rep.] 1 instance • Material [L: Rep.] 1 instance 			<ul style="list-style-type: none"> • Cash [L: Rep.] 2 instances • Disbursements [L: Rep.] 1 instance • Accounts [L: Rep.] 1 instance • Payable [L: Rep.] 1 instance • Purchases [L: Rep.] 4 instances • *[L: Rep.] 7 instances • % [L: Rep.] 6 instances • \$ [L: Rep.] 5 instances 		
89.	Direct [L: Rep.] labour [L: Rep.]					
90.	Direct [L: Rep.] labour [L: Rep.] is calculated [L: Rep.] as [C: Enhancement: Man.] shown [L: Rep.] in Table 6 [L: Rep.] [R: Cat.] below: [R: Cat.]					
91.	Direct-Labour Budget [L: Hyp.]					
	Q1	Q2	Q3	Q4	Total	
	\$	\$	\$	\$	\$	
Production in units	102,000	112,000	122,000	132,000	468,000	
Direct-Labour hour	0.10	0.10	0.10	0.10	0.10	
Labour hours required	10,200	11,200	12,200	13,200	46,800	
Wage rate	\$20	\$20	\$20	\$20	\$20	
Total direct-Labour cost	\$204,000	\$224,000	\$244,000	\$264,000	\$936,000	
	<ul style="list-style-type: none"> • Production in units, [L: Mer.] Direct-Labour hour, [L: Mer.] Labour hours required, [L: Mer.] & Wage rate [L: Mer.] tie with Direct-Labour Budget [L: Hyp.] & Total direct-Labour cost [L: Hyp.] • Production [L: Rep.] 1 instance • Unit [L: Rep.] 1 instance • Hour [L: Rep.] 2 instances • \$ [L: Rep.] 15 instances 			<ul style="list-style-type: none"> • Qtr [L: Rep.] 4 instances • Total [L: Rep.] 2 instances • Budget [L: Rep.] 1 instance • Direct [L: Rep.] 3 instances • Labour [L: Rep.] 4 instances • Cost [L: Rep.] 1 instance 		
92.	6. Summary cash [L: Rep.] budget [L: Rep.]					
93.	The [R: Def.] opening cash [L: Rep.] balance [L: Rep.] for Q1 [L: Rep.] is \$95,000, [L: Rep.] as [C: Enhancement: Man.] shown [L: Rep.] in the [R: Def.] balance [L: Rep.] sheet [L: Rep.] as at 31 December 2010.					
94.	Cash [L: Rep.] collections [L: Rep.] for Q1 [L: Rep.] amount to [L: Rep.] \$1,210,000, [L: Rep.] which is taken from Table 2.[L: Rep.] [R: Cat.]					
95.	Total [L: Rep.] cash [L: Rep.] available subsequently [C: Enhancement: Temp.] amounts to [L: Rep.] \$1,305,000.[L: Rep.]					
96.	It is then [C: Enhancement: Temp.] necessary to subtract disbursements, [L: Rep.] comprised of materials [L: Rep.] costs, [L: Rep.] direct [L: Rep.] labour [L: Rep.] and manufacturing					

	overhead.																																																																																																																																				
97.	Materials [L: Rep.] disbursements [L: Rep.] for Q1 [L: Rep.] amounted to [L: Rep.] \$541,000, [L: Rep.] as [C: Enhancement: Man.] shown [L: Rep.] in Table 5. [L: Rep.] [R: Cat.]																																																																																																																																				
98.	Direct [L: Rep.] labour [L: Rep.] disbursements [L: Rep.] for Q1 [L: Rep.] amounted to [L: Rep.] \$204,000, [L: Rep.] as [C: Enhancement: Man.] shown [L: Rep.] in Table 6. [L: Rep.] [R: Cat.]																																																																																																																																				
99.	Manufacturing overhead figures are provided.																																																																																																																																				
100.	For [C: Elaboration: Clari.] Q1, [L: Rep.] they [R: Pro.] are comprised of the [R: Def.] following: [R: Cat.] indirect material [L: Rep.] (\$10,200); [L: Rep.] indirect [L: Ant.] labour [L: Rep.] (\$40,800); [L: Rep.] other overheads (\$31,000); [L: Rep.] selling [L: Rep.] & admin expenses (\$100,000) [L: Rep.] and [C: Extension: Add.] dividends paid (\$50,000). [L: Rep.]																																																																																																																																				
101.	It is also [C: Extension: Add.] necessary to include the [R: Def.] equipment purchase [L: Rep.] in Q1, as [C: Enhancement: Caus.] it was purchased [L: Rep.] on 2 January 2011.																																																																																																																																				
102.	This [R: Dem.] amounts to [L: Rep.] an additional one-off expense of \$1,000,000. [L: Rep.]																																																																																																																																				
103.	Total [L: Rep.] disbursements [L: Rep.] for Q1 [L: Rep.] subsequently [C: Enhancement: Temp.] amounted to [L: Rep.] (\$1,977,000), [L: Rep.] which led to a deficiency of cash [L: Rep.] at the [R: Def.] end of Q1 [L: Rep.] of (\$672,000). [L: Rep.]																																																																																																																																				
104.	To complete the [R: Def.] summary cash [L: Rep.] budget, [L: Rep.] we [R: Pro.] must then [C: Enhancement: Temp.] adjust for financing costs. [L: Rep.]																																																																																																																																				
105.	For [C: Elaboration: Clari.] Q1, [L: Rep.] it [R: Pro.] includes a positive amount [L: Rep.] of \$1,000,000 [L: Rep.] corresponding with the [R: Def.] loan expense.																																																																																																																																				
106.	A repayment of (\$250,000) [L: Rep.] is also [C: Extension: Add.] paid at the [R: Def.] end of Q1, [L: Rep.] based on [C: Enhancement: Man.] the [R: Def.] quarterly [L: Rep.] installment repayment plan.																																																																																																																																				
107.	Interest on the [R: Def.] loan for Q1 [L: Rep.] amounts to [L: Rep.] \$25,000, [L: Rep.] in accordance with [C: Enhancement: Man.] the [R: Def.] interest rate terms of 10% [L: Rep.] per annum.																																																																																																																																				
108.	Interest is subsequently [C: Enhancement: Temp.] reduced in each quarter, [L: Rep.] corresponding with the [R: Def.] repayments of the [R: Def.] loan.																																																																																																																																				
109.	Based on [C: Enhancement: Man.] these [R: Dem.] adjustments, the [R: Def.] ending cash [L: Rep.] balance [L: Rep.] for Q1 [L: Rep.] amounts to [L: Rep.] \$53,000. [L: Rep.]																																																																																																																																				
110.	Details for the [R: Def.] 2011 year [L: Rep.] are shown [L: Rep.] below [R: Cat.] in Table 7. [L: Rep.] [R: Cat.]																																																																																																																																				
111.	<table border="1"> <thead> <tr> <th colspan="6">Summary Cash Budget</th> </tr> <tr> <th></th> <th>Qtr1</th> <th>Qtr2</th> <th>Qtr3</th> <th>Qtr4</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Beginning cash balance</td> <td>\$ 95,000</td> <td>\$ 53,000</td> <td>\$ 57,250</td> <td>\$ 107,750</td> <td>\$ 95,000</td> </tr> <tr> <td>add: Cash collections</td> <td>1,210,000</td> <td>1,335,000</td> <td>1,460,000</td> <td>1,585,000</td> <td>5,590,000</td> </tr> <tr> <td>Total cash available</td> <td>\$ 1,305,000</td> <td>\$ 1,388,000</td> <td>\$ 1,517,250</td> <td>\$ 1,692,750</td> <td>\$ 5,903,000</td> </tr> <tr> <td>less: Disbursements</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> Materials</td> <td>541,000</td> <td>596,000</td> <td>651,000</td> <td>706,000</td> <td>2,494,000</td> </tr> <tr> <td> Direct</td> <td>204,000</td> <td>224,000</td> <td>244,000</td> <td>264,000</td> <td>936,000</td> </tr> <tr> <td> Mfg. overhead</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> Indirect Material</td> <td>10,200</td> <td>11,200</td> <td>12,200</td> <td>13,200</td> <td>46,800</td> </tr> <tr> <td> Indirect Labour</td> <td>40,800</td> <td>44,800</td> <td>48,800</td> <td>52,800</td> <td>187,200</td> </tr> <tr> <td> Other overhead</td> <td>31,000</td> <td>36,000</td> <td>41,000</td> <td>46,000</td> <td>154,000</td> </tr> <tr> <td> Selling and Admin</td> <td>100,000</td> <td>100,000</td> <td>100,000</td> <td>100,000</td> <td>400,000</td> </tr> <tr> <td> Equipment purchase</td> <td>1,000,000</td> <td>0</td> <td>0</td> <td>0</td> <td>1,000,000</td> </tr> <tr> <td> Dividend</td> <td>50,000.00</td> <td>50,000.00</td> <td>50,000.00</td> <td>50,000.00</td> <td>200,000.00</td> </tr> <tr> <td>Total disbursement</td> <td>\$ 1,977,000</td> <td>\$ 1,062,000</td> <td>\$ 1,147,000</td> <td>\$ 1,232,000</td> <td>\$ 5,418,000</td> </tr> <tr> <td>Excess (deficiency) of cash available over disbursements</td> <td>\$ (672,000)</td> <td>\$ 326,000</td> <td>\$ 370,250</td> <td>\$ 460,750</td> <td>\$ 485,000</td> </tr> <tr> <td>Financing</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> Borrowing</td> <td>1,000,000.00</td> <td>0</td> <td>0</td> <td>0</td> <td>1,000,000.00</td> </tr> <tr> <td> Repayments</td> <td>(250,000)</td> <td>(250,000)</td> <td>(250,000)</td> <td>(250,000)</td> <td>(1,000,000)</td> </tr> <tr> <td> Interest</td> <td>(25,000)</td> <td>(18,750)</td> <td>(12,500)</td> <td>(6,250)</td> <td>(62,500)</td> </tr> <tr> <td>Ending cash balance</td> <td>\$ 53,000</td> <td>\$ 57,250</td> <td>\$ 107,750</td> <td>\$ 204,500</td> <td>\$ 204,500</td> </tr> </tbody> </table>	Summary Cash Budget							Qtr1	Qtr2	Qtr3	Qtr4	Total	Beginning cash balance	\$ 95,000	\$ 53,000	\$ 57,250	\$ 107,750	\$ 95,000	add: Cash collections	1,210,000	1,335,000	1,460,000	1,585,000	5,590,000	Total cash available	\$ 1,305,000	\$ 1,388,000	\$ 1,517,250	\$ 1,692,750	\$ 5,903,000	less: Disbursements						Materials	541,000	596,000	651,000	706,000	2,494,000	Direct	204,000	224,000	244,000	264,000	936,000	Mfg. overhead						Indirect Material	10,200	11,200	12,200	13,200	46,800	Indirect Labour	40,800	44,800	48,800	52,800	187,200	Other overhead	31,000	36,000	41,000	46,000	154,000	Selling and Admin	100,000	100,000	100,000	100,000	400,000	Equipment purchase	1,000,000	0	0	0	1,000,000	Dividend	50,000.00	50,000.00	50,000.00	50,000.00	200,000.00	Total disbursement	\$ 1,977,000	\$ 1,062,000	\$ 1,147,000	\$ 1,232,000	\$ 5,418,000	Excess (deficiency) of cash available over disbursements	\$ (672,000)	\$ 326,000	\$ 370,250	\$ 460,750	\$ 485,000	Financing						Borrowing	1,000,000.00	0	0	0	1,000,000.00	Repayments	(250,000)	(250,000)	(250,000)	(250,000)	(1,000,000)	Interest	(25,000)	(18,750)	(12,500)	(6,250)	(62,500)	Ending cash balance	\$ 53,000	\$ 57,250	\$ 107,750	\$ 204,500	\$ 204,500
Summary Cash Budget																																																																																																																																					
	Qtr1	Qtr2	Qtr3	Qtr4	Total																																																																																																																																
Beginning cash balance	\$ 95,000	\$ 53,000	\$ 57,250	\$ 107,750	\$ 95,000																																																																																																																																
add: Cash collections	1,210,000	1,335,000	1,460,000	1,585,000	5,590,000																																																																																																																																
Total cash available	\$ 1,305,000	\$ 1,388,000	\$ 1,517,250	\$ 1,692,750	\$ 5,903,000																																																																																																																																
less: Disbursements																																																																																																																																					
Materials	541,000	596,000	651,000	706,000	2,494,000																																																																																																																																
Direct	204,000	224,000	244,000	264,000	936,000																																																																																																																																
Mfg. overhead																																																																																																																																					
Indirect Material	10,200	11,200	12,200	13,200	46,800																																																																																																																																
Indirect Labour	40,800	44,800	48,800	52,800	187,200																																																																																																																																
Other overhead	31,000	36,000	41,000	46,000	154,000																																																																																																																																
Selling and Admin	100,000	100,000	100,000	100,000	400,000																																																																																																																																
Equipment purchase	1,000,000	0	0	0	1,000,000																																																																																																																																
Dividend	50,000.00	50,000.00	50,000.00	50,000.00	200,000.00																																																																																																																																
Total disbursement	\$ 1,977,000	\$ 1,062,000	\$ 1,147,000	\$ 1,232,000	\$ 5,418,000																																																																																																																																
Excess (deficiency) of cash available over disbursements	\$ (672,000)	\$ 326,000	\$ 370,250	\$ 460,750	\$ 485,000																																																																																																																																
Financing																																																																																																																																					
Borrowing	1,000,000.00	0	0	0	1,000,000.00																																																																																																																																
Repayments	(250,000)	(250,000)	(250,000)	(250,000)	(1,000,000)																																																																																																																																
Interest	(25,000)	(18,750)	(12,500)	(6,250)	(62,500)																																																																																																																																
Ending cash balance	\$ 53,000	\$ 57,250	\$ 107,750	\$ 204,500	\$ 204,500																																																																																																																																
	<ul style="list-style-type: none"> • <i>Beginning cash balance</i> [L: Mer.] & <i>add: Cash collections</i> [L: Mer.] <i>tie with Total cash available Less Disbursements</i> [L: Hyp.] • <i>Materials</i> [L: Mer.] & <i>Direct</i> [L: Mer.] <i>tie with Disbursements</i> [L: Hyp.] 	<ul style="list-style-type: none"> • <i>Ending</i> [L: Ant.] <i>ties with Beginning</i> • <i>Qtr</i> [L: Rep.] <i>4 instances</i> • <i>Total</i> [L: Rep.] <i>3 instances</i> • <i>Budget</i> [L: Rep.] <i>1 instance</i> • <i>Cash</i> [L: Rep.] <i>6 instances</i> 																																																																																																																																			

	<ul style="list-style-type: none"> • Indirect Materials, [L: Mer.] Indirect Labour, [L: Mer.] Other overhead, [L: Mer.] Selling and Admin, [L: Mer.] Equipment purchase, [L: Mer.] & Dividend [L: Mer.] tie with Mfg. overhead [L: Hyp.] & Total disbursement [L: Hyp.] • Less [L: Ant.] ties with Add • Borrowing, [L: Mer.] Repayments, [L: Mer.] & Interest [L: Mer.] tie with Financing [L: Hyp.] • Total cash available Less Disbursements, Mfg. overhead, Total disbursement, Excess (deficiency) of cash available over disbursements [L: Hyp.] & Financing tie with Ending cash balance [L: Hyper.] • Direct [L: Ant.] ties with Indirect • Purchase [L: Ant.] ties with Selling 	<ul style="list-style-type: none"> • Indirect [L: Rep.] 1 instance • Labour [L: Rep.] 1 instance • Balance [L: Rep.] 1 instance • Collection [L: Rep.] 1 instance • Disbursements [L: Rep.] 3 instances • Material(s) [L: Rep.] 2 instances • Selling [L: Rep.] 1 instance • Admin [L: Rep.] 1 instance • Purchase [L: Rep.] 1 instance • Balance [L: Rep.] 1 instance • \$ [L: Rep.] 25 instances • Overhead [L: Rep.] 1 instance 				
112.	7. Budgeted [L: Rep.] schedule of cost [L: Rep.] of goods manufactured and [C: Extension: Add.] sold					
113.	In order to [C: Enhancement: Caus.] calculate [L: Rep.] budgeted [L: Rep.] cost [L: Rep.] of goods [L: Rep.] manufactured, it is necessary to first [C: Enhancement: Temp.] calculate [L: Rep.] manufacturing overhead.					
114.	These [R: Dem.] figures [L: Rep.] are provided, and [C: Extension: Add.] are budgeted [L: Rep.] to amount to [L: Rep.] \$468,000 [L: Rep.] for the [R: Def.] 2011 year. [L: Rep.]					
115.	The [R: Def.] costs [L: Rep.] of goods [L: Rep.] manufactured [L: Rep.] are calculated [L: Rep.] as [C: Enhancement: Man.] shown [L: Rep.] below [R: Cat.] in Table 8: [L: Rep.] [R: Cat.]					
116.	Manufacturing overhead	Q1	Q2	Q3	Q4	Total
	Indirect Materials	10,200	11,200	12,200	13,200	46,800
	Indirect Labour	40,800	44,800	48,800	52,800	187,200
	Other Overhead	31,000	36,000	41,000	46,000	154,000
	Depreciation	20,000	20,000	20,000	20,000	80,000
	Total	102,000	112,000	122,000	132,000	468,000
	<ul style="list-style-type: none"> • Indirect Materials, [L: Mer.] Indirect Labour, [L: Mer.] Other Overhead [L: Mer.] & Depreciation [L: Mer.] tie with Manufacturing Overhead [L: Hyp.] & Total [L: Hyp.] • Qtr [L: Rep.] 4 instances 	<ul style="list-style-type: none"> • Total [L: Rep.] 2 instances • Indirect [L: Rep.] 1 instance • Labour [L: Rep.] 1 instance • Materials [L: Rep.] 1 instance 				
117.	Direct materials	Q1	Q2	Q3	Q4	Total
	Beginning direct materials	59,200	65,200	71,200	77,200	59,200
	add: Purchases	552,000	607,000	662,000	717,000	2,538,000
	Raw material available for use	611,200	672,200	733,200	794,200	2,810,800
	less: closing direct materials	65,200	71,200	77,200	83,200	83,200
	Direct materials used	546,000	601,000	656,000	711,000	2,514,000
	Direct labour	204,000	224,000	244,000	264,000	936,000
	Total manufacturing overhead	102,000	112,000	122,000	132,000	468,000
	Total manufacturing costs	852,000	937,000	1,022,000	1,107,000	3,918,000
	Add: Beginning WIP	0	0	0	0	0
	Less: Ending WIP	0	0	0	0	0
	Cost of goods manufactured	852,000	937,000	1,022,000	1,107,000	3,918,000
	<ul style="list-style-type: none"> • Beginning direct materials [L: Mer.] & add: Purchases [L: Mer.] tie with Raw material available for use [L: Hyp.] • Beginning direct materials, add: Purchases, less: closing direct materials [L: Mer.] tie with Direct materials [L: Hyp.] & Direct materials used [L: Hyp.] • Beginning direct materials, add: Purchases, less: closing direct materials, Direct Labour [L: Mer.] & manufacturing overhead tie with Total manufacturing overhead [L: Hyp.] • Raw material available for use [L: Hyp.], Direct materials [L: Hyp.], Direct materials used [L: Hyp.] & Total 	<ul style="list-style-type: none"> • Total [L: Rep.] 3 instances • Direct [L: Rep.] 3 instances • Labour [L: Rep.] 1 instance • Material(s) [L: Rep.] 5 instances • Manufacturing [L: Rep.] 2 instances • Cost(s) [L: Rep.] 2 instances • Purchases [L: Rep.] 1 instance • Overhead [L: Rep.] 1 instance • WIP [L: Rep.] 1 instance • Direct [L: Ant.] ties with Indirect 				

	<i>manufacturing overhead [L: Hyp.] tie with Total manufacturing costs [L: Hyper.] & Cost of goods manufactured [L: Hyper.]</i>		<ul style="list-style-type: none"> • Ending [L: Ant.] ties with Beginning • Less [L: Ant.] ties with Add (2 instances) 																																																				
118.	The [R: Def.] above [R: Ana.] table [L: Rep.] shows the [R: Def.] schedule of manufacturing overhead, and [Ellip: V.] the [R: Def.] calculations [L: Rep.] for direct material [L: Rep.] costs.[L: Rep.]																																																						
119.	These [R: Dem.] costs [L: Rep.] can be explained as [C: Enhancement: Man.] follows: [R: Cat.]																																																						
120.	The [R: Def.] beginning direct materials [L: Rep.] are calculated [L: Rep.] from the direct material [L: Rep.] budget [L: Rep.] shown [L: Rep.] in Table 4. [L: Rep.] [R: Cat.]																																																						
121.	For Q1, [L: Rep.] this [R: Dem.] is calculated [L: Rep.] as beginning [L: Syn.] inventory [L: Rep.]- glass [L: Rep.] sheets [L: Rep.]- for both the [R: Def.] S and L lines, [L: Rep.] multiplied by the [R: Def.] price [L: Rep.] per sheet [L: Rep.] ((2800+4600)*\$8). [L: Rep.]																																																						
122.	There is no beginning [L: Syn.]or ending [L: Ant.] inventories for metal [L: Rep.] strips [L: Rep.] since [C: Enhancement: Caus.] they [R: Pro.] are purchased [L: Rep.] on a just-in-time [L: Rep.] basis.																																																						
123.	The [R: Def.] purchased [L: Rep.] materials [L: Rep.] are calculated [L: Rep.] from the [R: Def.] material [L: Rep.] budget [L: Rep.] shown [L: Rep.] in Table 4. [L: Rep.] [R: Cat.]																																																						
124.	For Q1, [L: Rep.] the [R: Def.] total [L: Rep.] purchase [L: Rep.] costs [L: Rep.] for both [R: Comp.] lines [L: Rep.] S and L amounted to [L: Rep.] \$552,000. [L: Rep.]																																																						
125.	This [R: Dem.] equates to raw materials [L: Rep.] available for use in Q1 [L: Rep.] of 611,200 (59,200 + 552,000).																																																						
126.	The [R: Def.] closing direct materials [L: Rep.] are calculated [L: Rep.] from the [R: Def.] direct material [L: Rep.] budget [L: Rep.] shown [L: Rep.] in Table 4. [L: Rep.] [R: Cat.]																																																						
127.	For [C: Elaboration: Clari.] Q1, [L: Rep.] this [R: Dem.] is calculated [L: Rep.] as ending [L: Syn.] inventory – [L: Rep.] glass [L: Rep.] sheets- [L: Rep.] for both the [R: Def.] S and L lines, [L: Rep.] multiplied by the [R: Def.] price per sheet [L: Rep.] ((3,050+5,100)*\$8). [L: Rep.]																																																						
128.	This [R: Dem.] equates to [L: Rep.] direct materials [L: Rep.] used in Q1 of 546,000 (611,200 – 65,200).																																																						
129.	Direct [L: Rep.] labour [L: Rep.] is calculated [L: Rep.] as [C: Enhancement: Man.] shown [L: Rep.] in Table 6, [L: Rep.] [R: Cat.] and [C: Extension: Add.] amounts to [L: Rep.],\$204,000 [L: Rep.] for Q1.[L: Rep.]																																																						
130.	Total [L: Rep.] manufacturing overhead costs [L: Rep.] are provided, and [C: Extension: Add.] amount to [L: Rep.] \$102,000 [L: Rep.] for Q1. [L: Rep.]																																																						
131.	As [C: Enhancement: Man.] shown [L: Rep.] in the [R: Def.] table [L: Rep.] above, [R: Ana.] the [R: Def.] total [L: Rep.] budgeted [L: Rep.] cost [L: Rep.] of goods [L: Rep.] manufactured [L: Rep.] amounts to [L: Rep.],\$3,918,000. [L: Rep.]																																																						
132.	The [R: Def.] costs [L: Rep.] of goods [L: Rep.] sold are calculated [L: Rep.] as [C: Enhancement: Man.] shown [L: Rep.] below [R: Cat.] in Table 9: [L: Rep.] [R: Cat.]																																																						
133.	<table border="1"> <tr> <td>New projected manufacturing costs</td> <td>S-Frame</td> <td>L-Frame</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Direct materials</td> <td>\$</td> <td>\$</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> Metal strips</td> <td>2,0</td> <td>3,0</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> Glass sheets</td> <td>2,0</td> <td>4,0</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Direct labour</td> <td>2,0</td> <td>2,0</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Manufacturing overhead</td> <td>1,0</td> <td>1,0</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Total</td> <td>7,0</td> <td>10,0</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	New projected manufacturing costs	S-Frame	L-Frame					Direct materials	\$	\$					Metal strips	2,0	3,0					Glass sheets	2,0	4,0					Direct labour	2,0	2,0					Manufacturing overhead	1,0	1,0					Total	7,0	10,0					<ul style="list-style-type: none"> • Metal strips,[L: Mer.] Glass sheets, [L: Mer.] Direct labour [L: Mer.] & Manufacturing overhead [L: Mer.] tie with New projected manufacturing costs [L: Hyp.] & Total [L: Hyp.] • Costs [L: Rep.] 1 instance • Sheets [L: Rep.] 1 instance • Strips [L: Rep.] 1 instance • \$ [L: Rep.] 2 instances 				
New projected manufacturing costs	S-Frame	L-Frame																																																					
Direct materials	\$	\$																																																					
Metal strips	2,0	3,0																																																					
Glass sheets	2,0	4,0																																																					
Direct labour	2,0	2,0																																																					
Manufacturing overhead	1,0	1,0																																																					
Total	7,0	10,0																																																					
134.	<table border="1"> <tr> <td>Cost of goods sold</td> <td>Q1</td> <td>Q2</td> <td>Q3</td> <td>Q4</td> <td>Total</td> </tr> <tr> <td></td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> <td>\$</td> </tr> <tr> <td>Beginning finished goods inventory</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Cost of goods sold	Q1	Q2	Q3	Q4	Total		\$	\$	\$	\$	\$	Beginning finished goods inventory						<ul style="list-style-type: none"> • Materials [L: Rep.] 1 instance • Metal [L: Rep.] 1 instance • Glass [L: Rep.] 1 instance • Direct [L: Rep.] 1 instance • Labour [L: Rep.] 1 instance • Total [L: Rep.] 1 instance 																																			
Cost of goods sold	Q1	Q2	Q3	Q4	Total																																																		
	\$	\$	\$	\$	\$																																																		
Beginning finished goods inventory																																																							

	S-Frame	77000	84000	91000	98000	77000	
	L-Frame	90000	100000	110000	120000	90000	
	Total	1670000	184000	201000	218000		
	Add: cost of goods manufactured	852000	937000	1022000	1107000	3918000	
	cost of goods available for sale	1019000	1121000	1223000	1325000	4688000	
	Less: closing finished goods inventory						
	S-Frame	84000	91000	98000	105000	105000	
	L-Frame	100000	110000	120000	130000	130000	
	Total	184000	201000	218000	235000		
		835000	920000	1005000	1090000	3850000	
	<ul style="list-style-type: none"> • Beginning finished goods inventory, [L: Mer.] S-Frame [L: Mer.] & L-Frame [L: Mer.] tie with Total [L: Hyp.] • Total, Add: cost of goods manufactured [L: Mer.] tie with cost [of goods available for sale [L: Hyp.] • S-Frame [L: Mer.] & L-Frame [L: Mer.] tie with Total [L: Hyp.] • Less [L: Ant.] ties with Add 			<ul style="list-style-type: none"> • Cost [L: Rep.] 3 instances • Q [L: Rep.] 4 instances • Total [L: Rep.] 3 instances • Beginning [L: Rep.] 1 instance • Inventory [L: Rep.] 2 instances • Sale [L: Rep.] 1 instance • Frame [L: Rep.] 2 instances • \$ [L: Rep.] 5 instances 			
135.	In order to [C: Enhancement: Caus.] determine the [R: Def.] budgeted [L: Rep.] cost [L: Rep.] of goods [L: Rep.] sold, it is first [C: Enhancement: Temp.] necessary to calculate [L: Rep.] the [R: Def.] projected [L: Rep.] manufacturing costs [L: Rep.] per unit [L: Rep.] for both the [R: Def.] S and L lines.[L: Rep.]						
136.	These [R: Dem.] figures [L: Rep.] are given in the [R: Def.] instructions provided and [C: Extension: Add.] are shown [L: Rep.] above.[R: Ana.]						
137.	The [R: Def.] above [R: Ana.] chart shows that projected [L: Rep.] manufacturing costs [L: Rep.] per unit [L: Rep.] amount to [L: Rep.] \$7.00 [L: Rep.] and \$10.00 [L: Rep.] for the [R: Def.] S and L lines [L: Rep.] respectively.						
138.	It is then [C: Enhancement: Temp.] necessary to calculate [L: Rep.] opening finished goods [L: Rep.] inventory [L: Rep.] for the [R: Def.] 2011 year [L: Rep.] across both the [R: Def.] S and L lines.[L: Rep.]						
139.	This [R: Dem.] is done by multiplying the [R: Def.] cost [L: Rep.] per unit [L: Rep.] for each line [L: Rep.] by the [R: Def.] amount [L: Rep.] of opening stock in each period, [L: Rep.] as [C: Enhancement: Man.] shown in the [R: Def.] production [L: Rep.] budget [L: Rep.] in Table 3.[L: Rep.]						
140.	For [C: Elaboration: Clari.] the [R: Def.] S Line in Q1, [L: Rep.] this [R: Dem.] amounts to [L: Rep.] 11,000 units [L: Rep.] (11,000 * \$7.00 [L: Rep.] = \$77,000). [L: Rep.]						
141.	For [C: Elaboration: Clari.] the [R: Def.] L Line [L: Rep.] in Q1, [L: Rep.] this [R: Dem.] amounts to [L: Rep.] 9,000 units [L: Rep.] (9,000 * [L: Rep.] \$10.00 [L: Rep.] = [L: Rep.] \$90,000). [L: Rep.]						
142.	To work out the [R: Def.] cost [L: Rep.] of goods [L: Rep.] manufactured for each quarter, [L: Rep.] we [R: Pro.] simply plug in the [R: Def.] figures [L: Rep.] calculated [L: Rep.] in the [R: Def.] COGM schedule, shown [L: Rep.] above [R: Ana.] in Table 8.[L: Rep.]						
143.	Adding this [R: Dem.] amount to [L: Rep.] the [R: Def.] opening inventory [L: Rep.] for each quarter [L: Rep.] gives a budgeted [L: Rep.] figure for cost [L: Rep.] of goods [L: Rep.] available for sale [L: Rep.] in the [R: Def.] 2011 year [L: Rep.] of \$4,688,000. [L: Rep.]						
144.	Using a similar process [L: Rep.] to the [R: Def.] calculation [L: Rep.] of opening finished goods [L: Rep.] inventory, [L: Rep.] we [R: Pro.] then [C: Enhancement: Temp.] calculate [L: Rep.] closing [L: Ant.] finished goods [L: Rep.] inventory.[L: Rep.]						
145.	This [R: Dem.] is done by multiplying the [R: Def.] cost [L: Rep.] per unit [L: Rep.] for each line [L: Rep.] by the [R: Def.] amount [L: Syn.] of closing stock in each period, [L: Rep.] as [C: Enhancement: Man.] shown [L: Rep.] in the [R: Def.] production [L: Rep.] budget [L: Rep.] in Table 3. [L: Rep.] [R: Cat.]						
146.	For [C: Elaboration: Clari.] the [R: Def.] S Line [L: Rep.] in Q4, [L: Rep.] this [R: Dem.] amounts to [L: Rep.] 15,000 units [L: Rep.] (15,000 * [L: Rep.] \$7.00 [L: Rep.] = [L: Rep.] \$105,000). [L: Rep.]						

147.	For [C: Elaboration: Clari.] the [R: Def.] L Line [L: Rep.] in Q4, [L: Rep.]this [R: Dem.] amounts to [L: Rep.] 13,000 units [L: Rep.] (13,000 * [L: Rep.] \$10.00 [L: Rep.] = [L: Rep.] \$130,000). [L: Rep.]					
148.	The [R: Def.] above [R: Ana.] table [L: Rep.] shows that subtracting closing inventory [L: Rep.] from the [R: Def.] cost [L: Rep.] of goods [L: Rep.] available for sale [L: Rep.] gives a budgeted [L: Rep.] cost [L: Rep.] of goods [L: Rep.] sold figure [L: Rep.] of \$3,850,000 [L: Rep.] for the [R: Def.] 2011 year.[L: Rep.]					
149.	8. <i>Budgeted [L: Rep.] Profit & Loss Statement</i>					
150.	The [R: Def.] budgeted [L: Rep.] P & L Statement for Frame-It Ltd for the [R: Def.] 2011 year [L: Rep.][L: Hyp.] is shown [L: Rep.] below [R: Cat.] in Table 10: [L: Rep.] [R: Cat.]					
151.		Q1	Q2	Q3	Q4	Total
	Sales revenue	1,225,000	1,350,000	1,475,000	1,600,000	5,650,000
	Cost of goods sold	835,000	920,000	1,005,000	1,090,000	3,850,000
	Gross margin	390,000	430,000	470,000	510,000	1,800,000
	Selling and administrative expense	100,000	100,000	100,000	100,000	400,000
	Operating income	290,000	330,000	370,000	410,000	1,400,000
	Interest expense	25,000	18,750	12,500	6,250	62,500
	Net income before tax	265,000	311,250	357,500	403,750	1,337,500
	<ul style="list-style-type: none"> • Sales revenue [L: Mer.] & Cost of goods sold [L: Mer.] tie with Gross margin [L: Hyp.] • Sales revenue, Cost of goods sold & Selling and administrative expense [L: Mer.] tie with Operating income [L: Hyp.] • Sales revenue, Cost of goods sold, Selling and administrative expense & Interest expense [L: Mer.] tie with Net income before tax [L: Hyp.] • Expense [L: Ant.] ties with Income • Cost [L: Rep.] 1 instance 			<ul style="list-style-type: none"> • Q [L: Rep.] 4 instances • Total [L: Rep.] 1 instance • Sales/Selling [L: Rep.] 2 instances • Revenue [L: Rep.] 1 instance • Administrative [L: Rep.] 1 instance • Income [L: Rep.] 1 instance 		
152.	The [R: Def.] above [R: Ana.] table [L: Rep.] shows that quarterly [L: Rep.] figures [L: Rep.] of sales [L: Rep.] revenue [L: Rep.] are taken from the [R: Def.] sales [L: Rep.] budget [L: Rep.] in Table 1.[L: Rep.][R: Cat.]					
153.	Cost [L: Rep.] of goods [L: Rep.] sold, taken from Table 10, [L: Rep.][R: Cat.] is then [C: Enhancement: Temp.] subtracted to give the [R: Def.] gross profit figure [L: Rep.] for each quarter [L: Rep.] and the [R: Def.] full year.[L: Rep.]					
154.	Selling [L: Rep.] and administrative [L: Rep.] expenses are then [C: Enhancement: Temp.] deducted to give operating [L: Rep.] income. [L: Rep.]					
155.	We [R: Pro.] then [C: Enhancement: Temp.] deduct [L: Rep.] interest expense, [L: Rep.] which is taken from the [R: Def.] summary cash [L: Rep.] budget [L: Rep.] in Table 7. [L: Rep.] [R: Cat.]					
156.	Deducting these [R: Dem.] expenses [L: Rep.] from gross [L: Rep.] profit [L: Rep.] gives a quarterly [L: Rep.] net income [L: Ant.] figure [L: Rep.] before tax.					
157.	The [R: Def.] above [R: Ana.] table [L: Rep.] shows that net [L: Rep.] income [L: Rep.] before tax [L: Rep.] for the [R: Def.] 2011 year [L: Rep.] is budgeted [L: Rep.] to be \$1,337,500. [L: Rep.]					
158.	9. <i>Budgeted [L: Rep.] Statement of Retained Earnings [L: Syn.]</i>					
159.	The [R: Def.] budgeted [L: Rep.] Statement [L: Rep.] of Retained Earnings [L: Rep.] for Frame[L: Rep.]-It Ltd for the [R: Def.] 2011 year [L: Rep.][L:Hyp.] is shown [L: Rep.] below [R: Cat.] in Table 11: [L: Rep.] [R: Cat.]					
160.						
	Retained earnings brought forward		3,353,800			
	Add: net budgeted income current year		1,337,500			
	Total		4,691,300			
	Less: dividends paid		200,000			
	Retained earnings carried forward		4,491,300			
	<ul style="list-style-type: none"> • Retained earnings brought forward [L: Mer.] & Add: net budgeted income current year [L: Mer.] tie with Total [L: Hyp.] • Retained earnings brought forward, Add: net budgeted income current year, & Less: dividends paid [L: Mer.] tie with Retained earnings carried forward [L: Hyp.] • Less [L: Ant.] ties with Add • Net [L: Rep.] 1 instance 			<ul style="list-style-type: none"> • Budgeted [L: Rep.] 1 instance • Income [L: Rep.] 1 instance • Current [L: Rep.] 1 instance • Year [L: Rep.] 1 instance • Total [L: Rep.] 1 instance • Retained [L: Rep.] 1 instance • Earnings [L: Rep.] 1 instance 		
161.	Opening retained [L: Rep.] earnings [L: Rep.] are brought [L: Syn.] forward [L: Rep.] from the					

	[R: Def.] figure [L: Rep.] shown [L: Rep.] in the [R: Def.] balance [L: Rep.] sheet [L: Rep.] as at 31 December 2010.																																															
162.	We [R: Pro.] then [C: Enhancement: Temp.] add the [R: Def.] budgeted [L: Rep.] figures [L: Rep.] for the [R: Def.] 2011 year [L: Rep.] which gives a total [L: Rep.] of \$4,691,300. [L: Rep.]																																															
163.	We [R: Pro.] then [C: Enhancement: Temp.] allow for \$200,000 [L: Rep.] of dividends to be paid, based on [C: Enhancement: Man.] the [R: Def.] information provided which states that the [R: Def.] company expects to pay dividends of \$50,000 [L: Rep.] per quarter [L: Rep.] during the [R: Def.] 2011 year [L: Rep.] (4 * [L: Rep.] \$50,000 [L: Rep.] = [L: Rep.] \$200,000). [L: Rep.]																																															
164.	The [R: Def.] above [R: Ana.] table [L: Rep.] shows that subtracting dividends [L: Rep.] gives a budgeted [L: Rep.] statement [L: Rep.] of retained [L: Rep.] earnings [L: Rep.] for the [R: Def.] 2011 year [L: Rep.] of \$4,491,300. [L: Rep.]																																															
165.	10. Budgeted [L: Rep.] Balance [L: Rep.] Sheet [L: Rep.]																																															
166.	The [R: Def.] budgeted [L: Rep.] Balance [L: Rep.] Sheet [L: Rep.] for Frame [L: Rep.]-It Ltd as at 31 December 2011 [L: Hyp.] is shown [L: Rep.] below [R: Cat.] in Table 11: [L: Rep.] [R: Cat.]																																															
167.	<table border="1"> <tr><td>Current assets</td><td></td></tr> <tr><td>Cash</td><td>204,500</td></tr> <tr><td>Accounts receivable</td><td>192,000</td></tr> <tr><td><i>Inventory</i></td><td></td></tr> <tr><td>Raw materials inventory</td><td>83,200</td></tr> <tr><td>Finished goods inventory</td><td>235,000</td></tr> <tr><td></td><td>318,200</td></tr> <tr><td>Total</td><td>714,700</td></tr> <tr><td>Non-current assets</td><td></td></tr> <tr><td>Plant & equipment</td><td>9,000,000</td></tr> <tr><td>(Accumulated depreciation)</td><td>80,000</td></tr> <tr><td>Total</td><td>8,920,000</td></tr> <tr><td>Total assets</td><td>9,634,700</td></tr> <tr><td></td><td></td></tr> <tr><td>Total</td><td></td></tr> <tr><td>Accounts payable</td><td>143,400</td></tr> <tr><td>Total</td><td>143,400</td></tr> <tr><td>Net assets</td><td>9,491,300</td></tr> <tr><td></td><td></td></tr> <tr><td>Equity</td><td></td></tr> <tr><td>Ordinary shares</td><td>5,000,000</td></tr> <tr><td>Retained earnings</td><td>4,491,300</td></tr> <tr><td>Total</td><td>9,491,300</td></tr> </table>	Current assets		Cash	204,500	Accounts receivable	192,000	<i>Inventory</i>		Raw materials inventory	83,200	Finished goods inventory	235,000		318,200	Total	714,700	Non-current assets		Plant & equipment	9,000,000	(Accumulated depreciation)	80,000	Total	8,920,000	Total assets	9,634,700			Total		Accounts payable	143,400	Total	143,400	Net assets	9,491,300			Equity		Ordinary shares	5,000,000	Retained earnings	4,491,300	Total	9,491,300	
Current assets																																																
Cash	204,500																																															
Accounts receivable	192,000																																															
<i>Inventory</i>																																																
Raw materials inventory	83,200																																															
Finished goods inventory	235,000																																															
	318,200																																															
Total	714,700																																															
Non-current assets																																																
Plant & equipment	9,000,000																																															
(Accumulated depreciation)	80,000																																															
Total	8,920,000																																															
Total assets	9,634,700																																															
Total																																																
Accounts payable	143,400																																															
Total	143,400																																															
Net assets	9,491,300																																															
Equity																																																
Ordinary shares	5,000,000																																															
Retained earnings	4,491,300																																															
Total	9,491,300																																															
	<ul style="list-style-type: none"> • Cash, [L: Mer.] Accounts receivable [L: Mer.] & Inventory [L: Mer.] tie with Total [L: Hyp.] and Current assets [L: Hyp.] • Raw materials inventory [L: Mer.] & Finished goods inventory [L: Mer.] tie with Inventory [L: Hyp.] • Plant & equipment [L: Mer.] Less (Accumulated depreciation) [L: Mer.] ties with Non-current assets [L: Hyp.] & Total [L: Hyp.] • Total, Current assets, Non-current assets & Total tie with Total assets [L: Hyper.] • Accounts payable [L: Mer.] & Total [L: Mer.] tie with Total Liabilities [L: Hyp.] • Total assets & Less Total Liabilities tie with Net assets [L: Hyper.] • Ordinary shares [L: Mer.] & Retained earnings [L: Mer.] tie with 	<ul style="list-style-type: none"> • Materials [L: Rep.] 1 instance • Total [L: Rep.] 5 instances • Inventory [L: Rep.] 3 instances • Assets [L: Rep.] 4 instances • Goods [L: Rep.] 1 instance • Earnings [L: Rep.] 1 instance • Shares [L: Rep.] 1 instance • Ordinary [L: Rep.] 1 instance • Retained [L: Rep.] 1 instance • Equity [L: Rep.] 1 instance • Raw [L: Rep.] 1 instance • Finished [L: Rep.] 1 instance 																																														

	<p><i>Equity [L: Hyp.] & Total [L: Hyp.]</i></p> <ul style="list-style-type: none"> • <i>Non-current [L: Ant.] ties with Current</i> • <i>Current [L: Rep.] 2 instances</i> • <i>Cash [L: Rep.] 1 instance</i> • <i>Accounts [L: Rep.] 1 instance</i> • <i>Receivable [L: Rep.] 1 instance</i> 	<ul style="list-style-type: none"> • <i>Plant [L: Rep.] 1 instance</i> • <i>Equipment [L: Rep.] 1 instance</i> • <i>Depreciation [L: Rep.] 1 instance</i> • <i>Accumulated [L: Rep.] 1 instance</i> • <i>Payable [L: Rep.] 1 instance</i> • <i>Shares [L: Rep.] 1 instance</i>
168.	Each of the [R: Def.] items in the [R: Def.] Balance [L: Rep.] Sheet [L: Rep.] can be explained as [C: Enhancement: Man.] follows:[R: Cat.]	
169.	The [R: Def.] cash [L: Rep.] balance [L: Rep.] of \$204,500 [L: Rep.] is taken from the [R: Def.] closing cash [L: Rep.] balance [L: Rep.] in the [R: Def.] summary cash [L: Rep.] budget, [L: Rep.] which is shown [L: Rep.] in Table 7. [L: Rep.] [R: Cat.]	
170.	Budgeted [L: Rep.] accounts [L: Rep.] receivable [L: Rep.] are taken from the [R: Def.] cash [L: Rep.] receipts [L: Rep.] budget [L: Rep.] in Table 2. [L: Rep.] [R: Cat.]	
171.	This [R: Dem.] sum is made up of the [R: Def.] amounts [L: Syn.] owing at the [R: Def.] end Q4 [L: Rep.] 2011 for both the [R: Def.] S and L lines. [L: Rep.]	
172.	Of the [R: Def.] credit [L: Rep.] sales [L: Rep.] made in each quarter, [L: Rep.] 20% [L: Rep.] are paid in the [R: Def.] following [L: Rep.] quarter. [L: Rep.]	
173.	In this [R: Dem.] case, [C: Enhancement: Conc.] the [R: Def.] amount [L: Rep.] owing at the [R: Def.] end of Q4 [L: Rep.] for the [R: Def.] S line [L: Rep.] was \$84,000, [L: Rep.] and [C: Extension: Add.] the [R: Def.] amount [L: Rep.] owing for the [R: Def.] L line [L: Rep.] was \$108,000. [L: Rep.]	
174.	When summed together, these [R: Dem.] two figures [L: Rep.] amount to [L: Rep.] [L: Syn.] \$192,000, [L: Rep.] as [C: Enhancement: Man.] shown [L: Rep.] in the [R: Def.] table [L: Rep.] above. [R: Ana.]	
175.	Budgeted [L: Rep.] raw materials [L: Rep.] inventory [L: Rep.] is taken from the [R: Def.] direct material [L: Rep.] budget, [L: Rep.] shown [L: Rep.] in Table 4. [L: Rep.] [R: Cat.]	
176.	The [R: Def.] closing balances [L: Rep.] for glass [L: Rep.] sheets [L: Rep.] in the [R: Def.] S and L lines [L: Rep.] are multiplied by their [R: Pro.] cost [L: Rep.] per unit, [L: Rep.] which in this [R: Dem.] case [C: Enhancement: Conc.] is \$8. [L: Rep.]	
177.	This [R: Dem.] gives a figure [L: Rep.] of \$30,400 [L: Rep.] for the [R: Def.] S line [L: Rep.] and [Ellip: Cl.] \$52,800 [L: Rep.] for the [R: Def.] L line, [L: Rep.] which sums to [L: Syn.] \$83,200, [L: Rep.] as [C: Enhancement: Man.] shown [L: Rep.] in the [R: Def.] table [L: Rep.] above. [R: Ana.]	
178.	Finished goods [L: Rep.] inventory [L: Rep.] is taken from the [R: Def.] closing balance [L: Rep.] of inventory [L: Rep.] for the [R: Def.] S and L line [L: Rep.] in the [R: Def.] cost [L: Rep.] of goods [L: Rep.] sold schedule in Table 9. [L: Rep.] [R: Cat.]	
179.	Plant & equipment of \$9,000,000 [L: Rep.] is made up of the [R: Def.] \$8,000,000 provided in the [R: Def.] information, together with the [R: Def.] \$1,000,000 [L: Rep.] machine purchased [L: Rep.] on 2 January 2011.	
180.	Depreciation of \$80,000 [L: Rep.] is simply the [R: Def.] sum of budgeted [L: Rep.] depreciation for each quarter [L: Rep.] of \$20,000. [L: Rep.]	
181.	Accounts [L: Rep.] payable [L: Rep.] is calculated [L: Rep.] as 20% [L: Rep.] of \$717,000, [L: Rep.] which equals \$143,400. [L: Rep.]	
182.	80% [L: Rep.] of purchases [L: Rep.] are paid for in the [R: Def.] quarter [L: Rep.] in which they [R: Pro.] are made, while the [R: Def.] remaining 20% [L: Rep.] are paid in the [R: Def.] next quarter. [L: Rep.]	
183.	The [R: Def.] figure [L: Rep.] of \$717,000 [L: Rep.] is taken from the [R: Def.] direct materials [L: Rep.] budget [L: Rep.] in Table 4, [L: Rep.] [R: Cat.] which shows that at the [R: Def.] end of Q4 [L: Rep.] total [L: Rep.] purchases [L: Rep.] across both [R: Comp.] product [L: Rep.] lines [L: Rep.] amounted to [L: Rep.] \$717,000. [L: Rep.]	
184.	Equity is comprised of ordinary share capital (provided in the [R: Def.] information at \$5,000,000) [L: Rep.] and retained earnings, which is taken from the [R: Def.] figure [L: Rep.] in Table 11 [L: Rep.] [R: Cat.] and [C: Extension: Add.] amounts to [L: Rep.] \$4,491,300. [L: Rep.]	

Appendix 60: Thematic progression analysis of Group 1's Management Accounting text⁴⁷

Title	Major Assignment - Semester 2 2010			
Pseudonym	Abdulrahman, Abdullah & Steve (Group 1)			
Type of Analysis	Thematic progression analysis			
Program	Master of Commerce			
Module	Management Accounting			
Number of Words	894			
Notes				
THEME (T)			RHEME (R)	Theme Type
Textual	Interpersonal	Topical		
		<i>For the S line,</i>	<i>Q1 2011 sales</i> were calculated at 55,000, based on	
		<i>For the L line,</i>	<i>Q1 2011 sales</i> were calculated at 45,000, based on	Reiteration
		These calculations	resulted in total projected sales revenue ...	Linear (or zig-zag)
		The results	are shown below in Table 1:	Linear (or zig-zag)
		For the S line,	Q1 sales were budgeted at \$550,000, based on Table 1.	
		Of these sales 60%	were sold on credit, and ...	Reiteration
		40% of Q1 sales	were paid in cash, resulting in a sum of \$220,000.	Reiteration
In addition,		20% of the credit sales from the previous quarter	were included,	Reiteration
		which	amounted to \$60,000.	
		For the L line,	Q1 sales were budgeted at \$675,000, based on Table 1.	
		Of these sales 60%	were sold on credit,	Reiteration
and		80% of those sales	were collected in Q1 resulting in a sum of \$324,000.	Reiteration
		40% of Q1 sales	were paid in cash, resulting in a sum of \$270,000.	
		The total purchase cost across both lines in Q1	amounted to \$552,000.	
		The total purchase costs for the 2011 year	are budgeted to amount to \$2,538,000, as shown in Table 4 on the following page:	Reiteration
Subsequently,		total cash disbursements in Q1	are budgeted to be \$541,000.	
		Selling and administrative expenses	are then deducted to give operating income.	

⁴⁷ Refer to Appendix 57 for instances of Theme reiteration in the tables and the graphs that are found among the implicit relational identifying Themes.

THEME (T)			RHEME (R)	Theme Type
Textual	Interpersonal	Topical		
		We then	deduct interest expense,	
		which	is taken from the summary cash budget in Table 7.	
		Deducting <i>these expenses</i> from gross profit	gives a quarterly net income figure	Linear (or zig-zag)
		We then	add the budgeted figures for the 2011 year	
		which	gives a total of \$4,691,300.	
		We then	allow for \$200,000 of dividends to be paid, ...	Reiteration
		Accounts payable	is calculated as 20% of \$717,000,	
		which	equals \$143,400.	
		80% of purchases	are paid for in the quarter	
		in which	they are made,	
while		the remaining 20%	are paid in the next quarter.	
		The figure of \$717,000	is taken from the direct materials budget ...	Linear (or zig-zag)

Appendix 61: Thematic progression analysis of Group 2's Management Accounting text⁴⁸

Title	Major Assignment - Semester 2 2010			
Pseudonym	Omar & Peter (Group 2)			
Type of Analysis	Thematic progression analysis			
Program	Master of Commerce			
Module	Management Accounting			
Number of Words	1292			
Notes				
THEME (T)			RHEME (R)	Theme Type
Textual	Interpersonal	Topical		
		Financing for the proposal	is assumed over a one year period, at a 10% per annum interest rate.	
		Repayment of the <i>financing</i> amount	is expected to occur within the year,	Reiteration
and				
		Sales in the fourth quarter of 2010	are expected to be 50,000 S frames and 40,000 L frames.	
		<i>Sales</i> in each product line over the next two years	are predicted to grow by 5,000 units each quarter over the previous quarter.	Reiteration
f)		Sales for each product	will grow by 5000 units each quarter.	
g)		<i>Product sales</i> price	will remain constant over 2011.	Reiteration

⁴⁸ Refer to Appendix 58 for instances of Theme reiteration in the tables and the graphs that are found among the implicit relational identifying Themes.

Appendix 62: Nominalisation annotation of Group 1's Management Accounting text

Title	Major Assignment - Semester 2 2010					
Pseudonym	Abdulrahman, Abdullah & Steve (Group 1)					
Type of Analysis	Nominalisation Analysis					
Program	Master of Commerce					
Module	Management Accounting					
Number of Words	894					
Notes						
Material Costs						2011
			Cost			Year
Metal Strips (per metre)			\$ 3.00			
Glass Sheet (per unit)			\$ 8.00			
Bill of Materials						
			Notes	S Frame	L Frame	
Metal Strip (metres)		a)	2/3		1	
Glass Sheet (units)		b)	1/4		1/2	
		c)				
a)Wastage from production process is assumed negligible.						
b)Allowing for normal breakage and scrap glass.						
c)Other raw materials, such as cardboard backing, are insignificant in cost and are treated as indirect materials.						
Projected Manufacturing Costs						
Metal Strips		Notes	S Frame	L Frame		
S: 2/3 metre @ \$3 per metre			\$ 2.00			
L: 1 metre @ \$3 per metre				\$ 3.00		
Glass Sheets						
S: 1/4 sheet @ \$8 per sheet			2.00			
L: 1/2 sheet @ \$8 per sheet				4.00		
Direct Labour						
0.1 hours @ \$20 per hour			2.00	2.00		
Manufacturing Overhead						
0.1 direct labour hour @ \$10 per hour			1.00	1.00		
Total Manufacturing Cost Per Unit			\$ 7.00	\$ 10.00		
Manufacturing Overhead Budget						2011
			Qtr1	Qtr2	Qtr3	Qtr4
Indirect Materials	d)	\$ 10,200.00	\$ 11,200.00	\$ 12,200.00	\$ 13,200.00	\$ 46,800.00
Indirect Labour	d)	40,800.00	44,800.00	48,800.00	52,800.00	187,200.00
Other Overhead	d)	31,000.00	36,000.00	41,000.00	46,000.00	154,000.00
Depreciation		20,000.00	20,000.00	20,000.00	20,000.00	80,000.00
Total Overhead	e)	\$ 102,000.00	\$ 112,000.00	\$ 122,000.00	\$ 132,000.00	\$ 468,000.00
d)A linear relationship proportional to the increase in production volume is assumed.						
e)For every unit increase in production of either product, a \$1 increase in total overhead costs is incurred.						
Frame-it Ltd						
Projected Statement of Financial Position						
as at 31 December 2010						
			Notes			
Current assets						
Cash at bank					\$ 95,000.00	
Accounts receivable					132,000.00	
Inventory:						
Raw materials				59,200.00		
Finished goods				167,000.00		
Total inventory					226,200.00	
Total current assets					\$ 453,200.00	
Non-current assets						
Plant and equipment (net of depreciation)					8,000,000.00	
Total assets					\$ 8,453,200.00	
Liabilities						
Accounts Payable					99,400.00	
Net Assets					\$ 8,353,800.00	
Equity						

Ordinary shares				5,000,000.00			
retained Earnings				3,353,800.00			
Total equity				\$ 8,353,800.00			

Sales Budget							2011
			Qtr1	Qtr2	Qtr3	Qtr4	Year
Budgeted Sale - S frames (units)	f)		55,000.00	60,000.00	65,000.00	70,000.00	250,000.00
Unit Sales Price	g)		10.00	10.00	10.00	10.00	10.00
			\$ 550,000.00	\$ 600,000.00	\$ 650,000.00	\$ 700,000.00	\$ 2,500,000.00
Budgeted Sales - L frames (units)	f)		45,000.00	50,000.00	55,000.00	60,000.00	210,000.00
Unit Sales Price	g)		15.00	15.00	15.00	15.00	15.00
			\$ 675,000.00	\$ 750,000.00	\$ 825,000.00	\$ 900,000.00	\$ 3,150,000.00
Total Budgeted Sales			\$ 1,225,000.00	\$ 1,350,000.00	\$ 1,475,000.00	\$ 1,600,000.00	\$ 5,650,000.00

f) Sales for each product will grow by 5000 units each quarter.
g) Product sales price will remain constant over 2011.

Cash Receipts Budget							2011
	Notes		Qtr1	Qtr2	Qtr3	Qtr4	Year
Accounts Receivable 31/12/2010	h)	\$	132,000.00				\$ 132,000.00
Cash Sales	i)		490,000.00	\$ 540,000.00	\$ 590,000.00	\$ 640,000.00	2,260,000.00
Credit Sales	j), k)						-
	Qtr1		588,000.00	147,000.00			735,000.00
	Qtr2			648,000.00	162,000.00		810,000.00
	Qtr3				708,000.00	177,000.00	885,000.00
	Qtr4					768,000.00	768,000.00
Total Cash Receipts		\$	1,210,000.00	\$ 1,335,000.00	\$ 1,460,000.00	\$ 1,585,000.00	\$ 5,590,000.00

h) It is assumed that the ending account receivables 2010 will be completely collected.
i) 40% of quarterly sales are expected to be paid for in cash.
j) 80% of credit sales are expected to be received in the same quarter as the sale. The remaining 20% of credit sales is expected to be received the following quarter.
k) For simplicity it is assumed that 100% of accounts receivables are collected.

Production Budget							2011
	Notes		Qtr1	Qtr2	Qtr3	Qtr4	Year
S frames							
Sales (units)			55,000.00	60,000.00	65,000.00	70,000.00	250,000.00
add: Ending finished goods inventory	l)		12,000.00	13,000.00	14,000.00	15,000.00	15,000.00
Total needed			67,000.00	73,000.00	79,000.00	85,000.00	265,000.00
less: Beginning finished Goods Inventory	m)		11,000.00	12,000.00	13,000.00	14,000.00	11,000.00
Units to be produced			56,000.00	61,000.00	66,000.00	71,000.00	254,000.00

L frames								
	Sales (units)		45,000.00	50,000.00	55,000.00	60,000.00	210,000.00	##### #
	add: Ending Finished Goods Inventory	l)	10,000.00	11,000.00	12,000.00	13,000.00	13,000.00	##### #
	Total needed		55,000.00	61,000.00	67,000.00	73,000.00	223,000.00	##### #
	less: Beginning finished Goods Inventory	m)	9,000.00	10,000.00	11,000.00	12,000.00	9,000.00	##### #
	Units to be produced		46,000.00	51,000.00	56,000.00	61,000.00	214,000.00	##### #
l)20% of next quarter's production is required in ending finished goods inventory.								
m)Calculated as 20% of 1st quarter sales for 2011.								

Direct Materials Budget		Notes	Qtr1	Qtr2	Qtr3	Qtr4	2011 Year	
Budgeted cost of glass sheets								
S Frame								
	Units to be produced	n)	56,000.00	61,000.00	66,000.00	71,000.00	254,000.00	##### ##
	Glass sheets per unit		1/4	1/4	1/4	1/4	1/4	0.25
	Production needs in units		14,000.00	15,250.00	16,500.00	17,750.00	63,500.00	##### ##
L Frames								
	Units to be produced	n)	46,000.00	51,000.00	56,000.00	61,000.00	214,000.00	##### ##
	Glass sheets per unit		1/2	1/2	1/2	1/2	1/2	0.50
	Production needs in units		23,000.00	25,500.00	28,000.00	30,500.00	107,000.00	##### ##
	Total glass sheets needed for production		37,000.00	40,750.00	44,500.00	48,250.00	170,500.00	##### ##
	add: Glass sheet ending inventory	o)	8,150.00	8,900.00	9,650.00	10,400.00	10,400.00	
	less: Glass Sheet Beginning Inventory	p)	7,400.00	8,150.00	8,900.00	9,650.00	7,400.00	
	Glass sheets to be purchased		37,750.00	41,500.00	45,250.00	49,000.00	173,500.00	
	Cost per sheet		8.00	8.00	8.00	8.00	8.00	
	Total cost of glass sheets purchase		\$ 302,000.00	\$ 332,000.00	\$ 362,000.00	\$ 392,000.00	\$ 1,388,000.00	
Budgeted cost of metal strip								
S Frame								
	Units to be produced	n)	56,000.00	61,000.00	66,000.00	71,000.00	254,000.00	##### ##
	Metal strip meters per unit		2/3	2/3	2/3	2/3	2/3	2/3
	Production needs in meters		37,333.33	40,666.67	44,000.00	47,333.33	169,333.33	##### ##
L Frame								
	Units to be produced	n)	46,000.00	51,000.00	56,000.00	61,000.00	214,000.00	##### ##
	Metal strip meters per unit		1	1	1	1	1	1
	Production needs in meters		46,000.00	51,000.00	56,000.00	61,000.00	214,000.00	##### ##
	Total metal strip meters needed for production		83,333.33	91,666.67	100,000.00	108,333.33	383,333.33	##### ##
	add: Metal strip ending inventory	q)	-	-	-	-	-	

less: Metal strip beginning inventory	q)	-	-	-	-	-	
Metal strip meters to be purchased		83,333.33	91,666.67	100,000.00	108,333.33	383,333.33	
Cost per meter		3.00	3.00	3.00	3.00	3.00	
Total cost of metal strip purchase		\$ 250,000.00	\$ 275,000.00	\$ 300,000.00	\$ 325,000.00	\$ 1,150,000.00	
Total purchase cost		\$ 552,000.00	\$ 607,000.00	\$ 662,000.00	\$ 717,000.00	\$ 2,538,000.00	
n) Refer to production budget.							
o) 20% of next quarter's glass sheet production needs is required in ending raw materials inventory.							
p) 20% of total glass sheets production needs for 1st quarter.							
q) Just-in-time purchasing inventory is negligible.							

Cash Disbursements Budget - Materials							2011	
		Notes	Qtr1	Qtr2	Qtr3	Qtr4	Year	Qtr1 2012
Accounts Payable 31/12/2010	r)		\$ 99,400.00				\$ 99,400.00	
Cash disbursements	s)							
Qtr1			441,600.00	\$ 110,400.00			552,000.00	
Qtr2				485,600.00	\$ 121,400.00		607,000.00	
Qtr3					529,600.00	\$ 132,400.00	662,000.00	
Qtr4						573,600.00	573,600.00	#####
Total cash disbursements			\$ 541,000.00	\$ 596,000.00	\$ 651,000.00	\$ 706,000.00	\$ 2,494,000.00	#
r) It is assumed to be completely paid in first quarter 2011.								
s) All purchases are on credit. 80% the remaining balance is settled the following quarter.								

Summary Cash Budget							2011
		Notes	Qtr1	Qtr2	Qtr3	Qtr4	Year
Beginning cash balance	t)		\$ 95,000.00	\$ 53,000.00	\$ 57,250.00	\$ 107,750.00	\$ 95,000.00
add: Cash receipts from sales			1,210,000.00	1,335,000.00	1,460,000.00	1,585,000.00	5,590,000.00
Total cash available			\$ 1,305,000.00	\$ 1,388,000.00	\$ 1,517,250.00	\$ 1,692,750.00	\$ 5,903,000.00
less: Disbursements							
Direct Materials			541,000.00	596,000.00	651,000.00	706,000.00	2,494,000.00
Direct Labour	u)		204,000.00	224,000.00	244,000.00	264,000.00	936,000.00
Indirect Material			10,200.00	11,200.00	12,200.00	13,200.00	46,800.00
Indirect Labour			40,800.00	44,800.00	48,800.00	52,800.00	187,200.00
Other overhead			31,000.00	36,000.00	41,000.00	46,000.00	154,000.00
Selling and Administrative Expenses			100,000.00	100,000.00	100,000.00	100,000.00	400,000.00

	Dividend		50,000.00	50,000.00	50,000.00	50,000.00	200,000.00
	Equipment purchase		1,000,000.00				1,000,000.00
			\$ 1,977,000.00	\$ 1,062,000.00	\$ 1,147,000.00	\$ 1,232,000.00	\$ 5,418,000.00
	Total disbursement		\$ (672,000.00)	\$ 326,000.00	\$ 370,250.00	\$ 460,750.00	\$ 485,000.00
	Surplus (Deficit)						
	Financing						
	Borrowing	v)	1,000,000.00				1,000,000.00
	Repayments		(250,000.00)	(250,000.00)	(250,000.00)	(250,000.00)	(1,000,000.00)
	Interest	w)	(25,000.00)	(18,750.00)	(12,500.00)	(6,250.00)	(62,500.00)
	Ending cash balance		\$ 53,000.00	\$ 57,250.00	\$ 107,750.00	\$ 204,500.00	\$ 204,500.00
t) First quarter figure extracted from balance sheet as at 31 December 2010.							
u) Refer to production budget.							
Calculation: units produced x direct labour cost per unit							
v) To finance equipment purchase.							
w) Interest is paid on the amount outstanding at a particular date.							
Calculations:							
Interest payment for 1st quarter = \$1,000,000 x 10% x 1/4 = \$25,000							
Interest payment for 2nd quarter = (\$1,000,000-\$250,000) x 10% x 1/4 = \$18,750							
Interest payment for 3rd quarter = (\$1,000,000-\$250,000-\$250,000) x 10% x 1/4 = \$12,500							
Interest payment for 4th quarter = \$250,000 balance x 10% x 1/4 = \$6,250							

Budgeted Schedule of Cost of Goods Manufactured				2011			
		Notes	Qtr1	Qtr2	Qtr3	Qtr4	Year
Direct materials							
	Beginning raw materials inventory		\$ 59,200.00	\$ 65,200.00	\$ 71,200.00	\$ 77,200.00	\$ 59,200.00
	add: Purchases of raw material		552,000.00	607,000.00	662,000.00	717,000.00	2,538,000.00
	Raw material available for use		611,200.00	672,200.00	733,200.00	794,200.00	2,810,800.00
	less: Ending raw materials inventory		65,200.00	71,200.00	77,200.00	83,200.00	83,200.00
	Direct raw material used		\$ 546,000.00	\$ 601,000.00	\$ 656,000.00	\$ 711,000.00	\$ 2,514,000.00
	Direct labour		204,000.00	224,000.00	244,000.00	264,000.00	936,000.00
	Manufacturing overhead		102,000.00	112,000.00	122,000.00	132,000.00	468,000.00
	Total manufacturing overhead		\$ 852,000.00	\$ 937,000.00	\$ 1,022,000.00	\$ 1,107,000.00	\$ 3,918,000.00
	Beginning work in process inventory	x)	-	-	-	-	-
	Total manufacturing cost to account for		\$ 852,000.00	\$ 937,000.00	\$ 1,022,000.00	\$ 1,107,000.00	\$ 3,918,000.00
	less: Ending work in process inventory	x)	-	-	-	-	-
	Cost of goods manufactured		\$ 852,000.00	\$ 937,000.00	\$ 1,022,000.00	\$ 1,107,000.00	\$ 3,918,000.00
x) It is assumed that work in process is negligible.							

Budgeted Schedule of Cost of Goods Sold			Notes	Qtr1	Qtr2	Qtr3	Qtr4	2011
								Year
Beginning finished goods inventory				\$ 167,000.00	\$ 184,000.00	\$ 201,000.00	\$ 218,000.00	\$ 167,000.00
add: Cost of good manufactured				852,000.00	937,000.00	1,022,000.00	1,107,000.00	3,918,000.00
Cost fo goods available for sale				\$ 1,019,000.00	\$ 1,121,000.00	\$ 1,223,000.00	\$ 1,325,000.00	\$ 4,085,000.00
less: End finished goods inventory				184,000.00	201,000.00	218,000.00	235,000.00	235,000.00
Cost of goods sold				\$ 835,000.00	\$ 920,000.00	\$ 1,005,000.00	\$ 1,090,000.00	\$ 3,850,000.00

Frame-it Ltd							
Budgeted Statement of Comprehensive Income							
for the year ended 31 December 2011							
			Notes				
Sales Revenue						\$ 5,650,000.00	
less: Cost of goods sold						3,850,000.00	
Gross margin						\$ 1,800,000.00	
Operating Expenses							
Selling and Administration expenses				\$ 400,000.00			
Interest expense				62,500.00			
Total operating expenses						\$ 462,500.00	
Operating income						\$ 1,337,500.00	

Frame-it Ltd							
Budgeted Statement of Retained Earnings							
for the year ended 31 December 2011							
			Notes				
Retained earnings 1 Jan 2011				\$ 3,353,800.00			
add: Operating income				1,337,500.00			
less: Dividend				200,000.00			
Retained earnings 31 Dec 2011				\$ 4,491,300.00			

Frame-it Ltd							
Budgeted Statement of Financial Position							
as at 31 December 2011							
			Notes				
Current assets							
Cash at bank						\$ 204,500.00	
Accounts receivable						192,000.00	
Inventory:							
Raw materials				83,200.00			
Finished goods				235,000.00			
Total inventory						318,200.00	
Total current assets						\$ 714,700.00	
Non-current assets							
Plant and equipment (net of depreciation)			y)			8,920,000.00	
Total assets						\$ 9,634,700.00	
Liabilities							

	Accounts Payable		143,400.00				
	Net Assets		\$ 9,491,300.00				
	Equity						
	Ordinary shares		5,000,000.00				
	retained Earnings		4,491,300.00				
	Total equity		\$ 9,491,300.00				
y)	Plant and Equipment Calculation:						
	Plant and equipment 1 Jan 2011		8,000,000.00				
	add: Purchased plant and equipment		1,000,000.00				
	less: depreciation for the year	z)	80,000.00				
	Plant and equipment 31 Dec 2011 (net of depreciation)		8,920,000.00				
z)	No depreciation for the robot in 2011 because it will take most of year (2011) to train staff and gain benefits in 2012.						

MEMO

15 October 2010

Dear Uncle George,

Please find attached the documentation to support the finance application for the purchase of the industrial robot. Included is the Budgeted Balance Sheet for the period ending 31 December 2011 and supporting schedules used in the calculations.

Purchase of the industrial robot at a cost of \$1,000,000 will occur on January 2, 2011. Financing for the proposal is assumed over a one year period, at a 10% per annum interest rate.

Repayment of the financing amount is expected to occur within the year, and consists of four equal quarterly instalments. Interest payments will be quarterly as well.

Other assumptions:

Sales in the fourth quarter of 2010 are expected to be 50,000 S frames and 40,000 L frames.

Sales in each product line over the next two years are predicted to grow by 5,000 units each quarter over the previous quarter. It anticipated that dividends of \$50,000 will be declared and paid in cash each quarter of financial year 2011.

It will take most of the year to train personnel and reorganise the production process in order to gain the full benefits of the new equipment, therefore no depreciation of the asset is accounted for during FY 2011.

Best Regards,

Appendix 63: Nominalisation annotation of Group 2's Management Accounting text

Title	Major Assignment - Semester 2 2010
Pseudonym	Omar & Peter (Group 2)
Type of Analysis	Nominalisation analysis
Program	Master of Commerce
Module	Management Accounting
Number of Words	1292
Notes	

1. Sales budget

The sales budget was calculated in accordance with the projections provided. For the S line, Q1 2011 sales were calculated at 55,000, based on the instructions where 50,000 units were budgeted in Q4 2010 and were projected to then grow at 5,000 units per quarter.

For the L line, Q1 2011 sales were calculated at 45,000, based on the instructions where 40,000 units were budgeted in Q4 2010 and were projected to then grow at 5,000 units per quarter.

These calculations resulted in total projected sales revenue for the 2011 year of \$5,650,000, comprised of \$2,500,000 for S (sold at \$10 per unit) and \$3,150,000 for L (sold at \$15 per unit). The results are shown below in Table 1:

		Sales Budget S				
		Qtr1	Qtr2	Qtr3	Qtr4	Total
Sale units		55,000.00	60,000.00	65,000.00	70,000.00	250,000.00
Selling price per unit (\$)		10.00	10.00	10.00	10.00	10.00
Total revenue (\$)		\$ 550,000.00	\$ 600,000.00	\$ 650,000.00	\$ 700,000.00	\$ 2,500,000.00
		Sales Budget L				
		Qtr1	Qtr2	Qtr3	Qtr4	Total
Sale units		45,000.00	50,000.00	55,000.00	60,000.00	210,000.00
Selling price per unit (\$)		15.00	15.00	15.00	15.00	15.00
Total revenue (\$)		\$ 675,000.00	\$ 750,000.00	\$ 825,000.00	\$ 900,000.00	\$ 3,150,000.00
Total sales (\$)		\$ 1,225,000.00	\$ 1,350,000.00	\$ 1,475,000.00	\$ 1,600,000.00	\$ 5,650,000.00

2. Cash receipts budget

The cash receipt budget was calculated based on the instructions provided. For both lines, 60% of quarterly receipts were sold on credit and 40% were paid in cash. 20% of the credit sales were collected in the following quarter, while 80% were collected in same quarter.

For the S line, Q1 sales were budgeted at \$550,000, based on Table 1. Of these sales 60% were sold on credit, and 80% of those sales were collected in Q1 resulting in a sum of \$264,000. 40% of Q1 sales were paid in cash, resulting in a sum of \$220,000. In addition, 20% of the credit sales from the previous quarter were included, which amounted to \$60,000. In total, the cash receipts for the S line amounted to \$544,000. This process was then repeated for each of the following quarters in the 2011 year.

For the L line, Q1 sales were budgeted at \$675,000, based on Table 1. Of these sales 60% were sold on credit, and 80% of those sales were collected in Q1 resulting in a sum of \$324,000. 40% of Q1 sales were paid in cash, resulting in a sum of \$270,000. In addition, 20% of the credit sales from the previous quarter were included, which amounted to \$72,000. In total, the cash receipts for the L line amounted to \$666,000. This process was then repeated for each of the following quarters in the 2011 year. For both the S & L lines, Q1 cash receipts amounted to a total of \$1,210,000. Figures for the full year are shown in Table 2 on the following page:

		Cash Receipts Budget S					Q1 2012
		Qtr1	Qtr2	Qtr3	Qtr4	Total	
		\$	\$	\$	\$	\$	
Q1 Sales							
Q4 2010- (60% *500,000) * 20%		60,000,00				60,000,00	
Credit- (60% *600,000) * 80%		624,000,00				624,000,00	
Cash – 40% * 550,000		220,000,00				220,000,00	
Q2 Sales							

Q1 2011- (60% *550,000) * 20%		66,000,00			66,000,00	
Credit- (60% *600,000) * 80%		288,000,00			288,000,00	
Cash – 40% * 600,000		240,000,00			240,000,00	
Q3 Sales						
Q2 2011- (60% *600,000) * 20%			72,000,00		72,000,00	
Credit- (60% *650,000) * 80%			312,000,00		312,000,00	
Cash – 40% * 650,000			260,000,00		260,000,00	
Q4 Sales						
Q3 2011- (60% *650,000) * 20%				78,000,00	78,000,00	84,000,00
Credit- (60% *700,000) * 80%				336,000,00	336,000,00	420,000,00
Cash – 40% * 700,000				280,000,00	280,000,00	
Total cash receipt (S)	544,000,00	594,000,00	644,000,00	694,000,00	2,476,000,00	
Cash Receipts Budget L						
	Qtr1	Qtr2	Qtr3	Qtr4	Total	
	\$	\$	\$	\$	\$	
Q1 Sales						
Q4 2010- (60% *600,000) * 20%	72,000,00				72,000,00	
Credit- (60% *675,000) * 80%	324,000,00				324,000,00	
Cash – 40% * 675,000	270,000,00				270,000,00	
Q2 Sales						
Q1 2011- (60% *675,000) * 20%		81,000,00			81,000,00	
Credit- (60% *675,000) * 80%		360,000,00			360,000,00	
Cash – 40% * 750,000		300,000,00			300,000,00	
Q3 Sales						
Q2 2011- (60% *750,000) * 20%			90,000,00		90,000,00	
Credit- (60% *825,000) * 80%			396,000,00		396,000,00	
Cash – 40% * 825,000			330,000,00		330,000,00	
Q4 Sales						
Q3 2011- (60% *825,000) * 20%				99,000,00	99,000,00	108,000,00
Credit- (60% *900,000) * 80%				432,000,00	432,000,00	540,000,00
Cash – 40% * 900,000				360,000,00	360,000,00	
Total cash receipt (L)	666,000,00	741,000,00	816,000,00	891,000,00	3,114,000,00	
Total cash receipt	1,210,000,00	1,335,000,00	1,460,000,00	1,585,000,00	5,590,000,00	

3. Production budget

In order to calculate the required units in the production budget, sales were recorded in accordance with the calculations in Table 1. Desired ending inventory was calculated at 20% of the following quarters' sales units. For the S line in Q1 2011, this resulted in total inventory needed of 67,000 units ($55,000 + (60,000 * 20\%)$). Beginning inventory is shown as the ending inventory for the previous quarter. For the S line in Q1 2011, this amounted to 11,000 units, resulting in units to be started in the quarter of 56,000. This calculated was then repeated for each of the following quarters in the 2011 year. For the L line in Q1 2011, total inventory needed amounted to 55,000 units ($45,000 + (50,000 * 20\%)$). Beginning inventory is shown as the ending inventory for the previous quarter. For the L line in Q1 2011, this amounted to 9,000 units, resulting in units to be started in the quarter of 46,000. This calculated was then

repeated for each of the following quarters in the 2011 year. Figures for the 2011 year are shown in Table 3 below:

	Production Budget S						
	Q4 2010	Q1	Q2	Q3	Q4	Total	Q1 2012
Sales in units	50,000.00	55,000.00	60,000.00	65,000.00	70,000.00	250,000.00	75,000.00
Add: desired ending Inventory	11,000.00	12,000.00	13,000.00	14,000.00	15,000.00	54,000.00	16,000.00
Total needed	61,000.00	67,000.00	73,000.00	79,000.00	85,000.00	304,000.00	91,000.00
Less: beginning inventory	10,000.00	11,000.00	12,000.00	13,000.00	14,000.00	50,000.00	15,000.00
Units to be started	51,000.00	56,000.00	61,000.00	66,000.00	71,000.00	254,000.00	76,000.00
	Production Budget L						
	Q4 2010	Q1	Q2	Q3	Q4	Total	Q1 2012
Sales in units	40,000.00	45,000.00	50,000.00	55,000.00	60,000.00	210,000.00	65,000.00
Add: desired ending Inventory	9,000.00	10,000.00	11,000.00	12,000.00	13,000.00	46,000.00	14,000.00
Total needed	49,000.00	55,000.00	61,000.00	67,000.00	73,000.00	256,000.00	79,000.00
Less: beginning inventory	8,000.00	9,000.00	10,000.00	11,000.00	12,000.00	42,000.00	13,000.00
Units to be started	41,000.00	46,000.00	51,000.00	56,000.00	61,000.00	214,000.00	66,000.00
Total units to be started		102,000.00	112,000.00	122,000.00	132,000.00	468,000.00	

4. Direct material budget

Metal strips – S line

Total units to be started in Q1 amounted to 56,000 units, as shown in the calculations set out in Table 3. The requirements per unit were 2/3 of a metre. This results in production needs in Q1 of 37,333 metres of metal strips. There is no ending or beginning inventory for the metal strips since they are purchased on a just-in-time basis, so material to be purchased also amounts to 37,333 metres. The cost per metre is \$3, resulting in total budgeted cost for Q1 of \$112,000.

Glass sheets – S line

Total units to be started amounted to 56,000 units, as shown in the calculations set out in Table 3. The requirements per unit amounted to 1/4 of a sheet. This results in initial production needs in Q1 of 14,000 glass sheets. The desired ending inventory for Q1 is calculated at 20% of the following quarters' production (15,250*20%).

The beginning inventory is calculated as the ending inventory for the previous quarter. When adjusted for opening and closing inventory, the total material to be purchased amounts to 14,250 glass sheets. The cost per sheet is \$8, resulting in total budgeted cost for Q1 of \$114,000.

For metal strips and glass sheets in the S line, total purchase costs for Q1 amount to \$226,000. This process is repeated for each subsequent quarter.

Metal strips – L line

Total units to be started in Q1 amounted to 46,000 units, as shown in the calculations set out in Table 3. The requirements per unit amounted to 1 metre. This results in production needs in Q1 of 46,000 metres of metal strips. There is no ending or beginning inventory for the metal strips since they are purchased on a just-in-time basis, so material to be purchased also amounts to 46,000 metres. The cost per metre is \$3, resulting in total budgeted cost for Q1 of \$138,000.

Glass sheets – L line

Total units to be started amounted to 46,000 units, as shown in the calculations set out in Table 3. The requirements per unit amounted to 1/2 of a sheet. This results in initial production needs in Q1 of 23,000 glass sheets. The desired ending inventory for Q1 is calculated at 20% of the following quarters' production (25,500*20%).

The beginning inventory is calculated as the ending inventory for the previous quarter. When adjusted for opening and closing inventory, the total material to be purchased amounts to 23,500 glass sheets. The cost per sheet is \$8, resulting in total budgeted cost for Q1 of \$188,000.

For metal strips and glass sheets in the L line, total purchase costs for Q1 amount to \$326,000. This process is repeated for each subsequent quarter.

The total purchase cost across both lines in Q1 amounted to \$552,000. The total purchase costs for the 2011 year are budgeted to amount to \$2,538,000, as shown in Table 4 on the following page:

Direct Materials Budget S						
	Q1	Q2	Q3	Q4	Total	Q1 2012
Metal strips						
Production in units	56,000	61,000	66,000	71,000	254,000	
Metal strips per unit	0.67	0.67	0.67	0.67	0.67	
Production needs	37,333	40,667	44,000	47,333	169,333	
Add: desired ending inventory	0	0	0	0	0	
Total needed	37,333	40,666	44,000	47,333	169,333	
Less: beginning inventory	0	0	0	0	0	
Material to be purchased	37,333	40,666	44,000	47,333	169,333	
Cost per unit	\$3	\$3	\$3	\$3	\$3	
Total cost	\$112,000	\$122,000	\$132,000	\$142,000	\$508,000	
Glass sheets						
Production in units	56,000	61,000	66,000	71,000	254,000	76,000
Glass sheets per unit - in metre	0.25	0.25	0.25	0.25	0.25	0.25
Production needs	14,000	15,250	16,500	17,750	63,500	19,000
Add: desired ending inventory	3,050	3,300	3,550	3,800	13,700	
Total production needs	17,050	18,550	20,050	21,550	77,200	
Less: beginning inventory	2,800	3,050	3,300	3,550	12,700	
Material to be purchased	14,250	15,500	16,750	18,000	64,500	
Cost per unit	\$8.00	\$8.00	\$8.00	\$8.00	\$8.00	
Total purchase cost	\$ 114,000	\$ 124,000	\$ 134,000	\$ 144,000	\$516,000	
Total purchase cost- S	\$ 226,000	\$ 246,000	\$ 266,000	\$ 286,000	\$ 1,024,000	
Direct Materials Budget						
	Q1	Q2	Q3	Q4	Total	Q1 2012
Metal strips						
Production in units	46,000	51,000	56,000	61,000	214,000	
Metal strips per unit - in metre	1	1	1	1	1	
Production needs	46,000	51,000	56,000	61,000	214,000	
Add: desired ending inventory	0	0	0	0	0	
Total needed	46,000	51,000	56,000	61,000	214,000	
Less: beginning inventory	0	0	0	0	0	
Material to be purchased	46,000	51,000	56,000	61,000	214,000	
Cost per unit	\$3	\$3	\$3	\$3	\$3	
Total cost of Material strips	\$138,000	\$153,000	\$168,000	\$183,000	\$642,000	
Glass sheets						
Production in units	46,000	51,000	56,000	61,000	214,000	\$66,000
Glass sheets per unit - in metre	0.50	0.50	0.50	0.50	0.50	0.50
Production needs	23,000	25,500	28,000	30,500	107,000	33,000
Add: desired ending inventory	5,100	5,600	6,100	6,600	23,400	
Total production needs	28,100	31,100	34,100	37,100	130,400	
Less: beginning inventory	5,4600	5,100	5,600	6,100	21,400	
Material to be purchased	23,500	26,000	28,500	31,000	109,000	
Cost per unit	\$8	\$8	\$8	\$8	\$8	
Total cost of Material strips	\$188,000	\$208,000	\$228,000	\$248,000	\$872,000	
Total purchase cost - L	\$326,000	\$361,000	\$396,000	\$431,000	\$1,514,000	
Total purchase cost - (S and L)	\$552,000	\$607,000	\$662,000	\$717,000	\$2,538,000	

5. Cash disbursements budget

The cash disbursements budget was calculated based on the assumptions where 80% of purchases are paid in cash in the same quarter, and the other 20% is paid in the next quarter.

For Q1, cash purchases amounted to 80% of purchases totaling \$552,000 (as shown in Table 4), which equates to \$441,600. In addition, accounts payable carrying over from the previous quarter was shown in the balance sheet as at 31 December 2010 to be \$99,400. Subsequently, total cash disbursements in Q1 are budgeted to be \$541,000.

For Q2 cash disbursements, the 20% of purchases that weren't paid for in Q1 are subsequently paid, and 80% of Q2 purchases (\$607,000, taken from Table 4) are also paid and amount to \$485,600. This process is then repeated for each of the following quarters, leading to cash disbursements for the 2011 year budgeted to amount to \$2,494,000, as shown in Table 5 below:

	Cash Disbursements budget				
	Q1	Q2	Q3	Q4	Total
	\$	\$	\$	\$	\$
Accounts payable - Q4 2010	99,400				99,400
Q1 purchases					
80% * 552,000	441,600				441,600
20% * 552,000		110,400			110,400
Q2 purchases					
80% * 607,000		485,600			485,600
20% * 607,000			121,400		121,400
Q3 purchases					
80% * 662,000			529,600		529,600
20% * 662,000				132,400	132,400
Q4 purchases					
80% * 717,000				573,700	573,700
Total cash payments for materials	541,000	596,000	651,000	706,000	2,494,000

Direct labour

Direct labour is calculated as shown in Table 6 below:

	Direct-Labour Budget				
	Q1	Q2	Q3	Q4	Total
	\$	\$	\$	\$	\$
Production in units	102,000	112,000	122,000	132,000	468,000
Direct-Labour hour	0.10	0.10	0.10	0.10	0.10
Labour hours required	10,200	11,200	12,200	13,200	46,800
Wage rate	\$20	\$20	\$20	\$20	\$20
Total direct-Labour cost	\$204,000	\$224,000	\$244,000	\$264,000	\$936,000

6. Summary cash budget

The opening cash balance for Q1 is \$95,000, as shown in the balance sheet as at 31 December 2010. Cash collections for Q1 amount to \$1,210,000, which is taken from Table 2. Total cash available subsequently amounts to \$1,305,000.

It is then necessary to subtract disbursements, comprised of materials costs, direct labour and manufacturing overhead. Materials disbursements for Q1 amounted to \$541,000, as shown in Table 5. Direct labour disbursements for Q1 amounted to \$204,000, as shown in Table 6.

Manufacturing overhead figures are provided. For Q1, they are comprised of the following: indirect material (\$10,200); indirect labour (\$40,800); other overheads (\$31,000); selling & admin expenses (\$100,000) and dividends paid (\$50,000). It is also necessary to include the equipment purchase in Q1, as it was purchased on 2 January 2011. This amounts to an additional one-off expense of \$1,000,000. Total disbursements for Q1 subsequently amounted to (\$1,977,000), which led to a deficiency of cash at the end of Q1 of (\$672,000). To complete the summary cash budget, we must then adjust for financing costs. For Q1, it includes a positive amount of \$1,000,000 corresponding with the loan expense. A repayment of (\$250,000) is also paid at the end of Q1, based on the quarterly installment repayment plan. Interest on the loan for Q1 amounts to \$25,000, in accordance with the interest rate terms of 10% per annum. Interest is subsequently reduced in each quarter, corresponding with the repayments of the loan.

Based on these adjustments, the ending cash balance for Q1 amounts to \$53,000. Details for the 2011 year are shown below in Table 7.

Summary Cash Budget						
	Q1	Q2	Q3	Q4	Total	
Beginning cash balance	\$ 95,000	\$ 53,000	\$ 57,250	\$ 107,750	\$ 95,000	
add: Cash collections	1,210,000	1,335,000	1,460,000	1,585,000	5,590,000	
Total cash available	\$ 1,305,000	\$ 1,388,000	\$ 1,517,250	\$ 1,692,750	\$ 5,903,000	

less: Disbursements						
Materials	541,000	596,000	651,000	706,000	2,494,000	
Direct	204,000	224,000	244,000	264,000	936,000	
Mfg. overhead						
Indirect Material	10,200	11,200	12,200	13,200	46,800	
Indirect Labour	40,800	44,800	48,800	52,800	187,200	
Other overhead	31,000	36,000	41,000	46,000	154,000	
Selling and Admin	100,000	100,000	100,000	100,000	400,000	
Equipment purchase	1,000,000	0	0	0	1,000,000	
Dividend	50,000.00	50,000.00	50,000.00	50,000.00	200,000.00	
Total disbursements	\$ 1,977,000	\$ 1,062,000	\$ 1,147,000	\$ 1,232,000	\$ 5,418,000	
Excess (deficiency) of cash available over disbursements	\$ (672,000)	\$ 326,000	\$ 370,250	\$ 460,750	\$ 485,000	
Financing						
Borrowing	1,000,000.00	0	0	0	1,000,000.00	
Repayments	(250,000)	(250,000)	(250,000)	(250,000)	(1,000,000)	
Interest	(25,000)	(18,750)	(12,500)	(6,250)	(62,500)	
Ending cash balance	\$ 53,000	\$ 57,250	\$ 107,750	\$ 204,500	\$ 204,500	

7. Budgeted schedule of cost of goods manufactured and sold

In order to calculate budgeted cost of goods manufactured, it is necessary to first calculate manufacturing overhead. These figures are provided, and are budgeted to amount to \$468,000 for the 2011 year.

The costs of goods manufactured are calculated as shown below in Table 8:

Manufacturing overhead	Q1	Q2	Q3	Q4	Total
Indirect Materials	10,200	11,200	12,200	13,200	46,800
Indirect Labour	40,800	44,800	48,800	52,800	187,200
Other Overhead	31,000	36,000	41,000	46,000	154,000
Depreciation	20,000	20,000	20,000	20,000	80,000
Total	102,000	112,000	122,000	132,000	468,000
Direct materials	Q1	Q2	Q3	Q4	Total
Beginning direct materials	59,200	65,200	71,200	77,200	59,200
add: Purchases	552,000	607,000	662,000	717,000	2,538,000
Raw material available for use	611,200	672,200	733,200	794,200	2,810,800
less: closing direct materials	65,200	71,200	77,200	83,200	83,200
Direct materials used	546,000	601,000	656,000	711,000	2,514,000
Direct labour	204,000	224,000	244,000	264,000	936,000
Total manufacturing overhead	102,000	112,000	122,000	132,000	468,000
Total manufacturing Costs	852,000	937,000	1,022,000	1,107,000	3,918,000
Add: Beginning WIP	0	0	0	0	0
Less: Ending WIP	0	0	0	0	0
Cost of goods manufactured	852,000	937,000	1,022,000	1,107,000	3,918,000

The above table shows the schedule of manufacturing overhead, and the calculations for direct material costs. These costs can be explained as follows:

The beginning direct materials are calculated from the direct material budget shown in Table 4. For Q1, this is calculated as beginning inventory - glass sheets - for both the S and L lines, multiplied by the price per sheet ((2800+4600)*\$8).

There is no beginning or ending inventories for metal strips since they are purchased on a just-in-time basis. The purchased materials are calculated from the material budget shown in Table 4. For Q1, the total purchase costs for both lines S and L amounted to \$552,000.

This equates to raw materials available for use in Q1 of 611,200 (59,200 + 552,000).

The closing direct materials are calculated from the direct material budget shown in Table 4. For Q1, this is calculated as ending inventory - glass sheets - for both the S and L lines, multiplied by the price per sheet ((3,050+5,100)*\$8).

This equates to direct materials used in Q1 of 546,000 (611,200 – 65,200).

Direct labour is calculated as shown in Table 6, and amounts to \$204,000 for Q1.

Total manufacturing overhead costs are provided, and amount to \$102,000 for Q1.

As shown in the table above, the total budgeted cost of goods manufactured amounts to \$3,918,000.

The costs of goods sold are calculated as shown below in Table 9:

New projected manufacturing costs	S-Frame	L-Frame			
Direct materials	\$	\$			
Metal strips	2,0	3,0			
Glass sheets	2,0	4,0			
Direct labour	2,0	2,0			
Manufacturing overhead	1,0	1,0			
Total	7,0	10,0			
Cost of goods sold	Q1	Q2	Q3	Q4	Total
	\$	\$	\$	\$	\$
Beginning finished goods inventory					
S-Frame	77000	84000	91000	98000	77000
L-Frame	90000	100000	110000	120000	90000
Total	1670000	184000	201000	218000	
Add: cost of goods manufactured	852000	937000	1022000	1107000	3918000
cost of goods available for sale	1019000	1121000	1223000	1325000	4688000
Less: closing finished goods inventory					
S-Frame	84000	91000	98000	105000	105000
L-Frame	100000	110000	120000	130000	130000
Total	184000	201000	218000	235000	
	835000	920000	1005000	1090000	3850000

In order to determine the budgeted cost of goods sold, it is first necessary to calculate the projected manufacturing costs per unit for both the S and L lines. These figures are given in the instructions provided and are shown above.

The above chart shows that projected manufacturing costs per unit amount to \$7.00 and \$10.00 for the S and L lines respectively.

It is then necessary to calculate opening finished goods inventory for the 2011 year across both the S and L lines. This is done by multiplying the cost per unit for each line by the amount of opening stock in each period, as shown in the production budget in Table 3. For the S Line in Q1, this amounts to 11,000 units (11,000 * \$7.00 = \$77,000). For the L Line in Q1, this amounts to 9,000 units (9,000 * \$10.00 = \$90,000).

To work out the cost of goods manufactured for each quarter, we simply plug in the figures calculated in the COGM schedule, shown above in Table 8. Adding this amount to the opening inventory for each quarter gives a budgeted figure for cost of goods available for sale in the 2011 year of \$4,688,000.

Using a similar process to the calculation of opening finished goods inventory, we then calculate closing finished goods inventory. This is done by multiplying the cost per unit for each line by the amount of closing stock in each period, as shown in the production budget in Table 3. For the S Line in Q4, this amounts to 15,000 units (15,000 * \$7.00 = \$105,000). For the L Line in Q4, this amounts to 13,000 units (13,000 * \$10.00 = \$130,000).

The above table shows that subtracting closing inventory from the cost of goods available for sale gives a budgeted cost of goods sold figure of \$3,850,000 for the 2011 year.

8. Budgeted Profit & Loss Statement

The budgeted P & L Statement for Frame-It Ltd for the 2011 year is shown below in Table 10:

	Q1	Q2	Q3	Q4	Total
Sales revenue	1,225,000	1,350,000	1,475,000	1,600,000	5,650,000
Cost of goods sold	835,000	920,000	1,005,000	1,090,000	3,850,000
Gross margin	390,000	430,000	470,000	510,000	1,800,000
Selling and administrative expense	100,000	100,000	100,000	100,000	400,000
Operating income	290,000	330,000	370,000	410,000	1,400,000
Interest expense	25,000	18,750	12,500	6,250	62,500
Net income before tax	265,000	311,250	357,500	403,750	1,337,500

The above table shows that quarterly figures of sales revenue are taken from the sales budget in Table 1. Cost of goods sold, taken from Table 10, is then subtracted to give the gross profit figure for each quarter and the full year.

Selling and administrative expenses are then deducted to give operating income. We then deduct interest expense, which is taken from the summary cash budget in Table 7. Deducting these expenses from gross profit gives a quarterly net income figure before tax. The above table shows that net income before tax for the 2011 year is budgeted to be \$1,337,500.

9. Budgeted Statement of Retained Earnings

The budgeted Statement of Retained Earnings for Frame-It Ltd for the 2011 year is shown below in Table 11:

Retained earnings brought forward	3,353,800
Add: net budgeted income current year	1,337,500
Total	4,691,300
Less: dividends paid	200,000
Retained earnings carried forward	4,491,300

Opening retained earnings are brought forward from the figure shown in the balance sheet as at 31 December 2010. We then add the budgeted figures for the 2011 year which gives a total of \$4,691,300. We then allow for \$200,000 of dividends to be paid, based on the information provided which states that the company expects to pay dividends of \$50,000 per quarter during the 2011 year ($4 * \$50,000 = \$200,000$).

The above table shows that subtracting dividends gives a budgeted statement of retained earnings for the 2011 year of \$4,491,300.

10. Budgeted Balance Sheet

The budgeted Balance Sheet for Frame-It Ltd as at 31 December 2011 is shown below in Table 11:

Current assets	
Cash	204,500
Accounts receivable	192,000
Inventory	
Raw materials inventory	83,200
Finished goods inventory	235,000
	318,200
Total	714,700
Non-current assets	
Plant & equipment	9,000,000
(Accumulated depreciation)	80,000
Total	8,920,000
Total assets	9,634,700
Liabilities	
Accounts payable	143,400
Total	143,400
Net assets	9,491,300
Equity	
Ordinary shares	5,000,000
Retained earnings	4,491,300
Total	9,491,300

Each of the items in the Balance Sheet can be explained as follows:

The cash balance of \$204,500 is taken from the closing cash balance in the summary cash budget, which is shown in Table 7.

Budgeted accounts receivable are taken from the cash receipts budget in Table 2. This sum is made up of the amounts owing at the end Q4 2011 for both the S and L lines. Of the credit sales made in each quarter, 20%

are paid in the following quarter. In this case, the amount owing at the end of Q4 for the S line was \$84,000, and the amount owing for the L line was \$108,000. When summed together, these two figures amount to \$192,000, as shown in the table above.

Budgeted raw materials inventory is taken from the direct material budget, shown in Table 4. The closing balances for glass sheets in the S and L lines are multiplied by their cost per unit, which in this case is \$8. This gives a figure of \$30,400 for the S line and \$52,800 for the L line, which sums to \$83,200, as shown in the table above.

Finished goods inventory is taken from the closing balance of inventory for the S and L line in the cost of goods sold schedule in Table 9.

Plant & equipment of \$9,000,000 is made up of the \$8,000,000 provided in the information, together with the \$1,000,000 machine purchased on 2 January 2011. Depreciation of \$80,000 is simply the sum of budgeted depreciation for each quarter of \$20,000.

Accounts payable is calculated as 20% of \$717,000, which equals \$143,400. 80% of purchases are paid for in the quarter in which they are made, while the remaining 20% are paid in the next quarter. The figure of \$717,000 is taken from the direct materials budget in Table 4, which shows that at the end of Q4 total purchases across both product lines amounted to \$717,000.

Equity is comprised of ordinary share capital (provided in the information at \$5,000,000) and retained earnings, which is taken from the figure in Table 11 and amounts to \$4,491,300.

Appendix 64: The semi-structured interview

Name: _____

Date: _____ Time: _____ Permission to record interview: Yes/No

- 1- Does wiki has a spell checker?
- 2- Did you face any difficulties to conduct face-to-face meeting with your group?
- 3- Does MyUni website has a Chat service for meeting with your group and, if not, did you use instant messaging software (e.g. MSN messenger) instead?
- 4- How did you meet with the group members to develop guidelines, ideas, and imitate content related discussions?
- 5- Do you think you have spent less time doing the task than if you were doing it by yourself?
- 6- Do you think also that the quality of the report is more enhanced in group collaborative work than if you were doing it by yourself?
- 7- Did you watch the You Tube video which shows you how to work in a wiki? If so, was it helpful?
- 8- Did you have any technological problems in using wiki?
- 9- Who created the four web-pages?
- 10- Did the tutor provide with the rubrics (marking scheme) of this assignment task?
- 11- Do you have any suggestions which may improve future students' learning in a wiki?

Appendix 65: Metadiscourse analysis of the wiki discussion page 1

Title	Major Assignment
Pseudonym	Abdulrahman, Sun , Jiang, Edward, Tracy , and Lydia
Type of Analysis	Metadiscourse analysis
Program	Master of Commerce (Accounting)
Module	Intermediate Financial Reporting
Number of Words	5864 words:
Notes	wiki discussion pages one to four= 3596 words and the report= 2268 words
WIKI DISCUSSION PAGE 1	
1.	 Wiki Group
2.	Why [Interactional: Engagement marker] International Standards are important and [Interactive: Transition]
3.	How accounting policy made in Aus? [Interactional: Engagement marker]
4.	last edited by Abdulrahmanon Monday, 05/10/2010 9:36 PM
5.	I [Interactional: self-mention] can't [Interactional: Hedge] really [Interactional: Attitude marker] find the exact
6.	definition of why [Interactional: Engagement marker] international accounting standards are important, however
7.	[Interactive: Transition], based on my [Interactional: self-mention] understanding [Interactional: Hedge]
8.	International Accounting Standard is significant [Interactional: Attitude marker] as: [Interactive: Code gloss]
9.	It is underpinned by the global nature and [Interactive: Transition] the impact of all business actions. A
10.	standardized form of reporting business actions is required to ensure a fair [Interactional: Attitude marker] and
11.	right [Interactional: Attitude marker] analysis of the business performance and position, as well as
12.	[Interactive: Transition] allow comparison of businesses operating in different legal jurisdictions. All in all
13.	[Interactive: Frame marker], International Accounting Standards ensure that businesses adopt similar
14.	rules/standards/policies in reporting the business activities, allowing analysis and comparison.
15.	Regarding to the Questions how [Interactional: Engagement marker] accounting policy made in Australia? I
16.	[Interactional: self-mention] did some research on the procedure of making policy in Aus, here
17.	[Interactive: Endophoric marker] is my [Interactional: self-mention] summary [Interactive: Frame marker]:
18.	[Interactive: Code gloss]
19.	Accounting policies must [Interactional: Hedge] be chosen and applied if these policies satisfy the
20.	concepts of of relevance and reliability in the financial information, and must [Interactional: Hedge] be
21.	comparable and understandable without losing its relevance and reliability. <,,
22.	http://www.aasb.com.au/admin/file/content102/c3/AASB1001_03-99.pdf >
23.	[Interactive: Evidential marker]

24.	1. Identify technical issues by: [Interactive: Code gloss]
25.	a. International organisation e.g. [Interactive: Code gloss] the International Financial Reporting
26.	Interpretations Committee (IFRIC) . If IFRIC does not include the current issue in its agenda, AASB
27.	should [Interactional: Hedge] make the policy by providing relevant [Interactional: Attitude marker] and
28.	[Interactive: Transition] reliable [Interactional: Attitude marker] information beside [Interactive: Transition]
29.	taking into account IFRICs dealing with similar issues. Furthermore [Interactive: Transition],
30.	another current pronouncements of other standards setting bodies might [Interactional: Hedge] be used
31.	as long as [Interactive: Transition] they use the same conceptual framework and agreed with IASB
32.	pronouncements. [Interactive: Evidential marker]
33.	IAS 8 [Interactive: Evidential marker] Accounting policies, changes in accounting estimates and
34.	errors 2008, International financial reporting standards, viewed 15 April
35.	2010 < http://www.cpaaustralia.com.au/cps/rde/xbcr/cpa-site/IAS-8-fact-sheet.pdf >
36.	[Interactive: Evidential marker]
37.	2. Add issues to the agenda, developing a project proposal.
38.	3. Research and consider the issue: [Interactive: Code gloss] address the scope of issues, alternative
39.	approaches, and timing of outputs.
40.	4. Consult with stakeholders: make documents available for public comment and discussion.
41.	E.g. [Interactive: Code gloss] Exposure Drafts (EDs), Invitations to Comment (ITCs), Draft
42.	Interpretations, Focus Group etc.
43.	5. Issue standards or other pronouncement.
44.	e.g. [Interactive: Code gloss] a standard, an interpretation, or a conceptual framework document.
45.	6. Submissions to International Organisations. e.g. [Interactive: Code gloss] the IASB and IPSASB
46.	7. Comments from stakeholders in Aus e.g. [Interactive: Code gloss] formal comment letters
47.	(submissions) and other input from stakeholders on the AASB's own proposals
48.	8. Implementation and compliance, compliance with Australian accounting standards and
49.	[Interactive: Transition] interpretations is also monitored by other organisations, including:
50.	[Interactive: Code gloss] CPAA, ICAA, APRA, ASIC, NIA
51.	*A change in accounting policies after initial adoption of (IFRIC) must [Interactional: Hedge] be
52.	made according to [Interactive: Evidential marker] the particular transitional provision in that
53.	standard.
54.	*Voluntary changes in accounting policies are only to be made if they give more relevant

55.	[Interactional: Attitude marker] and [Interactive: Transition] reliable [Interactional: Attitude marker]
56.	information.
57.	IAS 8 [Interactive: Evidential marker] Accounting policies, changes in accounting estimates and
58.	errors 2008, International financial reporting standards, viewed 15 April
59.	2010< http://www.cpaaustralia.com.au/cps/rde/xbcr/cpa-site/IAS-8-fact-sheet.pdf >
60.	[Interactive: Evidential marker]
61.	(AASB 2010) [Interactive: Evidential marker]
62.	http://www.aasb.com.au/About-the-AASB/The-standard-setting-process.aspx
63.	[Interactive: Evidential marker]

Appendix 66: Metadiscourse analysis of the wiki discussion page 2

Title	Major Assignment
Pseudonym	Abdulrahman, Sun , Jiang, Edward, Tracy , and Lydia
Type of Analysis	Metadiscourse analysis
Program	Master of Commerce (Accounting)
Module	Intermediate Financial Reporting
Number of Words	5864 words:
Notes	wiki discussion pages one to four= 3596 words and the report= 2268 words
WIKI DISCUSSION PAGE 2	
64.	 Wiki Group
65.	The relationship between IASB and AASB, and their roles.
66.	last edited by Abdulrahman on Sunday, 05/02/2010 3:55 AM
67.	The Australian Accounting Standard Broad (AASB) is an Australian Government agency under
68.	the Australian Securities and Investments Commission Act 2001 . [Interactive: Evidential marker]
69.	The AASB mainly responsible for: [Interactive: Code gloss]
70.	1-Developing a conceptual framework.
71.	2-Making accounting standards under section 334 of the Corporations Act
72.	[Interactive: Evidential marker] for the purposes of the corporations' legislation,
73.	3-Formulating accounting standards for other purposes.
74.	4-Participation in and [Interactive: Transition] contribute to the development of a single set of
75.	accounting standards for world-wide use.
76.	5-Facilitating Australian economy and [Interactive: Transition] maintaining investor confidence.
77.	6Delivering a truly distinctive contribution to the development of highquality financial reporting
78.	standards' is the vision of AASB.
79.	Its roles are to develop and [Interactive: Transition] maintain the financial reporting standards with high
80.	quality for all areas of the Australian economy and [Interactive: Transition]
81.	to facilitate the development of global financial reporting standards. (AASB, 2010)
82.	[Interactive: Evidential marker] Australian accounting standards became equivalent to international
83.	accounting standards in 15 July 2004 . [Interactive: Evidential marker] AASB followed FRC
84.	directions and [Interactive: Transition] met its requirements to adopt IASB standards
85.	[Interactive: Evidential marker]. AASB standards [Interactive: Evidential marker] which comply
86.	with IASB standards [Interactive: Evidential marker] started working after 1 January 2005. However
87.	[Interactive: Transition], AASB changed some words in IASB to be suitable for the Australian

88.	legislative environment and [Interactive: Transition] these changes did not affect the core of the
89.	requirements. Furthermore [Interactive: Transition], IASB deals with for profit entity, whereas
90.	[Interactive: Transition] AASB is responsible for all reporting entities. Therefore
91.	[Interactive: Transition], in some cases AASB does not apply IASB requirements
92.	[Interactive: Evidential marker] on non profit entities and [Interactive: Transition] use suitable
93.	requirements for these types of entities. These requirements might [Interactional: Hedge] be not similar
94.	to IASB standards , [Interactive: Evidential marker] in the same way , [Interactive: Transition] it not
95.	far away from the substance of IASB.
96.	AASB'S responsibilities for non-profit entities: [Interactive: Code gloss]
97.	1-Has regard to the suitability of a proposed standard for different types of entities.
98.	2- May [Interactional: Hedge] apply different accounting requirements to different types of entities.
99.	3. Must [Interactional: Hedge] ensure that there are appropriate accounting standards for each type of
100.	entity that must [Interactional: Hedge] comply with accounting standards.
101.	The International Accounting Standards Board (IASB) is part of the International Accounting
102.	Standards Committee Foundation (IASCF). The role of IASB is to develop a set of high quality global
103.	accounting standards in the interest of public, which require parent and comparable information in
104.	general purpose financial statements.
105.	(IASB) Principal objectives [Interactive: Evidential marker] are: [Interactive: Code gloss]
106.	1-Developing a single set of high quality, understandable, enforceable and globally accepted
107.	international financial reporting standards (IFRSs).
108.	2-Promoting the use and rigorous application of those standards.
109.	3.To bring about convergence of national accounting standards and IFRSs to high quality solutions.
110.	The main relationship between AASB and IASB is the IASB work with other national accounting
111.	standardsetters including AASB to achieve the role of IASB better and [Interactive: Transition]
112.	to converge accounting standards globally. (AASB, 2010) [Interactive: Evidential marker]
113.	Additionally [Interactive: Transition], the IASB would [Interactional: Hedge]
114.	issue some authoritative pronouncements called "IFRS"
115.	(International Financial Reporting Standards). The AASB has adopted IFRSs for application by
116.	entities reporting for annual reporting periods beginning on or after 1 January 2005. It ensure that
117.	general purpose financial statements prepared by for profit entities in accordance with [Interactive: Evidential marker]
118.	AASB standards [Interactive: Evidential marker] will [Interactional: Hedge] also

119.	[Interactive: Transition] be in accordance with [Interactive: Evidential marker] IFRSs. Therefore,
120.	[Interactive: Transition] The AASB is aiming for the highest quality financial reporting in adopting
121.	IAS Standards. [Interactive: Evidential marker]
122.	*The IASB is committed to developing, in the public interest, a single set of high quality, global
123.	accounting standards that require parent and comparable information in general purpose financial
124.	statements. In pursuit of this objective, the IASB co-operates with national accounting standard-
125.	setters (like the AASB) to achieve convergence in accounting standards around the world.
126.	*AASB sometimes requires additional disclosures, particularly [Interactional: Attitude marker] where
127.	these are already required under existing AASB standards [Interactive: Evidential marker] which do
128.	not impact on the capacity of an Australian entity to achieve compliance with IASB standards .
129.	[Interactive: Evidential marker]
130.	*In some standards AASB added more commentaries which considered not part of standard but
131.	[Interactive: Transition] just to be of benefit to the users of AASB standards
132.	[Interactive: Evidential marker] and [Interactive: Transition] provided it does not contradict the content
133.	of Australian equivalents to IASB standards . [Interactive: Evidential marker]

Appendix 67: Metadiscourse analysis of the wiki discussion page 3

Title	Major Assignment
Pseudonym	Abdulrahman, Sun , Jiang, Edward, Tracy , and Lydia
Type of Analysis	Metadiscourse analysis
Program	Master of Commerce (Accounting)
Module	Intermediate Financial Reporting
Number of Words	5864 words:
Notes	wiki discussion pages one to four= 3596 words and the report= 2268 words
WIKI DISCUSSION PAGE 3	
134.	 Wiki Group
135.	Current Exposure Drafts
136.	last edited by Abdulrahman on Monday, 05/10/2010 9:05 PM
137.	Hey guys , [Interactional: Engagement marker]
138.	This is my [Interactional: self-mention] summary [Interactive: Frame marker] of the reporting entity
139.	exposure draft. Have [Interactional: Engagement marker] a look and [Interactive: Transition] give
140.	[Interactional: Engagement marker] some comments. Tks! [Interactional: Engagement marker]
141.	The Reporting Entity exposure draft is one phase of FASB and the IASB's Conceptual
142.	Framework (CF) project [Interactive: Evidential marker] and [Interactive: Transition] is
143.	consistent with the CF project's overall objective, which is to create a sound foundation for
144.	future accounting standards. In this phase, it focuses on determining what constitutes a
145.	reporting entity for the purposes of financial reporting. This ED eliminates the divergence in
146.	identifying a reporting entity between the IASB and the FASB, for the FASB do not contain the
147.	definition of it. The ED comes up with three main proposals as belows [Interactive: Endophoric marker].
148.	Firstly [Interactive: Transition], what [Interactional: Engagement marker] is a reporting entity? Secondly ,
149.	[Interactive: Transition] when [Interactional: Engagement marker] does one entity control another entity
150.	(resulting in a combined reporting entity)? Thirdly , [Interactive: Transition] can [Interactional: Hedge] a
151.	portion of an entity be a reporting entity? [Interactional: Engagement marker] Jiang
152.	Compare AASB137 with ED IAS 37
153.	Main purpose of ED IAS 37 [Interactive: Evidential marker] is to improve the measurement of
154.	liabilities.
155.	At present AASB 137 , [Interactive: Evidential marker] we [Interactional: self-mention] measure
156.	the amount of Provision through the best estimate of the expenditure required to settle the present
157.	obligation at the end of the reporting period.

158.	However [Interactive: Transition], “best estimate” is abstract and hard to implement. And
159.	[Interactive: Transition] “settle” has various mean.
160.	It can [Interactional: Hedge] be understand to fulfill the present obligation, or [Interactive: Transition] it
161.	can [Interactional: Hedge] be understand to cancel the present obligation. When the amount for
162.	fulfilling is different from that of cancellation, it is no clear rule in the present AASB 137
163.	[Interactive: Evidential marker] to help accountant making a decision.
164.	So , [Interactive: Transition] ED of IAS 37 [Interactive: Evidential marker] deletes the term “best
165.	estimate” and [Interactive: Transition] specifies more prominently that the amount of provision to be
166.	recognized is the lowest of: [Interactive: Code gloss]
167.	(a) The present value of the resources required to fulfill the obligation;
168.	(b) The amount that the entity would [Interactional: Hedge] have to pay to cancel the obligation;
169.	and [Interactive: Transition]
170.	(c) The amount that the entity would [Interactional: Hedge] have to pay to
171.	[Interactive: Transition] fer the obligation to a third party.
172.	Additionally [Interactive: Transition], considering entities might [Interactional: Hedge] be unable to
173.	cancel or [Interactive: Transition] fer some liabilities, or be able to [Interactive: Transition] fer
174.	them only at prohibitively high prices. ED of IAS 37 Para.36C [Interactive: Evidential marker]
175.	clarifies that if there is no evidence that an entity could [Interactional: Hedge] cancel or
176.	[Interactive: Transition] fer an obligation for a lower amount, the entity measures the liability at the
177.	present value of the resources required to fulfill the obligation.
178.	Meanwhile , [Interactive: Transition] ED of IAS 137 [Interactive: Evidential marker] also
179.	[Interactive: Transition] makes some changes for present rules. For example , [Interactive: Code gloss]
180.	present AASB137 Para. 50 [Interactive: Evidential marker] clarifies that “the effect of possible
181.	[Interactional: Hedge] new legislation is taken into consideration in measuring an existing obligation”.
182.	On the contrary , [Interactional: Attitude marker] ED of IAS 37 Appendix B13
183.	[Interactive: Evidential marker] clarifies that “an entity does not take into account future events---
184.	such as [Interactive: Code gloss] a change in legislation that would [Interactional: Hedge] change or
185.	[Interactive: Transition] discharge the present obligation or [Interactive: Transition] create new
186.	obligations”.
187.	Sun
188.	07/05/10

189.	Hi all , [Interactional: Engagement marker]
190.	Sorry to interrupt [Interactional: Engagement marker] ... I [Interactional: self-mention] think
191.	[Interactional: Hedge] it might [Interactional: Hedge] be easier for you to see
192.	[Interactional: Engagement marker] what i [Interactional: self-mention] posted if i
193.	[Interactional: self-mention] post my [Interactional: self-mention] question on this page. I am
194.	[Interactional: self-mention] not quite sure [Interactional: Hedge] that is it a must [Interactional: Hedge]
195.	for us to list out [Interactional: Engagement marker] the differences bewteen AASBs and IASs... I
196.	[Interactional: self-mention] haven't found the exact instruction in assignment to let us find
197.	[Interactional: Engagement marker] this differences. Instead , [Interactive: Transition] how
198.	[Interactional: Engagement marker] current EDs affects accountants this question raised in the
199.	instruction that we [Interactional: self-mention] haven't even [Interactional: Attitude marker] talked about
200.	yet...
201.	Any suggestion? [Interactional: Engagement marker]
202.	Edward
203.	Hi Edward , [Interactional: Engagement marker]
204.	You are right. It is worthy paying attention to that point. In my [Interactional: self-mention] opinion
205.	[Interactional: Attitude marker], once the EDs published by the IASB are commented and
206.	[Interactive: Transition] modified, they will [Interactional: Hedge] become the final form. Hence ,
207.	[Interactive: Transition] it will [Interactional: Hedge] certainly [Interactional: Booster] have great impacts
208.	on the AASB, which is applied by the Australian accountants. So [Interactive: Transition] all our
209.	[Interactional: self-mention] work, like finding out these differences, is to forecast in what
210.	[Interactional: Engagement marker] way the current EDs will [Interactional: Hedge] affect AASB, and
211.	[Interactive: Transition] how [Interactional: Engagement marker] our [Interactional: self-mention]
212.	accountants respond to these differences. What [Interactional: Engagement marker] do you think
213.	[Interactional: Engagement marker]? 😊 [Interactional: Engagement marker]
214.	Jiang
215.	When ED issued, it means some new or improved accounting rules will [Interactional: Hedge] be issued
216.	soon. The ED is the draft to new accounting standards. So [Interactive: Transition] the impact of ED
217.	for accountant is just how [Interactional: Engagement marker] to facing and [Interactive: Transition] using

218.	the coming new or improved accounting rules, which are the difference from existing AASB.
219.	Sun
220.	Hi Jiang and Sun , [Interactional: Engagement marker]
221.	Thank you for your reply and [Interactive: Transition] i [Interactional: self-mention] got the reason why
222.	[Interactional: Engagement marker] we [Interactional: self-mention] need to find the differences!
223.	Edward
224.	After reading Edward's post (thank for ur summary, its quite [Interactional: Hedge] good :)
225.	[Interactional: Engagement marker] , i [Interactional: self-mention] have combined her summary and
226.	[Interactive: Transition] my summary [Interactional: self-mention] Here [Interactive: Endophoric marker] it
227.	is: [Interactive: Code gloss]
228.	1. IAS 19 Employee Benefits:
229.	Therefore , [Interactive: Transition] IASB is trying to solve above problems and [Interactive: Transition]
230.	help the users of financial statement easier to understand how [Interactional: Engagement marker]
231.	defined benefit plans (e.g. [Interactive: Code gloss] pensions/ employment medicare) have impact on the
232.	financial position, financial performance and cash flows of a company by proposing this ED to make
233.	3 main fundamental improvements to the immediate recognition, presentation and disclosure of
234.	defined benefit plan. For example [Interactive: Code gloss]
235.	1. IASB proposes to remove the option that allow company not to regonise some gains and losses that
236.	arise when the company changes the defined benefit obligations or [Interactive: Transition] when there
237.	is changes in fair value of plan assets. Instead , [Interactive: Transition] company should report /
238.	regonise these items at once.
239.	2. IASB remove some presenation options which are currently in IAS19
240.	[Interactive: Evidential marker]. The ED propose that companies should [Interactional: Hedge] present
241.	service cost in P/L, financial cost as part of financial cost on P/L, remeasurment in other compressive
242.	income.
243.	3. IASB propose to improve disclosure requirment e.g. [Interactive: Code gloss] info about the risks
244.	arising from a compny's involvment in defined benefit plans need to be provided by companies
245.	Cheers Lydia [Interactional: Engagement marker]
246.	Summary of Defined business plan (IAS19 Employee Benefits) [Interactive: Evidential marker]:

247.	[Interactive: Code gloss] There are mainly three deficiencies [Interactional: Attitude marker]
248.	in current IAS19 [Interactive: Evidential marker] : [Interactive: Code gloss]
249.	1. Companies are not regulated under IAS19 [Interactive: Evidential marker] to recognize their
250.	defined benefit plans in time. Such ‘deferred recognition’ makes the amount in financial statements
251.	misleading.
252.	2. A united and standardized option for Companies to recognize gains and losses hasn’t been set. This
253.	makes effects of defined benefit plans incomparable between companies.
254.	3. Disclosures haven’t put emphasis on the risks from defined benefit plans.
255.	According to [Interactive: Evidential marker] the deficiencies above [Interactive: Endophoric marker]
256.	this exposure draft proposes to improve the recognition, presentation and disclosure of defined
257.	benefit plans, which can [Interactional: Hedge] be particularly [Interactional: Attitude marker] specified
258.	as follows [Interactive: Endophoric marker] :
259.	1. Improve the recognition and presentation of both changes in
260.	carrying amounts of defined benefit obligations and changes in fair value of plan assets.
261.	2. Eliminate some current presentation options.
262.	3. Clarify some obscure practice issues.
263.	4. Disclose the risks from defined benefit plans in more detail.
264.	References: 1. http://www.iasb.org/Current+Projects/IASB+Projects/Post-
265.	employment+Benefits+%28including+Pensions%29/ED+Defined+Benefit+Plans/ED+Defined+Bene
266.	fit+Plans.htm [Interactive: Evidential marker]
267.	2. ED IAS19 [Interactive: Evidential marker] Defined Benefit Plans
268.	Hi all ’ [Interactional: Engagement marker] I [Interactional: self-mention] summarized the ED IAS19
269.	[Interactive: Evidential marker] as above [Interactive: Endophoric marker] . It is only a draft and
270.	[Interactive: Transition] be free [Interactional: Engagement marker] to give suggestions, Thank you!
271.	[Interactional: Engagement marker]
272.	Cheers, [Interactional: Engagement marker]
273.	Edward
274.	After taking to the tutor today, i [Interactional: self-mention] found out that we [Interactional: self-mention]
275.	have to list all of the recent EDs released by IASB. [Interactive: Evidential marker] She said
276.	[Interactive: Evidential marker]

277.	there should [Interactional: Hedge] be around 4 EDs. (No need to discuss in details)																									
278.	There is a link in IASB to explain their current project including [Interactive: Transition] what EDs																									
279.	they are publishing. (http://www.iasb.org/Current+Projects/IASB+Projects/IASB+Work+Plan.htm)																									
280.	[Interactive: Evidential marker]																									
281.	In summary [Interactive: Frame marker] they are all EDs published recently and																									
282.	[Interactive: Transition]"still accepting comments". Our [Interactional: self-mention] members have																									
283.	already listed some EDs out :), [Interactional: Engagement marker] but [Interactive: Transition] i																									
284.	[Interactional: self-mention] will [Interactional: Hedge] list them all in table [Interactive: Endophoric marker]																									
285.	anyway.																									
286.	<table border="1"> <thead> <tr> <th></th> <th>EDs</th> <th>Publishing Date</th> <th>Closing Date</th> <th>Link</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Liability (IAS37) [Interactive: Evidential marker]</td> <td>5/1/2010</td> <td>19/5/2010</td> <td>http://www.iasb.org/NR/rdonlyres/6FF9E7E5-2129-451B-B591-5A8911AF8BB5/0/EDIAS37Liabilities0110.pdf [Interactive: Evidential marker]</td> </tr> <tr> <td>2.</td> <td>Defined business plan (IAS19 Employee Benefits) [Interactive: Evidential marker]</td> <td>April 2010</td> <td>6/9/2010</td> <td>http://www.iasb.org/Current+Projects/IASB+Projects/Post-employment+Benefits+%28including+Pensions%29/ED+Defined+Benefit+Plans/ED+Defined+Benefit+Plans.htm [Interactive: Evidential marker]</td> </tr> <tr> <td>3.</td> <td>Amortised cost and Impairment</td> <td>5/11/2009</td> <td>6/6/2010</td> <td>http://www.iasb.org/NR/rdonlyres/9C66B0E5-E177-4004-A20B-C0076FCC3BFB/0/vbEDFIImpairmentNov09.pdf [Interactive: Evidential marker]</td> </tr> <tr> <td>4.</td> <td>Reporting Entity Concept</td> <td>11/3/2010</td> <td>16/7/2010</td> <td>http://www.iasb.org/NR/rdonlyres/363A9F3B-D41C-41E7-9715-79715E815BB1/0/EDConceptualFrameworkMar10.pdf [Interactive: Evidential marker]</td> </tr> </tbody> </table>		EDs	Publishing Date	Closing Date	Link	1.	Liability (IAS37) [Interactive: Evidential marker]	5/1/2010	19/5/2010	http://www.iasb.org/NR/rdonlyres/6FF9E7E5-2129-451B-B591-5A8911AF8BB5/0/EDIAS37Liabilities0110.pdf [Interactive: Evidential marker]	2.	Defined business plan (IAS19 Employee Benefits) [Interactive: Evidential marker]	April 2010	6/9/2010	http://www.iasb.org/Current+Projects/IASB+Projects/Post-employment+Benefits+%28including+Pensions%29/ED+Defined+Benefit+Plans/ED+Defined+Benefit+Plans.htm [Interactive: Evidential marker]	3.	Amortised cost and Impairment	5/11/2009	6/6/2010	http://www.iasb.org/NR/rdonlyres/9C66B0E5-E177-4004-A20B-C0076FCC3BFB/0/vbEDFIImpairmentNov09.pdf [Interactive: Evidential marker]	4.	Reporting Entity Concept	11/3/2010	16/7/2010	http://www.iasb.org/NR/rdonlyres/363A9F3B-D41C-41E7-9715-79715E815BB1/0/EDConceptualFrameworkMar10.pdf [Interactive: Evidential marker]
	EDs	Publishing Date	Closing Date	Link																						
1.	Liability (IAS37) [Interactive: Evidential marker]	5/1/2010	19/5/2010	http://www.iasb.org/NR/rdonlyres/6FF9E7E5-2129-451B-B591-5A8911AF8BB5/0/EDIAS37Liabilities0110.pdf [Interactive: Evidential marker]																						
2.	Defined business plan (IAS19 Employee Benefits) [Interactive: Evidential marker]	April 2010	6/9/2010	http://www.iasb.org/Current+Projects/IASB+Projects/Post-employment+Benefits+%28including+Pensions%29/ED+Defined+Benefit+Plans/ED+Defined+Benefit+Plans.htm [Interactive: Evidential marker]																						
3.	Amortised cost and Impairment	5/11/2009	6/6/2010	http://www.iasb.org/NR/rdonlyres/9C66B0E5-E177-4004-A20B-C0076FCC3BFB/0/vbEDFIImpairmentNov09.pdf [Interactive: Evidential marker]																						
4.	Reporting Entity Concept	11/3/2010	16/7/2010	http://www.iasb.org/NR/rdonlyres/363A9F3B-D41C-41E7-9715-79715E815BB1/0/EDConceptualFrameworkMar10.pdf [Interactive: Evidential marker]																						
287.	Cheers, Lydia [Interactional: Engagement marker]																									
288.	Summary of Impairment loss																									
289.	Aims at enhancing the usefulness of financial statements, the accounting for provisions for losses on																									
290.	loans, and [Interactive: Transition] reflecting the economic reality.																									
291.	Here [Interactive: Endophoric marker] is for everyone to summarise each recent EDs in a short																									
292.	paragraph. (e.g. [Interactive: Code gloss] what [Interactional: Engagement marker] the ED propose?)																									
293.	Summary for each ED: [Interactive: Code gloss]																									

294.	according to [Interactive: Evidential marker] my [Interactional: self-mention] research, I
295.	[Interactional: self-mention] think [Interactional: Attitude marker] the following
296.	[Interactive: Endophoric marker] points are the current exposure drafts:
297.	1- IASB Exposure Draft ED/2010/2 [Interactive: Evidential marker] Conceptual Framework for
298.	Financial Reporting: The Reporting Entity http://www.iasb.org/NR/rdonlyres/363A9F3B-D41C-
299.	41E7-9715-79715E815BB1/0/EDConceptualFrameworkMar10.pdf
300.	[Interactive: Evidential marker]
301.	2-ED 120 Proposed Amendments to NZ IAS 26 Accounting and Reporting by Retirement
302.	Benefit Plans [Interactive: Evidential marker]
303.	3-IASB ED/2010/1 Measurement of Liabilities
304.	http://www.iasb.org/NR/rdonlyres/6FF9E7E5-2129-451B-B591-
305.	5A8911AF8BB5/0/EDIAS37Liabilities0110.pdf [Interactive: Evidential marker]
306.	4- IASB ED/2009/12 [Interactive: Evidential marker] Financial Instruments: Amortized Cost and
307.	Impairment
308.	5-Report - IASB/FASB Conceptual Framework Project: Public Benefit Entities
309.	[Interactive: Evidential marker]
310.	<i>Although Abdulrahman found</i> [Interactive: Evidential marker] <i>above</i> [Interactive: Endophoric marker]
311.	<i>7 recent DEs, but</i> [Interactive: Transition] <i>in my</i> [Interactional: self-mention] <i>opione</i>
312.	[Interactional: Attitude marker] , <i>just 2 and 4 are relevent.</i> [Interactional: Attitude marker] <i>To make our</i>
313.	[Interactional: self-mention] <i>job easy and clear, i</i> [Interactional: self-mention] <i>suggust</i>
314.	[Interactional: Attitude marker] <i>we</i> [Interactional: self-mention] <i>focu on 4 first.</i>
315.	<i>If still have time ,then we</i> [Interactional: self-mention] <i>discuss 2.</i>
316.	Sun 😊 [Interactional: Engagement marker]
317.	Hi Edward, [Interactional: Engagement marker]
318.	I [Interactional: self-mention] <i>know you received an email from the tutor asking to figure out "How</i>
319.	[Interactional: Engagement marker] <i>do the EDs affect accounting setting? actually I</i>
320.	[Interactional: self-mention] <i>kept looking for the answer of this question from articles and websites but</i>
321.	[Interactive: Transition] <i>unfortunately</i> [Interactional: Attitude marker], I [Interactional: self-mention] <i>found</i>
322.	<i>that every exposure draft has own influence on the accounting setting. However</i>
323.	[Interactive: Transition], I [Interactional: self-mention] <i>summarised the general effects of the effect of</i>

324.	<i>exposure drafts in separate pages called "Why [Interactional: Engagement marker] the accountants are</i>
325.	<i>concern about the exposure drafts?". Have [Interactional: Engagement marker] a look on my</i>
326.	<i>summarising and [Interactive: Transition] I [Interactional: self-mention] will [Interactional: Hedge] be</i>
327.	<i>happy [Interactional: Attitude marker] if you have [Interactional: Engagement marker] more ideas.</i>
328.	<i>Hi guys, [Interactional: Engagement marker]</i>
329.	<i>Since there are a lot of contributions in this page, I [Interactional: self-mention] find it hard to edit or</i>
330.	<i>delete any of your contributions, [Interactional: Engagement marker] therefore [Interactive: Transition] I</i>
331.	<i>[Interactional: self-mention] would [Interactional: Hedge] like to add what I [Interactional: self-mention]</i>
332.	<i>understood when I [Interactional: self-mention] read Exposure Draft measurement of liabilities and Ed</i>
333.	<i>conceptual framework</i>
334.	<i>1)Exposure Draft measurement of liabilities in IAS 137 published on 5th of January 2010</i>
335.	<i>This ED talks about some aspects of measurement requirements for liabilities. It focuses on high level</i>
336.	<i>of measurements objective and [Interactive: Transition] application of that objective to edit the use of</i>
337.	<i>expected value to measure single obligations. This approach will [Interactional: Hedge] result in</i>
338.	<i>significant [Interactional: Attitude marker] changes to practice because [Interactive: Transition]</i>
339.	<i>measuring an obligation item on its most likely [Interactional: Attitude marker] outcome will [Interactional: Hedge] be removed. The</i>
340.	<i>board plans to drop the current recognition requirement for present or possible [Interactional: Hedge]</i>
341.	<i>obligation to be probable [Interactional: Hedge] future outflows before an obligation is recognized. At</i>
342.	<i>this time, possible [Interactional: Hedge] or present obligation for which future outflows are not likely,</i>
343.	<i>[Interactional: Attitude marker] is treated as a contingent liability and [Interactive: Transition] disclosed</i>
344.	<i>in the notes without recognition in the balance sheet. If the probability is removed, more items will</i>
345.	<i>[Interactional: Hedge] be recognized subject to the new measurement requirements.</i>
346.	<i>Moreover [Interactive: Transition], IASB decided to emendate the use of expected value to measure the</i>
347.	<i>obligations.The ED also [Interactive: Transition] mentioned to "risk adjustment" the board illustrated</i>
348.	<i>that this risk can [Interactional: Hedge] be done by factoring it into the probability- weighted cash</i>
349.	<i>flows or into the discount rate or [Interactive: Transition] by adding it to the expected present value of</i>
350.	<i>the probability-weighted cash flows.</i>
351.	<i>Most comment regarding this ED expressed the concern that ED did not give sufficient</i>
352.	<i>[Interactional: Attitude marker] guidance regarding how [Interactional: Engagement marker] the risk</i>
353.	<i>margin would [Interactional: Hedge] be calculated and [Interactive: Transition] the adjustment which the</i>

354.	<i>board talked about was not obvious.</i> [Interactional: Attitude marker]
355.	<i>IASB Exposure Draft Measurement of Liabilities in IAS 37-Proposed amendments to IAS 37 2010,</i>
356.	[Interactive: Evidential marker] <i>KPMG IFRG Limited, viewed 14 April 2010</i>
357.	http://www.kpmg.com/CN/en/IssuesAndInsights/ArticlesPublications/Newsletters/IFRS-Briefing-
358.	<i>Sheet/Documents/IFRS-Briefing-Sheet-O-1001-168.pdf.</i> [Interactive: Evidential marker]
359.	<i>2)Exposure Draft on Conceptual Framework Description of the Reporting Entity</i>
360.	<i>The main objective of this ED is improving the common conceptual framework to build a solid</i>
361.	<i>basis for future accounting standards. Since the current framework</i>
362.	<i>consists of four active stages which are reporting entity, objective and qualitative</i>
363.	<i>characteristics, measurement, elements and recognition. The framework will</i> [Interactional: Hedge]
364.	<i>come up with inclusive</i> [Interactional: Attitude marker] <i>and obvious</i> [Interactional: Attitude marker]
365.	<i>definitions for all significant</i> [Interactional: Attitude marker] <i>concepts and elements of financial</i>
366.	<i>statements to assist the development of accounting standards based on consistent financial reporting</i>
367.	<i>principles.</i>
368.	<i>The exposure draft describes a reporting entity as a circumscribed area of economic activities whose</i>
369.	<i>financial information has the potential to be useful to existing and potential decision makers who</i>
370.	<i>cannot</i> [Interactional: Hedge] <i>directly get the information they need.</i>
371.	<i>By defining a reporting entity on the basis of “a circumscribed area of economic activities,” an entity</i>
372.	<i>can</i> [Interactional: Hedge] <i>identify the relevant</i> [Interactional: Attitude marker] <i>group of users of financial</i>
373.	<i>information for reporting. Resource providers are a broader group than the entity’s owners. This</i>
374.	<i>creates the framework for the economic-entity approach to define the reporting entity.</i>
375.	<i>The exposure draft also</i> [Interactive: Transition] <i>addresses the issue of a reporting entity that includes</i>
376.	<i>more than one entity, and</i> [Interactive: Transition] <i>is presented as a single reporting unit. The entities</i>
377.	<i>that need to be reported as a single reporting unit are those that are collectively of interest to the</i>
378.	<i>resource providers. The Boards propose that the control and power model should</i>
379.	[Interactional: Hedge] <i>be the primary basis for identifying entities that need to be reported as a single</i>
380.	<i>unit in the consolidated financial statements.</i>
381.	<i>FASB and IASB Publish Joint Exposure Draft on Conceptual Framework Description of the</i>
382.	<i>Reporting Entity 2010,KPMG,viewed 19 April 2010</i>
383.	http://www.kpmg.com/CN/en/IssuesAndInsights/ArticlesPublications/Newsletters/IFRS-Briefing-
384.	<i>Sheet/Documents/IFRS-Briefing-Sheet-O-1003-176.pdf</i> [Interactive: Evidential marker]

Appendix 68: Metadiscourse analysis of the wiki discussion page 4

Title	Major Assignment
Pseudonym	Abdulrahman, Sun , Jiang, Edward, Tracy , and Lydia
Type of Analysis	Metadiscourse analysis
Program	Master of Commerce (Accounting)
Module	Intermediate Financial Reporting
Number of Words	5864 words:
Notes	wiki discussion pages one to four= 3596 words and the report= 2268 words
WIKI DISCUSSION PAGE 4	
385.	 Wiki Group
386.	Why [Interactional: Engagement marker] the accountants are concern about the exposure drafts?
387.	
388.	last edited by Abdulrahman on Saturday, 05/08/2010 11:51 PM
389.	Hi guys, [Interactional: Engagement marker] I [Interactional: self-mention] did too much research
390.	[Interactional: Attitude marker] to justify the accountants' concern regarding the exposure drafts but,
391.	[Interactive: Transition] I [Interactional: self-mention] did not find a certain answer for this issue.
392.	However [Interactive: Transition], according to my understanding, [Interactional: Attitude marker] I
393.	[Interactional: self-mention] come up with the following [Interactive: Endophoric marker] Justification: As
394.	we [Interactional: self-mention] know the exposure draft is the most important
395.	[Interactional: Attitude marker] stage in a new project or accounting standard process, and
396.	[Interactive: Transition] The reason behind emending or [Interactive: Transition] issuing a new standard is
397.	to make the financial information reflects the true and fair value as much as possible that gives the
398.	users an opportunity to make a good decision. However [Interactive: Transition], since the exposure
399.	draft comes to edit or [Interactive: Transition] issue a new standard, it causes concerns to the
400.	accountants because [Interactive: Transition] it will [Interactional: Hedge]
401.	restrict the manipulation in financial entity's position and performance. Furthermore
402.	[Interactive: Transition], the new exposure draft often has a significant [Interactional: Attitude marker]
403.	influence in term of treating the relevant [Interactional: Attitude marker] items, this influence includes
404.	changing the definition and recognition of the relevant [Interactional: Attitude marker] item.
405.	Therefore [Interactive: Transition], might [Interactional: Hedge] some items which being included in the
406.	statement would [Interactional: Hedge] be excluded next financial period and [Interactive: Transition]
407.	vice versa. As a result [Interactive: Transition], this treatment will [Interactional: Hedge] affect the profit

408.	of the entity. Moreover [Interactive: Transition], the accountants could be [Interactional: Hedge]
409.	concerned about the new exposure draft that issued by IASB because [Interactive: Transition] this draft
410.	need to be monitored when it would [Interactional: Hedge] be applied on the financial statements
411.	because [Interactive: Transition] it might be [Interactional: Hedge] not suitable for some industries and
412.	environments. Therefore [Interactive: Transition] the adoption of the a new standard later on will be
413.	[Interactional: Hedge] rejected or [Interactive: Transition] will [Interactional: Hedge] be delayed until
414.	observing satisfied results in another industries and environments. This is what I
415.	[Interactional: self-mention] understood [Interactional: Attitude marker] and [Interactive: Transition] hope
416.	getting feedback from you guys. ☺[Interactional: Engagement marker]

Appendix 69: Metadiscourse analysis of the wiki's report

Title	Major Assignment
Pseudonym	Abdulrahman, Sun , Jiang, Edward, Tracy , and Lydia
Type of Analysis	Metadiscourse analysis
Program	Master of Commerce (Accounting)
Module	Intermediate Financial Reporting
Number of Words	2268
Notes	Plus 3596 for the wiki discussion pages one to four, totalling 5864 words.
	WIKI REPORT
417.	 Wiki Group
418.	Report to Boss
419.	last edited by Tracy on Monday, 05/10/2010 9:56 PM
420.	<u>Introduction</u>
421.	This report is going to [Interactive: Frame marker] illustrate general ideas about International
422.	Accounting Standards Board (IASB), Australian Accounting Standard Broad (AASB) and exposure
423.	drafts (EDs), their specific roles and relationship. Moreover [Interactive: Transition], the report will
424.	cover [Interactive: Frame marker] the recent releases of the EDs and [Interactive: Transition] how
425.	[Interactional: Engagement marker] these EDs will [Interactional: Hedge] affect the accounting settings.
426.	<u>1. Definition of IASB and its functions</u>
427.	The International Accounting Standards Board (IASB) is part of the International Accounting
428.	Standards Committee Foundation (IASCF). The role of IASB is to develop a set of high quality
429.	global accounting standards in the interest of public, which require parent and comparable
430.	information in general purpose financial statements. (AASB a, 2010) [Interactive: Evidential marker]
431.	The IASB principal objectives and its roles are: [Interactive: Code gloss]
432.	<input type="checkbox"/> Developing a single set of high quality, understandable, enforceable and globally accepted
433.	international financial reporting standards (IFRSs).
434.	<input type="checkbox"/> Promoting the use and rigorous application of those standards.
435.	<input type="checkbox"/> To bring about convergence of national accounting standards and IFRSs to high quality
436.	solutions. (IASB a, 2010) [Interactive: Evidential marker]
437.	<u>2. Definition of AASB and its functions</u>
438.	The Australian Accounting Standard Broad (AASB) is an Australian Government agency under
439.	the Australian Securities and Investments Commission Act 2001. (AASB a, 2010)
440.	[Interactive: Evidential marker]
441.	The AASB mainly responsible for: [Interactive: Code gloss]

442.	<input type="checkbox"/> Developing a conceptual framework.
443.	<input type="checkbox"/> Making accounting standards under section 334 of the Corporations Act
444.	[Interactive: Evidential marker] for the purposes of the corporations' legislation.
445.	<input type="checkbox"/> Formulating accounting standards for other purposes.
446.	<input type="checkbox"/> Participation in and [Interactive: Transition] contribute to the development of a single set of
447.	accounting standards for world-wide use.
448.	<input type="checkbox"/> Facilitating Australian economy and [Interactive: Transition] maintaining investor confidence.
449.	<input type="checkbox"/> Delivering a truly distinctive contribution to the development of high
450.	quality financial reporting standards' is the vision of AASB. (AASB a, 2010)
451.	[Interactive: Evidential marker]
452.	The summary of how [Interactional: Engagement marker] AASB make the accounting policy.
453.	1. Identify technical issues by: [Interactive: Code gloss]a. International organisation e.g.
454.	[Interactive: Code gloss] International Accounting Standards Board (IASB), b. AASB board members
455.	and staffs. c. Australian organisations/ Individuals.
456.	2. Add issues to the agenda, developing a project proposal.
457.	3. Research and [Interactive: Transition] consider the issue: [Interactive: Code gloss] address the scope of
458.	issues, alternative approaches, and timing of outputs.
459.	4. Consult with stakeholders: [Interactive: Code gloss] make documents available for public comment
460.	and discussion. E.g. Exposure Drafts (EDs), Invitations to Comment (ITCs), Draft Interpretations,
461.	Focus Group etc.
462.	5. Issue standards or other pronouncement. e.g. [Interactive: Code gloss] a standard, an interpretation,
463.	or a conceptual framework document.
464.	6. Submissions to International Organisations. e.g. [Interactive: Code gloss]the IASB and IPSASB
465.	7. Comments from stakeholders in Aus e.g. [Interactive: Code gloss]formal comment letters
466.	(submissions) and other input from stakeholders on the AASB's own proposals
467.	8. Implementation and compliance, compliance with Australian accounting standards and
468.	interpretations is also [Interactive: Transition] monitored by other organisations, including:
469.	[Interactive: Code gloss] CPAA, ICAA, APRA, ASIC, NIA
470.	(AASB b 2010) [Interactive: Evidential marker]
471.	<u>3. Definition of EDs and its roles</u>
472.	" An exposure draft typically is a draft of a proposed standard (or other pronouncement) or draft

473.	amendment to a standard. An ED is likely [Interactional: Attitude marker] to include more refined
474.	proposals in comparison with Invitations to Comment, Discussion Papers and Consultation Papers."
475.	(AASB b, 2010) [Interactive: Evidential marker]
476.	Role: Exposure Drafts is one of the procedures of policy setting. It basically used for public
477.	comments and discussion with stakeholders before issuing the actual (new or changed) standards and
478.	other pronouncements. (AASB b, 2010) [Interactive: Evidential marker] Thus [Interactive: Transition],
479.	it helps to get feedback from stakeholders. It also [Interactive: Transition] helps in setting the objective,
480.	scope, classification and setting up of standards in the field of Accounting and [Interactive: Transition]
481.	are helpful [Interactional: Attitude marker] in formation of set of constructive as well as implementable
482.	standards in accounting which may [Interactional: Hedge] be universally accepted and
483.	[Interactive: Transition] also [Interactive: Transition] not lead to much [Interactional: Hedge] cost in
484.	making the changes.
485.	<u>4. Relationship among IASB and AASB</u>
486.	The main relationship between AASB and IASB is the IASB work with other national accounting
487.	standard setters including AASB to achieve the role of IASB better and [Interactive: Transition] to
488.	converge accounting standards globally. (AASBa, 2010) [Interactive: Evidential marker].
489.	Additionally [Interactive: Transition], the IASB would [Interactional: Hedge] issue some authoritative
490.	pronouncements called "IFRS" (International Financial Reporting Standards). The AASB has adopted
491.	IFRSs for application by entities reporting for annual reporting periods beginning
492.	on or after 1 January 2005. The AASB is aiming for the highest quality financial reporting in
493.	adopting IAS Standards.
494.	In some standards AASB added more commentaries which considered not part of standard but
495.	[Interactive: Transition] just to be of benefit and suitable for Australian's environment and fit for some
496.	particular accounting industries. (AASBa, 2010) [Interactive: Evidential marker]
497.	<u>5. Current EDs and Summaries</u>
498.	<u>a. Amortised cost and Impairment</u>
499.	<u>b. Reporting Entity Concept</u>
500.	<u>c. Liability (IAS37)</u> [Interactive: Evidential marker]
501.	<u>d. Defined business plan (IAS19 Employee Benefits)</u> [Interactive: Evidential marker] (IASB b, 2010)
502.	[Interactive: Evidential marker]
503.	<i>a. ED of Financial Instruments: Amortised cost and Impairment</i>

504.	The requirements in IAS 39 [Interactive: Evidential marker] are difficult
505.	[Interactional: Attitude marker] to understand, apply and interpret, while [Interactive: Transition] this ED aims at enhancing the
506.	usefulness of financial statements, the accounting for provisions for losses on loans, and
507.	[Interactive: Transition] reflecting the economic reality. It covers four main issues. Firstly ,
508.	[Interactive: Frame marker] it recognises contractual interest revenue, less the initial expected credit
509.	losses, over the life of the instrument. Secondly , [Interactive: Frame marker] it builds up a provision
510.	over the life of the instrument for the expected credit losses. Thirdly , [Interactive: Frame marker] it re
511.	-assesses the expected credit loss each period. Finally , [Interactive: Frame marker] it recognises
512.	immediately the effects of any changes in credit loss expectations.
513.	(IASB c, 2010) [Interactive: Evidential marker]
514.	b. ED of Reporting Entity Concept
515.	The main objective of this ED is improving the common conceptual framework which helps to build
516.	a solid [Interactional: Attitude marker] basis for future accounting standards. The Reporting Entity
517.	exposure draft is one phase of FASB and the IASB's Conceptual Framework (CF) project
518.	[Interactive: Evidential marker] and [Interactive: Transition] is consistent
519.	[Interactional: Attitude marker] with the CF project's overall objective, which is to create a sound
520.	foundation for future accounting standards. In this phase, it focuses on determining what constitutes a
521.	reporting entity for the purposes of financial reporting. This ED eliminates the divergence in
522.	identifying a reporting entity between the IASB and the FASB. The ED comes up with three main
523.	proposals as below [Interactive: Endophoric marker] . Firstly , [Interactive: Frame marker] what
524.	[Interactional: Engagement marker] is a reporting entity? Secondly , [Interactive: Frame marker] when
525.	[Interactional: Engagement marker] does one entity control another entity? Thirdly ,
526.	[Interactive: Frame marker] can [Interactional: Hedge] a portion of an entity be a reporting entity?
527.	[Interactional: Engagement marker]
528.	(IASB d, 2010) [Interactive: Evidential marker]
529.	Since the current framework consists of four active stages which are reporting entity, objective and
530.	qualitative characteristics, measurement, elements and recognition. The framework will
531.	[Interactional: Hedge] come up with inclusive [Interactional: Attitude marker] and obvious
532.	[Interactional: Attitude marker] definitions for all significant [Interactional: Attitude marker] concepts
533.	and elements of financial statements to assist the development of accounting standards based on
534.	consistent [Interactional: Attitude marker] financial reporting principles.

535.	The exposure draft describes a reporting entity as a circumscribed area of economic activities whose
536.	financial information has the potential to be useful [Interactional: Attitude marker] to current and
537.	possible [Interactional: Attitude marker] decision makers who cannot [Interactional: Hedge] directly get
538.	the information they need.
539.	By defining a reporting entity on the basis of “a circumscribed area of economic activities,” an entity
540.	can [Interactional: Hedge] identify the relevant [Interactional: Attitude marker] group of users of
541.	financial information for reporting. Resource providers are a broader group than the entity’s owners.
542.	This creates the framework for the economic-entity approach to define the reporting entity.
543.	The exposure draft also [Interactive: Transition] addresses the issue of a reporting entity that includes
544.	more than one entity, and [Interactive: Transition] is presented as a single reporting unit. The entities
545.	that need to be reported as a single reporting unit are those that are collectively of interest to the
546.	resource providers. The Boards propose that the control and power model should [Interactional: Hedge]
547.	be the primary basis for identifying entities that need to be reported as a single unit in the
548.	consolidated financial statements.
549.	(KPMG, 2010) [Interactive: Evidential marker]
550.	c. ED of Measurement of Liabilities in IAS 37 [Interactive: Evidential marker]
551.	This ED talks about some aspects of measurement requirements for liabilities. It focuses on high
552.	level of measurements objective and application of that objective to edit the use of expected value to
553.	measure single obligations aimed at improving IAS 37 [Interactive: Evidential marker] Provisions,
554.	Contingent Liabilities and Contingent Assets to achieve the consistency for recording a liability
555.	between IAS 37 [Interactive: Evidential marker] and other IFRSs. Applying this ED will
556.	[Interactional: Hedge] result in significant [Interactional: Attitude marker] changes to practice because
557.	[Interactive: Transition] measuring an obligation item on its most likely [Interactional: Attitude marker] outcome will
558.	[Interactional: Hedge] be removed The 2010 exposure draft. Firstly [Interactive: Frame marker], sets out
559.	the proposed overall measurement requirements by removing the term ‘best estimate’ The board
560.	plans to drop the current recognition requirement for present or possible [Interactional: Hedge]
561.	obligation to be probable [Interactional: Hedge] future outflows before an obligation is recognized. At
562.	this time, possible [Interactional: Hedge] or present obligation for which future outflows are not likely ,
563.	[Interactional: Attitude marker] is treated as a contingent liability and [Interactive: Transition] disclosed
564.	in the notes without recognition in the balance sheet. If the probability is removed, more items will
565.	[Interactional: Hedge] be recognized subject to the new measurement requirements. Secondly ,

566.	[Interactive: Frame marker] it specifies the amounts of future outflows required to fulfil obligations by
567.	undertaking a service. it proposes a limited exception for onerous sales and insurance contracts.
568.	Moreover , [Interactive: Transition] IASB decided to emendate the use of expected value to measure the
569.	obligations. The ED also [Interactive: Transition] illustrated that this “risk adjustment” can
570.	[Interactional: Hedge] be done by factoring it into the probability- weighted cash flows or into the
571.	discount rate or [Interactive: Transition] by adding it to the expected present value of the probability- weighted cash flows.
572.	Most comment regarding this ED expressed the concern that ED did not give sufficient
573.	[Interactional: Attitude marker] guidance regarding how the risk margin would [Interactional: Hedge] be
574.	calculated and [Interactive: Transition] the adjustment which the board talked about was not obvious .
575.	[Interactional: Attitude marker]
576.	(IASB e, 2010) [Interactive: Evidential marker] & (KPMG IFRG Limited, 2010)
577.	[Interactive: Evidential marker]
578.	<i>d. ED of Employee Benefits</i> [Interactive: Evidential marker]
579.	In summary [Interactive: Frame marker], there are three main deficiencies
580.	[Interactional: Attitude marker] in current IAS19 [Interactive: Evidential marker]. Firstly ,
581.	[Interactive: Frame marker] companies are not regulated under IAS19 [Interactive: Evidential marker]
582.	to recognize their defined benefit plans in time. Such ‘deferred recognition’ makes the amount in
583.	financial statements misleading. Secondly , [Interactive: Frame marker] a united and standardized
584.	option for Companies to recognize gains and losses hasn’t been set. This makes effects of defined
585.	benefit plans incomparable between companies. Finally , [Interactive: Frame marker] disclosures
586.	haven’t put emphasis on the risks from defined benefit plans.
587.	According to the deficiencies [Interactive: Evidential marker] above [Interactive: Endophoric marker] ,
588.	this exposure draft proposes to improve the recognition, presentation and disclosure of defined
589.	benefit plans, which can [Interactional: Hedge] be particularly [Interactional: Attitude marker] specified
590.	as follows : [Interactive: Endophoric marker]
591.	1. Improve the recognition and presentation of both changes in carrying amounts of defined benefit
592.	obligations and changes in fair value of plan assets.
593.	2. Eliminate some current presentation options.
594.	3. Clarify some obscure practice issues.
595.	4. Disclose the risks from defined benefit plans in more detail.
596.	(IASB f & g, 2010) [Interactive: Evidential marker]

597.	6. How [Interactional: Engagement marker] Exposure Drafts affect accountants? Examples provided.
598.	Exposure draft is the most important [Interactional: Attitude marker] stage in a new project or
599.	accounting standard process, and [Interactive: Transition] the reason [Interactive: Frame marker] behind
600.	emending or [Interactive: Transition] issuing a new standard is to make the financial information reflects the true and fair
601.	value as much as possible, that gives the users an opportunity to make a good decision. However
602.	[Interactive: Transition], since the exposure draft comes to edit or [Interactive: Transition] issue a new standard, it causes
603.	concerns to the accountants because [Interactive: Transition] it will [Interactional: Hedge] restrict the manipulation in financial
604.	entity's position and performance. Furthermore , [Interactive: Transition] the new exposure draft often
605.	has a significant [Interactional: Attitude marker] influence in term of definition, treatment, recognition,
606.	measurement and disclosure the relevant [Interactional: Attitude marker] items. Taking the ED of IAS
607.	37 [Interactive: Evidential marker] as an example [Interactive: Code gloss], its main
608.	[Interactional: Attitude marker] purpose is to improve the measurement of liabilities. In present AASB
609.	137 , [Interactive: Evidential marker] we [Interactional: self-mention] measure the amount of Provision
610.	through the best estimate of the expenditure required to settle the present obligation at the end of the
611.	reporting period.
612.	However , [Interactive: Transition] "best estimate" is abstract and hard [Interactional: Attitude marker] to
613.	implement. And "settle" has various meanings. It can [Interactional: Hedge] be understand to fulfil the
614.	present obligation, or [Interactive: Transition] it can [Interactional: Hedge] be understand to cancel the
615.	present obligation. When the amount for fulfilling is different from that of cancellation, there are no
616.	clear [Interactional: Attitude marker] rules in the present AASB 137 [Interactive: Evidential marker] to
617.	help accountant making the decision which amount should be applied.
618.	So , [Interactive: Transition] ED of IAS 37 [Interactive: Evidential marker] deletes the term "best
619.	estimate" and [Interactive: Transition] specifies more prominently that the amount of provision to be
620.	recognized is the lowest [Interactional: Attitude marker] of: [Interactive: Code gloss]
621.	(a) The present value of the resources required to fulfil the obligation;
622.	(b) The amount that the entity would [Interactional: Hedge] have to pay to cancel the obligation;
623.	and
624.	(c) The amount that the entity would [Interactional: Hedge] have to pay to [Interactive: Transitions]
625.	fer the obligation to a third party.
626.	Additionally , [Interactive: Transition] considering entities might [Interactional: Hedge] be unable to
627.	cancel or [Interactive: Transition] fer some liabilities, or [Interactive: Transition] be able to

628.	[Interactive: Transition] fer them only at prohibitively high prices. ED of IAS 37 Para.36C
629.	[Interactive: Evidential marker] clarifies that if there is no evidence that an entity could
630.	[Interactional: Hedge] cancel or [Interactive: Transition] fer an obligation for a lower amount, the entity
631.	measures the liability at the present value of the resources required to fulfil the obligation.
632.	Meanwhile , [Interactive: Transition] ED of IAS 137 [Interactive: Evidential marker] also
633.	[Interactive: Transition] makes some changes for present rules. For example , [Interactive: Code gloss]
634.	present AASB137 Para. 50 [Interactive: Evidential marker] clarifies that “the effect of possible new
635.	legislation is taken into consideration in measuring an existing obligation”. On the contrary ,
636.	[Interactive: Transition] ED of IAS 37 Appendix B13 [Interactive: Evidential marker] clarifies that
637.	“an entity does not take into account future events--- such as [Interactive: Code gloss] a change in
638.	legislation that would [Interactional: Hedge] change or [Interactive: Transition] discharge the present
639.	obligation or [Interactive: Transition] create new obligations”.
640.	Therefore , [Interactive: Transition] might [Interactional: Hedge] some items which being included in the
641.	statement would [Interactional: Hedge] be excluded next financial period and [Interactive: Transition]
642.	vice versa. As a result , [Interactive: Transition] this treatment will [Interactional: Hedge] affect the profit
643.	of the entity. Moreover , [Interactive: Transition] the accountants could [Interactional: Hedge] be
644.	concerned about the new exposure draft that issued by IASB because [Interactive: Transition] once the
645.	ED is been applied ,new or improved items will [Interactional: Hedge] issued in IASB, and
646.	[Interactive: Transition] after that AASB will [Interactional: Hedge] make relevant
647.	[Interactional: Attitude marker] improvement. However , [Interactive: Transition] each draft needs to be
648.	monitored when it would [Interactional: Hedge] be applied on the financial statements because
649.	[Interactive: Transition] it might [Interactional: Hedge] be not suitable [Interactional: Attitude marker] for
650.	some industries and environments. Therefore [Interactive: Transition] the adoption of the a new
651.	standard later on will [Interactional: Hedge] be rejected or [Interactive: Transition] will
652.	[Interactional: Hedge] be delayed until observing satisfied results in another industries and
653.	environments. AASB might [Interactional: Hedge] send its comments related to
654.	the ED to IASB. These comments usually talking about the adoption of the new standard after doing
655.	some editing which will [Interactional: Hedge] make the standard suitable
656.	[Interactional: Attitude marker] for Australian environment, economy and [Interactive: Transition] taking
657.	into account some special industries which will [Interactional: Hedge] be effected directly [Interactional:
658.	Attitude marker] by the new standard.

659.	(IASB e, 2010) [Interactive: Evidential marker]
------	--

Appendix 70: The frequency of process types in accounting, finance and management accounting texts

Participant Process Type		Accounting Concepts & Methods										Principles of Finance						M. Accountitng			
		Abdulrahman		Omar		Abdullah		Ibrahim		Hasan		Group 1		Group 2		Group 3		Group 1		Group 2	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Material	Explicit	32	21.06%	27	20.15%	21	13.46%	18	13.04%	13	9.93%	63	12.53%	68	20.86%	108	15.04%	55	9.67%	205	19.83%
	Implicit	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	55	10.93%	0	0.00%	44	6.13%	0	0.00%	0	0.00%
	Subtotal	32	21.06%	27	20.15%	21	13.46%	18	13.04%	13	9.93%	118	23.46%	68	20.86%	152	21.17%	55	9.67%	205	19.83%
Relational Identifying	Explicit	40	26.32%	55	41.04%	72	46.16%	9	6.52%	8	6.11%	55	10.93%	20	6.13%	47	6.55%	19	3.34%	82	7.93%
	Implicit	44	28.95%	36	26.87%	36	23.08%	85	61.60%	91	69.46%	263	52.29%	183	56.14%	440	61.28%	476	83.66%	686	66.35%
	Subtotal	84	55.27%	91	67.91%	108	69.24%	94	68.12%	99	75.57%	318	63.22%	203	62.27%	487	67.83%	495	87.00%	768	74.28%
Relational Attributive		18	11.84%	13	9.70%	21	13.46%	17	12.32%	10	7.63%	35	6.96%	27	8.28%	23	3.20%	7	1.23%	6	0.58%
Behavioural		1	0.65%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	6	1.19%	0	0.00%	1	0.14%	2	0.35%	3	0.29%
Existential		2	1.31%	0	0.00%	0	0.00%	7	5.07%	5	3.82%	1	0.20%	1	0.30%	12	1.67%	0	0.00%	6	0.58%
Mental	Explicit	13	8.56%	3	2.24%	6	3.84%	2	1.45%	4	3.05%	24	4.77%	22	6.75%	40	5.57%	9	1.58%	45	4.35%
	Implicit	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0%	0	0.00%	0	0%	0	0.00%	0	0.00%
	Subtotal	13	8.56%	3	2.24%	6	3.84%	2	1.45%	4	3.05%	24	4.77%	22	6.75%	40	5.57%	9	1.58%	45	4.35%
Verbal		2	1.31%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	0.20%	5	1.54%	3	0.42%	1	0.17%	1	0.09%
Total		152	100%	134	100%	156	100%	138	100%	131	100%	458	100%	326	100%	718	100%	569	100%	1034	100%

Appendix 71: Types of cohesive ties in accounting, finance and management accounting texts

Category	Sub-category	Type of tie	Accounting Concepts and Methods										Principles of Finance						Management Accounting				
			Abdulrahman		Omar		Abdullah		Ibrahim		Hasan		Text 1		Text 2		Text 3		Text 1		Text 2		
			Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	
Conjunctives ⁴⁹	Elb	Appositive	3	0.49%	0	0.00%	2	0.26%	1	0.23%	2	0.51%	2	0.12%	0	0.00%	3	0.13%	1	0.11%	2	0.08%	
		Clarification	2	0.33%	3	0.44%	7	0.92%	0	0.00%	1	0.25%	12	0.76%	2	0.19%	6	0.27%	2	0.22%	20	0.90%	
	Enhanc.	Ext.	Additive	18	2.97%	6	0.88%	5	0.66%	8	1.84%	10	2.56%	53	3.34%	26	2.50%	52	2.37%	6	0.67%	25	1.12%
		Variation	1	0.17%	2	0.29%	2	0.26%	0	0.00%	0	0.00%	6	0.38%	4	0.38%	8	0.36%	0	0.00%	0	0.00%	
		Temporal	1	0.17%	0	0.00%	7	0.92%	2	0.45%	0	0.00%	9	0.57%	4	0.38%	30	1.36%	1	0.11%	25	1.12%	
		Manner/comparative	4	0.66%	4	0.59%	8	1.05%	0	0.00%	0	0.00%	16	1.01%	24	2.31%	12	0.55%	1	0.11%	37	1.65%	
		Causal	9	1.48%	8	1.16%	5	0.66%	8	1.84%	6	1.53%	26	1.63%	19	1.82%	12	0.55%	3	0.33%	7	0.31%	
		Concessive/conditional	0	0.00%	1	0.14%	0	0.00%	0	0.00%	0	0.00%	12	0.76%	6	0.57%	61	2.79%	0	0.00%	2	0.08%	
		Subtotal	38	6.27%	24	3.50%	36	4.73%	19	4.36%	19	4.85%	136	8.57%	99	8.15%	184	8.38%	14	1.55%	118	5.26%	
		Substitution	0	0.00%	2	0.29%	0	0.00%	0	0.00%	1	0.25%	7	0.44%	10	0.96%	8	0.36%	0	0.00%	0	0.00%	
		Ellipsis	15	2.47%	15	2.19%	12	1.58%	0	0.00%	0	0.00%	0	0.00%	2	0.19%	1	0.05%	1	0.11%	3	0.13%	
		Subtotal	15	2.47%	17	2.48%	12	1.58%	0	0.00%	1	0.25%	7	0.44%	12	1.15%	9	0.41%	1	0.11%	3	0.13%	
Lexical Cohesion		Repetition	322	53.14%	396	57.81%	492	64.73%	251	57.70%	211	53.83%	1104	69.57%	733	70.28%	1648	75.05%	666	74.17%	1540	68.68%	
		Synonym	7	1.15%	2	0.29%	3	0.39%	2	0.46%	1	0.25%	2	0.12%	2	0.19%	2	0.09%	1	0.11%	10	0.44%	
		Hyponym	30	4.96%	50	7.30%	51	6.72%	33	7.58%	41	10.47%	0	0.00%	3	0.28%	1	0.05%	65	7.23%	68	3.04%	
		Hypernym	10	1.65%	11	1.61%	6	0.79%	10	2.30%	8	2.04%	0	0.00%	0	0.00%	0	0.00%	15	1.67%	11	0.49%	
		Meronym	49	8.08%	66	9.64%	76	10.00%	55	12.65%	60	15.30%	2	0.12%	14	1.35%	5	0.22%	98	10.92%	125	5.58%	
		Antonym	12	1.98%	23	3.36%	19	2.51%	20	4.60%	18	4.59%	22	1.39%	3	0.28%	13	0.59%	23	2.56%	36	1.61%	
		Subtotal	430	70.96%	548	80.01%	647	85.14%	371	85.29%	339	86.48%	1130	71.20%	755	72.38%	1669	76.00%	868	96.66%	1790	79.84%	
Reference		Demonstrative	11	1.81%	10	1.45%	4	0.52%	2	0.46%	0	0.00%	10	0.64%	7	0.68%	20	0.91%	0	0.00%	41	1.83%	
		Definite	86	14.20%	55	8.03%	38	5.00%	33	7.60%	26	6.64%	142	8.95%	93	8.92%	208	9.48%	14	1.57%	208	9.28%	
		Comparative	1	0.17%	5	0.73%	3	0.39%	0	0.00%	0	0.00%	11	0.69%	29	2.79%	17	0.77%	0	0.00%	5	0.22%	
		Pronouns	11	1.81%	5	0.73%	2	0.26%	0	0.00%	0	0.00%	69	4.34%	33	3.17%	17	0.77%	1	0.11%	13	0.58%	
		Possessive	4	0.66%	2	0.29%	5	0.66%	3	0.69%	0	0.00%	30	1.90%	5	0.47%	69	3.14%	0	0.00%	0	0.00%	
		Anaphoric	1	0.17%	0	0.00%	1	0.14%	0	0.00%	0	0.00%	0	0.00%	8	0.76%	1	0.05%	0	0.00%	11	0.49%	
		Cataphoric	9	1.48%	19	2.78%	12	1.58%	7	1.60%	7	1.78%	52	3.27%	16	1.53%	2	0.09%	0	0.00%	53	2.37%	
	Subtotal	123	20.30%	96	14.01%	65	8.55%	45	10.35%	33	8.42%	314	19.79%	191	18.32%	334	15.21%	15	1.68%	331	14.77%		
	Total	606	100.00%	685	100.00%	760	100.00%	435	100.00%	392	100.00%	1587	100.00%	1043	100.00%	2196	100.00%	898	100.00%	2242	100.00%		

⁴⁹ Enhanc.= Enhancement, Ext.= Extension, Elb.= Elaboration

