Using early writing as play-scripts: effects on narrative development, collaborative dialogue and literate identity

by

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Glossary of Abbreviations

MLU: Mean length of utterance

NSS: 'Narrative scoring scheme' tool, used to measure macrostructural narrative quality

ST/SA: Storytelling/story acting

TTR: Type token ratio (number of unique words as a proportion of total words spoken

WPS: 'Writing as play-scripts' (intervention)

ZPD: Zone of proximal development

Summary

The thesis presents the results of a twelve-week intervention study conducted in the United States with low-income and predominantly multilingual children. The intervention combined emergent writing (illustrating, dictating and collaborative writing) with narrative play. Thus, the preschool and school age participants were engaged in a 'writing as play-scripts' (WPS) intervention, which sought to harness children's interest in sociodramatic play to create meaningful and enjoyable opportunities for early literacy learning.

Collaborative dialogue within small group 'book-making' sessions aimed to promote multimodal semiosis (meaning making), through verbal and non-verbal modes including: drawing, gesture, facial expression, prosody, and bodily enactment. The role of the teacher was intentionally active, using multimodal assessment to differentiate cognitive-linguistic scaffolds based on children's communicative intent. These scaffolds included: recasting with expansions and grammar corrections, suggested elaborations, coherence questions, and validation of children's composing choices. The study sought to answer three key questions related to the use of WPS as a play-based early literacy method: (1) In what ways does WPS influence preschool and early school age children's narrative development?; (2) In what ways does collaborative dialogue change in response to using WPS?; and (3) Does using WPS increase preschool and early school age children's motivation to write and literate identity?

The results of the study indicated that WPS is effective in supporting children's narrative production and comprehension skills. Pre-/post-study narrative retells showed improvements in microstructural quality (utterance length, vocabulary, and accuracy) and macrostructural quality (story grammar, cohesion, and coherence). Literal and inferential narrative comprehension also increased, including in the targeted skill of interpreting character mental states (motives, emotions and beliefs). These findings suggest that the WPS approach is effective in supporting complex text level understandings, including implied content.

Discourse analysis explored the role of collaborative dialogue in facilitating the hypothesised transfer of responsibility for narrative composing from teacher to child and child to child. It was found that teacher-talk provided primarily cognitive-linguistic and motivational supports, whereas child-talk provided motivational and literate identity supports. Eight case studies (four preschool and four school) were compiled to illustrate the ways that individual children responded to the WPS intervention. These also highlighted the different teacher roles used to support children's learning, ranging in type and intensity depending on children's narrative skills, motivation and literate identity development. Efforts made to maintain a core set of cognitive and affective 'conditions of literacy learning' were also highlighted.

Overall, the study indicates that using children's early writing as play-scripts is an effective play-based early literacy strategy appropriate for use with diverse learners across preschool and early school age settings. It was shown to be particularly effective in supporting children with lower levels of oral language proficiency (monolingual or multilingual). The study adds to existing play and early literacy research by demonstrating the benefits of combining emergent writing and narrative play. It offers practitioners a way to support meaningful text-level composition and comprehension skills using familiar pedagogical tools. Time constraints and sample size limited the study's findings. Future research suggestions include implementation of WPS: by multilingual teachers who can promote translanguaging; with older children; and as a way to establish familial and culturally competent partnerships with caregivers in support of children's early literacy learning.

Declaration

This thesis presents work carried out by myself and does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university; to the best of my knowledge it does not contain any materials previously published or written by another person except where due reference is made in the text; and all substantive contributions by others to the work presented, including jointly authored publications, are clearly acknowledged.

Heidi Byrnes-Cloet



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INTRODUCTION

Chapter 1. Orientation to the study

1.1 Statement of research topic

The current study investigates the effects of a play-based early writing intervention on low-income and predominantly multilingual children. The twelve-week intervention consisted of two components: small group writing and the use of children's writing as 'play-scripts' (written texts used to guide sociodramatic play episodes). In small group writing sessions children created picture books using emergent writing techniques (illustration, dictation, and multimodal joint semiosis). These picture books were then used as play-scripts, whereby at regularly scheduled whole class times these were read aloud and spontaneously enacted by child-author selected peers before a peer audience.

Two age cohorts of predominantly multilingual learners were selected: a preschool and early school age class. These cohorts were expected to differ in terms of play opportunities, early writing instruction, and teacher use of play as a pedagogical tool. The relative effectiveness of a play-based early writing intervention within each setting was therefore of interest. The study sought to answer the following guiding questions: (1) In what ways does using children's early writing as play-scripts influence children's narrative development (production and comprehension)?; (2) How does collaborative dialogue change in response to using children's early writing as play-scripts (i.e. is there evidence of a transfer of responsibility for composing)?; and (3) Does using children's early writing as play-scripts support children's motivation to write and literate identity development?

The study was informed by a critical sociocultural view of literacy, which holds that children's right to agency, playful and authentic learning experiences, and strong social connections (familial, cultural and relational) are essential to literacy education within pluralist democratic societies.

1.2 Thesis overview

'Semiosis' is the active process of deriving and generating meaning across 'modes', defined as regularised shared symbol systems, such as language, gesture, and facial expression (Kress 2009). Children's sociodramatic play is rich with multimodal meaning-making, as they use

their evolving semiotic resources to explore social roles and scenarios in collaboration with others. The embodied action, joint pretense and collaborative dialogue which occurs within sociodramatic play supports children's language learning, in particular their narrative development (Dockett 2006; Nicolopoulou 2005; Singer, Michnick Golinkoff & Hirsh-Pasek 2006). Narratives herein are defined according to Bruner's 'dual landscape' theory, which argues that narratives must contain an 'action landscape' (story events) and a 'consciousness landscape' providing insights into a character's/subject's internal states (motive, intent, emotion, and beliefs) (Bruner 1990).

Sociodramatic play provides a unique multimodal context for children to practice development of the dual landscape through the creation of narrative 'playworlds' (Lindqvist cited in Nilsson 2009). This occurs when children integrate embodied narrative action and decontextualised narrative thought as they jointly construct, negotiate and enact different fictional characters and scenarios. This feature of what Vygotsky called the 'highest form' of play helps young children transition from the contextualised world of 'here-and-now' thinking into the world of abstract thought (Berk & Winsler 1995). In this way, narrative play can support the development of more advanced forms of cognition, creativity and imagination.

Given the mechanisms through which play supports children's oral narrative development, it is perhaps not surprising that as children move into written narrative composing, their text quality is enhanced when writing is coupled with multimodal and collaborative activities such as role playing, drawing and joint construction of texts (Anderson 2012; Ewing 2015; Mages 2008). While writing is often viewed as a solitary activity, early writing development is supported by many of the same sociocultural processes as oral language development. As Cambourne (2015, p. 39) explains

> with respect to the human brain, oral and written language are parallel versions of the same thing (language). This means that the conditions that support learning to talk should guide and shape the classroom organisation and practice we use to teach writing.

That is, writing instruction should be playful, meaning-driven, multimodal and collaborative.

Despite the many intersections between play, narrative, joint construction, and multimodal semiosis within early oral and written language development, very little research exists which seeks to intentionally combine these elements to develop and evaluate play-based approaches to early writing. One reason for this is that play and writing are often associated with different stages of development and, therefore, not seen as intersecting or mutually reinforcing. Play is

typically associated with the preschool years, and writing with middle childhood and beyond. Writing has also historically been viewed as a linear and hierarchical process, in which basic transcription skills precede meaningful text-level composition work. This has resulted in limited opportunities for meaningful writing activities in the preschool and early school years.

The implementation of national curricula in many countries over recent years has sought to improve educational outcomes by increasing expectations that children will engage in a broader range of complex learning activities. This includes the composition of written texts from preschool on. Despite these new mandates, preschool educators report grappling with how to engage children in text-level composition within play-based settings (Cabell, Tortorelli & Gerde 2013). And early school educators report that reading continues to be valued over writing, with a narrow set of discrete code-based skills used to assess children's learning and teacher effectiveness (Bodrova 2008; Dyson 2013b; Ewing 2006). As for play, its use as a pedagogical tool is not well understood or supported in many school settings, as evidenced by a decline in play opportunities within the first year of school over recent decades (Burghardt 2016).

Given the potential for narrative play to motivate and enhance young children's early writing development, there is a need to prioritise research in this area. This need is heightened by increased numbers of multilingual learners in preschools and schools. Research has shown that these learners face additional challenges in becoming literate, and that opportunities to construct new understandings and communicate multimodally within play can enhance early literacy outcomes (Bengochea, Sembiante & Gort 2017; Cohen, L et al. 2014; Ledin & Samuelsson 2016). This research, however, has focused solely on preschool age children and has not yet been used to inform the design of 'guided' (i.e. more structured) play interventions which can more directly target early literacy skills. Both preschool and school educators report a lack of skills to support multilingual learners (Bernstein 2016), therefore, play-based approaches which are effective for use with diverse learners are especially needed.

In early childhood settings there is a strong philosophical commitment to preserving play and ample research to show that play is supportive of children's overall development (Bodrova 2008; Singer, Michnick Golinkoff & Hirsh-Pasek 2006; Smidt 2011). Preschool educators therefore seek ways to meet increased academic expectations without compromising children's right to play (Fesseha & Pyle 2016). Conversely, within schools, more evidence is

needed to demonstrate that play can *enhance* academic outcomes above and beyond more formal approaches – not just in theory or tightly controlled experiments, but in the busy world of the classroom (Bodrova 2008; Stagnitti et al. 2016). School educators need research which demonstrates that play can support measurable early literacy outcomes, such as improved oral language skills, text composition and comprehension.

The current study seeks to address the above research and pedagogical needs by combining narrative play activities commonly used in preschool settings, with multimodal approaches to early writing more often used with older children in school settings. Specifically, story dictation and story dramatisation were combined with the emergent writing strategies of: illustration, collaborative dialogue and joint composition. This was done by inviting children to illustrate picture books, dictate or jointly compose an accompanying written narrative for their picture books (with the support of the teacher-researcher), and then enact these written texts with peers. In this way, children's writing became 'play-scripts' used to direct regularly scheduled narrative play episodes within their classroom community.

Of interest was the potential for using 'early writing as play-scripts' (hereafter abbreviated to 'WPS') to support the needs of both preschool and early school age children. For the preschool children, it was hypothesized that the WPS intervention would support oral language and written text composition and comprehension skills, while honoring children's right to play; and for the early school age children, it was hypothesized that WPS would offer multimodal scaffolding and an authentic audience/purpose for text-level composition, thereby extending instruction beyond code-based skills, while providing increased play opportunities. It was hypothesised that the intervention would thereby lead to improvements in the school cohort's text composition and comprehension skills. It was also hypothesised that the intervention would result in improvements in motivation to write and literate identity across both age cohorts.

Part 1 of the thesis outlines the theoretical rationale for the study. Chapter 2 presents an overview of the research literature related to the role of play and narrative in young children's cognitive and social/emotional development. Research related to play as a sociocultural context for language learning is highlighted. In addition, the central role of narrative in play and learning is discussed. The chapter concludes by looking at how narrative play is

supportive of early literacy development. Special attention is paid to multilingual learners throughout.

The pioneering work of Vivian Paley is discussed in Chapter Three. Paley's storytelling/story acting (ST/SA) methods are outlined, along with key insights from her work across more than five decades as an early childhood educator, writer and speaker. The features of ST/SA which make it especially suited to supporting early literacy outcomes are discussed, along with research evaluating its effects. The hypothesised benefits of combining ST/SA with a more intentional focus on early writing are outlined. The chapter concludes by listing the research questions which arise from an interest in exploring this potential and which guide the study.

Part 2 presents the study's methodology. Chapter Four provides details related to the study's settings and participants, along with the processes used to combine early writing, storytelling and story acting within the two study sites. Chapter Five discusses the quantitative and qualitative methods selected to explore the intervention's effects on narrative production and comprehension, collaborative dialogue, and literate identity.

Part 3 presents the results of the study, namely, the effects of twelve weeks of book-making, narrative composition and play-script enactment on children's narrative development (Chapter Six); and collaborative dialogue and literate identity (Chapter Seven). Chapter Eight presents a collection of case studies, four preschool and four school age, which portray the 'lived experience' of children within the study. Particular emphasis is placed on exploring differing effects for: preschool and school age children; monolingual and multilingual children; and children with differing levels of oral language proficiency. The case collection was compiled with the intent of providing a vivid window into how WPS can be implemented within classrooms, especially those with diverse learners; and to generate qualitative data to support analysis of the study's quantitative results.

In the final section of the thesis, Part 4, Chapter Nine presents a discussion of the study's results, how these relate to existing research, and implications for classroom practice. The pragmatic constraints of implementing WPS within preschool and school settings are discussed, along with the unique opportunities afforded within each setting. The chapter ends by outlining the known limitations of the study. Chapter Ten concludes the thesis by providing

a final overview of the study's key findings, contributions to the field of early literacy research, and recommendations for future research.

PART 1: LITERATURE REVIEW & RATIONALE

Chapter 2. Theoretical background: the role of play and story in early development

2.1 What is 'play'?

2.1.1 A definition

Despite variation in theoretical approaches and language used to describe play, it is widely agreed that play in early childhood is characterised by a high degree of: (1) agency, (2) flexibility, (3) multimodal representation, and (4) intrinsic enjoyment (Laevers & Declercq 2013; Smidt 2011; Van Hoorn et al. 2011). 'Agency' can be described as the motivation and ability to set goals, make decisions and direct one's own behaviour. 'Flexibility' refers to freedom to alter the process and/or content of one's engagement, according to evolving interests, skills and input (Christie 1991a). 'Multimodal representation' refers to the construction and communication of meaning through multiple modes, i.e. through the use of gaze, gesture, body, orientation, movement, sounds, talk, and symbolic props or print (Cremin, T et al. 2013). 'Enjoyment' is an affective state made visible as children display: social initiative and vitality, self assertiveness and openness, pleasure in exploring, and an ability to cope with stress (Mayr & Ulich 1999). In short, play is a self-chosen and self-directed activity, motivated by personal goals and the pleasure of engagement.

Among the many types of play that have been described and studied in relation to young children (e.g. object, locomotor, parallel), sociodramatic play is widely considered the most sophisticated due to its reliance upon an integration of cognitive and linguistic skills (Smilansky & Shefatya 1990). Sociodramatic play involves 'joint pretense' – the shared imagining of objects, people, roles and events not actually present within the physical environment (Lillard et al. 2013). As such, it is most strongly associated with children between ages 4-6 years old, who have developed the language and reasoning skills needed to conjure and manipulate imagined roles, events and objects in the complex process of pretense (Brown 2009). General references to 'play' in the current study relate to sociodramatic play.

2.1.2 An evolutionary and developmental rationale

Play is a feature of childhood observed in all human cultures. Evolutionary psychologists claim that play enables children to enter into involvement in their environment in a manner

which does not overwhelm their emerging competencies (Beckoff & Allen 1998). Children can 'try on' different roles; practice integrating different cognitive-linguistic, social and physical skills; and experience the rewards and challenges of different situations without their accompanying full consequences (Jarvis, Newman & Swiniarski 2014). As Paley (1986, p. 36) put it, play enables children to 'practice friendship and controversy in comfortable doses'.

In contrast to their interactions with adults, children are typically at the center of responsibility over decision-making, action and communication within play. Elkonin (2005) argued that it is this feature of sociodramatic play which uniquely positions it to promote development of motivation and volition, social cognition and perspective taking, imagination and general creativity, and self-regulation. The development of self-regulation is especially important in development, as it encompasses skills needed to motivate and sustain thought, behavior, and emotion to achieve goals (Zimmerman & Moylan 2009). This includes learning how to formulate plans of action, adjust plans with feedback from the physical and social environment, use language to communicate with and influence others, delay immediate gratification to achieve longer term goals, and cope with stress (Berk, Mann & Ogan 2006; Rothbaum & Rusk 2009). These skills and dispositions are critical to children's adaptive functioning, especially within social groups (Smith, P 2007).

2.1.3 Sociocultural theory and play

Sociocultural theory, based on the work of Lev Vygotsky (1978), posits that all learning is socially mediated, as individuals appropriate cultural tools through interaction with 'more skilled' others. This interaction creates a 'zone of proximal development' (ZPD), in which the individual receives support to achieve increasingly sophisticated tasks until they are capable of performing them independently (Vygotsky 1978; Smagorinsky 2013). Competency emerges through a 'transfer of responsibility', with the ZPD always shifting (Smagorinsky 1995). In this way, Vygotsky (1978, p.163) explained that all cognitive skill, including language, develops

> twice, or in two planes. First it appears on the social plane, and then on the psychological plane. First it appears between people as an *interpsychological* category, and then within the child as an *intrapsychological* category' (italics added).

As Hasan (2002, p.538) explains, 'although learning is achieved by individual minds, the minds themselves are fashioned socially by means of semiotic mediation, which means largely through discursive interaction'. Critically, this is not a unidirectional process wherein culture determines the functioning of the individual, rather it is an inter-action in which

'individual and cultural processes are *mutually constituting*' (Rogoff cited in Wells 2007, p. 100). Bruner (1990, p.110) described this dynamic discursive process as 'the Self, using its capacity for reflection and for envisaging alternatives, escapes or embraces or reevaluates and reformulates what the culture has on offer'. Figure 2.1 provides a graphic representation of this interplay between the individual and their sociocultural environment, with interpersonal interaction being the process by which mutual constitution occurs.

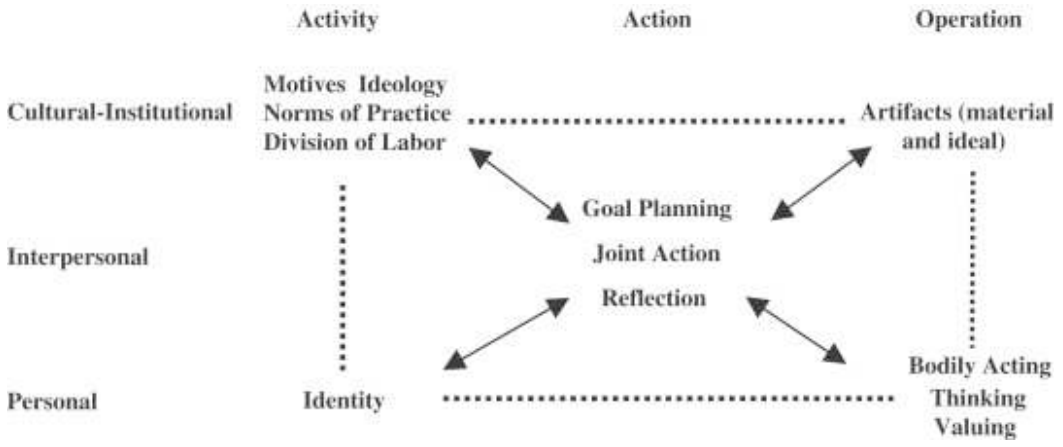


Figure 2.1 'The centrality of interpersonal action' (from Wells 2007, p.102)

Sociocultural theory has important implications for how learning is conceptualised in educational settings, particularly for understanding the role of identity, agency, affect, and relationships in learning. As Wells (2007, p.103, italics in original) explains:

> The implications that follow from bringing this perspective to bear on education are familiar but often ignored. Learning and teaching mediate between society and individual students in the joint actions (classroom activities) in which meanings are made through the interplay of the thinking and valuing of *all* participants, as these are enacted in bodily acting and discoursing. It is on how these actions are jointly carried out and personally experienced that the kind of identity that is constructed depends.

Vygotsky considered play to be central to child development through its support for joint language use and pretense, both forms of symbolic thought constituting what he called 'higher mental processes' (Berk, Mann & Ogan 2006; Berk & Winsler 1995). He argued (Vygotsky 1966, p. 75 cited in Hakkarainen et al. 2013, p.216) that

> play is the resource of development and it creates the ZPD. Action in the imaginary field, in the imagined situation, the building of voluntary intention, the construction of life-plan, motives of willing – all this emerges in play.

Thus, play provides a unique sociocultural context for development because it is guided by the *child's* own striving to act beyond their current capacity in search of their own aesthetic ends. In this way, play simultaneously activates the child's affective and cognitive resources, which Lindqvist (cited in Nilsson 2009) argued is necessary to drive learning within play.

2.1.4 A pedagogy of play and teacher roles within play

Play is a ubiquitous feature of early childhood pedagogy and curricula the world over (Baumer & Radsliff 2009; Singer, Michnick Golinkoff & Hirsh-Pasek 2006). Educator training programs emphasise preparing teachers to become effective facilitators of play by creating stimulating physical environments which promote different types of play (Briggs & Hansen 2012; Brock, A, Dodds & Jarvis 2009; Department of Education Training and Employment (DETE) 2008). This play-based pedagogy is grounded in sociocultural theory and the belief that child-centered social interaction is essential for optimal child development (Berk, Mann & Ogan 2006; Berk & Winsler 1995; Bodrova 2008).

As will be discussed further below, teachers need a deep understanding of the sociocultural learning processes which operate within play to effectively scaffold children's learning within play-based approaches (Broadhead 2006; Devi, Fleer & Li 2018). As Bredikyte (2011, p.18) explains:

> They [teachers] not only have to support the development of ongoing play among children but also often have to initiate it: to present and model higher forms of play in young children's communities. To do this, teachers need deeper knowledge, appropriate play support strategies and more sophisticated play skills than before.

Lindqvist (cited in Nilsson 2009) advocated for joint child-adult interaction within the 'playworld' to propel children's play fiction to more sophisticated levels and thereby create new zones of proximal development. In this way, educators can become valued 'co-players' who children seek out to help them achieve ever expanding levels and spheres of competency (Smidt 2011). This conceptualisation requires early childhood educators to take a far more active role in play, moving beyond mere facilitators to maximise the learning potential of play (Baumer, Ferholt & Lecusay 2005; Synodi 2010). Teachers becoming co-players is consistent with sociocultural theory and the need for joint activity to provide the sociolinguistic scaffolding needed to extend the child's current functioning (Bredikyte 2011; Moll 1992).

2.2 Play and learning

2.2.1 Oral language

Language is a critical sociocultural tool due to its role in enabling the co-construction of meaning and the exercise of agency within one's sociocultural environment (Berk & Winsler 1995; Bruner 1990). As children engage in the multi-sensory experience of play, they are immersed in an authentic and multimodal context for language learning (Owocki 1999). Sociodramatic play can support improvements in children's vocabulary, semantics,

pragmatics, and narrative discourse (Christie 1991c). These oral language skills serve as an important cognitive-linguistic foundation to support the development of reading and writing skills (Dockrell & Connelly 2009; Pellegrini et al. 1991).

For multilingual learners and children with language delays, play has been found be especially powerful in supporting their oral language development (Cohen, L et al. 2014; Reynolds, Stagnitti & Kidd 2011). This is thought to be due to opportunities for exposure to new and varied vocabulary within interesting, non-threatening contexts in which children are compelled to use and extend their existing language skills (Dockrell, Stuart & King 2010). Children also receive a variety of semiotic supports during play, such as contextualised, embodied and gestural cues about new word meanings. The role of gesture, in particular, has been well-established as beneficial to language production and comprehension (Ianì & Bucciarelli 2017). Within play, children also experience an authentic communicative purpose to use language in pursuit of their own play goals, which strengthens understanding of the functional role of language across contexts (Halliday 1975). Play therefore holds potential to address the 'language gap' that has been found to exist among children at preschool and school entry and, thereby, improve literacy outcomes for diverse children (Cohen, L et al. 2014).

2.2.2 Social and emotional development

The language skills developed within sociodramatic play are interconnected with a range of important social and emotional skills, such as: showing an interest in others, communicating, negotiating, problem-solving, sharing resources, listening to and understanding others, cooperating, building confidence and assertiveness, and developing resilience (Jarvis, Newman & Swiniarski 2014). As mentioned above, sociodramatic play is provides a unique sociocultural context in which children practice integrating their emerging skills as they seek to function with increasing competency. By fostering development of self-regulation (described above, Section 2.1.2) they are increasingly able to consider others' perspectives and, thereby, develop prosocial skills which enable empathy (Perry, B & Szalavitz 2010). This constellation of social and emotional skills are critical to success in school and beyond, with self-regulation and empathy correlated with a range of positive academic and life outcomes (Berk, Mann & Ogan 2006; Rothbaum & Rusk 2009).

As discussed above, play is rooted in evolutionary adaptations which can be said to strengthen functioning within social groups, particularly perspective-taking. In play children learn to construct increasingly more accurate inferences about the thinking of others and the likely impact of their actions. They receive direct and often untempered feedback from peers in ways that are far less likely to come from adults, e.g. being pushed or yelled at because they took an object without first seeking permission. As Beckoff and Allen (1998, p.109) explain, in this way, sociodramatic play helps to 'promote the development of more sophisticated theories of consciousness, intentionality, representation, and communication'. This enables the development of skills needed to form relationships and be in community with others (Westby & Robinson 2014; Westby, Van Dongen & Maggart 2008). Similarly, these skills (to be discussed further in Section 2.3.3) support the communication and interpretation of subjective experience in written expression and reading comprehension (Astington 1990).

2.2.3 Symbolic thought

Language is the crowning achievement of symbolic thought, i.e. the act of mentally representing and manipulating objects as 'symbols' (as opposed to direct sensory perception and experience). This cognitive skill emerges as children seek to identify, name and exert their control over patterns and novelty within their sensory environment, e.g. naming everyday objects, noticing the appearance and disappearance of objects, and sharing basic preferences and aversions (Baldwin 1995). Language is the symbol system humans have created to communicate internal 'meanings' or consciousness with others, and it emerges through interaction with other language users (Harris 2009). Language development is driven by the salience of difference within the child's world and their attempts to make sense of aberrations on previously perceived patterns (Bruner 1990). The early emergence of words and phrases such as 'uh oh', 'all gone', 'oopsie' and 'look' are examples of children sharing these noticings and seeking support to make sense of them through joint attention and language (Tomasello 1995). The observation that children often play out 'high stakes' scenarios within their play (to be discussed below) is thought to reflect their attempts to make sense of potential threats and dangers within their world (Lee 2016; Meier 2009).

Much of early language development is closely linked to objects and activities within the child's immediate physical environment and as such is referred to as 'contextualised' or 'here-and-now' language. As children's cognitive-linguistic skills grow, however, they become increasingly able to engage in talk about referents not physically present or directly

experienced, using what is called ‘decontextualised’ or ‘there-and-then’ language. This growing cognitive-linguistic capacity assists the child to cope with change, build healthy attachments and develop self-regulation; the absence of which has repeatedly been linked with adverse outcomes in each of these domains (Bergin & Bergin 2009; Carpenter & Drabick 2011; Snow & Powell 2012). For these reasons, language development is essential to children’s social, emotional and academic development.

The earliest form of extended decontextualised language use is narrative. Narratives, to be defined below, enable the sharing of subjective experience across time and place. They emerge as children learn to use talk to reflect on previous, upcoming or desired experiences (Hudson & Shapiro 1991). Reminiscent and planning talk with caregivers is an importance source of narrative development, however, sociodramatic play also provides children with opportunities for extended narrative thought and talk (Barab et al. 2010; Baumer, Ferholt & Lecusay 2005; Nicolopoulou et al. 2015; Nicolopoulou & Richner 2007).

Narratives are a defining feature of sociodramatic play, as children cast themselves into roles, places and events through pretense. These *embodied* narratives range from prop-centric and action-based (e.g. sitting inside a cardboard replica bus and holding a plastic steering wheel, while pretending to be a ‘bus driver’), to highly verbal and decontextualised (e.g. two children using their hands as ‘phones’ and engaging in extended conversation about the delicious meals they are preparing to share with each other later that evening). As children’s play advances they become capable of constructing increasingly more sophisticated symbolic narrative worlds. This, in turn, supports creativity and imagination, as children consider roles and situations often far beyond their direct experience.

Decontextualised language becomes a regular feature of parent-child dialogue after children reach 30 months of age (Demir et al. 2015). Exposure to, and use of, decontextualised language facilitates children’s cognitive-linguistic development (Curenton, Craig & Flanigan 2008; Demir et al. 2015). But such opportunities differ markedly between families (Champion 2005; Hart & Risley 1999). Differences in early language development, particularly decontextualised language, have persistent effects across children’s learning trajectory (Dickinson, Golinkoff & Hirsh-Pasek 2010). Therefore, educational settings have a responsibility to evaluate and support these high quality language interactions, including those which harness the multimodal and integrating benefits of play.

2.3 The special role of narratives in play and learning

2.3.1 Narratives: a definition

To set the scene for the study ahead, it is necessary to further explain the special role of narratives in sociodramatic play and learning. 'Narratives' herein encompass both oral and written texts that communicate a temporal sequence of events, actually experienced or imagined, from the perspective of a narrator or protagonist. As such, they can range from factual recounts to fantastical fiction. Bruner (1990, p. 76-78) argued that 'true' narratives must have the following four essential features: (1) 'a means for emphasizing human action or "agentivity" - action directed toward goals controlled by agents'; (2) 'a sequential order be established and maintained - that events and states be "linearized" in a standard way'; (3) 'sensitivity to what is canonical [i.e. considered normal] and what violates canonicality in human interaction'; and (4) 'something approximating a narrator's perspective: it cannot, in the jargon of narratology, be "voiceless"'.

Bruner (1986) described narratives as consisting of a 'dual landscape' of action and consciousness. The action landscape is comprised of the events, or plot, of the narrative; and the consciousness landscape explicitly states or implies the narrator's or characters' motivations, beliefs and emotions. As Bruner (1986, p.14) explained:

> One is the landscape of action, where the constituents are the arguments of action: agent, intention or goal, situation, instrument, something corresponding to a "story grammar." The other landscape is the landscape of consciousness: what those involved in the action know, think, or feel, or do not know, think, or feel.

What distinguishes a 'good' narrative is one that simultaneously develops both landscapes. As an aside, others have argued that a 'great' narrative is one where the consciousness landscape is developed but intentionally left indeterminate, inviting the reader/listener to become active in interpreting and finding their own meaning in the text (Iser 1978).

In her discussion of Bruner's dual landscapes, Astington (1990, p.152) explained that narrative thought 'is concerned with psychic, not physical reality. It deals with human experience, with beliefs, doubts, intentions and emotions'. In describing the cognitive challenges involved in composing and comprehending the consciousness landscape, she explained: 'the storyteller has to represent those representations [i.e. the subjective experience of self or fictional character/s] and the listener has to understand this landscape as representation of a representation...[i.e. it is a] *metarepresentational* ability'. So, how do

children progress from babbling infants to budding interpreters and orators of the consciousness landscape within just a few short years?

2.3.2 A framework for memory and concept formation

Narrative competency emerges through a sociocultural process whereby repeated everyday activities and dialogue become simple verbal scripts used to interpret and predict experience, e.g. bedtime, eating and childcare routines (Demir et al. 2015). As children and their caregivers use language to predict and organize everyday events, early narratives help children to make sense of daily life. This *dialogic* narrative gradually evolves into *monologic* (i.e. internal) narrative controlled by the child; and simpler forms give way to more complex sequences of events, contingencies and perspectives (Minami 2002). Conceptually, narratives enable the child to create 'situation models' (sometimes called 'expectancy models') of past and possible future experiences (Bloome 2003). Through narrative children mentally reconstruct or construct representations of self and others experiencing events. These situation models become reinforced, updated, and sometimes replaced as the child comes to know themselves, those around them, and their particular sociocultural environment. It is these situation models that form the basis of memory.

Some theorists argue that situation models are a central cognitive structure by which humans comprehend *all* concepts, even those related to inanimate and highly abstract topics (Bloome 2003; Zwaan & Singer 2003). That is, to comprehend abstract concepts humans mentally transform inanimate objects into intentional agents and then send them through series of events in search of a specific outcome; and that only by doing so can we construct new knowledge. Whether or not this is always the case, studies have shown that children do comprehend abstract or complex concepts better when presented in narrative form (Abbeduto & Rosenberg 1985), adding to the argument that narrative is a central tool in the construction of human understanding (Westby, Van Dongen & Maggart 2008). In discussing the role of narrative in learning in her longitudinal case study, 'Mollie is three', Paley (1986, p. 38) reflected on the role of narrative in supporting cognition

> she [3-year-old Mollie] can handle complex issues when they are part of a story, whether in prose or in play. If she can *pretend* something is happening, the rules that govern the event are then easier to view.

2.3.3 Relationship with 'Theory of Mind'

Narrative ability is intimately connected with the ability to understand human intentionality, i.e. the consciousness landscape. Between 4-6 years old children's 'theory of mind' rapidly expands (Astington 1990; Wellman 1990; Wellman, Cross & Watson 2001). This term was coined by primatologist David Premack and his team in their study of chimpanzees' ability to interpret mental states in same or near species (Premack & Woodruff 1978). Bruner (1990, p. 68) explained that Premack's work was formative in showing how narrative competence is 'supported in evolution by the emergence in higher primates (even before *Homo*) of a primordial cognitive capacity to recognize and, indeed, to exploit the beliefs and desires of conspecifics'. Being attentive to mental states is adaptive because it enables the interpretation, prediction and manipulation of behaviours and relationships needed for survival. This seems obvious in humans, who live in complex social groupings, but its ethological roots in near species help to explain the emergence and primacy of narrative thought (Goncu & Gaskins 2007).

As described above, composing and comprehending narratives involves the representation of events as they are experienced from particular perspectives, i.e. meta-representation. This ability does not truly begin to emerge in children until around 4 years of age. It coincides with growth in children's social reasoning and linguistic skill (Lillard 1993; Westby & Robinson 2014). Prior to this children are not able to represent nuanced insights into others' mental states, such as incongruities or contradictions between the action and consciousness landscape; e.g. 'she *thought* X had happened, but *really* Y had happened and she didn't know it'. Up to this point children's 'primitive' narratives (Hudson & Shapiro 1991) may include some mental state verbs and references to the consciousness landscape, but they lack knowledge of the implicative 'intentional' verbs needed to communicate more nuanced 'presuppositions, subjectification and multiple perspectives' (Astington 1990, p.166). For example, children are still learning verbs such as 'believed', 'hoped', 'thought', 'wanted' and 'realised', needed to distinguish between the world as it *is* and the world as individuals *believe* or *want* it to be. In this way, children's narrative competency is dependent on their theory of mind, which is comprised of their social reasoning and language skills.

In addition to an increase in intentional verb knowledge, other linguistic accomplishments contribute to growth in children's theory of mind during the preschool and early school years. Syntactically, children begin to use increasingly more precise connectives to sequence

propositions, moving from simple conjunctions (e.g. ‘and’), to temporals (.e.g. ‘then’, ‘next’, ‘finally’), and then to causals (e.g. ‘because’, ‘so’) (Bruner 1990, p.90). Semantically, they also begin to use words which communicate degree of certainty or uncertainty (‘sometimes’, ‘maybe’, ‘always’, ‘never’), which Bruner (1990, p. 91) explained as ‘forms for distinguishing the canonical or ordinary from the unusual’. As children develop these linguistic skills their theory of mind and ability to compose and comprehend more complex ‘true’ narratives increases. The next section looks at *how* and *why* these skills grow so rapidly during this period of childhood.

2.3.4 Social agency and relationships

The growth in children’s cognitive-linguistic skills outlined above occurs socioculturally through situated dialogue. As children use language with others in daily life, including in play, they learn new ways to interpret and represent their own and others’ perspectives. These perspective taking skills become more advanced as ‘children first grasp that perspectives differ because people have access to different information’ then as they ‘more fully utilize this knowledge in thinking about others’ distinct viewpoints...and emotions related to those viewpoints’ (Aldrich et al. 2011, p.87). Through formulating their own plans of action (driven by Vygotsky’s ‘motives of willing’) within these social contexts, children are compelled to expand their language skills to achieve desired outcomes. Narratives thus become tools to: inform, negotiate, convince, deceive, and coopt the support of others (Minami 2002).

The ways in which children construct narratives has been found to reflect the narrative style, content and purposes modelled by caregivers and others within the child’s sociocultural environment (Demir et al. 2015; Minami 2002; Rothbaum & Rusk 2009). Through everyday conversations, ‘caregivers actively direct both the structure and content of the narrative through the questions they ask and their emotional response to the child’s story’ (Melzi, Schick & Kennedy 2011, p.1282). Studies have shown that caregiver narrative style is correlated with children’s narrative language skills; with reminiscent, participatory and elaborative language associated with increased narrative production, perspective taking and comprehension skills (Demir et al. 2015; Hart & Risley 1992; Melzi, Schick & Kennedy 2011). Thus, relationships and sociocultural practice heavily influence not only the *types* of narratives children tell, but *how* they tell and interpret narratives, and for what *purposes*.

It is important to note that, as a sociocultural process, narrative development is not unidirectional, but discursive. Children actively appropriate characters, scripts, themes and plots from within their particular sociocultural contexts to achieve their own desired outcomes (Dyson 1997; Paley 1986). Thus, while frequently imitative, children are also capable of tremendous invention and even resistance through their narratives. The act of composing can thereby serve as a tool to envision and carve out new possibilities for self and others. Compton-Lilly et al. (2017, p.120) describe children as 'active and agential...participants and producers who draw on literacy practices to contribute to the negotiation of their own identities'. This is frequently evidenced within children's play, as they cast themselves into desired roles.

Children and adults alike use narratives to 'author' themselves within their social world. Narratives are used to construct and share personal identity through choosing: what to include and exclude; how the self is positioned in relation to others; and how our goals, motives, actions and reactions are framed (often to put us in our 'best light'). How we comprehend and evaluate others' narratives also determines how we construct our internal representations of them. Thus, narratives are used to serve emotional and social ends, and often involve issues of power and agency. Dyson (1997, p.4) explains that

> texts are formed at the intersection of a social relationship between ourselves as composers and our addressees and an ideological one between our own psyches (or inner meanings) and the words, the cultural signs, available to us.

2.3.5 Narrative as a process and product of identity formation

As eluded to above, narratives are critical to the process of identity formation and evolution. Polkinghorne (1988, p.150) wrote that

> we achieve personal identities and self-concept through the use of the narrative configuration, and make our existence into a whole by understanding it as an expression of a single unfolding and developing story. We are in the middle of our stories and cannot be sure how they will end; we are constantly having to revise the plot as new events are added to our lives. Self, then is not a static thing or a substance, but a configuring of personal events into an historical unity which includes not only what one has been but also anticipations of what one will be.

Personal narratives have profound implications for learning and classroom life. Understanding how children construct identity within their unique sociocultural context – i.e. the family and community 'funds of knowledge' through which they have constructed particular understandings about themselves and others (Gonzalez, Moll & Amanti 2005) – is critical to identifying the types of scaffolding most likely to support their learning. The following examples serve to illustrate some of the well-researched sociocultural variables

which influence child identity development: the valuing of independence or interdependence; deference to elders or encouragement to 'speak your mind'; hierarchical or distributed roles based on age and/or gender; punitive disciplinary approaches or ones emphasising perspective taking and restorative justice; attributions of 'intelligence' as fixed or flexible. Failure to consider these 'sub-narratives' of identity can result in unproductive judgements about children's supposed 'maladjustment' if they fail to adapt to the culture of school (Cazden & Beck 2003; Comber 2000; Kohl 1994).

The relevance of these considerations to the current study will become apparent, when we discuss how educators can use storytelling (the sharing of narratives with others) not only as a way to enhance important literacy skills, but to gain deeper insights into children's approaches to learning and to strengthen their literate identities (to be discussed in Section 2.4.3).

2.3.6 Storytelling as a universal cultural tool

Just as every family has its own idiosyncratic narrative style, so too does every human culture have its own repertoire and history, used to establish and maintain what Bruner called 'the canonical' - the shared sense of 'ordinary' (Bruner 1990; Engel 1995; Minami 2002; Rogoff 2003). Children and families are inducted into these cultural ways and canons through the sociocultural processes outlined above. In this way narratives serve

> as an essential base not only of personal meaning but of cultural cohesion...Selves are not isolated nuclei of consciousness locked in the head...they take meaning as well from the historical circumstances that gave shape to the culture of which they are an expression (Bruner 1990, p.137).

At this point in our discussion the use of narrative as a universal cultural tool to create an individual and shared sense of what is valued and considered canonical is briefly highlighted to foreshadow discussion to come, wherein it will be argued that educators can use this universality to strengthen learning and community among diverse children, families and educators. Valuing the cultural narratives of diverse families, and seeking to bridge school and home narratives, is essential to fostering familial and culturally competent partnerships (Baquedano-Lopez, Alexander & Hernandez 2013). This is especially critical in the early years, when narrative skill and identity are under rapid development and successful family partnerships can have long-term implications for children's social and academic outcomes (Reese, Sparks & Leyva 2010).

2.4 Early literacy development

2.4.1 Oral language as the key to a code-based world

Children's oral language competency at school entry has repeatedly been shown to be predictive of long-term social and academic achievement (Dockrell & Connelly 2009; National Early Literacy Panel 2008; Roskos, Tabors & Lenhart 2009). The reasons for this in terms of social/emotional learning and functioning were outlined above. When it comes to early literacy, oral language is critical because (also described above) it provides the cognitive-linguistic foundation (i.e. semantic, syntactic, and discourse skills) needed to communicate and understand how the world is represented through text. Being proficient in the 'meaning-based' content and patterns of language reduces children's cognitive load as they begin the hard work of learning the 'code-based' skills needed to translate sounds and words into/from the *code* of print (Storch & Whitehurst 2002). Oral narrative competency is especially helpful, with research showing that children who can effectively produce and comprehend oral narratives already have many of the cognitive-linguistic skills needed for early reading and writing (Berninger & Abbott 2010; Campbell & Hlusek 2010; Curenton & Craig 2011; Curenton, Craig & Flanigan 2008; Dockrell & Connelly 2009).

In reading, children with strong oral narrative skills are better at tracking and recalling story plot, predicting the consequences of events/actions within stories, and inferring character's motives and thoughts; all essential for text comprehension (Mulvaney 2011; Reese et al. 2009). In contrast, children with low oral narrative skills experience increased difficulty, as they face the more cognitively demanding task of simultaneously developing meaning-based and code-based skills (Feagans & Short 1984). Similar effects have been found in writing (Dawkins & O'Neill 2011; Torrance & Galbraith 2006). While children with low oral language competency can succeed in learning the code-based skills needed for early reading and writing, without a simultaneous focus on language-based skills, they have been shown to fall behind their 'language-rich' peers when instruction progresses to more complex meaning-making tasks (Shanahan 2006; Storch & Whitehurst 2002). Therefore, identifying effective approaches to support oral language in general, and oral narrative in particular, is important when seeking to address disparity in children's literacy outcomes.

The benefits of play to early literacy learning are well established in the play-literacy research literature (Bodrova 2008; Christie 1991b; Owocki 1999; Roskos et al. 2010). Two key points hold particular relevance for the present study. First, is the link between children's narrative

development and sociodramatic play. All pretense requires the creation and communication of an accompanying narrative, so it is not surprising that sociodramatic play has been found to support children's narrative development (Pellegrini et al. 1991). Second, sociodramatic play has been shown to provide a context for the development of literate language, which is distinct from the conversational form of language use that comprises much of oral discourse (Berk & Winsler 1995; Curenton & Craig 2011). As will be argued below, an intentional focus on narrative development through play, can be used to strengthen literate discourse and literate identity - which are both essential to literacy achievement.

2.4.2 Developing 'literate language' and 'literate discourse'

Literate language is defined by a particular set of linguistic features used to create cohesive and coherent texts. Compared to informal oral language (i.e. conversational), which often relies on a range of non-verbal and contextualised sources of information (e.g. intonational, gestural, shared knowledge of referents), literate language is more explicit and decontextualised (Jones 2003). At the microstructural (clause and sentence) level literate language is characterised by: (1) elaborative language, (2) temporal and causal connectives, and (3) intentional (also called 'mental state') verbs (Bruner 1990; Westby 1985). Elaborative language is used to clarify intended meaning linguistically in the absence of a physical or shared referent, typically through the use of determiners, adjectives and adverbs within elaborated noun phrases, e.g. 'it was a *red* firetruck that went *really fast*'. Connectives help to sequence and causally connect ideas within a text, contributing to text level coherence, or the overall flow of ideas. Intentional verbs, as discussed above, are words that describe the actual or implied beliefs and motives of intentional agents; and, as such, are critical to composition and comprehension of the consciousness landscape.

Literate language develops primarily as children interact with written text, which is comprised of a high level of decontextualised language (Curenton 2004). Familiarity with literate language facilitates early literacy and academic development due to prevalence of written texts in educational settings. Exposure to literate language through book reading and conversations which promote elaborative language use have been shown to support oral language and reading comprehension skills (Clay 1991; Cox, B, Fang & White Otto 1997; Curenton, Craig & Flanigan 2008; Dawkins & O'Neill 2011; Demir et al. 2015).

Literate *discourse* is the use of literate language and metalinguistic dialogue within literate communities (Gee 2006). Literate language was defined above. Metalinguistic dialogue contains words that demonstrate conscious awareness of language processes (oral or written), e.g. 'You should *write* that the firetruck went really fast' or 'That was a great *story*, I liked how you created a lot of *suspense*'. Literate discourse brings the use and interpretation of language for literate purposes under conscious control (Cox, B, Fang & White Otto 1997; Jones 2003). It is therefore critical to development of comprehension, metacognition and a literate identity, i.e. positive beliefs about one's self as a 'reader' and 'writer' (Galda & Pellegrini 1990). What is crucial to emphasise here is the use of language for literate *purposes* - authentic communicative goals - the exercise of which empowers individuals to exercise agency within their sociocultural communities. Below, it will be argued that particular approaches to narrative play can provide what young children consider a motivating 'literate purpose' and thus serve to promote literate discourse and identity.

2.4.3 Literate identity

Beliefs about self as a 'reader' and 'writer' have a powerful influence over children's motivation to engage in literate activities and, as a consequence, their literacy achievement (Compton-Lilly et al. 2017; Hamel et al. 2013; MacCleod 2004). Therefore, it is imperative that educators support all young children to develop a positive literate identity, particularly those considered 'at risk' due to underlying cognitive-linguistic challenges or because school discourse communities present what Delpit (1992, p. 296) calls 'culturally alien environments'. As discussed above, identity can be understood as the narratives individuals construct about themselves. Creating opportunities for children to experience the power of literate practice and develop competence as a literate player, has a lasting impact on if/how they see themselves as literate. Facilitating children's entry into literacy involves helping them to build and strengthen their 'literate identity' - seeing themselves as readers and writers, as communicators with things to say that others want and need to hear.

Children who begin their journey into literacy with positive literate experiences and with confidence in their ability to become literate, are more likely to succeed academically (Bradford & Wyse 2013; Logan & Medford 2011). Educational settings have a critical role to play in creating positive 'communities of practice' in which children can participate in joint activities motivated by their own shared interests, authentic communicative purposes and enjoyment of text creation and exploration (Bengochea, Sembiante & Gort 2017, p.43). It is

crucial for effective pedagogical design that this link between positive motivation/affect, literate identity development, and achievement be understood. Cambourne's (1995; explained further in Section 3.3.6) 'conditions of literacy learning' model highlights these factors, demonstrating how discrete skill development must occur within meaningful literate practice if it is to support transferable and lasting literate competence.

2.4.4 Literacy as critical sociocultural practice

Recent decades have seen dramatic shifts in the debate over how literacy is conceptualised (Perry, K 2012). Becoming 'literate' is no longer seen as a matter of cracking the lexicogrammatical code of (English) print and adopting a particular way of interpreting an esteemed set of 'literary' texts. Such a narrow view was criticised for reinforcing class and racial inequality, through its privileging of a narrow set of language practices and 'ways of meaning' - typically those associated with members of the White middle and upper classes (Delpit 1992; Gardner-Neblett & Iruka 2015; Hamel et al. 2013).

New emphasis was placed on respecting children's diverse sociocultural backgrounds and acknowledging the language and literacy skills that *all* children develop outside of school (Hart & Risley 1999; Heath 2012; Moll et al. 1992). While the old paradigm had viewed children from certain backgrounds as not have the skills needed to succeed in school (i.e. a 'deficit model'), the new 'multi-literacies' model emphasised the need to *expand* children's repertoire rather than replace it.

'Critical literacy' then emerged, which argued for an open stance on the role of language and literacy in systems of power and oppression; and equipping children with the skills needed to dismantle and replace those systems with more ethical and democratic ones (Chang 2013; Dyson 2013b; Wohlwend 2013). Viewing literacy as a set of skills and dispositions needed to exercise agency, honor multiple perspectives and bring about more just 'ways of being' (emphasis on plural) is a sociocultural *and* an ideological stance (Gee 2008; Perry, K 2012). It is an expansive, inclusive and transformative view of literacy driven by belief in the human right to agency and equality of access to power as essential democratic principles (Bruner 1990; Gilbert 1991; Potter 2007; Siraj-Blatchford 1994). It also aligns with the transformative notion of the role of education and schools within democratic society, wherein

> classrooms and schools must themselves become more democratic, more critical of the ways in which knowledge is created and used, and more willing to listen respectfully to

> students' opinions and suggestions...that is to say, knowing oriented to effective and responsible action (Wells 2001, p.173).

In the opening words of her book *Writing Superheroes* Dyson (1997, p.1) quotes Bruner's (1986, p.149) call for a new developmental theory to help bring about a better future, by finding ways 'to create in the young an appreciation of the fact that many worlds are possible, that meaning and reality are created and not discovered, that negotiation is the art of constructing new meanings by which individuals can regulate their interactions with each other'. Dyson (1997, pp.1-6) goes on to argue that such children are

> the sort of heroes needed to sustain a democracy, people whose transforming gifts bespeak the power of articulated ideas...[required in our] ever-smaller world of ever-increasing sociocultural diversity, a world requiring a developed appreciation of the fragility of human life and of the possibility of reinventing, rewriting, ways of living together.

This is the view of literacy and education which informs the current study.

2.4.5 Diverse literacy learners and responsive pedagogy

With increased migration and demographic shifts in many countries, the need for educators to be culturally responsive to children's diverse backgrounds is now considered a major component of 'developmentally appropriate practice' (Copple & Bredekamp 2010; Falchi, Axelrod & Genishi 2013; Han & Thomas 2010; Lenox 2000). This involves fostering partnerships with families in support of children's learning based on recognition of differing family resources, values and child rearing practices. This is especially so in early childhood educational settings, which are often the first point of contact for children and families with formal educational settings; and, thus, where cultural differences may first become apparent. Rather than seeing this diversity as a 'challenge' or 'obstacle', educators must seek to use it as a resource to strengthen identities, communities and literacy outcomes (Hamel et al. 2013; Han & Thomas 2010; Kennedy 2006; Spencer, Falchi & Ghiso 2011). In the early years, this process can be supported by anticipating potentially divergent viewpoints on education and child rearing practices, in particular the role of play and emergent literacy in children's development.

Despite its solid theoretical base, play is not a universally accepted or utilised pedagogical tool. Some educational settings and countries lean more toward a didactic approach, where adults exercise greater control over the content and process of children's learning (Fesseha & Pyle 2016). When parents first encounter play-based approaches they may not understand the pedagogical rationale or intended outcomes, especially if their own educational experiences

were more didactic (Gaskins, Haight & Lancy 2007). Thus, in order to be more culturally responsive, educators must engage in what Gonzalez-Mena (2007, p.56) calls 'mutual education', showing respect for possible differences in values and hoped for outcomes for children, while communicating the importance of play to children's development. Similarly, emergent literacy practices which foster playful imitation and approximation must explained and encouraged (Connor, Morrison & Slominski 2006; Elliott & Olliff 2008).

2.4.6 Narrative play as an academic and ethical imperative

The above discussion has attempted to highlight the central role of narrative and narrative play in children's development. The joint construction and sharing of narratives supports meaning making, identity, relationships and agency. Narrative play provides an authentic sociocultural context for language learning, driven by the child's own communicative goals. As many have noted, language learning (as with most other forms of learning) can only be achieved by *doing*, by trying out and extending one's skills in real contexts and for real purposes (Beckoff & Allen 1998; Bodrova 2008; Bredikyte 2011; Kagan & Lowenstein 2004). Narrative play promotes a range of developmental outcomes through its support of increasingly sophisticated narrative thought and language. Those who argue that play is not 'academic' enough and should replaced with a neat set of adult-planned discrete skill learning activities and predetermined outcomes, fail to grasp the sociocultural nature of learning needed to support development (Bodrova 2008; Kagan & Lowenstein 2004).

Indeed, the very dispositions and skills often cited as necessary for personal and career success in today's world are dependent on fostering what Vygotsky called the child's 'motives of willing'. A commitment to lifelong learning cannot be imposed from the outside in, but must be cultivated within through the child's desire to act with increasing competency and connectedness (Costa & Kallick 2009; Dweck 2006; Moll 2014; Smagorinsky 2013). Thus, the question is not *if* play facilitates development, but how best to *articulate* and *facilitate* the processes by which it does.

Obviously not all forms of play hold equal learning potential. Below, it will be argued that what is needed is a more intentional and evidence-based focus on enhancing the links between play, narrative and early literacy. While written narratives are a feature in many early childhood educational settings, their use is often restricted to the shared reading of professionally published adult-authored books and associated activities (Curenton & Craig

2011). Implementing a broader, more intentional focus on supporting children to produce and share their own written narratives has the potential to enhance not only important early literacy skills, but also children's literate identity, 'authorship' (or voice) and belonging.

2.5 Summary

Play is distinct from other approaches to learning through its emphasis on child agency, social interaction and pretense. Its power lies in harnessing both cognition and affect, as children's own personal and social goals drive interaction and concept building. Play is supported by, and strengthens, narrative competency; which is comprised of specific sociolinguistic skills essential to social and academic development. The role of narrative in early literacy was highlighted, in particular, its support of literate discourse and identity development. Underpinning this discussion was an emphasis on sociocultural theory and the role of social interaction in mediating learning. The importance of using this theory to frame literacy as participation within critically literate discourse communities, guided by democratic rights and principles, was also discussed. The next chapter looks at pedagogical approaches which aim to transform this theory and ideology into effective literacy practice within early childhood classrooms.

Chapter 3. *On whose shoulders?: the storytelling/acting research base*

3.1 Vivian Paley's storytelling/story acting (ST/SA) curriculum

3.1.1 A progressive approach to early literacy

One widely used approach to early literacy compatible with play-based pedagogy is Vivian Paley's (1986, 1990, 2004, 2010) 'storytelling/story acting' (ST/SA) curriculum. This approach uses daily narrative activities that include adult-authored stories, but most importantly, the composition and dramatisation of children's own stories. Children tell stories to an adult who acts as scribe and initial audience. The child has autonomy over choice of story topics, plot and language; and is thereby encouraged to develop their 'voice' as a storyteller (Cooper 2005). Each day children's stories are spontaneously enacted by class members chosen by the child-author, in a process Paley called 'fantasy play'. Unlike other forms of play, there are no props or equipment, just the children's own stories and a physical space for shared story dramatisation. This approach is appealing to many early childhood educators, who view it as 'authentic' way to foster early literacy learning by honoring children's interest in and motivation to learn through play (McNamee 2015).

Paley developed her ST/SA approach almost serendipitously after many years of using adult-authored narratives as read alouds and for dramatic enactment. She had for many years offered to take story dictation to gather and read aloud children's own stories, however, she noted that 'few children chose to tell a story if they could do something else instead' (Paley 1981, p.11). She found that those children who did take up the opportunity tended to be girls, rarely boys. In an attempt to coax a child into participating in story dictation one day, she asked if he would be interested if his story was acted out by the class that same day. He agreed and, within a short period, story dictation and story acting became a popular request from both boys and girls. In reflecting on this discovery, Paley wrote (1981, p. 12)

> a flurry of story writing began that continued and lasted all year. The boys dictated as many stories as the girls, and we acted out each story the day it was written if we could. Before, we had never acted out these stories. We had dramatized every other kind of printed word - fairy tales, story books, poems, songs - but it had always seemed enough just to write the children's words. Obviously it was not; the words did not sufficiently represent the action, which needed to be shared. For this alone, the children would give up play time, as it was a true extension of play.

In his foreword to Paley's (1986, p. xi-xii) book *Mollie is three*, psychologist Michael Cole explained the similarities and differences between sociodramatic play and Paley's fantasy play

> like play, the structure and content of the children's dramatizations were under their control. But, unlike play, their scripted performances were not entirely spontaneous and subject to change; the children's play selves had been fictionalized again. The fleeting impulse had been caught in flight. It could now be savored, improved upon, and contributed to by people who were not present at its inception. During dramatization, Mrs. Paley had a legitimate and respected role of director and commentator, an amanuensis of development.

In this way, Paley used story dictation to help children begin the journey from oral to written narrative competency. First, through providing children with opportunities to crystalise and craft their narrative thought (or pretense) into an oral narrative; and then by transcribing this into a written narrative that could be shared as a text for children's own authentic purposes and within a literate community of their own making.

In many respects, Paley's approach was decades ahead of the prevailing view of early literacy. While many preschool teachers were concerned with 'bottom-up' approaches aimed at 'getting children ready' for formal literacy by teaching discrete sub-skills such as alphabet letter names and handwriting, Paley held that children were competent meaning-makers and that play was the mechanism through which to best equip them with the language, reasoning and social skills needed for 'success' when they eventually added written print conventions to their literate repertoire (McNamee 2015). Paley understood the sociocultural nature of young children's development and the pedagogical power of helping them create a literate community around their sociodramatic play. She positioned children as intentional agents constructing their own understandings through social interaction. No doubt her ideas were informed by her own sociocultural community of progressive educators and thinkers (past and present) within Chicago at the time (e.g. Flora J. Cooke, Francis W. Parker and John Dewey) (Brehony 2001; Cremin, L 1962; Kroepel 2002).

3.1.2 Is ST/SA really 'play'?

It is helpful at this point to situate Paley's fantasy play within the broader play research literature. Van Hoorn et al (2011) describe Paley's fantasy play as guided 'story play', a specific *form* of sociodramatic play in which children engage in routines of shared pretense, the *contents* of which are determined by the children, but the *process* of which is partly routinised (Van Hoorn et al. 2011). They refer to it as 'guided' because the adult helps to guide the children's play through their role as scribe, story narrator and, sometimes, story

actor. The terms ‘story acting’, ‘story performance’ and ‘story dramatisation’ are often used interchangeably to describe Paley’s version of sociodramatic play (Berk & Winsler 1995; Cooper 2009).

Herein, the term ‘narrative play’ will be used to refer to Paley’s form of sociodramatic play, to emphasise the central role of narrative text and to clearly identify it as a form of play. The terms ‘acting’ and ‘dramatisation’ connote more rigid forms of enactment, wherein actors seek to reflect the linguistic content of a written text as accurately as possible. When young children enact narratives through sociodramatic play, their meaning making is more spontaneous, improvisational, and responsive to other co-players’ enactment. Also, while narratives feature in broader and more ‘free’ forms of sociodramatic play, these narratives are typically more context-dependent, partial, non-linear, and less linguistic. That is, they often do not have coherence as narrative texts when removed from their contextualised and embodied meaning. The term ‘narrative play’ explicitly links Paley’s version of sociodramatic play with the written narrative texts that are essential to the ST/SA process.

Using written narratives to guide sociodramatic play provides children with greater guidance regarding character roles and plots. These narratives can be adult-authored, e.g. when children enact fairy tales or other published texts. Adult-authored texts, however, are typically more coherent as linguistic (i.e. literate) texts and are composed with the intention of being read or listened to. In contrast, children’s written narratives composed for the purpose of directing shared narrative play, are intended to be brought to life multimodally. That is, they are not composed as purely linguistic or literate texts, but undergo further construction as they are enacted by children through play; e.g. with children improvising transitions between events and inserting degrees of meaning which may not be explicitly stated linguistically within the text. Further terminology is therefore needed to distinguish narrative play based on adult-authored literate texts from those created by children and actively expanded upon through narrative play. Thus, the term ‘play-scripts’ will be used to refer specifically to child-authored written narratives composed for the purpose of directing shared narrative play.

Paley’s ST/SA approach is consistent with contemporary notions of play, in that it: (a) promotes child agency in the selection of narrative topics, language, actors, and spontaneous story enactment, i.e. there is no rehearsal and children freely respond to the unfolding narrative and peer enactment; (b) flexibly accommodates children’s varying interests and

skills; (c) involves pretense and symbolic representation; (d) provides avenues for multimodal expression and co-construction of meaning, i.e. through use of gaze, gesture, body, orientation, movement, sounds and talk; and (e) is intrinsically motivating for the child (Bruce & Spratt 2011; Cremin, T et al. 2013; Paley 2010; Van Hoorn et al. 2011).

At first glance, ST/SA could be likened to 'readers' theatre', the process in which children read aloud written 'scripts' with dramatic expression. However, these two methods differ considerably in form, content and intended outcomes. Readers' theatre typically involves: adult-authored texts; rehearsal and repeated readings; formal literacy skills to read aloud from a written script; minimal improvisation; less multimodality (i.e. only talk and intonation); and is used as a tool to boost reading fluency, not typically as an embedded or integral part of the curriculum (Rasinski & Hoffman 2003). In contrast, Paley's approach is firmly grounded in honoring the content and process of children's narrative play (as outlined above), and is not dependent on formal literacy skills. For these reasons, a ST/SA curriculum is distinctly play-based and more suited to supporting younger children's early literacy development.

3.2 How does ST/SA support early literacy?

3.2.1 Narrative development

Paley's ST/SA approach supports early literacy development by harnessing play as an integrating mechanism to advance children's narrative competency. Sociodramatic play can be viewed as a form of *embodied* narrative, in which children physically and mentally 'become' different characters. Engaging in this type of narrative action and thought is an important step along the path to narrative competence, however, it is quite different from the purely *decontextualised* narrative worlds children will eventually inhabit through independent reading and writing practice. ST/SA situates children's early written narrative composing within the familiar context of sociodramatic play, which enables them to use their existing oral narrative skills and interests to build their written narrative skills. Each of the two main components of ST/SA serve distinct yet interconnected roles in this process.

In *story dictation* children practice the meaning-based skills associated with written narrative composing. They gain repeated practice in: planning and structuring stories; revising language and structure as stories unfold and feedback is received; trying out new characters, plots and themes; and using decontextualised 'story language' (e.g. classic story openers and closers such as 'Once upon a time...' and '...happily ever after'). This strengthens their tacit and overt

knowledge of written narrative language (both micro and macro) and the steps involved in the writing process. Dictation makes it possible for even very young children to engage in these activities by removing the code-based challenges associated with transcription (i.e. handwriting and orthographic knowledge). It also involves one-on-one adult-child interaction driven by the child's own communicative goals, enabling individualised support for building the sociolinguistic skills involved in written composing (hence creating authentic ZPDs). Story dictation also provides young children with direct experience in what it feels like to be a writer – someone with a perspective worth sharing with others – which strengthens their literate identity.

S*tory acting* (narrative play) viscerally connects written language to felt human experience, motivated by the child's own desire to understand and influence with the world around them (Lee 2016; McNamee 2015; Meier 2009). Composing play-scripts to be brought to life through shared pretense creates an authentic reason for children to engage in written narrative composing and comprehension practice. When invited to construct narrative worlds, children employ the narrative skills they use in narrative play to 'write' themselves into privileged roles and positions, e.g. as friend, receiver or bestower of gifts, or hero/heroine (Dyson 1993, 1997; Paley 2004, 2010). The power of their words is demonstrated through the public enactment of their written language. Merely reading the words aloud does not have the same appeal, as Paley and others have discovered (Meier 2009; Paley 1986). Their words need to be imbued with meaning through shared pretense.

Linking early writing to narrative play by engaging children in the creation of play-scripts promotes early literacy learning in a number of ways. Firstly, narrative play promotes agency and positive affect, which can boost children's motivation to engage in written composing. Narrative play can also strengthen narrative comprehension, as children make use of multiple modes to construct their understanding of text (Ianì & Bucciarelli 2017; Nicolopoulou, McDowell & Brockmeyer 2006). This is especially helpful for multilingual learners, who benefit from additional semantic cues in the acquisition of new word, phrase and text level meanings (Cheung & Slavin 2012). Additionally, as children enact stories within narrative play they receive feedback on their interpretation of the unfolding narrative and how it aligns with others' interpretations, sometimes prompting adjustments similar to what skilled readers do in light of new evidence as they read (Dickinson, Golinkoff & Hirsh-Pasek 2010). As

Paley (1981, p.49) noted, 'acting out a story is a precise enterprise', one that children are quick to correct if mis-represented by peers.

Finally, both dictation and acting within ST/SA provide children with opportunities to practice the critical skill of perspective-taking, essential to composing and comprehending the dual landscape of narrative. As children imagine themselves into and embody different roles they gain practice in representing and interpreting the consciousness landscape, i.e. the subjective and diverse world of human experience. This difficult task is made easier in narrative play based on children's play-scripts, which they often populate with archetypal characters, e.g. easily identifiable villains and heroes, which helps to make the task of perspective-taking more manageable at first. As their social, cognitive and linguistic skills develop, their characters become more complex. For example, they begin to create characters who behave in unexpected ways or whose thinking and behaviour changes in response to story events.

The performative nature of ST/SA propels children's exploration of novelty within their narratives, as they seek to distinguish themselves as composers. When reflecting on what motivates children's choice of story content, Paley (1986) wrote: 'the issue seems to be control: what does it look like, who has it, and how far can one's imagination carry it?' (p. 119)...'in fantasy play you are as large as the requirements of the role you play. It is not size that matters, but only how creatively you play your part' (p.126). Thus, in composing and enacting roles, children are driven to continually expand their narrative skills by exploring new narrative terrain.

3.2.2 Oral to written language

Olsen (2001, p.138) explains the transition from oral to written language, as 'one of increasing explicitness, with language increasingly able to stand as an unambiguous or autonomous representation of meaning'. When it comes to narratives, this transition is made easier when children are skilled in composing oral narratives, as described above. As Graves (1981, p.8) explained, it is through internalisation of spoken language and other forms of sociocultural representation that written competency emerges

> writing is a highly external event in the beginning. Children draw, and talk with other children. They need to see and hear what they mean. Later external language becomes inner language.

Kim and Schatschneider (cited in Harmey, D'Agostino & Rodgers 2017, p.5) found that discourse level oral language skills had a substantial effect on writing quality over and above

handwriting or spelling ability. This is not surprising, given that writing is dependent on the desire and ability to construct and express meaning through language; and is facilitated by, but not dependent upon, written transcription skills.

ST/SA supports written narrative development by engaging children in multimodal semiosis to construct written narratives. Not only do children get to see and hear the impact of their narratives on a real audience, they also get to feel (through dramatisation) and even smell (through dictation, as pencils and erasers capture and revise their words) their narratives as tangible creations (Gadzikowski 2007, p.37). Dictation and joint construction have both been found to be effective approaches to support written narrative competency, primarily because they build upon children's existing skills and support the gradual transfer of composing responsibility from teacher to child (McCarrier, Pinnell & Fountas 2000; McNamee & Chen 2007; Pinto, Tarchi & Bigozzi 2015; Rossbridge & Rushton 2014). Rather than waiting until children have the independence needed for transcription, children are provided the scaffolds needed to begin the journey into written language using their existing skills.

One way of understanding the difference between oral and written texts that is especially helpful when seeking to understand the difficulty young children face when learning 'how to mean' through print, is through the concept of communicative modes. A 'mode' is a set of resources, or sign system, used for meaning making, which has historically, culturally, and socially based regularities (Kress 2003). Examples include movement, gesture, speech (lexicon, syntax and prosody), images and print. As Kesler et al (2016) explain, in multi-modal texts each mode has

> constraints and affordances that both construct and compromise meaning... Composing and recomposing texts across modes is *design* work. One mode might carry more of the information, or *functional load*, than others in any part of the multimodal ensemble. Each mode carries partial meaning, and the intermodal relations resonate to produce logical simultaneity and semiotic fullness greater than the sum of the parts. Multimodality then focuses on the orchestration of all modal resources to construct meaning. (italics in original)

In sociodramatic play children are adept at using an array of multimodal semiotic tools. For example, they might use wood blocks to represent an imagined object in the immediate visual-spatial environment; they might use their bodies to create sound effects and physically enact cause and effect relationships; and they might share and interpret facial and prosodic expressions to engage more fully in co-construction with others. However, a great deal of this

multimodal intersubjectivity is not under conscious control, especially in early childhood. As Wells (2001, p.85) explains, this complicates the move to written narrative

> Unlike the meanings expressed by words in [written] grammatical structures, the meanings communicated through gesture, gaze, and intonation are difficult to pin down and even more difficult to record in ways that others will be able to interpret. Where lexico-grammar refers, for the most part, to discrete categories of experience...non-verbal communication varies along continuous dimensions, *enacting* rather than *referring* to the meanings to be conveyed. (italics added)

Indeed, one of the biggest challenges facing the narrative writer is how to translate the richness of embodied experience into words on the page. For young writers, whose cognitive-linguistic skills are still developing, this task is especially difficult.

By explicitly linking children's early written narratives with narrative play, ST/SA enables children to draw on familiar multimodal tools. If the fullness of their imagining is not captured during dictation (which it rarely is), then it can be enhanced multimodally by self and peers as stories become embodied within narrative play. Dictation and joint construction also enable the teacher to use their keen 'kid watching' (Owocki & Goodman 2002) observational skills to interpret and support the child's communicative goals; for example, by inferring the intended meaning of gestures and intonation, and then helping the child to capture this meaning linguistically. This supports the child to enter into the challenging ZPD that accompanies the transition from oral (and embodied) to written narrative, as the teacher-scribe adjusts their scaffolding to dynamically meet the needs of individual learners.

The aforementioned features of ST/SA make it a potentially rich site for responsive teaching and assessment, particularly when supporting diverse learners. For example, studies show that children from certain racial and ethnic groups (e.g. African American) have strong oral narrative skills, which if capitalised upon can support their written development (Gardner-Neblett & Iruka 2015; Gardner-Neblett, Pungello & Iruka 2012). Similarly, multimodal enactment has been found to support oral and written narrative development in children with low oral language skills, whether monolingual or multilingual (Anderson 2012; Bengochea, Sembiante & Gort 2017; Mages 2008; Rainio & Marjanovic-Shane 2013).

3.2.3 Literate discourse and literate identity

Perhaps the strongest appeal of Paley's ST/SA approach is that it places children's own voices and sociocultural motives at the center of the curriculum. It is rooted in the view that *all* children are active meaning seekers and that, within narrative play, learning will unfold

through social interaction. Paley's writing communicates a deep respect for each child's idiosyncratic and rapidly evolving reasoning, problem-solving/-posing, and relationship skills. She communicates a trust that children will learn tremendous amounts from one another through narrative play, perhaps even more than from her. For example, in her longitudinal case study *Mollie is three* (1986, p. 32), Paley states

> In less than two months of school Mollie has discovered that the things she most wants to learn will be revealed by other children, not by me. In particular, she wishes to find out how children grow in connectedness and sees it has much to do with the fantasy roles they play.

Those who have used the ST/SA approach attest to the depth of thought and emotional intensity that young children bring to composing, enacting and discussing their own literary texts. Far from abdicating standards, they hold that ST/SA uses social constructivist principles to 'raise the bar' to levels of learning not often offered to such young children (i.e. those not yet transcribing their own words) (Gadzikowski 2007; Lee 2016; McNamee 2015; Meier 2009; Sachs, Mardell & Boni 2014).

ST/SA creates an engaging context for children to enter into complex literate discourse. In her book *Wally's stories* (1981) Paley explores some of the emotional and social issues that children process through their narrative play: power, jealousy, fairness, friendship, real versus magic, wants and wishes, bad and good, families, boys and girls, superheroes, monsters, trickery, punishment, lessons, and safety. They pursue ideas that are of immediate concern to their growing identity and relationships. Paley (1981, p.213) noted that 'anything that affects the children's status in the classroom, with particular emphasis on friendship and fantasy, will receive this attention'. Within this authentic peer community children become aware of how their ideas and composing choices affect a real audience; for example, which characters will be revered or feared, which words or actions will elicit laughter, shock or concern, and which themes will resonate with others. Children push themselves toward more precise language and logical structuring of ideas, so their narratives will capture peer imaginations and raise their status within their peer community (Dyson 1993; Paley 1981).

The conversations that arise in response to children's stories in ST/SA are often far more lively than those around polished adult-versions. As Paley reflected, children are in awe of other children as authors; not with adults as authors, whose competence they expect to exceed their own. Other children hold up powerful possible versions of themselves which seem

attainable. Through the discourse and relationships which ST/SA serve as catalysts for, children begin the journey of constructing a literate identity. As Wells (2007, p.101) explains

> identity is formed in action and action is almost always undertaken in conjunction with others. Discoursing is thus at the heart of the identity construction project, both as we plan and coordinate our joint actions, and as we reflect on their goals and outcomes in the narrative conversations in which we position ourselves and are positioned by others.

In discussing the genesis of her ST/SA method, Paley wrote about the first time she offered to take dictation for Wally, about whom she based her book *Wally's stories,* 'he looked surprised. "You didn't teach me how to write yet," he said. "You just tell me the story, Wally. I'll write the words."' As discussed already, this simple invitation to 'try out' the role of written composer led to a dramatic shift in children's engagement in the literate life of their classroom. Also discussed above, literate identity is comprised of the narratives we construct of ourselves as 'readers' and 'writers'. ST/SA is seen as a powerful way for even very young children to feel like 'writers', as their thought and language becomes the written texts used to share and construct meaning within their literate community (Gadzikowski 2007; McNamee 2015; McNamee & Chen 2007; Meier 2009).

3.3 The study: linking ST/SA with early writing

3.3.1 The need for more writing in the early years

Reading receives more instructional time than writing in most early years classrooms, despite the need to balance reading, writing and oral language (Berninger & Abbott 2010; Gerde, Bingham & Wasik 2012; Kennedy 2006; Mo et al. 2014). This is concerning given the reciprocal relationship between these three domains and the importance of acquiring written language in supporting academic achievement (Berninger & Abbott 2010). The reasons why reading is often prioritised are complex. Akin (2009, p.153) claims that 'a major part of the issue with the marginalisation of writing is time'. Teachers struggle to find adequate time to cover mandated reading programs, implemented in response to high stakes testing and achievement goals, so writing gets pushed aside (Mo et al. 2014). Reading has also received far more research attention, which may explain why there are more systematic guidelines and materials available to assist teachers with reading instruction compared to writing (Calkins 1994).

This privileging of reading over writing is short-sighted, however, as many studies have shown that writing competency takes longer to develop and is more closely correlated with

academic achievement (De Smedt & Van Keer 2014; Gerde, Bingham & Wasik 2012; Grisham & Wolsey 2011; Langer & Applebee 1987; MacArthur, Graham & Fitzgerald 2006). As discussed above, written language is characterised by a high degree of explicitness and internal reference. Cohesion and coherence are established through the use of distinct linguistic devices that: link propositions, establish cause and effect relationships, and represent complex subjective perspectives. While many of these sociolinguistic skills emerge first in oral language and are supported through reading, written language development pushes children to learn how to apply these skills for their own communicative goals.

Writing is a cognitively demanding task because it involves bringing language use under more explicit conscious control. For this reason writing is described as a meta-linguistic and meta-cognitive activity that extends abstract thinking (Love & Sandiford 2016; Myhill & Newman 2016; Wray 2002). In their seminal book *How writing shapes thinking* Langer and Applebee (1987) explained that sociocultural learning principles apply equally to the development of oral and written language. For this reason, they argued (p. 141)

> Effective instructional tasks must allow room for students to have something of their own to say in their writing. Students must see the point of the task, beyond simple obedience to teacher demands...It is this sense of purposefulness that will integrate the various parts of the task into a coherent whole, providing a sense of direction. The focus must be on what is being accomplished through writing if the student is to learn procedures to carry out those purposes. In practice, this focus is often neglected. The majority of tasks require recitation of previous learning, allowing the student little room to claim ownership for what is being written.

While it is no longer controversial to argue that writing should be relevant to children, when writing does occur in the earliest years of school, it is often heavily skewed toward developing print conventions and not toward writing for authentic purposes and audiences (Dyson 2013b). Therefore, it is not just *more* writing that is required in the early years, it is also *better* writing experiences, based on 'the human responsiveness that is at the heart of communication in any mode' (Dyson 2013b, p.1). As Graves (1980, cited in Walshe 1981, p. 17) put it

> Children want to write. For years we have underestimated their urge to make marks on paper. We have underestimated that urge because of a lack of understanding of the writing process, and what children do to control it. Without realising it we wrest control away from children and place road blocks that thwart their intentions. Then we say, 'They don't want to write. What is a good way to teach them?'

3.3.2 Code-based and meaning-based learning: balanced literacy

In all research, Rogoff (2003, p. 58) argues, 'it is usually necessary to foreground some aspects of phenomena and background others' even while recognising all as parts of a

connected whole. The above discussion has argued that there is a need to foreground meaning-based learning and background code-based learning within the teaching of early writing, while acknowledging the importance of both. This is required to lift the status of writing within early literacy and promote authentic literate purposes for early writing and writers. Wells (2006, p.174) argues that researchers and educators need 'to put forward alternative, locally appropriate ways of meeting institutional requirements, supported by evidence based on effective local practice'. This means finding ways to teach discrete skills (e.g. spelling, handwriting and grammar) within activities that strengthen rather than compromise children's authentic communicative intent. 'Balanced literacy' offers a framework to help achieve this goal, by balancing code-based and meaning-based learning through scaffolded interactions which promote the gradual transfer of responsibility for literate independence (Pressley et al. 2002).

The current study seeks to explore the potential benefits of combining ST/SA with two proven meaning-based early writing approaches used in balanced literacy: book-making and collaborative writing. The benefits of ST/SA were outlined above. Below, the process and benefits of book-making and collaborative writing will be outlined. It will be argued that by linking these with ST/SA children's narrative competency can be 'fast tracked', without compromising their right to agency and authentic literate purpose. Figure 3.3.2 shows a visual representation of the three broad levels of teacher scaffolding used to facilitate a gradual transfer of responsibility within balanced literacy: 'I do' (modelled), 'We do' (guided), and 'You do' (collaborative/independent). It is hypothesised that combining ST/SA with proven early writing instructional strategies will scaffold higher levels of narrative competency, motivation to write and literate identity.

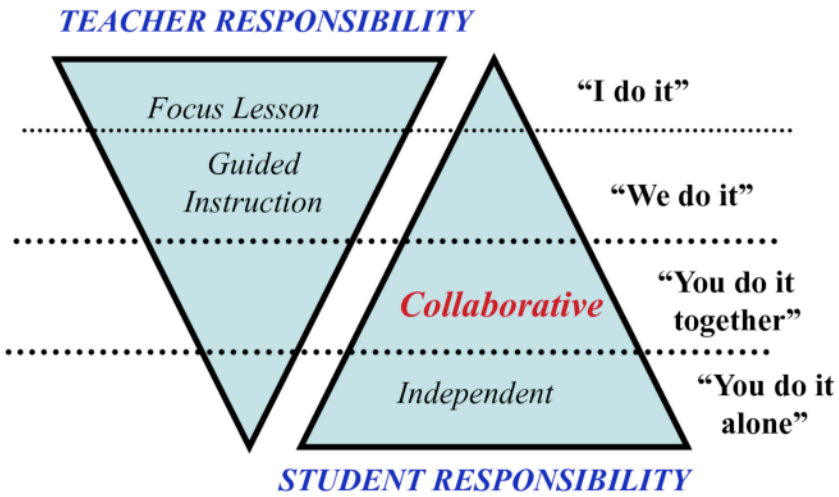


Figure 3.3.2 'Gradual release of responsibility' instructional model, from Fisher & Frey (2014, p.14).

3.3.3 The benefits of 'book-making'

Young children often 'make' books long before they can conventionally 'read' or 'write'. They do so by mapping out stories using drawing to represent real/imagined objects and using lines to approximate letters and words. They do this because they have observed the use of writing for real purposes and, as with other sociocultural practices, they want to 'try it out' through play and the act of creating. It has been found (Matthews, 1999 cited in Dyson 2013a, p. 401) that

> graphic symbol making is an aspect of children's play throughout the world, whether children are creating images and words using sticks in the mud, No. 2 pencils on primary grade paper, or a mouse and a screen.

This behaviour should be encouraged and celebrated as evidence that the child is ready to take their first steps into literacy (Calkins 1994).

For this reason preschool and kindergarten teachers often support 'emergent writing' (i.e. approximation of literate behaviours) by providing blank paper and other writing materials so that children can engage in 'book-making'. Through this process children gain experience in several skills essential to written composing: (1) generating ideas for writing, (2) planning a sequence of events across time/pages, (3) representing meaning through 'printed' images/ words, and (4) building a sense of self as an author/writer (Jasmine & Weiner 2007). They also gain important early reading skills, such as understanding that illustration and text are connected and mutually supportive; that texts represent meaning; and, if words are transcribed into children's books, knowledge of print conventions, i.e. the concept of letters and words, punctuation, and text directionality (Clay 1991).

In early book-making most of children's meaning making occurs through drawing. Just as early attempts at spoken language may be incomprehensible and labelled as 'babbling', children's early attempts at drawing may not capture recognisable visual representations of intended objects/events and thus be labelled as 'scribble'. However, this scribble is often accompanied by meaningful talk, as children switch between oral composing and 'mark making' on the page. Attending to this talk can afford useful insights into the child's composing skills and interests, well beyond assessing their actual drawn artefacts (Coates & Coates 2015). Over time children's drawings become more representational and can be used as they are in published picture books, i.e. to depict characters and actions that others can 'read'.

Book-making helps children to transition into the purely linguistic mode of written language. As children's drawings become more representational they can share their books with others, using their drawings as visual scaffolds to sequence accompanying oral narratives that contain language patterns more representative of written text. Their books thereby serve as multimodal supports for text composition and audience comprehension. Through inviting the child to talk about or dictate words for their drawings, adults can scaffold additional elaboration and coherence to push children along the oral to written language continuum. As with oral narratives, the meaning that children are able to communicate through their drawings is often greater than they would be able to achieve through writing alone. For this reason, encouraging drawing as an integral part of early writing supports the overall goal of writing - the creation of symbolic artefacts which communicate meaning (MacKenzie & Veresov 2013).

3.3.4 The benefits of collaborative writing

'Collaborative writing' is the term used to describe writing that is accomplished through interaction with others. Each member of the writing team contributes to the joint construction of a text. When used as an instructional approach it is aimed at supporting children to construct texts above their independent level, thus creating ZPDs to support writing development (Rossbridge & Rushton 2014). Through the collaborative dialogue which permeates this approach to writing (discussed further in the next section) young writers can receive: ideas for story content, models of how to approach the task of writing, an immediate and valued audience (and purpose) for writing, feedback to improve their writing, and a writing community from which to draw inspiration and enjoyment (Jones 2003).

Collaborative writing has been found to motivate children's engagement in writing by: transforming it into a more social (rather than solitary) activity; encouraging dialogue in support of composing; reducing anxiety related to independent writing; increasing self-efficacy and positive attitudes toward writing; and increasing overall levels of enjoyment (Bradford & Wyse 2013; De Smedt & Van Keer 2014; Gerde, Bingham & Wasik 2012; Hidi & Boscolo 2006).

Paley's dictation process is one form of collaborative writing, where responsibilities are clearly divided between the child and teacher. Responsibility for composing rests with the child and responsibility for transcribing rests with the teacher. Paley advocated an

intentionally unobtrusive role for educators within story dictation – wherein they might ask simple questions to learn more about the child's imaginings, but should be cautious not to alter the child's language or steer the direction/content of their story. She believed that honoring children's *exact* language by transcribing it verbatim sent a powerful message that the child's attempts at meaning making were valued and valid without alteration (Gadzikowski 2007). She argued that the literate community established through ST/SA would naturally push the child's language to become more precise and sophisticated.

Others who have adapted Paley's approach have positioned the teacher in a more active role, there to provide linguistic scaffolding and, if necessary, enter into joint construction to help the child compose coherently enough to experience success when their narratives are used as play-scripts (Sachs, Mardell & Boni 2014). This more active role may be especially helpful for children less proficient in oral narrative composing, e.g. multilingual learners and those with language delays, who often benefit from additional scaffolding to plan and express their thinking linguistically (Meier 2009). All variations, however, stress the importance of honoring the child's communicative intent and preserving their feeling of authorship.

A more active teacher role is consistent with the need for scaffolding to drive development. Written language competency emerges through the same sociocultural processes as oral language. Smedt & Van Keer (2014, p. 695) argue that in writing

> good strategy instruction can be considered as scaffolded teaching, wherein both teachers and students play an active role in constructing knowledge...[in] an iterative and social process that involves a team on a common objective that negotiates, coordinates, and communicates during the creation of a common product.

Collaborative writing mediates the transfer of responsibility for written language use to the child through joint, and often multimodal, text construction. Using collaborative writing in the early stages of children's writing development has the potential to reframe writing as a more social, collaborative, multimodal and playful experience rather than perpetuating views of writing being a solitary and autonomous activity (Botzakis, Burns & Hall 2014).

3.3.5 Collaborative dialogue

'Collaborative dialogue' is a dynamic form of interpersonal discourse which supports the sharing and construction of knowledge. It involves affective and cognitive variables which influence the 'shared negotiation of meaning' using multiple modes, i.e. linguistic and paralinguistic (e.g. gesture, facial expression, prosody, and bodily enactment) (Swain & Lapkin 2001). Collaborative dialogue is central to the creation of ZPDs according to

sociocultural theory. Within educational settings such discourse has been well researched and shown to have a profound impact on the amount and type of learning which can be achieved (Cazden 1988; Cazden & Beck 2003; Freebody, Maton & Martin 2008; Gee 2006; Hynds & Rubin 1990; Webb 2009). The 'talk' which surrounds young children's play and early writing experiences can be harnessed to enhance its learning potential (Bodrova & Leong 1998; Graves 1994; Nilsson 2009).

Collaborative dialogue supports children with lower levels of oral language proficiency and multilingual learners, who have been shown to rely more heavily on non-linguistic modes to communicate with and interpret others (Kempe, Schaeffler & Thoresen 2010; Ledin & Samuelsson 2016). By promoting multimodal semiosis and collaborative dialogue, the book-making and collaborative writing techniques outlined above support developmentally appropriate practice with diverse learners.

Collaborative dialogue is thought to be especially helpful in facilitating language acquisition for multilingual learners, by creating a socially supportive context for language output. As Swain (2000, p.99) explains, language output (i.e. producing language) is more effective than input alone because it

> pushes learners to process language more deeply - with more mental effort - than does input. With output, the learner is in control. In speaking or writing, learners can 'stretch' their interlanguage to meet communicative goals. To produce, learners need to do something. They need to create linguistic form and meaning, and in so doing, discover what they can and cannot do. Output may stimulate learners to move from the semantic, open-ended, strategic processing prevalent in comprehension to the complete grammatical processing needed for accurate production.

Collaborative dialogue helps language learners bridge the divide between their actual and intended meaning, through immediacy of listener feedback and opportunities to 'revise' their language production to fill in these gaps (Swain & Lapkin 2001). Collaborative dialogue has also been found to mediate written language expression, by urging new levels of preciseness and metalinguistic awareness (Bernstein 2016).

In addition to creating the conditions which *enable* knowledge construction (according to SCT), collaborative dialogue is also an important end in itself. This is because it helps to promote the interpersonal skills needed within today's culturally and linguistically diverse democratic societies, which rely on engaged citizens who can consider and reconcile multiple viewpoints. As Cazden and Beck (2003, p.165) explain

> schools are now charged with creating not only individual human capital for a healthy economy, but also social capital for healthy communities. At the same time, what counts as knowledge has shifted away from inert information passively received from books and teachers toward dynamic understanding that is collaboratively constructed in discussion among students.

3.3.6 Writing as play

Gardner (1973, p.166) argued that the human imagination and creativity expressed through children's play evolves into what he called the 'art impulse' in writing

> the play impulse becomes the art impulse (supposing it is strong enough to survive the play years) when...it becomes conscious of itself as a power of shaping semblances which shall give value for other eyes or ears and shall bring recognition and reknowing.

Graves (1981, p. 213), building on Gardner's ideas about the relationship between play and writing, explained that

> playfulness is part of [the writer's] craft. To experience the cycle of craft, children need a flexible and controlled time and space framework. They need to shift between writing for the sheer play of it and rewriting for audience, correctness, and clarity...Mastery of conventions and concern with audience and final product are part of the process of play becoming craft. But only when the child rediscovers the playful aspects of writing does composing become like the professional writer's...Once rule-conscious, audience-aware children rediscover their playful roots, their writing process becomes qualitatively similar to the process most professional writers experience.

Both Gardner and Graves suggest that the satisfaction that writers experience is derived from using writing to 'play' with ideas and audiences; and that, no matter the age, this playful construction is essential to the enjoyment of writing. Paley clearly held this to be true for young children entering into more formal types of narrative composing.

In addition to writing being a form of play, using a playful approach to the teaching of writing can reduce children's anxiety related to learning to write, by creating a classroom environment where they are encouraged to take risks and enjoy the process of writing. Cambourne's research (1995, 2015) into the 'conditions of literacy learning' outlines the interconnected sociocultural factors which facilitate strong literacy outcomes. His model (see Figure 3.3.6) emphasises the synergistic cognitive and affective variables involved in literacy learning – in which authentic purpose and audience, peer and teacher feedback, student agency, experimentation, and approximation are all vital. His model helps to explain how a playful and collaborative approach to early literacy can support children's learning.

Cambourne (2015, p.39) argues that in order for children to become writers 'they must first be convinced that becoming an effective user of writing is worthwhile, and they are capable of

learning how to do it, and that the classroom culture is a risk-free community of fellow writers'. It has been shown that multilingual learners face increased anxiety and self-consciousness and that this can limit their ability to benefit from instructional supports (Espinosa 2009, cited in: Gutierrez, Zepeda & Castro, p.335). Also, creating a risk-free community of writers supported through collaborative dialogue supports multilingual learners 'who need more time and practice with receptive and productive skills' (Gutierrez, Zepeda & Castro 2010, p.337). Therefore, designing playful approaches to writing which facilitate multimodal and collaborative semiosis has the potential to support diverse learners. Or, as Dyson (2013a, p.404) put it, such approaches can engage diverse learners by 'transforming writing into collaborative play on a textual playground'.

3.3.7 The need for more research into play-based early literacy pedagogy

Despite its strong theoretical grounding and the existence of compelling anecdotal accounts of its effectiveness, there is a paucity of research into the efficacy of using ST/SA as a play-based approach to early literacy. With the rise of evidence-based curriculum decision-making and the need to demonstrate learning against explicit standards and outcomes, this lack of research makes advocating for its use problematic (McNamee 2005). One study, conducted by Cooper et al (2007), sought to address this evidence gap using three standardised early literacy measures. They found that ST/SA resulted in significant gains in children's expressive and receptive vocabulary, phonological awareness, and print concepts. However, the study did not address the rich text-level and social learning outcomes which also make ST/SA such an appealing play-based approach to early literacy (Owocki 1999; Van Hoorn et al. 2011).

In an action-research study, McNamee and Chen (2007) worked with early childhood educators to devise methods for assessing the macrostructural narrative skills and 'working approaches' (i.e. positive learning dispositions) supported through ST/SA (see Chen, Masur & McNamee 2011 for a full description of this work). This study contributed a valuable framework for assessing text-level and social learning outcomes, however, it did not report on results obtained through use of the framework. In another study, Cremin et al (2012) presented the findings of a six-week teacher training program aimed at supporting educators to implement ST/SA within their preschool classrooms. Through teacher self-report data they found qualitative evidence for positive effects on children's: motivation for speaking and listening, benefits for English language learners, sense of agency, interest in and ability to talk about stories, and confidence in storytelling and story playing. No significant effects were

found for children's narrative skills in this study, possibly due to the limited timeframe of the study and reported variation in levels of implementation by individual teachers. The findings of this study were therefore inconclusive.

Other researchers have long argued for the need for more research into how children bridge the oral to written language divide. Investigating the effects of ST/SA, with its focus on literate forms of narrative composing, has the potential to address this research gap. Graves (2013, pp.180-185) passionately advocated for more research into children's early writing development, arguing that more contextualised and process-oriented research is essential if the goal is to generate data that is of interest and utility to educators

> Far more needs to be done with younger children. We need more information on child behaviors and decisions *during* the process, rather than through speculation on child activity during writing from writing products alone...Research about writing must be suspect when it ignores context or process. Unless researchers describe in detail the full context of data gathering and the process of learning and teaching, the data cannot be exported from room to room...The human faces do not take away objectivity when the data are reported. The faces emerge from enormous amounts of time spent in observing, recording, and analyzing the data...Since the procedures were conducted in classrooms, they [teachers] see themselves in the midst of the data along with the children.

Exploring the effects of linking ST/SA more intentionally with the emergent writing strategies of book-making and collaborative writing offers an appealing way to potentially enhance children's written narrative development through capitalising on the links between narrative play, play-scripts and early literacy. Unlike in Paley's approach, where children are asked to rely purely on their existing *linguistic* skills to compose, combining ST/SA with book-making and collaborative writing has the potential to provide additional *multimodal* and *collaborative* supports for written narrative composing. These could prove especially helpful for children with lower levels of oral language proficiency, whether monolingual or multilingual learners.

Investigating the effects of combining ST/SA with emergent writing addresses two important *general* research needs:

(1) the need for more hypothesis testing to evaluate the relationship between play and early literacy acquisition (Roskos & Christie 2001; Roskos et al. 2010); and,

(2) the 'need to prioritize research that can both guide practice and provide evidence-based options for the field' (National Early Literacy Panel 2008, p.224).

In relation to its support for diverse learners, the above would address the following *specific* research needs:

(3) empirical studies which 'push for more nuanced understandings of DLLs [dual language learners], studies that capture the cognitive and sociocultural complexities of becoming literate and biliterate' (Gutierrez, Zepeda & Castro 2010, p.338);
(4) new pedagogical approaches for primary educators seeking to help multilingual learners improve their written language proficiency (Belcher 2013, p.439); and,
(5) further exploring the role of writing in language learning, without which descriptions and theories of language acquisition are 'incomplete' (Harklau 2002).

To address these needs the current study presents the findings of a twelve-week early writing intervention which combined picture book-making, collaborative writing, and narrative play. A combined qualitative and quantitative approach was used, in which quantitative methods sought to capture discrete early literacy skill improvements, and qualitative methods formed an interpretive lens to explain possible causal reasons for any changes observed (Yin 2014). The study expands upon earlier research by investigating the effects of more intentionally linking early writing and narrative play. The 'writing as play-scripts' activities investigated, hereafter abbreviated to 'WPS' and the 'WPS process', were implemented with diverse learners. Effects on a range of early literacy skills were explored, as guided by the research questions below.

3.4 The research questions

3.4.1 Main questions

(1) In what ways does using children's early writing as play-scripts influence preschool and early school age children's narrative development?
(2) In what ways does collaborative dialogue change in response to using early writing as play-scripts?
(3) Does using early writing as play-scripts increase preschool and early school age children's motivation to write and literate identity?

3.4.2 Sub-questions and hypotheses

Narrative development

(1a) Is there evidence that engaging children in WPS leads to significant improvements in their ability to produce narratives? It is hypothesised that, as children are supported to practice composing and interpreting others' narratives, their narrative production skills will increase.

(1b) Is there evidence that engaging children in WPS leads to significant improvements in their narrative comprehension? Specifically, is there evidence of increased literal and inferential understanding? It is hypothesised that, as children are supported to practice composing and interpreting others' narratives, their narrative comprehension skills will increase. In particular, it is hypothesised that inferential comprehension will increase as children are prompted to enhance their development of the consciousness landscape within their own narratives.

Collaborative dialogue

(2a) Did the type and volume of collaborative dialogue change across the study? It is hypothesized that child-initiated collaborative dialogue will increase, as children's narrative skills increase, and as they receive positive peer feedback and seek to increase such interaction in support of their narrative composing and literate identity development.

(2b) Is there evidence of a transfer of responsibility from teacher to child within the collaborative dialogue that occurs in small group writing sessions? It is hypothesised that, as children receive individualised scaffolding and feedback on their narrative composing their skills will increase, and a transfer of responsibility will be evidenced by an increase in child talk and a decrease in teacher scaffolding during narrative composing episodes.

Motivation and literate identity

(3) Was there evidence of increased motivation and development of literate identity, expressed either verbally (i.e. words spoken to teacher or peers) or non-verbally (i.e. intonation, gestures, facial expression)? It is hypothesised that, as children experience success in composing and sharing their narratives with peers, the frequency of their talk related to positive motivation and literate identity will increase. The use of writing as play-scripts is expected to increase children's motivation to write and literate identity development.

3.5 Summary

The current study investigates the efficacy of using children's early writing as play-scripts on a range of important early literacy outcomes. A mixed-methods approach was used to generate quantitative and qualitative data, to address the need to (a) evaluate explicit/discrete outcomes within the WPS process, and (b) support conclusions regarding the sociocultural processes through which narrative competency and literate identity were expected to develop. Given the persistence of significant disparity among children in literacy achievement, and increased pressure to demonstrate the educational benefits of play, the study sought to evaluate whether or not the WPS intervention holds promise as a play-based approach. If so, it was expected that the study would be of particular interest to early years educators seeking strategies to enhance their support of quality play – especially the central role of narrative competency in children's social, emotional and academic development.

PART 2: METHODOLOGY

Chapter 4. The study: participants and intervention design

4.1 The participants and study sites

Two classes were selected as participant groups: one preschool class of 3-5 year olds (*n*=19) and one school class of 5-6 year olds (*n*=20); making a total of 39 participants. By including preschool and school-aged children, the study aimed to evaluate potential differences in treatment effects due to: (a) age; and (b) general pedagogical approach used within each focal classroom. A review of early literacy research shows that pedagogy is typically more integrated and embedded in play throughout the preschool years; whereas, it becomes markedly more structured and focused on the learning of discrete sub-skills in the first year of formal schooling and beyond (Elliott & Olliff 2008; National Early Literacy Panel 2008; Roskos, Tabors & Lenhart 2009; Van Hoorn et al. 2011). Investigating intervention effects on preschool and school aged children was expected to offer valuable insights into its relative effectiveness within these differing pedagogical contexts.

The study sites were chosen due to their high percentage of multilingual learners, with the aim of exploring how these learners might be differentially impacted. 'Multilingual' is defined as students who report a primary home language or languages other than English. The study's multimodal and dialogic methodology was predicted to be especially relevant to their unique learning needs, thus addressing previous calls (Gutierrez, Zepeda & Castro 2010, p.337) for

> development of language and literacy interventions that serve as cultural amplifiers (Cole & Griffin, 1980) that extend rather than constrain children's repertoires of practice—repertoires that can be leveraged to ensure full participation in meaningful literacy practices across learning contexts (Gutiérrez & Rogoff, 2003).

4.1.1 The preschool

The preschool class was a mixed-age class of 3-5 year olds, within a site serving children ages 2-5 for preschool programs and ages 5-12 for after school programs. Total preschool enrollment was 256 at the commencement of the study. The study class was comprised of nineteen students. The 3-4 year olds did not participate in the writing treatment and were therefore not included for data collection purposes. They were, however, included in whole class play-script enactment episodes, i.e. served as audience members for their older class members. Therefore, eleven students ages 4-5 years (female: *n*=5, male: *n*=6) served as full participants for data collection purposes.

The racial/ethnic composition of the preschool study class was 95% Latino and 5% African-American. All students qualified for free tuition under the site's *Head Start* and *Preschool for All* programs. Information was not collected by the researcher on family backgrounds, however, publicly available site data showed that, in 2015 (when the intervention took place): 82% of enrolled families were single-headed households, 18% were two-parent households, and the median family income was $15,027 (Chicago Commons 2016a). Free tuition under *Head Start* and *Preschool for All* is only available to households with incomes below the official US poverty threshold, which in 2015 was $19,096 for a three person household (United States Census Bureau 2016). Therefore, the following demographic characteristics of the preschool study participants can be inferred: all were members of families with low income, most lived in single-headed households, and all were children of colour (Latino or African American).

Table 4.1.1a shows a nearby public elementary school's 'learner profile data' (Chicago Public Schools 2016). The majority of children who attended the preschool site went on to attend this school. It shows that children living in this community faced a complex array of socio-economic disadvantage, including high rates of: poverty, disability, limited English language proficiency, mobility and school truancy.

Table 4.1.1a Nearby public feeder school's learner profile data in 2015

% Economically disadvantaged (living in households with incomes below the poverty threshold)	**% Students with disabilities** (receiving additional support services through Individualised educational plans or IEPs)	**% English Learners** (those whose primary language is not English*)	**Student mobility** (those who transfer in/out of schools after first day of class)	**Chronically truant students** (those who miss 5% or more school days without a valid excuse)
92.2	25.7	42.8	11.1%	25.7%

** students 'whose English language proficiency is not yet sufficient to provide the students with the ability to successfully participate and achieve in classroom settings where the language of instruction is English' and, as such, are eligible for additional services Note: total number of students=421*

The preschool program was administered by a non-profit organisation located in Chicago, with a long history of serving disadvantaged communities. The organisation was founded in 1894 as a settlement house serving low-income immigrant families (Chicago Commons 2016c). It was one of the first organizations in Chicago to offer preschool programs, beginning in 1897 (Chicago Commons 2016b). From its inception its programs have been

guided by child-centered, play-based, emergent and strong relational pedagogies, and at the time of the study were promoted as 'Reggio Emilia inspired' (Chicago Commons 2016b). The community in which the site was located was comprised predominantly of first generation immigrant families, mostly from Mexico.

In relation to the preschool site's Reggio-inspired philosophy, the intervention was consistent with Reggio's central tenets (Edwards, Gandini & Forman 2012), which hold that children have a right to:

a) interact with and build relationships with others to support their learning and wellbeing;
b) exercise agency over the content and process of their learning;
c) engage in meaning making through the use of their many modes or 'languages'; and
d) be taken seriously as members of a community which nurtures and respects all voices.

As will be discussed below, the WPS process was informed by these principles and how they relate to children's literacy learning. In particular, the promotion of children's spontaneous and interactive multimodal meaning making, which Loris Malaguzzi poetically described as learning which occurs through 'a hundred languages, a hundred hands, a hundred thoughts, a hundred ways of thinking, of playing, of speaking' (Edwards, Gandini & Forman 2012, p.3). It was also expected to nurture children's voice by creating a literate community, in which children would be encouraged to explore ideas, issues and themes that matter to them.

The preschool cohort was supported by three classroom educators, two of whom were fluent bilingual Spanish-English speakers and one who was a monolingual English speaker. Dialogue within the classroom was primarily in English, with educators only using Spanish as needed to encourage participation and ensure critical understandings. 18 out of the 19 children in the preschool cohort were bilingual Spanish/English learners; 1 was a monolingual English learner.

4.1.2 The school

The school study site was a public school located just outside Chicago. The study cohort was comprised of nineteen students (female: n=11, male: n=8), ages 5-6 years. They were enrolled in full day 'Kindergarten', the first year of formal schooling in the United States. The sole language of instruction within the classroom was English. The school community was comprised of families with the following racial/ethnic backgrounds: 82% Latino, 11% White, 3% Black, 1% Asian, 3% Other (Illinois State Board of Education 2016). Child eligibility for 'free or reduced price meals' under the Federally funded *National School Lunch Program*

provides an indication of household income levels in the United States. To be eligible for 'free meals' household income must be at or below the federal poverty threshold, which was $19,096 for a three person household in 2015 (United States Census Bureau 2016) and 'reduced price meals' eligibility is set at household incomes between 130-185% of the poverty threshold (United States Department of Agriculture 2016). Table 4.1.2a shows the site's free and reduced price meal eligibility data (Illinois State Board of Education 2015), with 87.65% of the student population eligible for free/reduced meals, indicating a high level of poverty within the school community.

Table 4.1.2a Study school's free or reduced meal eligibility data in 2015

Eligible for Free Meals (% of total enrolment)	Eligible for Reduced-price Meals (% of total enrolment)	Total School Enrollment	Total Eligibility for free or reduced meals %
324 (72.5%)	66 (15%)	447	87.5

Table 4.1.2b shows the school's 'learner profile data', showing a high percentage of English learners and a moderate proportion of students with disabilities. The percentage of bilingual students was approximately 65%. The school site served a community comprised predominantly of second and third generation immigrant families, mostly from Mexico. While only 25.3% of students were deemed to be 'English learners', this percentage refers only to the number of students 'whose English is not yet sufficient to successfully participate and achieve in classroom settings where the language of instruction is English' (Illinois State Board of Education 2015). The percentage of bilingual students in the study class was 65%. The more stringent 'English learner' category was used to determine eligibility to additional learning supports for children with very limited English, e.g. newly arrived migrant children.

Table 4.1.2b Study school's learner profile data in 2015

% Students with disabilities (receiving additional support services through Individualised educational plans or IEPs)	% English Learners (those whose primary language is not English*)	Student mobility (those who transfer in/ out of schools after first day of class)	Chronically truant students (those who miss 5% or more school days without a valid excuse)
11.6	25.3	13%	2.5%

** students 'whose English language proficiency is not yet sufficient to provide the students with the ability to successfully participate and achieve in classroom settings where the language of instruction is English' and, as such, are eligible for additional services*

The school's curriculum was based on the Common Core State Standards (National Governors Association Center for Best Practices & Council of Chief State School Officers 2010), with early literacy instruction focused heavily on the teaching and assessment of phonics and early reading.

4.2 Gaining informed consent

The study is informed by the *National Statement on Ethical Conduct in Human Research* (NHMRC, ARC & AVCC 2007 (updated 2014)), which recommends that participants be informed of the processes and intended outcomes of any proposed research and that they freely give their informed consent for participation. To this end, a written 'Study Information Sheet' was provided to child guardians, classroom teachers and school administrators; and child guardians were also given a 'Written Consent Statement' to confirm or decline their child's involvement (see Appendix 8 for a copy of these materials). Only one out of 40 families invited to participate declined their child's involvement. Children were also invited to give their verbal consent to participation in assessment tasks (see Appendix 8 'Child verbal consent for assessment protocol').

4.3 The (teacher-) researcher

In working with children in the study I attempted to position myself as that of a supportive adult friend, downplaying my role as teacher and researcher. I did this by using data collection methods that were as inconspicuous as possible, e.g. using a discrete handheld device to capture digital audio recordings and making digital scans of children's books 'so I can share them with everyone during Story Play' (rather than children feeling their books were being copied as products for evaluation). By choosing this methodological approach I sought to address Dyson's (2013a, p.401) call for researchers to give 'childhood agency and child cultures a central role in research on writing use and development'. This involved actively working to be viewed by children as a collaborative partner, with children taking the lead in collaborative interactions as guided by their own self-determined social and communicative goals. Dyson (2013a, p.402) argues,

> if we are to understand how writing becomes "relevant" to children as children, then we must also enter their childhood worlds of relations and intentions, of power and play...which may not be visible unless researchers abandon their comfortable post as knowing, evaluative adults and become learners in children's worlds'.

This stance was also viewed as necessary to create effective 'conditions of literacy learning' (discussed below in Section 4.5.3).

At the time of the study's commencement I had eleven years of teaching experience across the early years (0-8). I had post-graduate Bachelor degrees in Early Childhood and Primary Education, a Masters degree in Education (specialising in Educational Psychology), and a Graduate Diploma in Psychology. I had worked as a teacher and literacy specialist in both Australia and the United States.

4.4 Pilot study

In designing the study's methodology a pilot study was conducted to inform the data collection methodology. Story retells, transcriptions and coding protocols were all piloted to determine suitability for the study's intended age groups, and to inform likely time requirements for data collection and analysis. The pilot study was conducted in the school site. Appendix 6 and 7 show sample NSS retell transcripts and analysis from this pilot study.

4.5 The intervention

The intervention spanned twelve weeks and took place within the children's normal classroom settings, and was, therefore, 'naturalistic'. Children rotated through a 'book making station', during which they worked in small groups to create picture books. The children worked largely independently to illustrate their picture books and then collaboratively with the teacher-researcher to compose a written narrative to accompany their illustrated books. These books were then used a 'play-scripts' at regularly scheduled whole class times (daily or at least twice each week), in which books were read aloud by the teacher-researcher and spontaneously enacted by select children through narrative play. Details of the intervention's two core components - collaborative writing and writing as play-scripts - are described below and summarised in Appendix 1. The study's process of using 'early writing as play-scripts' will be abbreviated to 'WPS' below. It was expected that both of these treatment components would be received by children as 'embedded-naturalistic', i.e. integrated and authentic activities congruent with their classroom experience (Justice & Kaderavek 2004).

4.5.1 'Book-making' (emergent writing) sessions

Both age cohorts worked in small groups on emergent writing activities (i.e. illustrating and collaborative writing) that were referred to as 'book-making'. These sessions involved children illustrating a blank book template that consisted of four pages: cover, beginning, middle and ending page (with the option to add extra pages if they wished). These were

printed on a single sheet of paper, printed double-sided and folded in half in landscape orientation (see Figure 4.5.1a). After illustrating their books, each child received support from the teacher-researcher to engage in narrative composition through multimodal joint text construction. Table 4.5.1a provides an overview of key details related to the writing sessions. The treatment consisted of the same components across the two study sites, but varied slightly by age cohort. The preschool children worked in smaller groups because of their increased needed for support and their reduced stamina for waiting while other children received composing assistance. Their sessions also took place in a small room adjacent to their main classroom, due to limited space available to accommodate an additional 'learning station' among their other play areas. The school aged children worked in larger groups, for longer periods of time, and within their regular classroom setting.

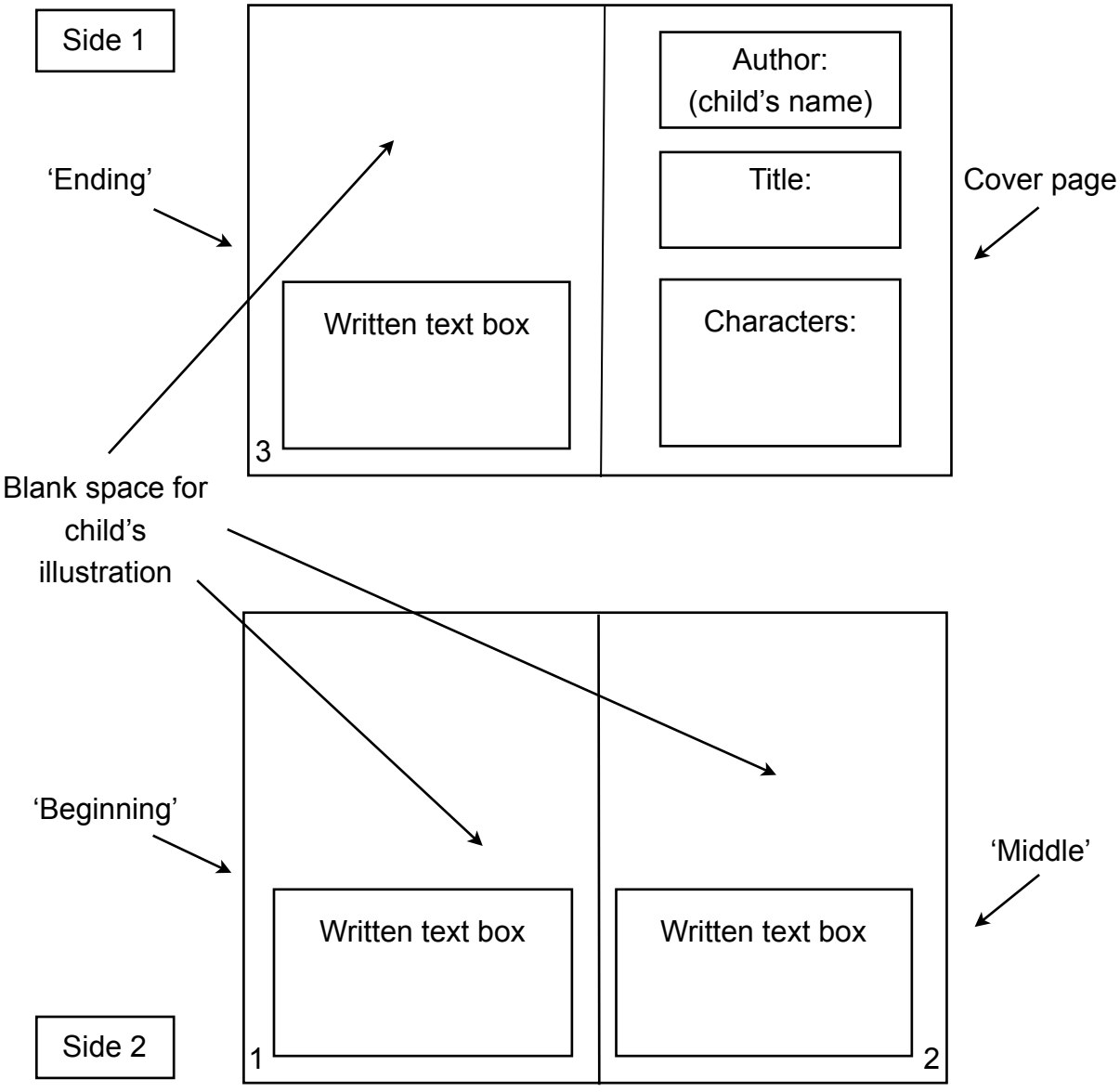


Figure 4.5.1a Picture book template showing pre-printed book layout

The aim of the book-making sessions was to support narrative composing and, thereby, literate discourse and literate identity. Narratives (defined in further detail in Section 2.3.1) are comprised of both an 'action landscape' and 'consciousness landscape' (Bruner 1991). The action landscape consists of the physical events and actions within a story, and is commonly the focus of early narrative instruction (Curenton 2011). The consciousness landscape consists of the thoughts, emotions, and intentions that comprise characters' internal states (or consciousness). Understanding and communicating the consciousness landscape is essential to inferential thinking and higher-order text composition and comprehension (Bruner 1991; Curenton 2011; Ligeza 1998). However, the consciousness landscape is often overlooked in early writing, due emphasis on the teaching of transcription conventions (as discussed in the literature review).

Table 4.5.1a 'Book-making' process overview

Key Detail	**Description**
Session length:	30-60 minutes
Location/setting:	Classroom adjacent to main classroom for preschool children; children's main classroom for the school children.
Participants receiving treatment:	Only 4-5 year olds within the preschool cohort; all children within the school cohort.
Number of participants receiving the treatment per session (i.e. size of small group):	2-3 for preschool cohort; 4-5 for school cohort.
Number of sessions per participant:	twice each week per child, for twelve weeks; approximately 24 for each child across the intervention.
Teacher-researcher's role:	Supporting the book-making process; scaffolding collaborative dialogue; transcribing and jointly constructing stories.
Classroom teacher's role:	Normal classroom instruction (i.e. not involved in delivering the treatment)
Timeline and instructional focus:	
Week 1-2:	Developing knowledge and use of basic narrative elements (i.e. characters, setting and plot)
Week 3-4:	Developing action landscapes
Week 5-12:	Developing consciousness landscapes

The intervention sought to incrementally scaffold children's attention to the consciousness landscape as they demonstrated competency in establishing a basic action landscape. This was done through collaborative dialogue during composing, with myself as teacher-researcher prompting children to include consciousness landscape details, e.g. 'How did the character

feel when that happened? Should we say that in your story?'. Another strategy used was introducing the option of adding 'thought/speech bubbles' to picture books in Week 4. These were available as pre-printed outlines to paste in and children were also encouraged to draw their own. These visual scaffolds aimed to help 'materialise' (Bodrova & Leong 1998) the consciousness landscape within children's stories. Previous research has shown that using visual thought/speech bubbles is an effective strategy to support children's inferential reasoning about characters' internal states in response to reading (McTigue et al. 2015). Similar effects were expected in children's writing.

Writing occurred in small groups (3-5 children), in which 'collaborative dialogue' was scaffolded to extend children's zone of proximal development for narrative competency, i.e. their ability to compose and comprehend narratives (Hynds & Rubin 1990). Herein, collaborative dialogue is defined as multimodal exchanges centered on the co-construction of narrative meaning. Two distinct components of collaborative dialogue were explored: 'collaborative strategies' and 'literate discourse'. Collaborative strategies refer to the giving and receiving of specific types of support (e.g. questions, recastings, expansions, repetitions and affirmations) to assist with narrative composition and comprehension; and literate discourse has been defined above (Section 2.4.4, which focused on discourse promoting metalinguistic and metacognitive understanding). This multimodal collaborative approach aimed to facilitate quality language interactions, or shared sustained thinking, centered on supporting children's narrative development.

Collaborative dialogue was 'scaffolded' (Bruner 1966, 1986) by the teacher-researcher as a core instructional focus throughout the writing sessions, with the aim of encouraging children to initiate such dialogue in support of their own learning. A 'gradual release of responsibility' for initiating collaborative supports from teacher to child, and then from child to child was sought (Smagorinsky 2011). In such a process, collaborative strategies were first anticipated *between* child-teacher and child-child/ren as 'inter-psychological' strategies, and then gradually *within* the child as they internalised such strategies, thus becoming 'intra-psychological' strategies (Chen, Masur & McNamee 2011). In the present study it was expected that collaborative dialogue would be found to support children to: (a) give and receive ideas for story topics, events, character development; (b) more elaborated and precise in their language choice; (c) justify their writing choices/opinions; and (d) resolve contradictions/disagreements between their own and others' ideas (Wasik 2008; Webb 2009).

Literate discourse was a focus throughout the intervention, which as teacher-researcher I sought to support through explicit discussion of narrative text features and composition, e.g. 'I liked how you *told* us the boy was '"excited" because he "really liked going skating" - that really helped me to understand how he was feeling'. Literate discourse is important because it 'brings under conscious, active control' the processes of composition and comprehension (Aarts, Demir & Vallen 2011; Curenton, Craig & Flanigan 2008). This underpins metacognition in literacy, which is critical to attaining higher levels of reading and writing proficiency (Wray 2002).

Learning goals were initially established for each child based on analysis of their pre-treatment narrative production and comprehension skills; and revised throughout the intervention to adjust supports for each child. The overall goal of instruction during book-making sessions was on increasing children's narrative competency through adult-mediated multimodal and collaborative semiosis. This approach was informed by sociocultural theory, which argues that learning is socially constructed and language interaction is the primary driver of learning (Smagorinsky 2011; Vygotsky 1986). The current study rests upon the assumption that quality dialogue is essential, and central, to children's learning.

4.5.2 'Story Play' (narrative play) sessions

The narrative play component of the intervention was a whole class activity, referred to as 'Story Play' in discussion with children (see Table 4.5.2a for an overview of key details). Approximately five stories were read aloud each play session. The child whose story was used as a play-script became the 'Director', i.e. the central decision-maker during the play 'set-up' phase. The child-author selected peers to become 'story players', with the rest of the class serving as 'audience'. The children were encouraged to be mindful of giving all children wanting to help enact stories an opportunity to do so across a session. If desired, the child-author could tell the story players where on 'stage' (a predetermined space, such as the class rug) they should position themselves for the start of the play. When the actors were in position, the class would perform a ritualised 'Lights, camera, action!' chant with accompanying hand gestures, to signal the start of the play. As the child's book was read aloud by the researcher (or class teacher), the story players spontaneously enacted the story using only their bodies (no props were used).

At the close of each play-script enactment the audience was encouraged to give a round of applause and the child-author then received feedback on their story in the form of a 'Compliment' (positive comment) and a 'Wish' (suggested improvement). Compliments were given first, e.g. 'You did a really great job describing the castle, I could really imagine what it looked like', then Wishes were given next, e.g. 'Maybe you could say that there are *crocodiles* in the water, that would make it really exciting!' The teacher-researcher took the lead in this process, stepping in to provide feedback if peers were unable to do so. The child-author was given the opportunity (although not required) to provide feedback to the actors using the same 'Compliments/Wish' framework, i.e. first offering a positive comment about the story enactment, e.g. 'I liked the way Rory pretended he was the cat by meowing'; and then a suggestion for improving the enactment, e.g. 'It would have been good if Jane had looked more scared when the dog was chasing her.' The children were encouraged to use this feedback in future writing and play sessions.

Table 4.5.2a 'Story Play' component overview

Key Detail	**Description**
Treatment session length:	Approximately 15 minutes
Location/setting:	The children's classroom
Participants:	All children in the study class, including those not involved in the treatment
Number of participants receiving the treatment per session (i.e. number of children involved):	Whole class
Number of sessions:	Approximately 3 times each week, for twelve weeks
Teacher-researcher's role:	Supporting the use of children's writing as play-scripts, i.e. helping child-authors to select story players and reading children's books aloud as play-scripts; supporting class to provide feedback on children's writing and narrative play episodes (with a focus on literate language use)
Classroom teacher's role:	Observing or same as researcher's role
Timeline and instructional focus:	
Week 1-2:	Establishing rules for using writing as play-scripts (e.g. *where* in the room, *when* it will occur, *how* it will be enacted)
Week 3-5:	Focus feedback on discussion of action landscape
Week 6-12:	Focus feedback on discussion of consciousness landscape

4.5.3 Guiding 'conditions of literacy learning'

Converging research evidence has found that effective learning environments are characterised by specific affective, relational and cognitive conditions. Cambourne's (1995; see Figure 4.5.3a) 'Conditions of Literacy Learning' model shows how many of these factors interact to create the conditions which support literacy learning. The WPS process was informed by this model, meeting the following requirements or 'conditions':

(a) immersion in literate thinking
(b) multimodal learning activities
(c) student choice to increase engagement
(d) peer modeling and feedback
(e) room for experimentation and approximation
(f) support from a responsive teacher at the point-of-need, without pressure to incorporate feedback immediately
(g) opportunities to discuss and evaluate texts with others
(h) an authentic purpose for writing

These conditions align closely with a sociocultural view of learning, in which learning is constructed by the individual through social interaction (Rushton, Eitelgeorge & Zickafoose 2003). The model is also consistent with research on brain development which demonstrates the complex interconnection between cognition, affect, social interactions, and personal agency within the learning process (Hattie & Yates 2014; Rushton, Juola-Rushton & Larkin 2009).

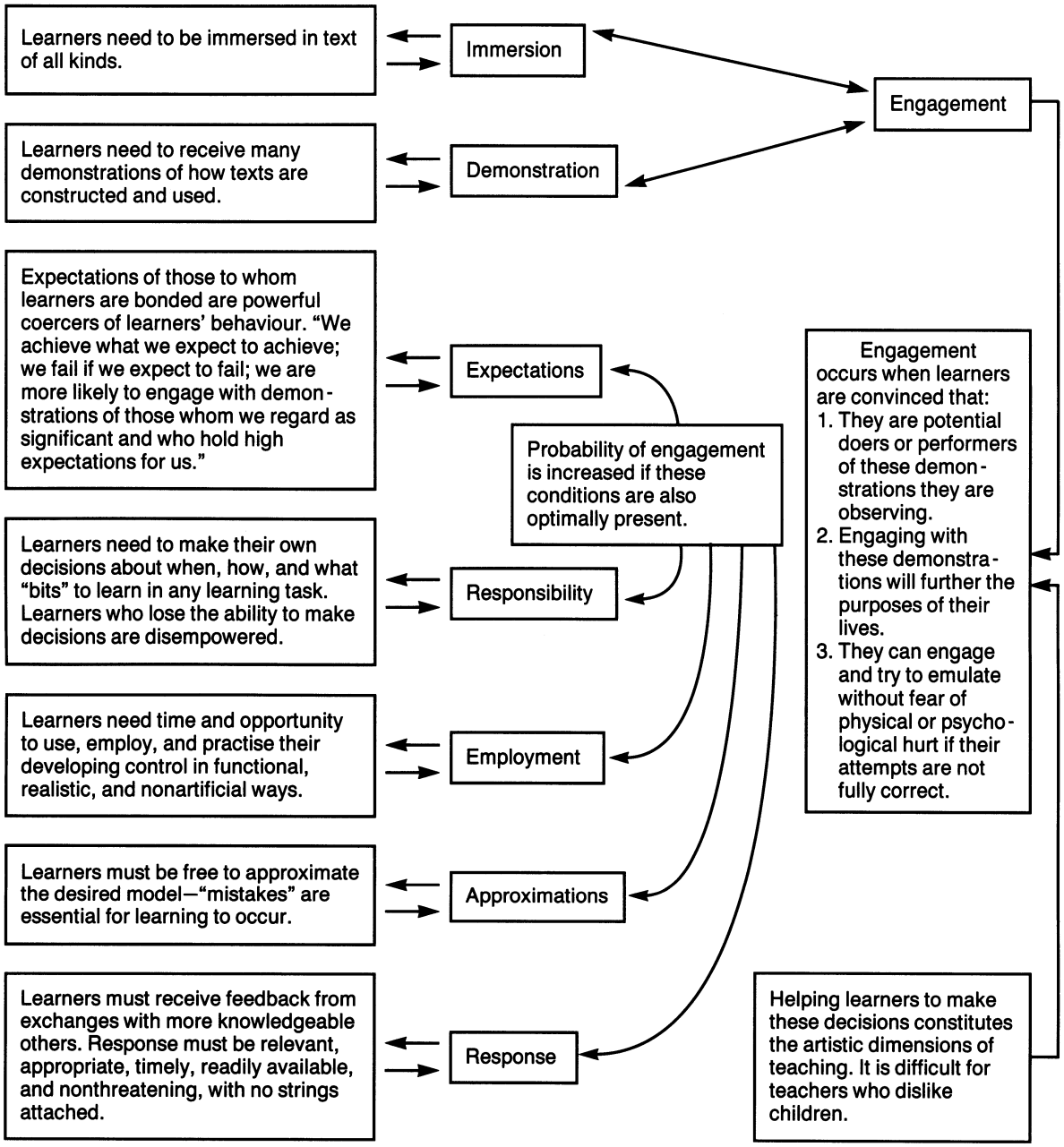


Figure 4.5.3a Cambourne's (1995, p.187) 'Conditions of Literacy Learning' model

4.6 Case study rationale and focal child selection

The collection of quantitative data (to be described in Chapter 5) aimed to test group effects on narrative development and collaborative dialogue. However, these methods were expected to have limited utility in supporting analysis of *how/why* learning might occur within the treatment, e.g. through effects on children's motivation to write and literate identity (Yin 2014). These questions required a more in-depth look at the 'coherent fragments of social life' (Cohen, Manion & Morrison 2002, p.182) experienced within the treatment, made possible only through the use of qualitative or mixed methods (Burke Johnson & Onwuegbuzie 2004). For example, the order (antecedents and precedents) of 'speech

acts' (Habermas 1970) that comprise the dialogue within writing sessions was expected to influence the giving and receiving of collaborative feedback; e.g. Do children respond to all offerings of support or only those given by preferred 'friends'?, Does a specific child seek story ideas because he/she can not generate their own or because they enjoy the social interaction of receiving support from others?

The dynamic nature of the dialogue between child/teacher and child/child, and the complex constructs of 'motivation' and 'literate identity', were likely to be evidenced through multiple non-verbal factors and situated acts (Habermas 1970), both of which would either not be captured using the quantitative methods outlined below or would be 'lost' in the aggregation of data – e.g. 'proud' smiling when receiving peer feedback on a story would not be captured within the discourse analysis, and the comment 'I'm really good at writing stories' might be coded as an instance of literate discourse, but is also relevant to motivation and literate identity. Therefore, additional qualitative data and approaches were sought to enable analysis of the sociocultural *processes* expected to underpin learning within the study. Case study methodology (to be explained in Section 5.6) was therefore chosen to construct a 'thick description' (Geertz 1973, p.310) of individual children's lived experience within the study.

Case study methodology was expected to enable further testing of the hypothesis that the WPS intervention would facilitate effective 'conditions of literacy learning' (Cambourne 1995) especially suited to the needs of diverse learners. Specifically, it was expected that case compilation would enable testing of the proposition that multimodal and joint composition would provide critical scaffolds for children with low oral language proficiency (whether monolingual or multilingual). To this end, four focal children were selected from each age cohort in consultation with classroom teachers. Attempts were made to select diverse learners by considering: initial oral language proficiency, gender, and language learner status (monolingual/multilingual learner). Table 4.6 provides an overview of the selected focal child participant profiles.

Table 4.6 Overview of case study participant profiles

Cohort	Case ID & Name	Age	Gender	Race/Ethnicity	Language Learner Type	Oral language (Low/High*)
Preschool	*1 Caminda*	4yr, 11mo	Female	Hispanic	Multilingual	High
	2 Daniel	4yr, 7mo	Male	Hispanic	Multilingual	Low
	3 Summer	4yr, 9mo	Female	African American	Monolingual	Low
	4 Jesse	4yr, 6mo	Male	Hispanic	Multilingual	Low
School	*5 Diego*	5yr, 2mo	Male	Hispanic	Multilingual	Low
	6 Maya	5yr, 10mo	Female	Hispanic	Multilingual	Low
	7 Mauricio	5yr, 5mo	Male	Hispanic	Monolingual	High
	8 Elisa	5yr, 9mo	Female	White	Monolingual	High

**Initial oral language proficiency was categorised as 'low' or 'high' based on MLU in words for the pre-study narrative retell. The median was calculated and children scoring below were classified as 'low' and those at or above were classified as 'high'.*

4.7 Ethical considerations

The current study is informed by the Australian *National Statement on Ethical Conduct in Human Research* (NHMRC, ARC & AVCC 2007 (updated 2014)); in particular, the values and principles of: (a) research merit and integrity, (b) justice, (c) beneficence, and (d) respect. In addressing research merit and integrity, every effort was made to ensure the study was informed by valid research findings and was, therefore, likely to promote improved learning outcomes for all children involved in the treatment. The study was supervised by experienced researchers at the University of South Australia, to ensure the integrity of the study's methodology, analysis and findings. In addressing justice, all children within the study were given fair access to the distribution of educational supports and intended benefits.

The principle of beneficence informed the design of 'Written Consent Statements', which outlined the process and intended outcomes of the study and sought informed voluntary consent for involvement from participants/guardians (see Appendix 8 for a sample consent letter). Respect for the rights of participants to privacy and autonomy were demonstrated. The full names of participants were not used in published materials associated with the study, and caregiver consent was obtained for the capture and use of photographs of children at work and digital copies of their written texts. Children whose parents did not consent to their child's involvement in the study (one across both sites) did not participate in treatment sessions and were not included for data collection purposes. Respect for the diversity of children's: cultural

backgrounds, competencies and drive for autonomy within the learning process informed the study's design and implementation.

4.8 Summary

Using children's writing as play-scripts was expected to improve learning outcomes for three key reasons:

(1) Play provides a uniquely motivating learning context for young children. It engages them in active, multimodal, social, self-directed and enjoyable experience; which helps to consolidate and expand learning (Roopnarine & Johnson 2013; Smidt 2011; Van Hoorn et al. 2011). By linking writing with play, it was expected that children's motivation to write would increase and, hence, support their early literacy learning (Hidi & Boscolo 2006; Shanahan 2006).

(2) By incorporating collaborative dialogue within small group writing sessions, it was anticipated that each child would receive valuable peer and teacher learning scaffolds. For example, they would receive *direct/explicit* feedback via collaborative dialogue surrounding the joint construction of texts; and *vicarious* feedback as they participate in observing the feedback given to other children during writing and narrative play sessions (Anderson 2012; Mages 2008).

(3) By positioning myself as teacher(-researcher) in an active role to support children's narrative composition and comprehension, it was expected that children would receive cognitive-linguistic supports to extend their unique zone of proximal development. These supports would be determined as I observed children's composing efforts and how they responded to the words and stories of others (Wright et al. 2007). Thus, authentic 'formative assessment' data would inform pedagogical decision-making and responsive teaching (Botting 2002).

These anticipated benefits were expected to be especially relevant for multilingual children and those with low oral language proficiency, who stood to benefit most from multimodal and collaborative language learning opportunities linked with play (Christie 1991b; Law, McBean & Rush 2011).

Chapter 5. Directing the investigative spotlight: data collection methods

5.1 Combining qualitative and quantitative methods

The qualitative and quantitative techniques discussed in the current chapter sought to generate complementary data to enable a thorough analysis of the study's treatment effects. Quantitative tools were selected to measure the overall effectiveness of the treatment in supporting discrete narrative production and comprehension skills, addressing the call for more 'evidence-based' play approaches to early literacy. These sought to address the study's first research question: In what ways does using children's early writing as play-scripts influence preschool and early school age children's narrative development?

To investigate the hypothesised role of collaborative dialogue in supporting learning within the intervention, discourse analysis techniques were used. These sought to convert qualitative analysis into quantitative data regarding possible changes in the type and volume of collaborative dialogue evidenced, thereby addressing the study's second research question: In what ways does collaborative dialogue change in response to using early writing as play-scripts? These techniques were also used to explore how children responded to the treatment in ways that reflected positive motivation to write and literate identity development, thereby addressing the study's third research question: Does using early writing as playscripts increase preschool and early school age children's motivation to write and literate identity?

The largely qualitative techniques used to construct the case studies aimed to compliment the quantitative methods outlined above. Specifically, they sought to provide a rich description of what the treatment looked like in practice, to demonstrate the complex interplay between affect, cognition and social interaction at the heart of the treatment's design. These were expected to further highlight the importance of child agency and childhood culture to children's engagement; and the active teacher role needed to adjust scaffolding according to children's individual needs. In this way, the case studies were expected to provide essential data to assist with answering the study's second and third research questions.

Thus, the qualitative and quantitative methods (summarised in Appendix 2 and 3) used in the current study aim to achieve two distinct goals: (1) generate quantitative data to capture learning related to discrete early literacy skills; and (2) generate the quantitative and

qualitative data needed to interrogate the processes through which learning might be shown to occur.

5.2 Narrative development

The importance of narrative competency to children's social and academic development was explained in Chapter 2. Below, the methods used for assessing narrative competency in the current study are outlined. These methods sought to answer the study's first question: in what ways does the use of children's early writing as play-scripts support their narrative development? Narrative skill can be separated into two core competencies: production and comprehension (Feagans & Short 1984). These were assessed using a pre- and post-intervention 'story retell' task. Story retells provide an authentic assessment of children's oral narrative abilities, as they engage children in naturalistic language activities commonly found in classrooms, i.e. listening to and retelling published children's books (Riley & Burrell 2007).

Story retells are considered preferable to using decontextualised and standardised measures of receptive and expressive language, which have been shown to be less effective in capturing children's true language competencies (Marquardt & Gillam 1999). Authentic language use is routinely informed by interpersonal goals and affective interpretations, e.g. the experience of caring about a protagonist in a narrative and wanting to see how their problems get solved involves very different cognitive and affective resources than multiple choice vocabulary matching tasks. It is theorised that the failure of standardised measures to invoke the depth of meaning-making resources employed in more authentic text production and interpretation activities, explains why they have been found to have diminished validity and reliability over more naturalistic approaches (Heilmann, Miller & Nockerts 2010; Riley & Burrell 2007).

The story retell task used in the current study involved each child spending approximately 15 minutes with the researcher pre- and post-intervention. The task involved the child listening to an audio-recorded story told to accompany a wordless picture book (Mayer 1969, 1974). The child then retold the story using the wordless picture book as a supportive prompt. These retells were audio-recorded and transcribed into written text using the 'Systematic Analysis of Language Transcripts' (SALT) software program and protocols (Miller, Anriacch & Nockerts 2011) (see Appendix 5). Retells were administered and transcribed by the researcher.

5.2.1 Assessing narrative production

Narrative production quality was assessed at two levels: microstructural and macrostructural (Curenton 2011). Microstructural quality refers to the clause and utterance level linguistic skills used to compose narrative text, including: vocabulary, syntax, morphology and fluency (Justice et al. 2006). For the purposes of the current study, five measures of microstructural quality were selected: (a) mean length of utterance, (b) vocabulary, (c) word/utterance errors, (d) words per minute, and (e) maze words as a percentage of total words. The methods for measuring each of these variables are explained below. All measures were generated using SALT coding protocols and in-built algorithms referred to as 'standard measures' (Miller, Anriacch & Nockerts 2011) (see Appendix 7 for a sample standard measures output within SALT).

Mean length of utterance (MLU) was calculated as the average number of words per communication-unit (C-unit), comprised of an independent clause and its subordinate clauses. MLU provides an indication of language complexity, with higher MLU associated with more complex language use (Justice et al. 2006). Vocabulary was measured using the 'Type Token Ratio' (TTR) algorithm, which calculates the number of unique words as a percentage of total words spoken. The importance of vocabulary to early literacy development is well established (Dickinson et al. 2003). Higher TTR is an indicator of increased vocabulary.

Word/utterance level errors were coded into retell transcripts. These recorded semantic and syntactic errors, thereby providing an indirect measure of cohesion. Cohesion 'is a semantic relation between an element in the text and some other element that is crucial to the interpretation of it' (Halliday & Hasan 1976, p.8), e.g. using determiners and pronouns needed to *express* the necessary semantic links within and between sentences. These are critical to overall text coherence, or the ability of a listener/reader to follow a text's intended meaning. Therefore, increased errors are typically associated with decreased coherence.

Words per minute and maze word percentage provide measures of language production fluency. Words per minute indicates facility with retrieving and organising language to communicate intended meaning. Reduced words per minute indicates increased difficulty with processing language and planning next speaking moves. Maze words are defined as 'a series of words, initial parts of words, or unattached fragments of an utterance that do not contribute meaning to the ongoing flow of language' (Loban 1976, cited in Fiestas et al. 2005,

p.730). Maze word percentage provides a slightly different measure of fluency, one that indicates a speaker's level of linguistic uncertainty related to *knowledge* within the language being used and/or the *purpose* for which it is being used (Fiestas et al. 2005). Maze word percentage is typically between 19-22 percent in oral narrative production for English learners and increases with the language demands of a task, e.g. familiarity with topic. Maze word percentage can actually increase as speakers become more proficient at using a language and self-monitoring increases, prompting revisions and corrections to communicate more precisely (Starkweather 1987). Analysing the distribution of maze word types (e.g. false starts, repetitions, filled pauses, revisions, connections) can further assist in understanding productive language skills. Only maze word percentage was calculated in the current study.

Macrostructural narrative production quality refers to language skills needed to 'relate concepts that transcend the individual utterance' (Heilmann et al. 2010, p.154). It measures text level knowledge and organisation, often referred to as story grammar elements. This was assessed in the current study using the 'Narrative Scoring Scheme' (NSS) (Miller, Anriacch & Nockerts 2011). The NSS is a criterion-referenced measure designed to support the reliable assignment of ratings between 0-5 for each of the following macrostructural components: Introduction, Character Development, Mental States, Referencing, Conflict Resolution, Cohesion and, Conclusion.

The NSS components include traditional story grammar elements: Introduction, Conflict Resolution, and Conclusion; but also provide a measure of literate language (Heilmann et al. 2010). The Character Development component measures: the use of metalinguistic verbs (e.g. 'talk' and 'say'), ability to differentiate between main and supporting characters, and ability to talk in the first person to depict characters. The Mental States component measures the use of metacognitive verbs to describe characters' thoughts and feelings (e.g. 'think' and 'know'). And the Referencing and Cohesion components measure appropriate use of referents (e.g. pronouns and antecedents) and conjunctive devices essential to linking concepts across utterances.

Guidelines for rating each NSS component, to generate a total score between 0-35, accompany the NSS tool (see Appendix 4). This instrument has been found to sensitively measure incremental changes in the macrostructural quality of children's oral narratives (Heilmann, Miller & Nockerts 2010; Justice et al. 2006). In the current study, NSS scores

were assigned by licensed speech language pathologists employed by *SALT Software*, which is associated with the University of Wisconsin-Madison's 'Language Analysis Lab'. These paid 'research assistants' were experienced in using the NSS tool and 'blind' to the study's methodology and research questions. Transcripts of retells were compiled by the researcher. Participant names were kept anonymous and participant numbers were randomly assigned to pre-/post-retells to enable identification. NSS scores were assigned and transcripts returned to the researcher. While the reliability of the NSS has been established, having experienced language analysts assign scores sought to increase fidelity of implementation.

The micro- and macro-structural narrative production measures outlined above, gathered through naturalistic story retells, expand upon the decontextualised standardised measures previously used to examine the use of children's stories as play-scripts (Cooper et al. 2007); and the purely macrostructural measures proposed by Chen and McNamee (2007).

5.2.2 Assessing narrative comprehension

Children's narrative comprehension was assessed using two techniques. Firstly, children's retell utterances were coded as contributing to development of the 'action landscape' or 'consciousness landscape' (see Section 2.3.1 for discussion of the dual landscape), both of which are essential for higher level narrative comprehension (Bruner 1986; Curenton 2011). Utterances related to the action landscape were deemed to provide evidence of literal comprehension, i.e. the child had understood the events/actions within the stimulus story and used this to reconstruct the action landscape. Similarly, utterances related to development of the consciousness landscape were deemed to indicate inferential comprehension, i.e. the child had understood not just *what* happened in the story, but *how/why* the characters responded to the story events in the way that they did. This understanding of intentional agents' mental states within narratives is typically heavily reliant on inferential reasoning.

Theoretically, comprehending and reconstructing the consciousness landscape is more challenging because it involves social cognitive reasoning, i.e. interpreting/explaining implied mental states (Bruner 1986). Generating inferences also involves linking implied content across utterances and integration of general knowledge to go 'beyond the meaning of the text' (Cain, Oakhill & Bryant 2004, p.33). Literal comprehension is based mainly on word level knowledge and memory of explicit events, which helps to explain why it develops earlier and is typically stronger than inferential comprehension.

Retell utterances were coded as contributing to one or both landscapes as appropriate, e.g. 'she was so surprised (consciousness landscape) that she fell off her chair! (action landscape)'. Word level semantics and vocal intonation were used to assist with assigning codes. Vocal intonation was considered as it has been found to be an early indicator of young children's inferential and implicit understanding of other's mental states (Hellbernd & Sammler 2016).

The second comprehension measure used was a set of direct questions, aimed at measuring comprehension which may not have been expressed in retells due to language and/or memory constraints. A total of eight questions were asked, four literal and four inferential, for a total possible score between 0-8 (1 point for each correct response) (see Appendix 12 for questions). Literal questions referred to events explicitly mentioned in the text, e.g. 'When Robert looked in the hole, who was there, an owl or his frog?'. Inferential questions asked the child to communicate their understanding of the consciousness landscape and referred to information not explicitly presented in the text, e.g. 'When Robert first looked inside the hole, who did he *think* might be there, an owl or his frog?' These 'false belief' questions have been found to provide an accurate measure of children's inferential reasoning (Curenton 2011), as they require inferences about character beliefs which contradict actual story events. This reconciling of literal and inferential understandings renders false belief tasks more challenging for young children than other types of inferences, e.g. those related to more overt emotional states (Slade & Ruffman 2005).

Two different stories, *Frog, where are you?* (Mayer 1969) and *Frog goes to dinner* (Mayer 1974), were used to generate narrative samples pre- and post-intervention. These stories are similar in length and complexity (vocabulary, syntax and story structure). Using a different story for each retell was chosen to avoid the possibility of a 'familiarity effect' confounding results through a 'false-positive'; i.e. the possibility that comprehension levels would increase due to repeated exposure to the stimulus story, rather than the intervention (Cohen, L, Manion & Morrison 2002). Both stories are wordless picture books designed to appeal to young children and have been used widely in studies of children's narrative development.

5.2.3 Statistical procedures

Quantitative statistical procedures were used to compare narrative production and comprehension skills pre- and post-intervention. It was found possible to employ means

testing procedures in analysing the data generated by the SALT scoring protocols. These procedures were able to be applied to narrative production narrative production (microstructural and macrostructural) and narrative comprehension (action/consciousness landscape utterance tallies and direct questioning) scores. The alpha level was set at .05. Possible differences between the following sub-groups were also explored: preschool/school age, boys/girls, monolingual/multilingual language learners, and initial oral language proficiency (low/high, based on a median-split of class scores for MLU on the pre-intervention narrative retell task).

5.3 Collaborative dialogue

Fine-grained analysis of the collaborative dialogue that occurred within small group writing sessions sought to test the study's hypotheses that the intervention would result in: (a) an increase in child-initiated collaborative talk, as children's writing 'community' grew; (b) a decrease in teacher scaffolding, as children's composing skills increased; and (c) an increase in literate language use, as children's metacognition of the writing process grew. The overall aim was to explore the different types of dialogic scaffolding that supported children's narrative development and literate identity within the WPS intervention, to enable a 'proper account of the key role played by the dialogic interactions among participants in scaffolding children's understanding and learning over time' (Rojas-Drummond et al. 2013, p.20).

Both child-teacher and peer collaborative dialogue were expected to provide important sources of individualised 'in-the-moment' scaffolding to propel development. The nature of these two types of interactions are briefly discussed below (Section 5.3.1 and 5.3.2), to contextualise the discourse categories that were ultimately chosen in response to the corpus (presented in Section 5.3.3).

5.3.1 Child-teacher interactions

It was anticipated that teacher-child interactions would constitute a significant portion of speaking turns exchanged within writing sessions. As teacher-researcher my role was to function as an interested co-creator of texts with children and become a valued part of their literate community through supporting their composing efforts. The scaffolds I provided were expected to differ in *type* within composing episodes (e.g. getting started versus story dictation); and in *level of intensity* within and across episodes, from less to more direct (e.g. an inquiry aimed at prompting elaboration versus a suggested elaboration to ensure coherence). Rogoff (1990, p.16) describes language learning as a form of 'guided

participation' in which 'both guidance and participation in culturally valued activities are essential to children's apprenticeship in thinking'. My interactions were informed by the practices which have been found to characterise supportive child-parent language learning interactions, i.e. the child is offered scaffolds matched to their evolving skills and immediate communicative goals, with the aim of gently pushing them toward more sophisticated language use (Heath 2012; Tomasello 1995).

Through my interactions I sought to help build a 'micro discourse' to provide linguistic scaffolding in response to 'children's changing understanding and use of language'; and a 'macro discourse' about the writing process and the children as writers across the study (Lucero 2014, p.544). I aimed for my interactions to reflect 'linguistically aware teaching' practices, where language scaffolds are woven into meaningful literate practice (Myhill, Jones & Lines 2018). My interactions were also informed by Cambourne's (1995) 'conditions of literacy learning', which emphasise: student engagement, ownership, approximation, experimentation, and dialogue about texts and self as text creator and interpreter. A detailed overview of these conditions was provided in Section 4.4.3c.

Children's perceptions of status have been shown to influence their levels of engagement in collaborative dialogue (Webb 2009). Therefore, I sought to promote children's sense of agency at all times, for example, by providing extended wait time to encourage children to generate their own ideas and solutions, providing scaffolds in the form of questions/ suggestions that could be altered or rejected, taking the child's lead as much as possible, and positioning myself in a 'helping' rather than a 'leading' role. Unlike other approaches to story dictation, however, my role was not one of a passive scribe. I actively sought to engage in joint construction of texts with children, especially with those who expressed an interest in co-construction and/or whose English language skills were limited. However, my intent within these interactions was to maximise child engagement and ownership, so that children would be eager to take up the linguistic scaffolds offered to expand their narrative skills *in pursuit of their own writing goals*. This delicate balance will be highlighted in the case study collection presented in Chapter 8.

If effective child-teacher interactions were facilitated it was hypothesised that a transfer of responsibility would occur, with child-talk assuming a greater proportion of collaborative dialogue. To test for this effect, the simple and relative frequency of child-talk and teacher-

talk were calculated. Special attention was placed on the language scaffolds provided during story dictation/composition, as these were expected to be the most intensive, individualised, and directly related to supporting children's narrative composing skills.

5.3.2 Child-child interactions

It is well established that child interactions, especially in small groups, can be a major source of learning (Cheung & Slavin 2012; Cohen, E 1994; Maine & Hofmann 2016; Wasik 2008). Such interactions can prompt elaborated thinking and discussion, by requiring children to: reorganise and clarify information, correct misconceptions, identify salient information, and consider new perspectives and solutions. The co-construction of ideas can also lead to the pooling of different knowledge and skills, thereby resulting in levels of complexity that would not be possible if children were working in isolation. As expected within sociocultural theory, different competencies among children provide scaffolds which can propel learning. This was anticipated in the current study and provided that rationale for having children work in small groups while composing, so collaborative dialogue could be encouraged.

If the intervention was successful in promoting peer collaboration, the discourse analysis was expected to show an increase in child-child talk aimed at supporting narrative composing and literate identity development.

5.3.3 Discourse analysis techniques

Dialogue within small-group writing sessions was sampled at four time-points across the study: Week One, Four, Eight and Twelve. These 1-hour dialogue samples were then transcribed into the SALT software (Miller, Andriacchi & Nockerts 2011). These transcripts were qualitatively analysed to build a 'corpus of examples' to establish coding categories which reflected the actual collaborative strategies and literate discourse (to be discussed in Section 5.3) found to be in use as the study progressed. Table 5.3 contains the coding categories established in response to the corpus. Each utterance was assigned one of these codes, with an utterance being defined as one communication-unit (C-unit): an independent clause and its subordinate clauses.

There were five main discourse categories generated for 'teacher-talk':

1. 'Getting started and generating ideas': dialogue aimed at supporting children's initial decision-making as they began each writing session, such as choice of characters and setting.

2. ‘Book-making’: dialogue related to supporting composing choices as children created their illustrations.
3. ‘Story composition and transcription’: dialogue surrounding written text composition, typically occurring after illustrations had been completed; this category contained the greatest number of sub-categories, to enable fine-grained analysis of the cognitive-linguistic scaffolds provided to the child, which were hypothesised to be a major source of developmental support.
4. ‘Identity and motivation’: dialogue exchanged throughout the small group writing sessions indicating positive engagement and identity as a writer.
5. ‘Peer collaboration’: dialogue aimed at prompting children to provide supports for each other, such as story ideas or help with illustrations.

There were also five main categories generated for ‘child-talk’:

1. ‘Getting started and generating ideas’: dialogue typically occurring as children began each writing session and were deciding general ideas for characters, settings, and events.
2. ‘Book-making’: dialogue related to children’s choice of characters and story events, typically occurring while children created their book illustrations.
3. ‘Story composition and dictation’: dialogue surrounding the child’s written text composition after illustrations had been completed; as with the corresponding teacher talk category, this contained the greatest number of sub-categories to enable fine-grained analysis of how children used their linguistic skills to compose and how they responded to scaffolds offered by peers and the teacher-researcher.
4. ‘Identity and motivation’: dialogue throughout that indicated positive engagement and identity as a writer.
5. ‘Peer collaboration’: dialogue aimed at requesting or offering support to peers; this had the second highest number of sub-categories, to enable analysis of the types of peer collaboration evidenced in the study.

Table 5.3 Collaborative dialogue codes

Teacher-talk	Code	Child-talk	Code
1. Getting started & generating ideas		***6. Getting started & generating ideas***	
Procedural Comment	PC	Procedural Comment	PCC
Procedural Question	PQ	Procedural Question	PQC
Topic Suggestion	TS	Topic Talk	TTC
Topic Talk	TT	Topic Question	TQC
Topic Question	TQ	Topic/Content Support Requested	TSR
		Exemplar reference (e.g. picture book or movie)	EX
		Teacher Support Accepted	TSA
		Teacher Support Rejected	TSR
2. Book-making		Personal experience (connection shared)	PE
Illustration content comment	IC		
Illustration question	IQ	***7. Book-making***	
Character dialogue comment	DC	Illustration comment	ICC
Character dialogue question	DQ	Illustration question	IQC
Teacher support with illustration offered	TSI	Story planning/explanation comment	SPC
		Character dialogue comment	DCC
		Support with illustration requested	ISC
		Support with illustration accepted	ISA
3. Story composition & transcription		Support with illustration rejected	ISR
Repetition of child utterance	R	***8. Story composition & dictation***	
Repetition w grammar correction	RG	Story composition	SC
Repetition with recast (e.g. to include content elaborations)	RR	Teacher suggested expansion accepted	EA
		Teacher suggested expansion rejected	ER
Repetition with expansion prompt/intonation (e.g. 'The boy went to the park *and*...')	REP	Teacher suggested expansion recast by child	EAR
		Expansion without prompt	E
Expansion question (e.g. 'why?')	EQ	Expansion in response to teacher prompt	TPE
Expansion suggestion (e.g. 'how about "then they..."')	ES	Expansion in response to peer prompt	PPE
		Coherence Expansion/Explanation	CE
Coherence question (e.g. 'what does X mean?')	CQ	Code-based Comment (e.g. 'That's the same letter as my name')	LCC
Coherence prompt	CP	Code-based Question (e.g. 'What does that *word* say?')	LQC
Continuance prompt (e.g. 'then what?')	CTP	Meaning-based Comment (e.g. 'That's a funny *character*!')	LRCC
Code-based comment (e.g. 'The *words* are at the bottom of the page.')	LC	Meaning-based Question (e.g. 'What do you think should happen next?')	LRQC
Code-based question	LQ	Request for story support from teacher	RST
Meaning-based comment (e.g. 'You wrote a story with a clown in it yesterday')	LRC	Request for story support from peer	RSP
Meaning-based Question (e.g. 'what *title* do you want to give your story?')	LRQ	***9. Identity & motivation***	
		Literate Identity Comment	LICC
		Positive Motivation Comment	PMC
		Negative Motivation Comment	NMC
		Peer Encouragement/Compliment	PEC
4. Identity & motivation		Sharing (self-initiated with teacher or peer)	S
Affirming acknowledgement	AA		
Literate Identity Comment	LIC		
Positive Feedback	PF		
Attentional Prompt	AP	***10. Peer collaboration***	
		Peer Topic Talk	PTT
		Peer Topic Suggestion	PTS
		Peer Topic Expansion/Elaboration	PTE
5. Peer collaboration		Peer Topic Question	PTQ
Peer Collaboration Prompt	PCP	Peer Connection (sharing personal experience)	PCon
		Peer Support Requested (child initiated)	PSI
		Peer Support Offered	PSO
		Peer Support Accepted	PSA
		Peer Support Rejected	PSR
		Response to Peer Question/Comment	RP

An excerpt of coded transcript is provided below, to demonstrate how the discourse codes were applied. This excerpt is from a story composition episode between a multilingual preschool child and the teacher-researcher in Week Four of the study. Underlined words are those ultimately transcribed into the child's book.

Child: [composing a fictional story about a train journey he is going on with his family] And the conductor say, 'open the door'. [SC][8]

Child: The conductor say, 'look out son!', and I put my seatbelt on. [SC][8]

Teacher: <u>The conductor said 'look out son!', so I put my seatbelt on</u>. [RG][3]

Child: And the train, it was going faster, faster, faster! [excited/urgent voice][SC][8]

Teacher: <u>The train was going faster and faster!</u> [imitating child's intonation][RG][3]

Child: And I get to my party, it was my birthday. [SC][8]

Child: I was dressed up as conductor [gesturing to top of head], my daddy gave me a hat. [SC][8]

Teacher: Ah [communicating understanding][AA][4], <u>Then we got to my birthday party</u> [RG][3]^

Child: Then I get a present, I gave it to my mom [SC][8].

Teacher: My dad gave me a hat^ [R][3]

Teacher: What kind of hat was it, was it like a train conductor's hat? [gesturing to head, providing explicit vocabulary] [CQ][3]

Child: Yeah. [CE][8]

Teacher: Ah [AA][4], <u>My dad gave me a train conductor's hat.</u> [RR][3]

Child: It was my birthday, my daddy gave me a lot of present, all the way to the top [SC] [8].

Child: I open my present [SC][8]^

Teacher: Now, was it a *big stack of presents*, all the way up [gesturing to demonstrate and confirm child's intended meaning]? [CQ][3][ES][3]

Child: Yeah [CE][8][EA][8].

Teacher: <u>He gave me a big stack of presents</u> [RR][3].

Child: I eat the cake [SC][8].

Teacher: Did you share it with everyone [EQ][3]?

Child: Yeah [EA][8].

Teacher: <u>We all ate my birthday cake</u> [RR][3].

[Several more exchanges, as child completes his composition]

Teacher: And, what do you want to call your story, what could its title be [LRQ][3]?

Child: Um, The train [LRCC][8].

Teacher: <u>The train</u> [R][3].

Teacher: And the characters in your story are [LRQ][3]?

Child: Me, a train, my mom, my dad, and all my friends [LRCC][8].

To enable analysis of potential changes in collaborative dialogue across the study, percentage growth in simple and relative frequencies of teacher-initiated and child-initiated discourse were calculated. Sampling of language interactions at four time points was intended to capture changes in the type and volume of collaborative dialogue exchanged. This dialogue was also used in the construction of the case studies presented in Chapter 8. Every effort was made to accurately interpret children's communicative intent, including through consideration of non-linguistic semiosis such as gestures, facial expressions and intonation.

5.4 Literate discourse

5.4.1 Role in literacy development

Literate discourse is language interaction which facilitates the construction and interpretation of texts (oral, written or multimodal). Texts are symbolic devices that serve different social and personal functions (Halliday 2004a). Literate discourse is characterised by a high degree of decontextualised language, which facilitates communication and interpretation of abstract ideas and perspectives. It includes metacognitive words needed to name and interpret internal mental states and processes, e.g. 'thought', 'decided', 'knew', 'realised', 'wanted', 'planned' and 'convinced'. As such, it is essential to narrative development, in particular the construction and interpretation of the consciousness landscape. Literate discourse also supports metacognition, by helping to demystify and bring under conscious control the processes by which readers construct, and writers transmit, meaning. It also facilitates the creation of a supportive literate community, which can provide an important source of motivation for literacy learners of all ages.

Literate discourse exposure typically increases when children enter educational settings, where they encounter a wider range of written texts and begin to receive direct instruction in reading and writing. However, significant differences exist in the amount and type of literate discourse that educators use with children. The degree to which teachers engage children in 'cognitively challenging conversation' and the vocabulary they use have been correlated with children's subsequent language and literacy development (Dickinson & Smith 1994). Therefore, the current study sought to explore literate discourse as a component of collaborative dialogue.

5.4.2 Developing the coding categories

Literate discourse was distributed across categories and throughout the book-making process. Although the entirety of the dialogue shared during writing sessions could be considered literate discourse, special attention was paid to how children were supported to engage in *overt* literate discourse (i.e. rather than the implicit discourse that also saturated the process). Investigating explicit reference to the writing process and self as a writer was expected to provide a measure of children's metacognitive understandings related to writing (Wray 2002). A review of the corpus showed that children engaged in two main categories of overt literate discourse: 'code-based' and 'meaning-based'. Code-based talk related to the graphophonic conventions of transcription and the print features of written artefacts, e.g. 'that's a really long word' and 'my book is five pages'. Meaning-based talk related to text content and the composition process (including consideration of text purpose and audience), e.g. discussing 'good' titles for books and anticipating peer responses to composing choices 'oh, they are going to love this part, it's so funny!'

Overt literate discourse was coded within the 'Story composition and dictation' and 'Identity and Motivation' categories; and with codes beginning in 'L' (see Table 5.3). As children reflected on their skills and each other's narratives, they often engaged in both overt literate discourse and literate identity building, e.g. 'I wrote five whole pages! This is the longest book I've ever written' and 'You do really good illustrations'. Such utterances were assigned multiple codes.

5.5 Literate identity

5.5.1 Definition and relationship to academic achievement

Identity – or beliefs considered true about the self and the groups to which one identifies as belonging – is intimately connected with student motivation, approach to learning, and academic outcomes (Compton-Lilly et al. 2017; De Smedt et al. 2018; Wortham 2006). Gee (2011, p.106) explains that identity is socially constructed and enacted through the discourse which occurs within specific contexts. As such, identity is not static or universally expressed/ enacted in the same way, but differs according to time, place and group dynamics. Factors such as race, socioeconomic status, gender and skills/interests impact this enactment, giving rise to distinct 'sub-identities' (Mishler 1999). One sub-identity which has received considerable interest in recent years is that of 'literate' identity (Moje et al. 2009). Literate identity encompasses beliefs about self as a reader and writer, and the value of participating in

literate practices in relation to personal goals; and, as such, literate identity can be both negative and positive (Delpit 1992; Hall et al. 2010; Moje et al. 2009).

Positive literate identity can emerge early in life, as young children observe literate practices comprising a valued part of sociocultural life within their home and community, and receive encouragement to participate in these practices (Bradford & Wyse 2013). As with other sociocultural practices, children seek to appropriate valued literate ways of being (Calkins 1994; Rogoff 2003). In educational settings this occurs as children interact with peers, teachers and larger discourses of how to do school (Comber 2000; Genishi & Goodwin 2008); and 'within these frameworks of meanings or values, students use a variety of tools and improvisations to perform identities that help shape their literacy practices' (Kuby & Vaughn 2015, p.442).

Positive literate identity is associated with increased motivation, willingness to approach new challenges and incorporate feedback, and academic achievement (Edmunds & Bauserman 2006; Hidi & Boscolo 2006; Logan & Medford 2011). In writing, children's motivation to write is correlated with opportunities for successful writing experiences, positive feedback about their writing approximations, and self-reports of positive feelings about personal writing abilities and using writing to achieve a range of personal and social goals (Bradford & Wyse 2013; Cambourne 2015; De Smedt & Van Keer 2014; Hidi & Boscolo 2006). These findings support the link between cognition and affect, and the need to design learning environments and activities which create the necessary 'conditions of literacy learning' (Cambourne 1995; see Section 4.5.3). It was hypothesised that the WPS process would support children's positive literate identity and learning by creating a playful, supportive and enjoyable context in which to successfully practice and receive feedback on their writing.

5.5.2 Developing the coding categories

Positive literate identity was explored using the sampling of small group writing dialogue outlined above (Section 5.3.3). Utterances related to positive literate identity were included in the 'Identity and Motivation' category for both child-talk and teacher-talk. Given the close link between identity and motivation, these two constructs were combined within the one category. When assigning codes to utterances within this category, attention was paid to interpreting whether they indicated primarily positive motivation, or whether they could be

more clearly linked to literate identity. For example, the utterance: 'You mean, *I* get to perform *my* story today? Yay!' could be considered evidence of positive literate identity (because the child is clearly excited about sharing their writing), but would be coded as a 'positive motivation comment' because it does not reflect metacognition of self as a writer; whereas, the utterance: 'I wrote such a long story, didn't I?' [proud voice] would be coded as 'literate identity comment' because it explicitly refers to the child's beliefs about self as a writer.

5.6 Case study methodology

In an effort to better understand the effects of the WPS intervention, eight case studies were compiled using an array of quantitative and qualitative data. This case investigation aimed to support conclusions regarding causes for any effects obtained within the study, i.e. by taking an in-depth look at how specific children responded to the treatment, it might be possible to say *why* they responded that way (Yin 2014). Of equal importance were the insights into classroom practice which the case studies were expected to afford. Beyond numerical data, the cases sought to answer Grave's (2013, p.185) call for more early literacy research where 'the faces emerge' from the data, so that educators can 'see themselves in the midst of the data along with the children'. It is often the case that carefully controlled empirical studies do not impact classroom practice because they fail to demonstrate how their methods apply to the daily routines and life experienced by children and teachers within classrooms (Allington & Woodside-Jiron 1999). This issue was addressed by constructing cases that depicted how individual children responded to the WPS process and how my role as teacher(-researcher) was critical to the intervention.

As recommended by Yin (2014, pp.27-69) the case selection and approach was guided by distinct research propositions and questions. These were closely aligned to those guiding the overall study. Namely, the research propositions were that: (a) children's identity and academic learning would be facilitated through the multimodal co-construction of written texts; and (b) that linking early writing with narrative play would enhance children's motivation to write and, thereby, their learning. The research questions were identical to those guiding the overall study. The theoretical grounding of the study in sociocultural theory and its hypothesised role in supporting the co-construction of identity and learning within the study, compelled the use of case study methodology. That is, case study research was needed to interrogate the sociocultural processes predicted to support children's learning.

As Booker (2002, p.292) explains, case studies enhance the 'trustworthiness' of early literacy research:

> such trustworthiness derives, however, not from convincing, life-like detail, but from the careful presentation of a logical, well-evidenced argument: an argument supported at each step by documentation from field recordings or observation notes, and strengthened by the researcher's own systematic scrutiny of her or his own theorizing as it develops. In Geertz's (1973) term, this really is 'thick description': not highly-coloured prose, but descriptive writing which makes intelligible the reasons for the beliefs and attitudes, actions and outcomes, recorded by the researcher.

In the current study this descriptive writing sought to capture how diverse children responded to opportunities to use emergent writing techniques to compose narrative texts on topics of their choosing. It also sought to illustrate how linking these texts with play impacted children's motivation to write and literate identity. Section 4.6 outlined how the focal children were selected, including the rationale for selecting diverse learners to test the sociocultural hypotheses at the heart of the research study.

The research questions and propositions (outlined in Section 4.6) informed the use of the following data collection methods: detailed field notes based on observations of children within writing and narrative play sessions, audio recordings and transcripts of dialogue within writing sessions, copies of children's written texts, analysis of children's pre-/post-treatment narrative production and comprehension assessments, and photographs of children (taken by classroom teachers). The gathering of quantitative and qualitative data was expected to provide a form of methodological triangulation (Cohen, Manion & Morrison, p.142), to strengthen the validity of any conclusions reached. The case studies aimed to capture how diverse children 'use multiple sources of information to problem-solve the task of producing a meaningful message' (Harmey, D'Agostino & Rodgers 2017, p.3), or as Clay (2005, p.82) put it more simply, 'capture the learner at work'.

In addition to Yin's (2014) guidelines, the methods outlined by Genishi and Dyson (2005) were used to inform the complex task of constructing qualitative field notes to capture how learning occurs within sociocultural communities. Of particular interest was how each focal child: (a) used their cultural resources, i.e. their knowledge, experiences and attitudes as tools to engage with the treatment activities; (b) responded and contributed to power relations within their classroom community; and (c) responded to the learning opportunities presented, in particular, collaborative dialogue. As documented in the work of Dyson (1993, 1997, 2013), children use narrative writing as a social tool, 'to achieve a sense of personhood and social belonging, of control and agency in a shared world'. Composition serves as a medium

through which children explore and pursue social fairness, which she describes as 'access to power and pleasure' (Dyson 1997, p.7).

Dyson and others have extensively documented how children appropriate popular media and other cultural resources for social agendas within their composing communities (Dyson 1993, 1997; Marsh 2014; Paley 1990; Pantaleo 2009; Wohlwend 2013). Less has been written about how young children develop the *cognitive* and *linguistic* skill of narrative composing and comprehension within these sociocultural settings. While consideration of cultural appropriation and social goals is necessary to understand what motivates children's efforts toward narrative competence, the primary focus in the current study was to explore how children use available cognitive-linguistic scaffolds within collaborative writing to expand their literate skills and identity.

5.7 Summary

The above chapter outlined the major components of the current 'writing as play-scripts' (WPS) intervention, these being:

(1) Small group writing sessions: in which collaborative dialogue and literate identity were promoted via multimodal semiosis, child agency, and responsive 'dialogic scaffolding' provided by peers and teacher-researcher and guided by children's own communicative intent.
(2) Narrative play sessions: in which children used their picture books as 'play-scripts' to guide narrative play with peers.
(3) Case study construction: the creation of a series of in-depth portraits exploring how diverse learners responded to and were supported by the WPS process.

The study was informed by sociocultural theory, in particular Cambourne's (1995) 'conditions of literacy learning' model, which emphasises the need for learners to be actively engaged and supported for literacy learning to occur. These conditions, and how the study supported them, were discussed. In particular, by placing playful, responsive and multimodal interaction at the heart of the study, it is hypothesised that collaborative dialogue (child-child and child-teacher) will be shown to be the causal mechanism through which learning occurs. The role of collaborative dialogue in supporting the co-construction of narrative texts was expected to be central, thus informing the use of discourse analysis and case study methodology to investigate these sociocultural learning processes.

PART 3: RESULTS

Chapter 6. Effects on narrative development: production and comprehension

The current chapter presents the results of quantitative measurements aimed at answering the study's first guiding research question: did using early writing as play-scripts lead to improvements in children's narrative competency? Two main areas of narrative competency were explored: production and comprehension. These were measured using pre- and post-study narrative retell tasks. A brief recap of these measurements (explained in detail in Chapter 5, Section 5.2) is provided below. The criteria set for determining statistical significance was set at α=.05. Paired t-tests were used to measure variance in pre-/post-study means.

Narrative production was measured at two levels: microstructural and macrostructural. Microstructural narrative quality reflects the quality of language use at the lexicogrammatical (word and sentence) level and was measured by calculating:

(1) *Mean length of utterance:* the average number of words used per communication-unit (C-unit), defined as an independent clause and its associated subordinate clauses;
(2) *Vocabulary:* ratio of unique words to total number of words used, known as 'type token ratio' (TTR),
(3) *Fluency:* words per minute and maze words as a percentage of total words;
(4) *Errors:* at the word or utterance level, e.g. incorrect nouns, pronouns, verb tense or word order.

Macrostructural narrative quality reflects text level organisation and development of specific components needed to communicate subjective experience through narrative. This was measured using the *Narrative Scoring Scheme* (NSS; see Appendix 5), which assigns scores between 0-5 for each of the following components:

(1) Introduction; (2) Character Development; (3) Mental States; (4) Referencing; (5) Conflict/ Resolution; (6) Cohesion; and (7) Conclusion.

Narrative comprehension was assessed using two measurements. Firstly, using a series of eight questions after completing their story retell; four questions related to literal

understanding of story events, and four related to inferential understanding of character mental states. Secondly, retell transcripts were coded for evidence of comprehension of the action and/or consciousness landscape using multimodal indicators (i.e. verbal and non-verbal). A detailed description of these measurements was provided in Chapter 5.

To explore the study's overall treatment effects and possible differences in effects for specific sub-groups, results were explored for each of the following participant groupings:

a. Combined cohorts (all preschool and school age participants)
b. Age: preschool/school
c. Gender: male/female
d. Language learner type: monolingual/multilingual
e. Oral language proficiency: low/high

The results of these groupings are presented below, looking first at narrative production (Section 6.1) and then at narrative comprehension (Section 6.2).

It should be noted that sub-group analysis will result in reduced numbers. This factor will create issues with significance testing. In many cases, however, it will be possible to use a repeated measures ANOVA procedure. This will allow an investigation as to the possible differential impact of the treatment.

6.1 Did children's ability to produce narratives improve?

6.1.1 Combined cohorts

Microstructural quality:

Table 6.1a shows the results of paired *t*-tests for microstructural quality for both age cohorts combined. It shows that significant increases occurred in MLU (p=<.01) and TTR (p=.03). There was also a significant decrease in Errors (p=.02). Fluency (WPM) and Maze Word Percentage decreased, but did not reach significance levels. These results indicate that across the study children's microstructural narrative quality improved. Children's language became more syntactically complex, and their vocabulary and accuracy of language use improved.

Macrostructural quality:

The macrostructural narrative quality scores for the combined age cohorts are shown in Table 6.1b. Total NSS scores showed a statistically significant increase (p=<.01), indicating that the

overall structure of children's narratives improved. When each story element was tested separately, the following were found to achieve significant increases: Introduction (p=<.01), Character Development (p=.02), and Mental States (p=<.01). These results indicate that the WPS treatment had an overall positive effect on children's narrative production at the macrostructural level, with some, but not all, story grammar elements showing significant improvements.

Table 6.1a Microstructural narrative quality scores, age cohorts combined

		Pre-test		Post-test			
Cohort	Variable	*M*	*SD*	*M*	*SD*	*t*-test (*df* 29)	*p* value
Combined (preschool and school cohorts)	MLU (words)	6.1	0.78	6.9	1.19	4.01	<.01**
	TTR	0.35	0.05	0.38	0.06	1.91	.03*
	Errors	15.86	10.9	12.6	8.5	2.02*	.02*
	WPM	67.25	16.6	64.52	18.5	0.78	0.77
	Maze %	7.9	4.9	7.6	5.5	0.3	0.38

*p<.05, **p<.01. MLU (words)=mean length of utterance in C-units, TTR=type token ratio, Errors=grammatical errors at the word or utterance level, WPM=words per minute, Maze=percentage of utterances containing maze words.

Table 6.1b Macrostructural narrative scores (using NSS tool) by age cohorts combined

		Pre-test		Post-test			
Cohort	Variable	*M*	*SD*	*M*	*SD*	*t*-test (*df* 29)	*p* value
Combined (preschool and school)	Introduction	1.3	0.46	2.2	0.76	5.57	<.01**
	Character Development	1.83	0.59	2.03	0.61	1.99	.02*
	Mental States	1.5	0.57	2.17	0.53	4.82	<.01**
	Referencing	2.2	0.80	1.83	0.53	3.26	0.99
	Conflict/Resolution	2.1	0.80	2.07	0.69	0.25	0.59
	Cohesion	2.13	0.82	1.83	0.65	2.75	0.99
	Conclusion	2	0.69	2	0.83	0.00	0.5
	TOTAL	13.03	3.54	14.17	3.44	2.58**	<.01**

*p<.05, **p<.01.

6.1.2 Preschool versus school-age learners

Microstructural quality:

Table 6.1.2a shows microstructural narrative quality scores when grouped by learner age: preschool and school age participants. These results show an increase in MLU for the preschool cohort (p=.06) which approached the alpha level. For the school cohort the increase in MLU was significant (p=<.01). Only the school cohort showed a significant increase in TTR (p<.01). Maze Word Percentage increased slightly for the preschool cohort; but decreased for the school age cohort, approaching significance level (p=.09). Similarly, Errors

increased slightly for the preschool cohort, but showed a statistically significant decrease for the school cohort (p<.01). These results provide evidence that the preschool age children achieved gains in language complexity across the study, with their utterances becoming more elaborated. For school age children, evidence was found for significant gains in language complexity, vocabulary, and accuracy of language production.

Table 6.1.2a Microstructural narrative quality scores by age cohort

		Pre-test		Post-test			
Cohort	Variable	*M*	*SD*	*M*	*SD*	*t*-test	*p* value
Preschool	MLU (words)	5.79	0.92	6.39	1.20	1.60	0.06
	TTR	0.34	0.07	0.33	0.05	0.42	0.66
	Errors	18.45	14.14	19.27	8.98	0.40	0.65
	WPM	68.24	16.22	58.76	17.46	1.70	0.94
	Maze %	9.27	4.49	10.6	6.35	0.64	0.73
School	MLU (words)	6.27	0.65	7.19	1.12	3.92	<.01**
	TTR	0.36	0.04	0.40	0.05	2.97	<.01**
	Errors	14.36	8.68	8.52	5.02	3.43	<.01**
	WPM	66.67	17.21	67.86	18.68	0.027	0.39
	Maze %	7.1	5.06	5.84	4.25	1.34	0.09

*p<.05, **p<.01. MLU (words)=mean length of utterance in C-units, TTR=type token ratio, Errors= errors at the word or utterance level, WPM=words per minute, Maze=percentage of utterances containing maze words. Note, *df* for *t*-tests were 10 and 18, preschool and school respectively.

Macrostructural quality:

Results for macrostructural narrative quality grouped by learner age are shown in Table 6.1.2b. For the preschool cohort scores show a significant increase in the following story grammar elements across the study: Introduction (p<.01), Character Development (p=.01), and Conflict Resolution (p=.05). For the school age cohort, significant increases were found for: Introduction (p<.01), Mental States (p<.01) and Conclusion (p<.05). Overall macrostructural quality scores (total NSS scores) showed significant increases for both the preschool cohort (p=.01) and school cohort (p<.01). These results provide evidence that the study was effective in supporting improvements in key story grammar elements and overall macrostructural quality.

A 2x2 repeated measures ANOVA was performed on the NSS total scores. Significant effects were found for age (F(1, 28)=14.3, p<.01), and for time (F(1, 28)=6.1, p=.02). The interaction term was not significant. Thus, the means were higher in the case of older children, and showed increases after treatment, with both groups indicating similar levels of increased scores.

Table 6.1.2b Macrostructural narrative quality scores (using NSS tool) by age cohort

		Pre-test		Post-test			
Cohort	Variable	*M*	*SD*	*M*	*SD*	*t*-test	*p* value
Preschool	Introduction	1.18	0.40	2	0.23	3.61	<.01**
	Character Development	1.36	0.50	1.72	0.64	2.39	.01**
	Mental States	1.81	0.60	2.0	0.63	0.80	0.22
	Referencing	1.63	0.92	1.55	0.68	0.43	0.66
	Conflict/Resolution	1.45	0.82	1.81	0.87	1.79	.05*
	Cohesion	1.36	0.67	1.45	0.82	1.0	0.17
	Conclusion	1.73	0.78	1.18	0.40	3.46	0.99
	TOTAL	10.54	3.9	11.72	3.84	2.95	<.01**
School	Introduction	1.36	0.49	2.31	0.17	4.25	<.01**
	Character Development	2.10	0.46	2.21	0.53	0.81	0.21
	Mental States	1.32	0.48	2.26	0.45	6.65	<.01**
	Referencing	2.5	0.51	2	0.33	4.47	0.99
	Conflict/Resolution	2.47	0.512	2.21	0.53	1.75	0.95
	Cohesion	2.58	0.51	2.05	0.40	3.75	0.99
	Conclusion	2.15	0.60	2.47	0.61	1.84	.04*
	TOTAL	14.47	2.38	15.58	2.27	1.67	.05*

*p<.05, **p<.01. Note, *df* for *t*-tests were 10 and 18, preschool and school respectively.

6.1.3 Gender

Microstructural quality:

Table 6.1.3a shows the results of microstructural scores when grouped by gender. Both female and male children showed a significant increase in MLU (female: p<.01; male: p=.01). The increase in TTR did not reach significance levels for females or males, but approached for both genders (female: p=.14; male: p=.06). Similar results were found for Errors; neither group showed increases that met the significance criteria, but both were close (female: p=.10; male: p=.07). WPM and Maze word percentage did not meet or approach significance levels.

Table 6.1.3a Microstructural narrative quality scores by gender

		Pre-test		Post-test			
Cohort	Variable	*M*	*SD*	*M*	*SD*	*t*-test	*p* value
Female	*MLU (words)*	6.23	0.87	6.99	0.97	3.34	<.01**
	TTR	0.36	0.04	0.38	0.05	1.10	0.14
	Errors	13.81	10.06	11.06	8.47	1.31	0.10
	WPM	65.66	14.62	64.32	13.14	0.32	0.62
	Maze %	7.75	4.98	7.5	5.41	0.22	0.41
Male	*MLU (words)*	5.94	0.66	6.79	1.43	2.42	.01**
	TTR	0.35	0.05	0.37	0.07	1.61	0.06
	Errors	18.21	11.8	14.35	8.6	1.50	0.07
	WPM	69.06	18.98	64.71	23.72	0.72	0.75
	Maze %	8.07	4.98	7.71	5.90	0.21	0.41

*p<.05, **p<.01. MLU (words)=mean length of utterance in C-units, TTR=type token ratio, Errors=grammatical errors at the word or utterance level, WPM=words per minute, Maze=percentage of utterances containing maze words. Note, *df* was 15 and 13 for females and males respectively.

Macrostructural quality:

For macrostructural narrative quality (see Table 6.1.3b) analysis of gender groupings showed a significant increase for females and males for the following story grammar elements: Introduction (females: p=<.01; males: p=.01) and Mental States (females: p=<.01; males: p=<.01). Females showed a significant increase in scores for Character Development (p=.05), but males did not (p=.16). No significant effects were obtained for the remaining story grammar elements. Overall macrostructural quality scores showed a significant increase for females (p=.01), but not for males (p=.09).

Table 6.1.3b Macrostructural narrative quality scores (using NSS tool) by gender

		Pre-test		Post-test			
Cohort	Variable	*M*	*SD*	*M*	*SD*	*t*-test	*p*-value
Female	Introduction	1.37	0.5	2.43	0.62	6.24	.00**
	Character Development	1.93	0.57	2.18	0.65	1.73	.05*
	Mental States	1.56	0.62	2.12	0.5	3.09	<.01**
	Referencing	2.37	0.8	2.0	0.51	2.42	0.98
	Conflict/Resolution	2.25	0.77	2.25	0.57	0	0.50
	Cohesion	2.25	0.77	2.0	0.63	1.46	0.91
	Conclusion	2.25	0.57	2.18	0.75	0.32	0.62
	TOTAL	14	3.32	15.25	3.19	2.26	0.01**
Male	Introduction	1.21	0.42	1.92	0.82	2.5	.01**
	Character Development	1.71	0.61	1.85	0.53	1.0	0.16
	Mental States	1.42	0.51	2.21	0.57	3.66	<.01**
	Referencing	2.0	0.78	1.64	0.49	2.11	0.97
	Conflict/Resolution	1.92	0.82	1.85	0.77	0.32	0.62
	Cohesion	2.0	0.87	1.64	0.63	2.68	0.99
	Conclusion	1.71	0.72	1.78	0.89	0.32	0.37
	TOTAL	11.92	3.56	12.92	3.40	1.39	0.09

*p<.05, **p<.01. Note, *df* was 15 and 13 for females and males respectively.

A 2x2 repeated measures ANOVA was performed on the total NSS quality scores. A significant effect was found for time (F(1, 28)=6.4, p=.01). The effect for gender did not achieve significance (p=.8). In other words, the gender difference did not actually reach significance, and the treatment effect was shown to occur equally for both genders.

6.1.4 Monolingual versus multilingual language learners

Microstructural quality:

When participants were grouped by language learner type - monolingual and multilingual - the results showed apparent differences in intervention effects (Table 6.1.4a). Firstly, for the microstructural variables, increases in MLU scores for monolingual learners alone did not

reach the significance level. They did, however, for multilingual learners (p=<.001). The percentage increase in MLU scores in the case of monolingual learners was 7%. In the case of multilingual learners the corresponding percentage was 14%. However, a 2x2 repeated measures ANOVA indicated that the actual difference between the two groups did not achieve a significant interaction effect.

Effects on vocabulary (TTR) showed greater increases for monolingual learners (p<.01), than multilingual learners (p=.27). A 2x2 repeated measures ANOVA was performed. The interaction between time and language learner type achieved significance, F (1,28) = 4.5, p=. 04. The overall effect for treatment was significant. These findings suggest that, while supportive of all language learners' vocabulary development, the WPS intervention was relatively more supportive for those children with higher levels of English proficiency. Possible reasons for this difference will be explored in Chapter 9. Figure 6.1.4a shows a graphical representation of these results.

Table 6.1.4a Microstructural narrative quality scores by language learner type

		Pre-test		Post-test			
Cohort	Variable	*M*	*SD*	*M*	*SD*	*t*-test	*p* value
Monolingual	*MLU (words)*	6.20	0.86	6.64	1.41	1.29	0.11
	TTR	0.37	0.02	0.43	0.05	3.50	<.01**
	Errors	14	10.5	9.37	10.18	2.88	.01**
	WPM	62.28	10.2	58.16	13.13	0.78	0.77
	Maze %	7.62	4.13	5.75	4.2	1.27	0.12
Multilingual	*MLU (words)*	6.06	0.77	6.99	1.12	3.87	<.01**
	TTR	0.35	0.06	0.36	0.05	0.60	0.27
	Errors	16.54	11.26	13.77	7.8	1.3	0.10
	WPM	69	18.23	66.84	19.83	0.50	0.68
	Maze %	8	5.23	8.27	5.90	0.22	0.41

*p<.05, **p<.01. MLU (words)=mean length of utterance in C-units, TTR=type token ratio, Errors=errors at the word or utterance level, WPM=words per minute, Maze=percentage of utterances containing maze words. Note, *df* was 7 and 21 for monolingual and multilingual learners respectively.

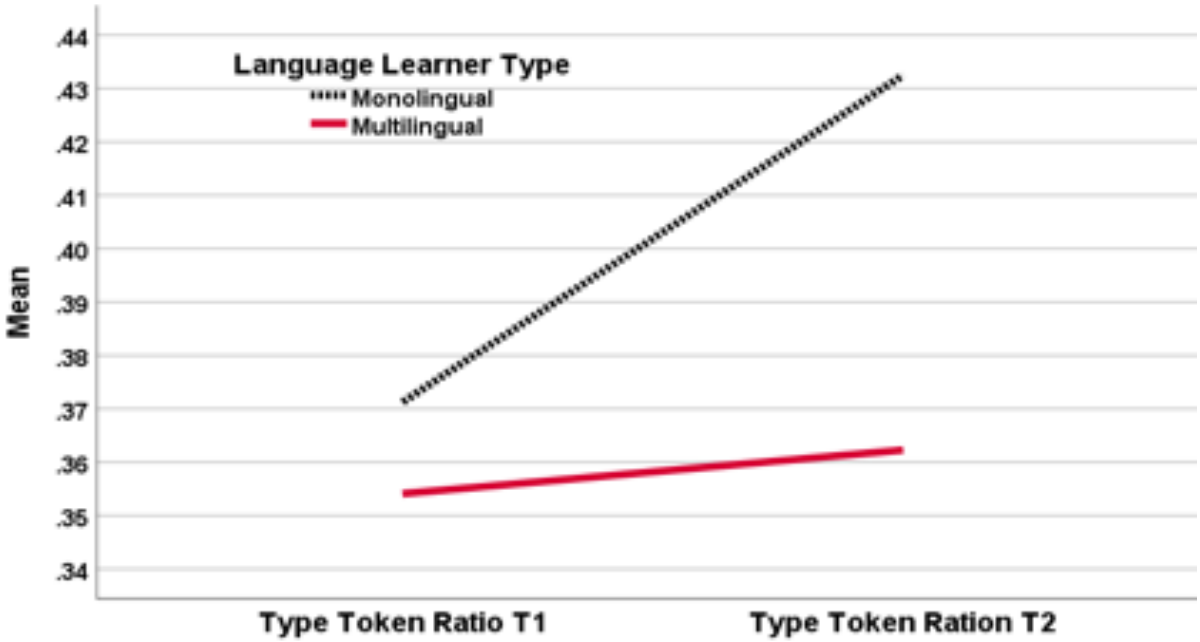


Figure 6.1.4a Type Token Ratio Means by language learner type

When looking at Errors, a significant reduction was found for monolingual learners (p=<.01), although this was less significant in the case of the multilingual learners alone (p=.10). However, a repeated measures ANOVA indicated that time and grouping did not interact. Thus it can be assumed that the impact of treatment was equivalent for both language groups.

Macrostructural quality:

Macrostructural quality by language learner type (see Table 6.1.4b) showed a statistically significant increase for monolingual and multilingual children for the following story grammar elements: Introduction (monolinguals: p=<.01; multilinguals: p=<.01) and Mental States (monolinguals: p=<.01; multilinguals: p=<.01). To test for possible differences between monolinguals and multilinguals, a series of repeated measures ANOVAs was used covering all the macrostructural variables. In all instances, the interaction terms were not significant. Thus, the treatment did not differ in impact across these two groups.

Previous research with multilingual learners suggests that microstructural skills are more sensitive to English language experience than macrostructural skills, which have been shown to be more permeable across languages (Boerma et al. 2016). Therefore, it is expected that extended collaborative dialogue in English would likely result in higher increases in children's microstructural skills in English, which was indeed found. Interestingly, the fact that their macrostructure also improved suggests growth in higher level text composition

skills which cross language barriers. While not sought in the current study, it would be interesting for future studies to test this possible influence of engaging multilingual children in WPS on their translanguage skills.

Table 6.1.4b Macrostructural narrative quality scores (using NSS tool) by language learner type

		Pre-test		Post-test			
Cohort	Variable	*M*	*SD*	*M*	*SD*	*t*-test	*p* value
Monolingual	Introduction	1.25	0.46	2.65	0.51	7.51	<.01**
	Character Development	2	0.53	2.35	0.51	1.42	0.09
	Mental States	1.25	0.46	2.25	0.46	5.29	<.01**
	Referencing	2.25	0.70	1.87	0.35	2.04	0.97
	Conflict/Resolution	2.25	0.70	2.12	0.35	0.42	0.65
	Cohesion	2.25	0.70	2.12	0.64	0.55	0.70
	Conclusion	2.125	0.35	2.25	0.70	0.40	0.34
	TOTAL	13.12	2.69	15.62	2.13	2.45	.02*
Multilingual	Introduction	1.31	0.47	2.04	0.78	3.64	<.01**
	Character Development	1.77	0.61	1.90	0.61	1.36	0.09
	Mental States	1.59	0.59	2.13	0.56	3.19	<.01**
	Referencing	2.18	0.85	1.81	0.58	2.59	0.99
	Conflict/Resolution	2.04	0.84	2.04	0.78	0.00	0.50
	Cohesion	2.09	0.86	1.72	0.63	2.93	0.99
	Conclusion	1.95	0.78	1.90	0.86	0.27	0.60
	TOTAL	13	3.85	13.63	3.71	1.44	0.08

*p<.05, **p<.01. Note, *df* was 7 and 21 for monolingual and multilingual learners respectively.

6.1.5 Initial oral language proficiency

Children's initial oral language proficiency (hereafter abbreviated as 'OLP') was grouped into two categories (low/high) by calculating age cohort MLU means based on the pre-treatment narrative retell task (preschool M=5.79, school M=6.27). Those scoring below their age cohort mean were classified as 'low' OLP and those scoring above were classified as 'high' OLP. This procedure enabled two groups to be identified, with low n=18 and high n=12.

Microstructural quality:

Table 6.1.5a shows the microstructural scores based on OLP groupings. To test for possible interaction effects, the OLP factor was entered into repeated measures ANOVAs concerning the microstructural quality variables. Significant change scores had earlier been shown to occur for MLU, TTR, and Errors (see Table 6.1a). Proficiency scores were then entered as a between-subjects factor in these analyses. A significant interaction effect was evident in the case of MLU, F (1,28) = 5.1, p=.03. This indicated that the change from Time 1 to Time 2 was greater in the case of the low OLP group. This interaction effect is shown in Figure 6.1.5.

In the case of Errors the interaction between time and OLP grouping achieved a marginal significance (p=.05). It was apparent that the level of errors reduced in the higher group from 18.1 to 11. The lower group reduced from 14.4 to 13.7. Thus apparently the change was slightly greater in the higher OLP group.

In the case of TTR the interaction between time and OLP grouping was not significant. Therefore it can be assumed that the overall increase in vocabulary occurred equally for both groups.

Table 6.1.5a Microstructural narrative quality scores by initial oral language proficiency

		Pre-test		Post-test			
Cohort	Variable	*M*	*SD*	*M*	*SD*	*t*-test	*p* value
Low	*MLU (words)*	5.63	0.57	6.83	1.21	5.01	<.01**
	TTR	0.37	0.04	0.38	0.05	0.40	0.34
	Errors	14.38	11.6	13.66	9.55	0.32	0.37
	WPM	60.33	15.08	64.44	20.32	0.97	0.17
	Maze %	7.27	4.77	7.88	5.98	0.46	0.67
High							
	MLU (words)	6.80	0.48	7.01	1.21	0.75	0.23
	TTR	0.33	0.05	0.38	0.07	2.51	.01**
	Errors	18.08	9.94	11	6.86	3.96	<.01**
	WPM	77.62	13.35	64.65	16.19	2.69	0.98
	Maze %	8.83	5.14	7.16	5.04	1.14	0.13

*p<.05, **p<.01. Note, *df* was 17 and 11 for low and high OLP respectively.

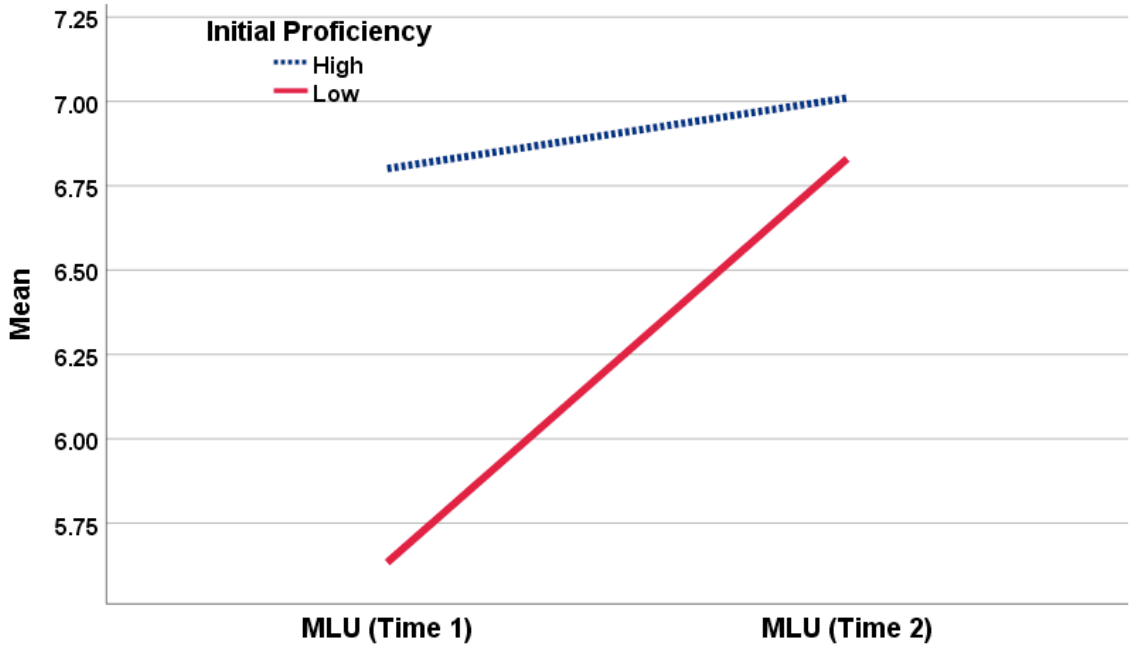


Figure 6.1.5 Pre-treatment mean length of utterance scores by age cohort

Macrostructural quality:

Table 6.1.5b shows the macrostructural quality scores based on OLP groupings. Again, to test for interaction effects, the initial OLP factor was entered into repeated measures ANOVAs concerning the macrostructural quality variables. Significant change variables had earlier been found for Introduction, Character Development, and Mental States, as well as the Total score (see Table 6.1.5b). This set of analyses disclosed that although significant changes were evident, no significant interaction effects were associated with initial OLP. In other words, it can be assumed that the treatment impact was equivalent for both groups.

Table 6.1.5b Macrostructural narrative quality scores (using NSS tool) by initial oral language proficiency

		Pre-test		Post-test			
Cohort	Variable	*M*	*SD*	*M*	*SD*	*t*-test	*p* value
Low (n=18, *df*=17)	Introduction	1.16	0.38	2.27	0.75	5.23	.00**
	Character Development	1.83	0.61	2.11	0.58	2.05	.02*
	Mental States	1.61	0.60	2.16	0.61	3.00	.004**
	Referencing	2.22	0.80	1.83	0.51	2.71	0.99
	Conflict/Resolution	2.11	0.83	2.11	0.67	0.00	0.50
	Cohesion	2.11	0.83	1.88	0.67	1.45	0.91
	Conclusion	1.94	0.72	2.22	0.87	1.56	0.06
	TOTAL	12.94	3.78	14.66	3.58	3.04	.003**
High (n=12, *df*=11)	Introduction	1.5	0.52	2.08	0.79	2.54	0.01**
	Character Development	1.83	0.57	1.91	0.66	0.56	0.29
	Mental States	1.33	0.49	2.16	0.38	4.02	.001**
	Referencing	2.16	0.83	1.83	0.57	1.77	0.94
	Conflict/Resolution	2.08	0.79	2	0.73	0.32	0.62
	Cohesion	2.16	0.83	1.75	0.62	2.80	0.99
	Conclusion	2.08	0.66	1.66	0.65	2.15	0.97
	TOTAL	13.16	3.29	13.41	3.23	0.39	0.35

*$p<.05$, **$p<.01$. Note, *df* was 17 and 11 for low and high OLP respectively.

6.1.6 Summary

The current section sought to answer one of the study's research questions (Question 1a): Did engaging in early writing as play-scripts improve children's ability to produce narratives? Results were explored for the following groupings: combined age cohorts, single age (preschool/school) cohorts, language learner type, gender, and initial oral language proficiency. The results of each of these groupings are briefly summarised below.

Combined cohort results showed that children's microstructural and macrostructural production skills improved across the study period. For microstructural quality, significant

improvements were found in children's language complexity (MLU) and vocabulary (TTR). A significant decrease in word and utterance level errors also indicated growth in children's syntactical understanding. For macrostructural quality, significant growth was found in children's overall scores and those related to the story grammar elements of: Introduction, Character Development, and Mental States.

When grouped by age, it was found that only school age children achieved a significant increase in MLU and TTR, and a decrease in Errors. However, preschool children did experience an increase in MLU that was close (p=.06) to the established significance level. For macrostructural quality the preschool cohort showed significant improvements in the story grammar elements of: Introduction, Character Development and Conflict/Resolution; and the school cohort in: Introduction, Mental States and Conclusion. Both age cohorts showed significant improvements in overall NSS scores.

When grouped by language learner type, microstructural results showed that only multilingual participant scores showed a significant increase in MLU; and only monolingual participant scores showed a significant increase in TTR and decrease in Errors. For macrostructural quality, both monolingual and multilingual participants showed significant improvements for specific story grammar elements (namely, Introduction and Mental States); however, only monolingual participants achieved a significant increase in overall NSS score.

By gender, microstructural scores showed a significant increase in MLU for both females and males. Macrostructural scores showed that females showed significant improvement in the story grammar elements of: Introduction, Character Development and Mental States; and males showed significant improvements in: Introduction and Mental States. Overall NSS scores showed a significant improvement for females, but not males.

By initial oral language proficiency, microstructural results showed that only the low OLP group achieved a significant increase in MLU; whereas only the high OLP group achieved a significant increase in TTR and decrease in Errors. Macrostructural scores show that the low OLP group showed significant increases in a greater number of story grammar elements, and was the only group to achieve a significant increase in overall NSS scores.

6.2 Did children's ability to comprehend narratives improve?

Children's ability to comprehend narratives was assessed using two methods. Firstly, children were asked a series of eight questions, four literal and four inferential, designed to assess their overt comprehension of the story. Literal questions focused on story events and inferential questions on character intent and beliefs (see Appendix 12). Secondly, their narrative retells were analysed for evidence of Bruner's dual landscapes: action and consciousness. A detailed description of the dual landscape and its importance in narrative development was provided in Chapter 2 (Section 2.1). To briefly recap, the action landscape consists of details about temporal events/actions; and the consciousness landscape consists of details regarding the inner world (or consciousness) of story characters, e.g. intent, emotion and thought. Both are essential components of quality narrative composition and comprehension. Utterances within children's retells were coded as contributing primarily to development of the action or consciousness landscape. Utterances were defined as communication-units: an independent clause and its subordinate clauses. In instances were an utterance contributed equally to both, it was coded for both. The relative frequency of utterance codes for each landscape was sought as a measure of how children had comprehended and retained details relevant to recreating each landscape.

It was hypothesised that inferential scores on the direct questioning task would increase, as children became more familiar with attending to and discussing the consciousness landscape. These results were expected in response to intervention's focus on supporting children to attend to characters' internal states through the use of character 'speech and thought' bubbles and the promotion of dialogue related to the consciousness landscape. Literal comprehension scores were expected to increase or remain stable. For similar reasons, it was also hypothesised that codings for the action landscape would remain stable or decrease, and that codings for the consciousness landscape would increase, as a proportion of total utterances. That is, as children became more skilled as narrative composers, their retells would show evidence of heightened attention to the consciousness landscape, i.e moving away from a literal retell of events toward subjective perspective and experience within those events.

6.2.1 Combined cohorts

Direct questioning (literal and inferential comprehension):

When combined by age cohort, direct questioning scores (see Table 6.2.1a) showed that literal comprehension scores increased significantly ($p<.01$); inferential comprehension scores

increased significantly (p<.01); and total comprehension questioning scores improved significantly (p<.01). These results are in agreement with and add further evidence to that found above, i.e. that children's attention to and understanding of the consciousness landscape improved across the study. This result confirmed the hypothesis that the WPS intervention would lead to improvements in inferential comprehension.

Dual landscape development (utterance code frequencies):

For the landscape coding frequencies, the results (see Table 6.2.1b) show that combined cohort effects were as hypothesised: action landscape codings decreased significantly (p<.01); consciousness landscape codings increased significantly (p<.01); and consciousness to action landscape coding proportions increased significantly (p<.01). Therefore, evidence of an increase in attention to and development of the consciousness landscape within children's narrative retells across the intervention was found.

Table 6.2.1a Direct comprehension questioning scores, combined cohorts

		Pre-test		Post-test			
Cohort	Variable	*M*	*SD*	*M*	*SD*	*t*-test *df* 28	*p* value
Combined (preschool and school)	Literal	3.23	0.77	3.83	0.37	4.26	<.01**
	Inferential	1.46	0.86	2.1	1.32	2.91	<.01**
	Total	4.75	1.27	6	1.46	4.37	<.01**

*p<.05, **p<.01.

Table 6.2.1b Utterances related to landscapes of action and consciousness, combined cohorts

		Pre-test		Post-test			
Cohort	Utterance Code	*M*	*SD*	*M*	*SD*	*t*-test *df* 28	*p* value
Combined (preschool and school)	Action	31	6.84	24	5.23	6.29	<.01**
	Consciousness	3.75	2.79	8.13	3.46	11.37	<.01**
	Consciousness to Action Ratio	0.11	0.07	0.33	0.10	13.72	<.01**

*p<.05, **p<.01.

6.2.2 Preschool versus school-age

Direct questioning (literal and inferential comprehension):

When grouped by age, results for direct questioning (see Table 6.2.2a) show that increases in literal comprehension scores reached significance level for the preschool (p<.01) and school (p<.01) age cohorts. Inferential comprehension scores improved but did not reach significance levels for the preschool cohort (p=.29), but did for the school cohort (p<.01). Total

comprehension questioning scores improved significantly for both preschool (p<.05) and school (p<.01) cohorts. These results show that the preschool students made greater gains in literal comprehension, and the school students made greater gains in inferential comprehension. Possible reasons for these differences will be discussed in Chapter 9, but they reflect previous findings that inferential reasoning in narrative comprehension (i.e. perspective taking and meta-representations of others' mental states) develop with age (Wellman, Cross & Watson 2001).

Table 6.2.2a Literal and inferential comprehension scores

Cohort	Utterance Code	Pre-test		Post-test			
		M	*SD*	*M*	*SD*	*t*-test	*p* value
Preschool	Literal	2.72	0.90	3.63	0.50	2.88	<.01**
	Inferential	1.27	0.78	1.45	0.93	0.55	0.29
	Total	4.1	1.1	5.2	1.22	1.94	.04*
School	Literal	3.52	0.51	3.94	0.22	3.61	<.01**
	Inferential	1.57	0.90	2.47	1.38	3.25	<.01**
	Total	5.1	1.24	6.42	1.42	4.04	<.01**

*p<.05, **p<.01. Note, *df* was 9 and 18 for preschool and school age learners respectively.

Dual landscape development (utterance code frequencies):

Table 6.2.2b shows the results of dual landscape coding frequencies grouped by age. It was found that the frequency of action landscape codings decreased significantly for the preschool cohort (p<.01) and school cohort (p<.01). Similarly, as hypothesised, the frequency of consciousness codings increased significantly for preschool (p<.01) and school (p<.01) age cohorts. The ratio of consciousness to action codings, also showed a significant increase for both preschool (p<.01) and school (p<.01) age cohorts. These results provide evidence that both preschool and school students improved across the intervention period in their ability to compose and comprehend the consciousness landscape. Interestingly, the preschool results suggest that assessing younger children's understanding of the consciousness landscape through analysis of story retells might provide a more sensitive measure of their emerging (i.e. implicit) understanding of the consciousness landscape than direct questioning.

Table 6.2.2b Utterances related to landscapes of action and consciousness by age cohort

		Pre-test		Post-test			
Cohort	Utterance Code	*M*	*SD*	*M*	*SD*	*t*-test	*p* value
Preschool	Action	33.4	8.39	26.6	5.16	3.50	<.01**
	Consciousness	5.4	2.9	9.3	4.02	6.09	<.01**
	Consciousness to Action Ratio	0.15	0.05	0.35	0.12	8.27	<.01**
School	Action	30	5.78	22.63	4.85	5.10	<.01**
	Consciousness	2.89	2.32	7.52	3.06	9.55	<.01**
	Consciousness to Action Ratio	0.09	0.07	0.32	0.10	11.19	<.01**

*p<.05, **p<.01. Note, *df* was 9 and 18 for preschool and school age learners respectively.

6.2.3 Gender

Direct questioning (literal and inferential comprehension):

For direct questioning scores, the results (see Table 6.2.3a) show that literal comprehension scores increased significantly for females (p<.01) and males (p=.01). Inferential comprehension scores also showed a significant increase for females (p<.05) and males (p<.05). Total comprehension questioning scores improved significantly for both females (p<.01) and males (p<.01). These results are in agreement with and provide further evidence to that found above, i.e. that children's attention to and understanding of the consciousness landscape improved across the treatment period for both female and male participants.

Table 6.2.3a Comprehension scores by gender

		Pre-test		Post-test			
Cohort	Utterance Code	*M*	*SD*	*M*	*SD*	*t*-test	*p* value
Female	Literal	3.31	0.60	3.87	0.34	3.57	<.01**
	Inferential	1.5	0.81	2.18	1.42	1.96	.03*
	Total	4.93	1.16	6.2	1.56	3.10	<.01**
Male	Literal	3.14	0.94	3.78	..42	2.58	.01**
	Inferential	1.42	0.93	2	1.24	2.28	.02*
	Total	4.57	1.39	5.78	1.36	2.97	<.01**

*p<.05, **p<.01. Note *df* was 15 and 13 for female and male students respectively.

Dual landscape development (utterance code frequencies):

In agreement with the hypothesised direction of change (see Table 6.2.3b), the frequency of action landscape codings decreased significantly (p<.01) for females and males. Similarly, as hypothesised, the frequency of consciousness codings increased significantly (p<.01) for

females and males. The proportion of consciousness to action codings, also shows a significant (p<.01) increase for both females and males.

Table 6.2.3b Utterances related to landscape of action and consciousness by gender

		Pre-test		Post-test			
	Utterance type	*M*	*SD*	*M*	*SD*	*t*-test	*p value*
Female	Action	32.8	5.84	25.53	5.38	4.33	<.01**
	Consciousness	4	2.67	8.4	3.5	6.81	<.01**
	Consciousness to Action Ratio	0.11	0.07	0.32	0.10	8.5	<.01**
Male	Action	29.42	7.6	22.35	4.7	4.42	<.01**
	Consciousness	3.5	3.0	7.85	3.52	10.19	<.01**
	Consciousness to Action Ratio	0.11	0.07	0.34	0.11	11.15	<.01**

*p<.05, **p<.01. Note *df* was 15 and 13 for female and male students respectively.

6.2.4 Monolingual versus multilingual language learners

Direct questioning (literal and inferential comprehension):

For direct questioning scores, the results (see Table 6.2.4a) show that literal comprehension scores increased significantly for both monolinguals (p=.01) and multilinguals (p<.01). Inferential comprehension scores also showed a significant increase for monolinguals (p=.01) and multilinguals (p<.05). Total comprehension questioning scores improved significantly for both monolinguals (p<.01) and multilinguals (p<.01). These results are in agreement with and provide further evidence to that found above, i.e. that children's attention to and understanding of the consciousness landscape improved across the treatment for both types of language learners.

Table 6.2.4a Direct questioning comprehension scores by language learner type

		Pre-test		Post-test			
Cohort	Variable	*M*	*SD*	*M*	*SD*	*t*-test	*p* value
Monolingual	Literal	3.5	0.53	4	0	2.64	.01*
	Inferential	1.75	0.70	2.75	1.16	2.64	.01**
	Total	5.25	1.03	6.75	1.16	3.96	<.01**
Multilingual	Literal	3.13	0.83	3.77	0.42	3.52	<.01**
	Inferential	1.36	0.90	1.86	1.32	1.91	.03*
	Total	4.57	1.32	5.71	1.48	3.11	<.01**

*p<.05, **p<.01. Note *df* was 7 and 20 for monolingual and multilingual learners respectively.

Dual landscape development (utterance code frequencies):

For landscape coding frequencies, the results (see Table 6.2.4b) show that combined cohort effects were as hypothesised: action landscape codings decreased significantly for monolinguals (p=.01) and multilinguals (p<.01); consciousness landscape codings increased significantly for monolinguals (p<.01) and multilinguals (p<.01); and consciousness to action landscape coding ratio increased significantly for monolinguals (p<.01) and multilinguals (p<.01). Therefore, evidence of an increase in attention to and development of the consciousness landscape in children's narrative across the treatment was found for both groups of language learners.

Table 6.2.4b Utterances related to landscapes of action and consciousness by language learner type

		Pre-test		Post-test			
Cohort	Utterance Code	*M*	*SD*	*M*	*SD*	*t*-test	*p* value
Monolingual (*n*=8, *df*=7)	Action	31.65	3.92	24.37	4.59	2.93	.01**
	Consciousness	3.37	2.38	8.12	3.18	5.05	<.01**
	Consciousness to Action Ratio	0.10	0.08	0.32	0.08	7.35	<.01**
Multilingual (n=21, *df*=20)	Action	31	7.75	23.85	5.56	5.48	<.01**
	Consciousness	3.90	2.98	8.14	3.63	10.39	<.01**
	Consciousness to Action Ratio	0.11	0.07	0.33	0.11	11.34	<.01**

*p<.05, **p<.01. Note *df* was 7 and 20 for monolingual and multilingual learners respectively.

6.2.5 Initial oral language proficiency

Direct questioning (literal and inferential comprehension):

When participants were grouped by initial oral language proficiency (OLP; low, N=18, high, N=12) direct questioning scores (see Table 6.2.5a) showed that literal comprehension scores increased significantly for low OLP (p<.01) and high OLP (p<.05). Inferential comprehension scores also showed a significant increase for high OLP (p<.01), but not low OLP (p=.08). Total comprehension questioning scores improved significantly for both low OLP (p<.01) and high OLP (p<.01). These results show that the low OLP group made greater gains in literal comprehension, while the high OLP group made greater gains in inferential comprehension.

Table 6.2.5a Comprehension scores by initial oral language proficiency

Cohort	Utterance Code	Pre-test		Post-test			
		M	*SD*	*M*	*SD*	*t*-test	*p* value
Low	Literal	3.11	0.75	3.77	0.42	4.12	<.01**
	Inferential	1.5	0.92	1.94	1.30	1.45	0.08
	Total	4.7	1.35	5.82	1.42	2.72	<.01**
High	Literal	3.41	0.79	3.91	0.28	1.91	.04*
	Inferential	1.41	0.79	2.33	1.37	3.18	<.01**
	Total	4.83	1.19	6.25	1.54	3.74	<.01**

*p<.05, **p<.01. Note *df* was 17 and 11 for low and high initial oral language proficiency respectively.

Dual landscape development (utterance code frequencies):

Dual landscape codings (see Table 6.2.5b) showed that frequency of action landscape codings decreased significantly for the low OLP group (p<.01) and high OLP group (p<.01). Similarly, as hypothesised, the frequency of consciousness codings increased significantly for low OLP (p<.01) and high OLP (p<.01). The proportion of consciousness to action codings, also showed a significant increase for both low OLP (p<.01) and high OLP (p<.01). These results provide evidence that students with low and high oral language proficiency improved in their ability to compose and comprehend the consciousness landscape.

Table 6.2.5b Utterances related to landscapes of action and consciousness by initial oral language proficiency

Cohort	Utterance Code	Pre-test		Post-test			
		M	*SD*	*M*	*SD*	*t*-test	*p* value
Low	Action	31.29	5.88	24.17	4.86	4.88	<.01**
	Consciousness	3.23	2.43	7.64	2.87	7.84	<.01**
	Consciousness to Action Ratio	0.10	0.07	0.31	0.11	8.67	<.01**
High	Action	31	8.3	23.75	5.9	3.81	<.01**
	Consciousness	4.5	3.2	8.83	4.19	8.45	<.01**
	Consciousness to Action Ratio	0.13	0.07	0.35	0.09	13.61	<.01**

*p<.05, **p<.01. Note *df* was 17 and 11 for low and high initial oral language proficiency respectively.

6.2.6 Summary

The current section sought to answer one of the study's main research questions: Did the intervention improve children's ability to understand narratives? Of particular interest was children's ability to understand the consciousness landscape, which requires more complex social-cognitive and linguistic skills to interpret implied mental states and meta-

representations of multiple perspectives (Aldrich et al. 2011; Curenton 2011). It was shown that children's literal and inferential comprehension, as assessed through direct questioning, increased significantly. Children's understanding of both the action and consciousness landscape improved, as reflected in overt responses to questioning about each landscape; and as demonstrated through more implicit understandings communicated multimodally within story retell utterances (e.g. affective prosody communicating understanding of emotions not directly communicated linguistically through the use of mental state words).

When results were explored by sub-groups - age, language learner type, gender and initial oral language proficiency - results remained largely unchanged. One marked exception was a drop in significance level in inferential questioning score increases when children were grouped by age. Preschool children's inferential score increases did not reach the significance level on the direct questioning task, but did so for consciousness landscape utterance codings. This could be due to the two tasks measuring overt and implicit understanding of the consciousness landscape, respectively. As will be discussed in Chapter 9, using story retells might provide a more sensitive measure of young children's emerging inferential reasoning.

6.3 Effect sizes

The impact of a treatment can be indexed in terms of effect sizes. Cohen's (1977) procedure was used in analysing the current dataset, using the recommended coefficient for repeated measurements. The advantage of this analysis is that effect size is indexed in terms of standard deviation units. Using Ferguson's (2009) criteria for interpreting effect size strengths, the following thresholds were used to assist with interpreting the results: below .02: 'no effect'; above 0.2: 'small' (but 'practically significant'); above 0.5: 'moderate'; above 0.8: 'large'; >1.0: 'very large'. Using these values as a guide, Table 6.3 (far right column) includes a practical 'descriptor' of the effect sizes obtained in the current study.

Dramatic increases (above the 0.5 level) were found for all microstructural variables and the majority of macrostructural variables. These effect sizes indicate that the treatment was highly effective in supporting children's linguistic skills related to narrative composing. Table 6.3 also shows the effect sizes for increases in narrative comprehension measured through direct questioning. Dramatic increases were found for effects on literal and inferential comprehension.

Table 6.3 Effect sizes for narrative production and comprehension skill development

Variable	Effect size	Descriptor
Narrative production: microstructural quality		
Syntactic complexity (MLU)	1.1	Very large
Vocabulary (TTR)	0.72	Moderate
Accuracy (Errors)	0.54	Moderate
Narrative production: macrostructural quality		
Introduction	1.49	Very large
Character development	0.52	Moderate
Mental states	1.26	Very large
Referencing	0.96	Large
Conflict/Resolution	0.06	No effect
Cohesion	0.74	Moderate
Conclusion	0	No effect
Narrative comprehension: direct questioning		
Literal	1.22	Very large
Inferential	0.81	Large

Note: Effect sizes are expressed in terms of Cohen's *d* for repeated measurements (Cohen 1977)

Earlier analysis (Section 6.2.2) had shown differences in literal and inferential comprehension skill growth as measured through direct questioning when participants were grouped by age. Effect sizes were therefore also calculated for these comprehension variables by age group. This confirmed that the treatment was relatively more successful at supporting inferential comprehension in the school age cohort (effect size 1.14, compared to 0.24 for the preschool age cohort). Likely reasons for this will be explored in Chapter 9 (Section 9.1.2).

Overall, it can be noted that moderate to very large effects were recorded for ten out of the twelve narrative variables investigated. Thus, beyond 'statistically significant' results, the intervention was shown to be very effective in supporting children's narrative development.

7.1 Brief review of discourse analysis techniques and related research questions

To evaluate possible effects of the WPS treatment on both the type and volume of collaborative dialogue exchanged within the treatment, small group writing sessions were audio-recorded at four time points across the study: Weeks 1, 4, 8, and 12. Each sample consisted of one hour of dialogue. Samples were transcribed and coded using the 'Systematic Analysis of Language Transcripts' (SALT) software program. The codes used to analyse the discourse were developed by the researcher, with the aim of generating data relevant to answering the study's research questions. Both child and teacher talk were coded into five main categories, as listed below in Table 7.1. These were then refined into sub-categories to support analysis of the types of linguistic scaffolds, collaborate dialogue and literate identity evidenced in the dialogue. See Chapter Five for a description of the discourse analysis techniques employed (a complete list of final codes can be found in Table 5.2).

Table 7.1 Key categories used to explore child and teacher dialogue during small group writing sessions

Teacher	Child
1. Getting started & generating ideas	6. Getting started & generating ideas
2. Book making	7. Book making
3. Story composition & transcription	8. Story composition & dictation
4. Motivation & literate identity	9. Motivation & literate identity
5. Peer collaboration prompts	10. Peer collaboration

According to sociocultural theory, if instruction is occurring within the child's zone of proximal development, there should be evidence that the child's level of independent performance is increasing. That is, the child should demonstrate increased responsibility for performing tasks that once required outside support, through a process referred to as 'transfer of responsibility'. To evaluate whether or not a transfer of responsibility had occurred within the treatment, two key questions were asked:

1. Did children assume greater responsibility for initiating and maintaining dialogue?
2. Did the amount/type of teacher scaffolds change to evidence transfer of responsibility?

The results presented in Section 7.2 will focus firstly on sources of data related to changes in child discourse across the treatment period, i.e. seeking to answer question one. The results presented in Section 7.3 will focus on possible changes in teacher discourse, i.e. seeking to answer question two.

7.2 Evidence of 'transfer of responsibility' in child-talk

To determine if children assumed greater responsibility for initiating and maintaining dialogue, child utterances as a percentage of total utterances (c-units) exchanged within the small group writing sessions were calculated. It was found that within the preschool cohort, child utterances as a percentage of total utterances increased from 45% to 51%. For the school cohort, child utterances increased from 44% to 52% (see Figures 7.2a and 7.2b). Therefore, evidence of transfer of responsibility from teacher to child for initiating and maintaining dialogue was found; moving from a slightly greater proportion of teacher-talk to a slightly greater proportion of child-talk. This transfer of responsibility was found for both age cohorts.

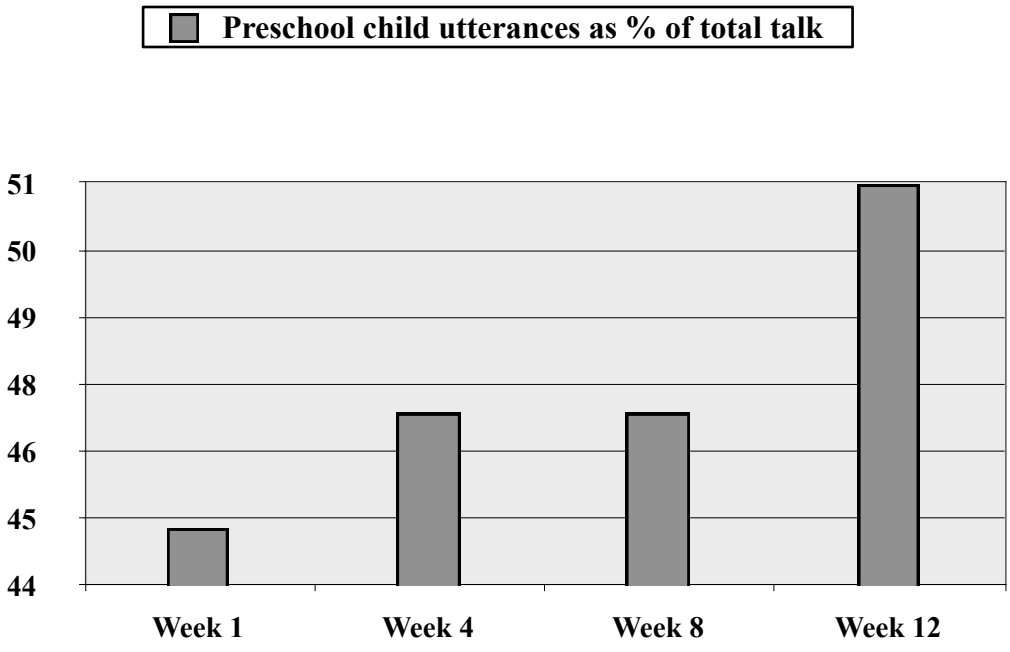


Figure 7.2a Preschool child utterances as percentage of total dialogue within writing sessions

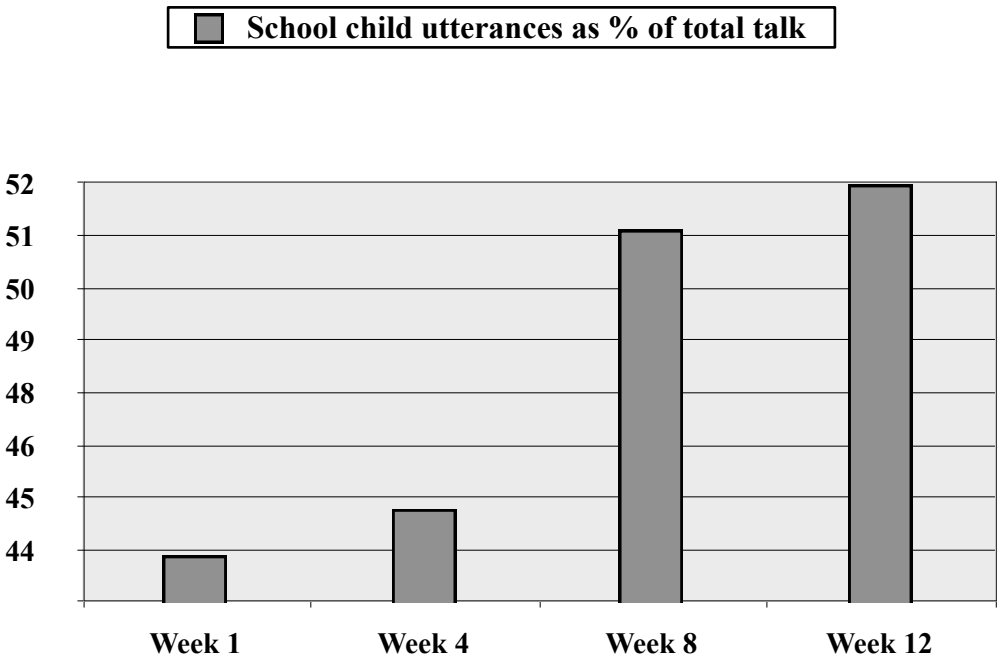


Figure 7.2b School child utterances as percentage of total dialogue within writing sessions

In addition to exploring overall shifts in child discourse by *volume* (i.e. percentage of total dialogue), potential changes in the *type* of discourse were also explored. Shifts in utterances within each discourse category could provide evidence of change in how children used language for different purposes and, thus, aid further analysis of transfer of responsibility. To this end, the frequency of child utterances within each major category were calculated (see Table 7.2 preschool and school cohort data; and Figures 7.2a and 7.2b for graphic representation of this data).

Table 7.2 Frequency of child utterances by discourse category

	Preschool				School			
Child discourse category	Wk 1	Wk 4	Wk 8	Wk 12	Wk 1	Wk 4	Wk 8	Wk 12
6. Getting started & generating ideas	18	38	43	25	10	48	25	37
7. Book making	54	37	59	51	34	41	30	56
8. Story composition & dictation	130	133	117	136	171	163	205	209
9. Motivation & literate identity	18	22	25	31	5	32	65	83
10. Peer collaboration	11	39	28	42	1	40	36	38
Total codings	231	269	272	285	221	324	361	423

The data show several interesting results. Firstly, the total number of preschool child utterances increased from 231 to 285 - a 23% increase. Total number of school child utterances increased 221 to 423 - a 91% increase. Both preschool and school cohort results provide evidence of increased child participation and engagement in collaborative dialogue during writing sessions.

The frequency of talk within each category also indicate shifts in children's use of talk during different stages of writing. For the preschool cohort the following changes were found: *Getting started & generating ideas* codings increased from 18 to 25 utterances; *Book making* coding decreased slightly, from 54 to 51 utterances; *Story composition & dictation* codes increased from 130 to 136 utterances; *Motivation & Literate Identity* codes increased from 18 to 31 utterances; and *Peer collaboration* codings increased from 11 to 42 utterances. Interestingly, the frequency of talk related to the process of writing (categories 6-8) peaked toward the middle of the study, whereas talk related to motivation and literate identity, as well as peer collaboration, continued to rise across entire study. This suggests that children may have relied more on peer interaction to compose their narratives earlier in the study and then sought peer interaction more as validation of self as a writer.

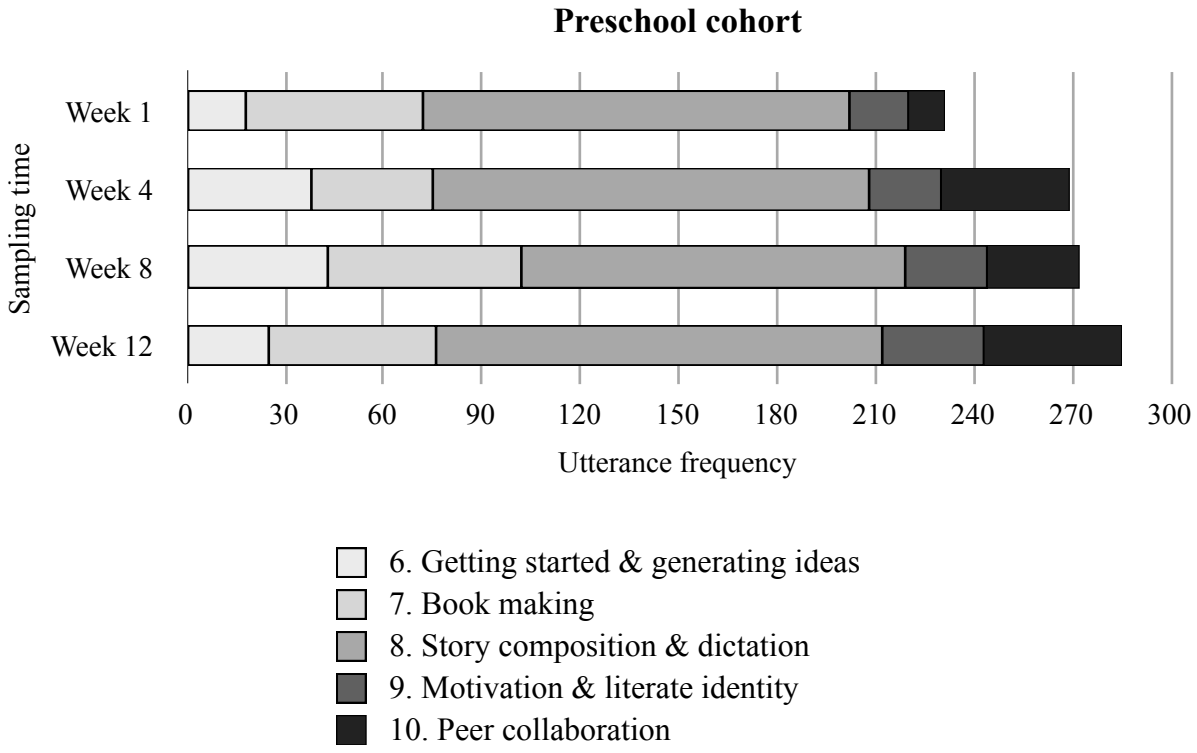


Figure 7.2c Frequency of preschool child utterance codes by discourse category

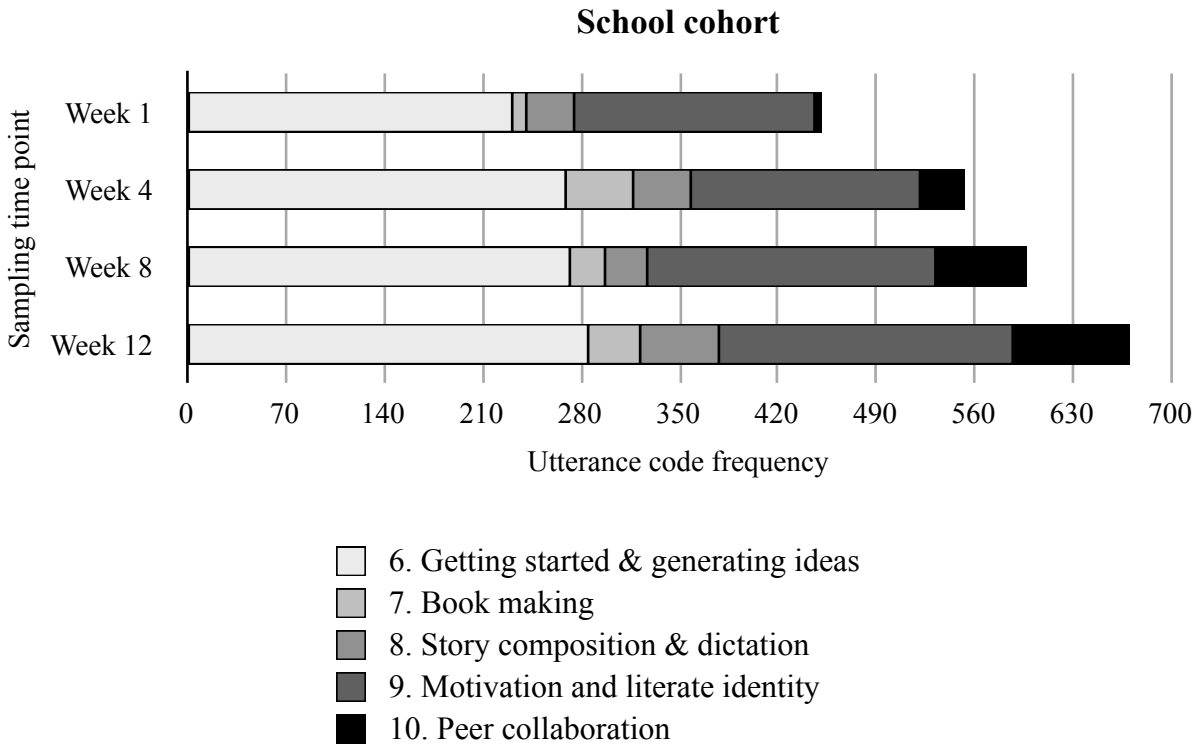


Figure 7.2d Frequency of school child utterance codes by discourse category

For the school cohort an analysis of coding category frequencies showed the following results: *Getting started & generating ideas* codings increased across the treatment period from 10 to 37 utterances; *Book making* coding increased from 34 to 56 utterances; *Story composition & dictation* codes increased from 171 to 209 utterances; *Motivation & Literate Identity* codes increased from 5 to 83 utterances; and *Peer collaboration* codings increased from 1 to 38 utterances. These increases were more dramatic than for the preschool cohort, but showed a similar pattern. Talk related to the process of writing (categories 6-8) peaked toward the middle of the study, then decreased somewhat, peaking again at the end. Talk related to positive identity as a writer continued to increase across the study.

In addition to investigating frequency changes, the relative proportion of each discourse category was of interest, i.e. did children's use of talk within each category differ as a percentage of their overall talk? To this end, the percentage of total utterance codes for each main category as a percentage of total child utterances was calculated (see Figures 7.2e and 7.2f).

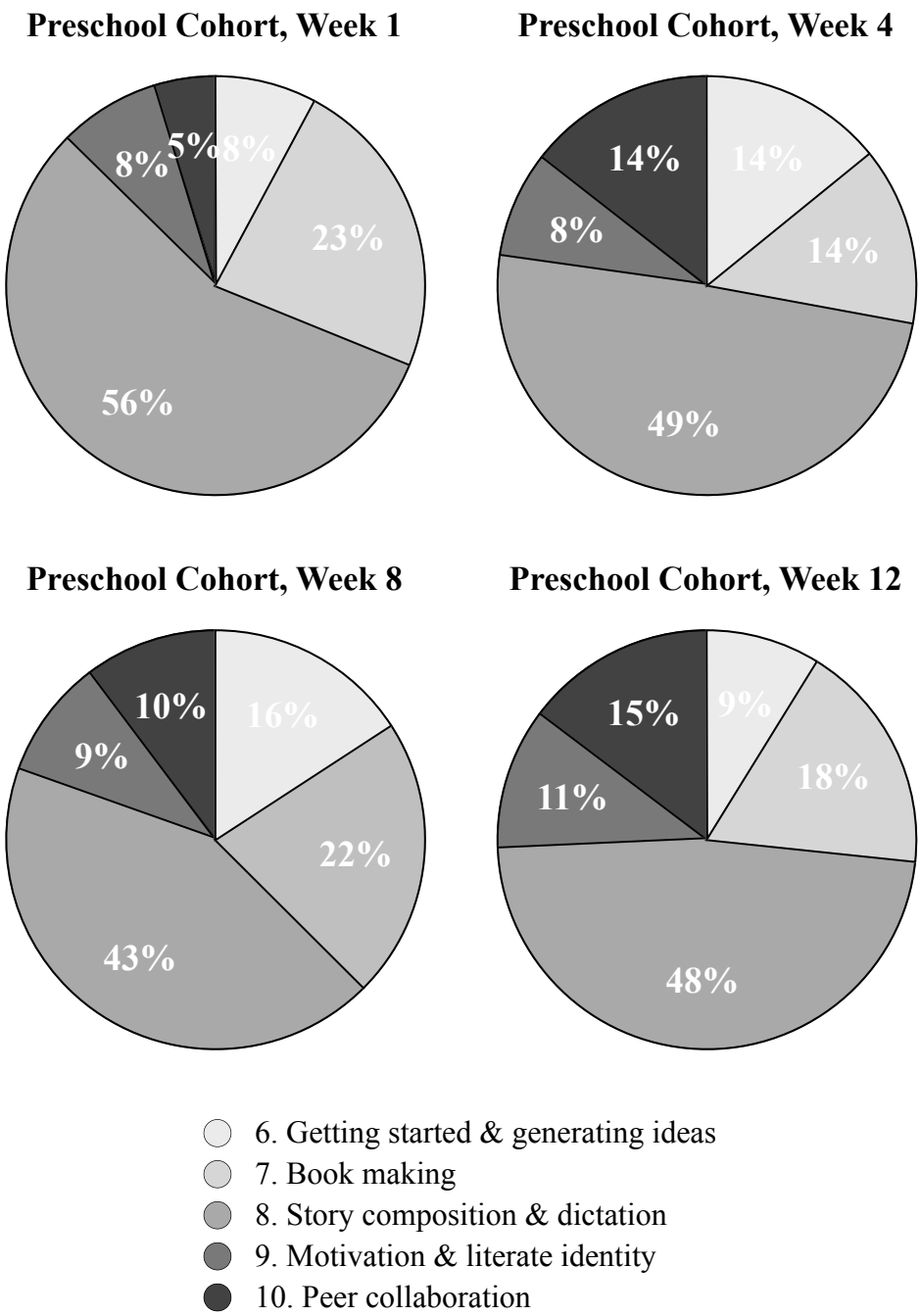


Figure 7.2e Preschool cohort child discourse code category frequencies as a percentage of total child code frequencies, shown at Weeks 1, 4, 8, and 12

These results were of relevance to the question of whether or not transfer of responsibility had occurred. The most teacher-oriented child talk occurred in the Story composition & dictation category, as this talk was aimed mostly at working alongside the teacher to have their story transcribed. Talk within the other four main categories was aimed either solely at peers or at teacher and peers, e.g. sharing comments on their illustrations, discussing story content, seeking help with illustrations, and making comments on other children's illustrations/stories. The results show that within the preschool cohort, code proportions shifted in the following ways: *Story composition & dictation*, decreased from 56% to 48%; *Getting started &*

generating ideas increased slightly, from 8% to 9%; *Book making* decreased from 23% to 18%; *Motivation & literate identity* increased from 8% to 11%; and *Peer collaboration* increased from 5% to 15%. These results provide evidence that preschool age child-talk did indeed shift away from being predominantly teacher-oriented; i.e. the proportion of utterances coded within the *Story composition & dictation* category decreased and talk within the other more peer-oriented categories increased.

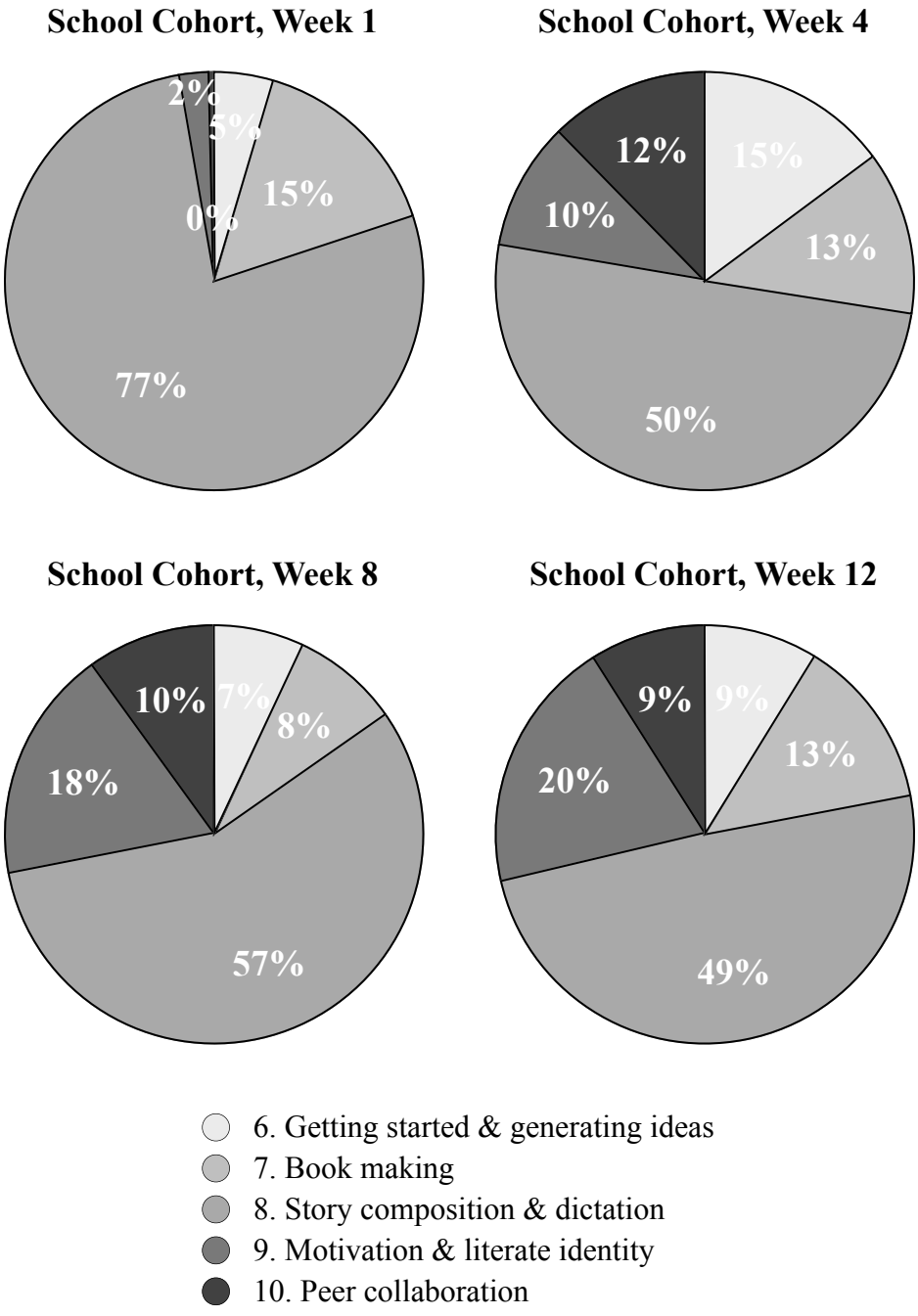


Figure 7.2f School cohort child discourse category code frequencies as a percentage of total discourse codes

Results of category proportions for the school age cohort, show the following changes: *Story composition & dictation*, decreased from 77% to 49%; *Getting started & generating ideas*, increased from 5% to 9%; *Book making* decreased slightly from 15% to 13%; *Motivation & literate identity* increased from 2% to 20%; and *Peer collaboration* increased from 0% to 9%. These results provide evidence that school age child-talk did indeed shift away from being predominantly teacher-oriented; i.e. the proportion of utterances coded within the *Story composition & dictation* category decreased and talk within the other more peer-oriented categories increased. Notably, the proportions for *Motivation & literate identity* and *Peer collaboration* showed the largest increases (18 and 9 percentage points, respectively). These results provide evidence that an increase in child motivation and engagement, as well as an increase in literate identity and peer collaboration, occurred across the treatment (to be discussed further in Sections 7.5 and 7.6).

To further explore transfer of responsibility, two additional tests were conducted. Firstly, the frequency of child utterances within the *Story composition & dictation* category at each sampling time point were calculated. It was hypothesised that, if transfer of responsibility had occurred, the frequency of child utterances within this category would increase, i.e. children would do more talking within this category as they took ownership of the writing process. Secondly, the mean length of child utterances (MLU) was calculated to see if the complexity of children's talk increased. Again, it was hypothesized that, if transfer of responsibility had occurred, MLU would increase - as children become more involved in the writing process and adopted a more elaborate storytelling style.

The results for *Story composition & dictation* code frequencies (see Figure 7.2g) show that, for the preschool age cohort frequencies increased from 130 to 136; and frequencies for the school age cohort increased from 171 to 209. Calculation of child MLU for the preschool cohort (see Figure 7.2h) show an increase from 4.38 to 4.46; and for the school age cohort MLU an increase from 4.69 to 6.56.

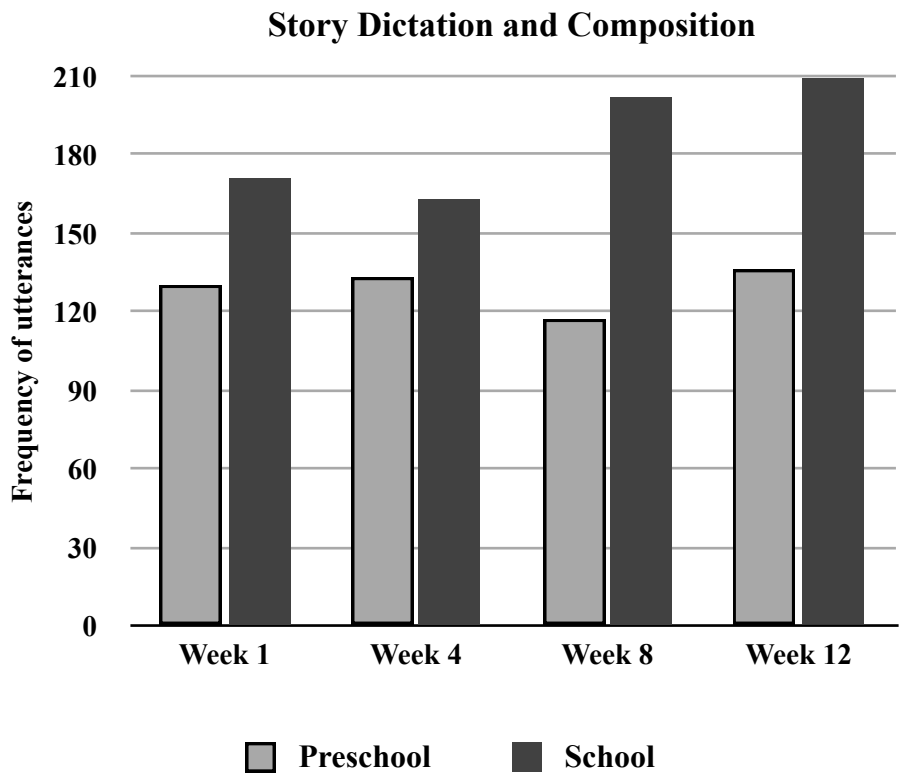


Figure 7.2g Frequency of preschool and school age child story composition and dictation codes

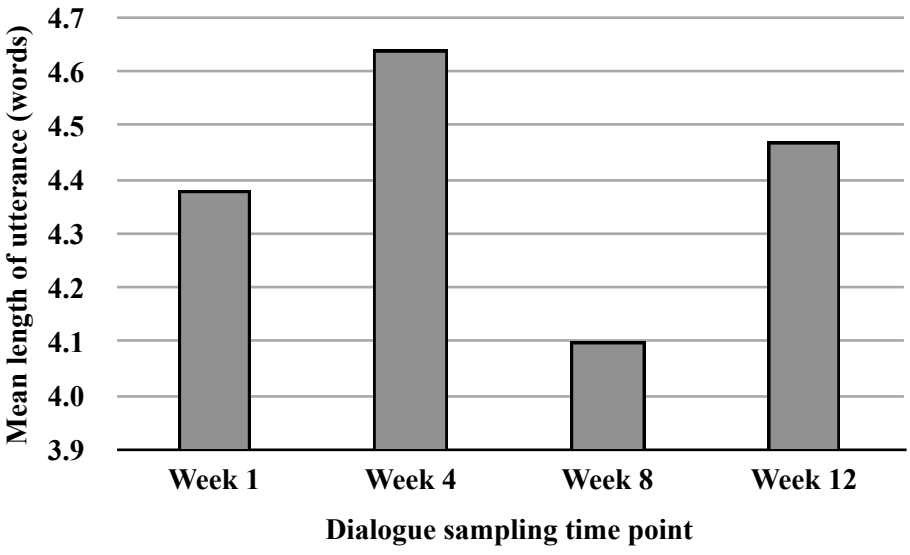


Figure 7.2h Preschool cohort mean length of utterance in small group writing sessions

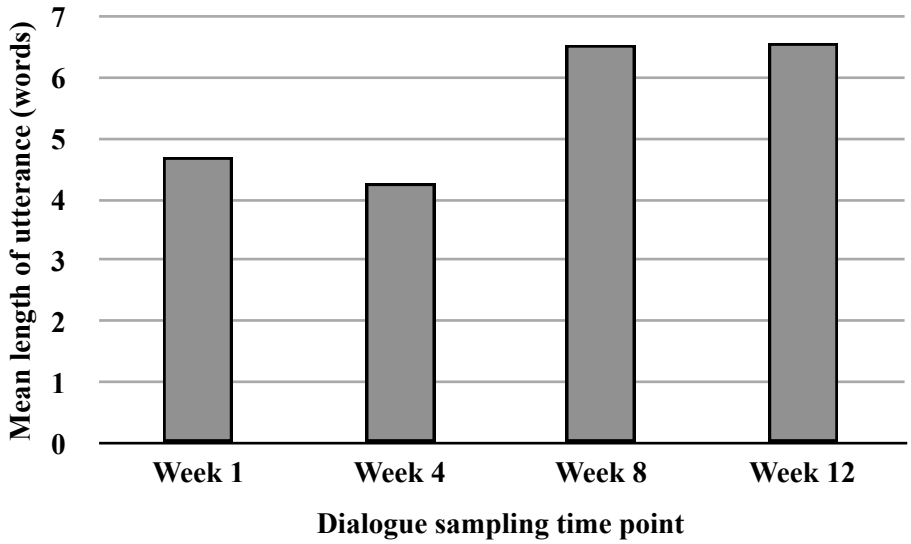


Figure 7.2i School cohort mean length of utterance in small group writing sessions

To summarise, three sources of data were used to explore whether or not a transfer of responsible for collaborative dialogue and story composition had occurred across the intervention. Firstly, the proportion of child-talk (as percentage of total dialogue) was found to increase for both preschool and school age cohorts. Secondly, the proportion of utterances coded outside the Story composition & dictation category (predominantly teacher-oriented) was found to increase for both age cohorts. And thirdly, the frequency and length (MLU) of child utterances within the Story composition & dictation category was found to increase for both age cohorts. This convergence of results adds validity to the claim that a transfer of responsibility for narrative composing did indeed occur within the study.

7.3 Evidence of 'transfer of responsibility' in teacher-talk

The second question posed in relation to transfer of responsibility was if/how teacher scaffolding changed over the intervention. This required a close look at the categories and sub-categories established for analysing teacher discourse. Three main sources of data were explored: (a) total frequency of teacher-talk; (b) frequency and proportion of teacher-talk within each main discourse category; and, (c) type of linguistic scaffolds within the *Story composition & transcription* category (i.e. to detect possible changes in sub-category frequencies and proportions). If transfer of responsibility had occurred, it was hypothesized thaTeacher: (a) total volume of teacher utterances would decrease, as children assumed greater responsibility for collaborative talk and story composition; (b) the frequency and/or proportion of teacher-talk within the child-oriented *Story composition & dictation* category would decrease, as children assumed greater responsibility for composition and teacher-talk

shifted to support collaborative dialogue between children in the other group-oriented discourse categories; and (c) the type of linguistic scaffolds employed during *Story composition & transcription* would change, as children's narrative production skills increased. Of particular interest were possible changes in codings related to supporting elaboration and coherence, which were hypothesised to decrease as children's composing skills increased.

Firstly, in calculating the frequency of teacher discourse codes within each of the five main categories (see Table 7.3a; and Figures 7.3a and 7.3b), it was found that overall frequencies for the preschool age cohort did not change, remaining stable across the treatment period at 283. In dialogue with the school age cohort, total teacher code frequencies increased from 306 to 337 across the treatment period. These results did not support the hypothesis that transfer of responsibility would be evidenced by a decrease in the *volume* of teacher-related codes. However, when the frequency of actual utterances made by children versus teacher were compared in Section 7.2, the results showed that children did indeed assume greater responsibility for collaborative dialogue, i.e. they did more talking than the teacher (see Table 7.3b). So, while the volume of teacher talk did not decrease, it did as a percentage of overall talk.

Table 7.3a Frequency of teacher codes in major discourse categories, by age cohort

	Code frequency							
	Preschool				School			
Discourse category	Wk 1	Wk 4	Wk 8	Wk 12	Wk 1	Wk 4	Wk 8	Wk 12
1. Getting started & generating ideas	42	59	68	42	24	73	33	68
2. Book making	23	17	51	33	29	30	4	6
3. Story composition & transcription	178	138	129	167	232	234	234	225
4. Motivation & literate identity	38	40	41	26	21	50	22	38
5. Peer collaboration support	2	4	2	15	0	0	2	0
Total codings	283	258	291	283	306	387	295	337

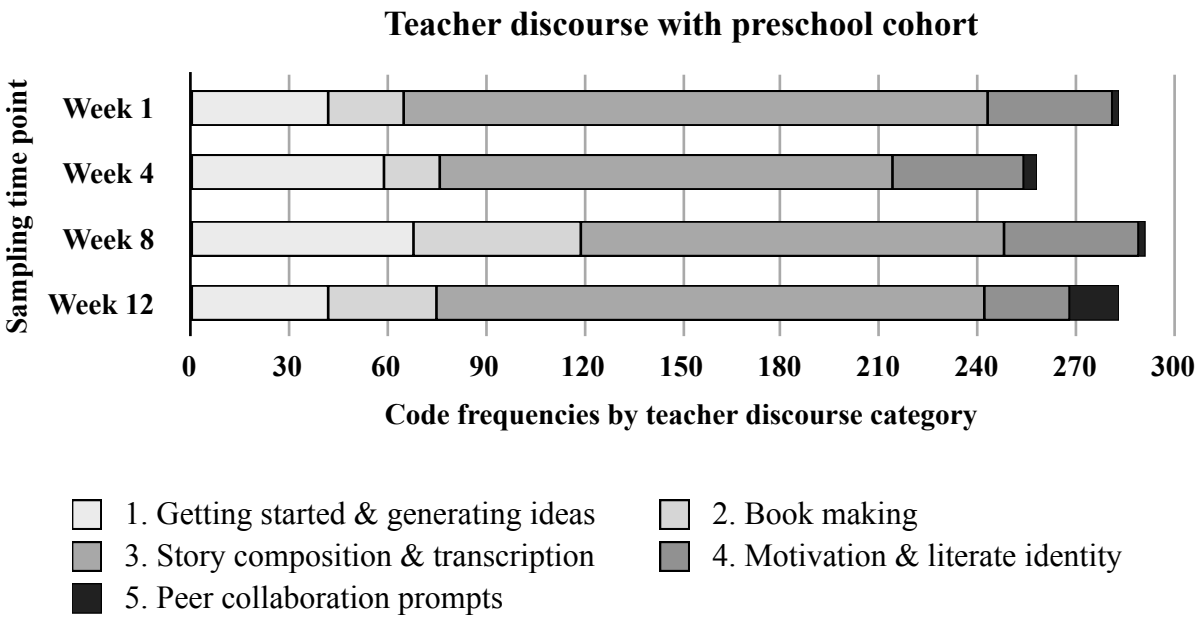


Figure 7.3a Teacher related code frequencies by major discourse categories with preschool cohort

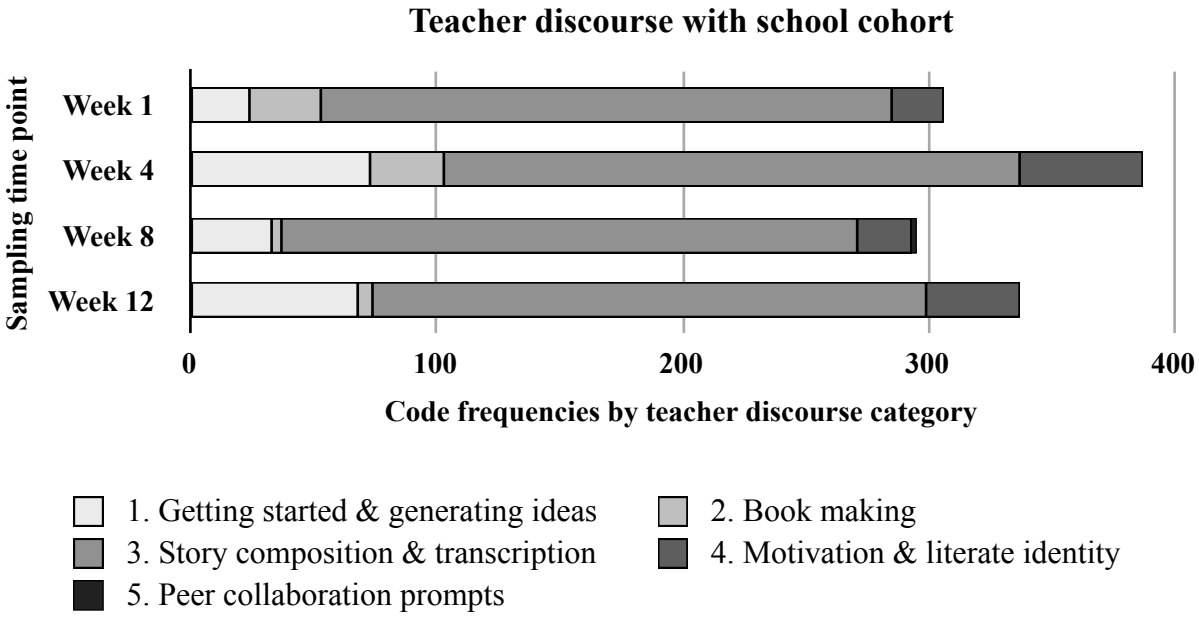


Figure 7.3b Teacher utterance frequencies for major discourse categories with school cohort

Next, the proportion of teacher-talk coded within each main category was calculated. These results show that the proportion of talk coded within each category changed. For dialogue with the preschool age cohort (see Table 7.3 and Figure 7.3c) the following results were found: *Getting started & generating ideas* code frequency was stable at 42 instances, but proportion of total codes increased from 8% to 15%; *Book making* code frequency increased from 23 to 33 instances, but proportion of total codes decreased from 23% to 12%*; Story*

composition & transcription code frequency decreased 178 to 167, but proportion of total codes increased from 56% to 59%; *Motivation & literate identity* code frequency decreased from from 38 to 26, but proportion of total codes increased slightly 8% to 9%; *Peer collaboration prompts* code frequency increased from 2 to 15, whereas proportion of total codes remained stable at 5%.

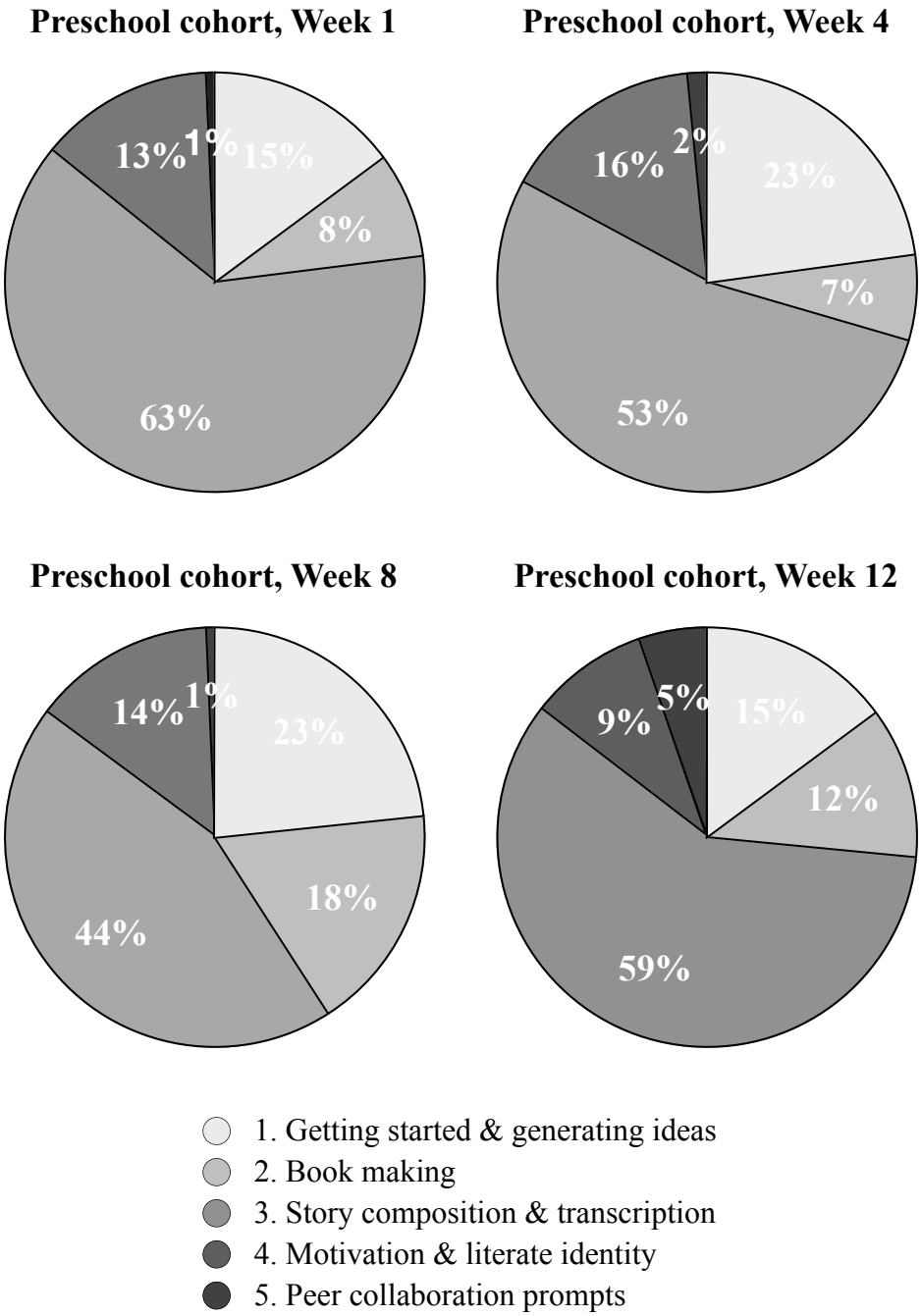


Figure 7.3c Teacher discourse category frequencies as a percentage of total utterance frequencies with preschool cohort

For teacher dialogue with the school age cohort (see Table 7.3 and Figure 7.3d) the following results were found: *Getting started & generating ideas* code frequency increased from 24 to 68 and proportion of total codes increased from 15% to 20%; *Book making* code frequency decreased from 29 to 6 and proportion of total codes decreased from 8% to 2%*; Story composition & transcription* code frequency decreased from 232 to 225 and proportion of total codes increased from 63% to 67%; *Motivation & literate identity* code frequency increased from 21 to 38 and proportion of total codes decreased from 13% to 11%; and the *Peer collaboration prompts* code frequency remained at 0, as did the proportion of total codes at 0%.

These results show that, while the proportion of teacher-talk coded as *Story composition & transcription* (predominantly single-child oriented) did not decrease for either age cohort, the frequency of codings did. Results for the more 'group-oriented' teacher discourse categories (i.e. 1, 2, 4 and 5) showed mixed results in the direction and degree of change for both frequencies and proportion of total talk. For the preschool age cohort: *Getting started & generating ideas* both frequency and proportion increased; for *Book making* frequency increased but proportion decreased; for *Motivation & literate identity* frequency decreased but proportion increased; and for *Peer collaboration prompts* frequency increased but proportion remained stable. For the school age cohort: *Getting started & generating ideas* frequency unchanged but proportion increased; *Book making* frequency and proportion decreased; *Motivation & literate identity* frequency decreased but proportion increased; and *Peer collaboration prompts* neither frequency or proportion changed. Therefore, it is difficult to draw conclusions about changes in teacher-talk based solely on changes in code frequencies and proportions. This topic will be explored in Chapters 8 and 9.

To go further in exploring possible causal reasons for how teacher-talk may have led to a transfer of responsibility, a closer look at how teacher-talk changed *within* individual categories was sought. This focused on the final teacher-talk question: did the nature of linguistic scaffolds within the *Story composition & dictation* category change? As stated earlier, utterances coded as supporting elaboration and coherence were of particular interest. Previous research suggests that these components of narrative composing benefit especially from collaborative dialogue, as children receive support to improve their consideration of text audience (Jarvis, Newman & Swiniarski 2014; Jones 2003). To explore the hypothesis that

elaboration and coherence scaffolds would decrease, all sub-category codes related to these two areas were grouped (see Table 7.3b).

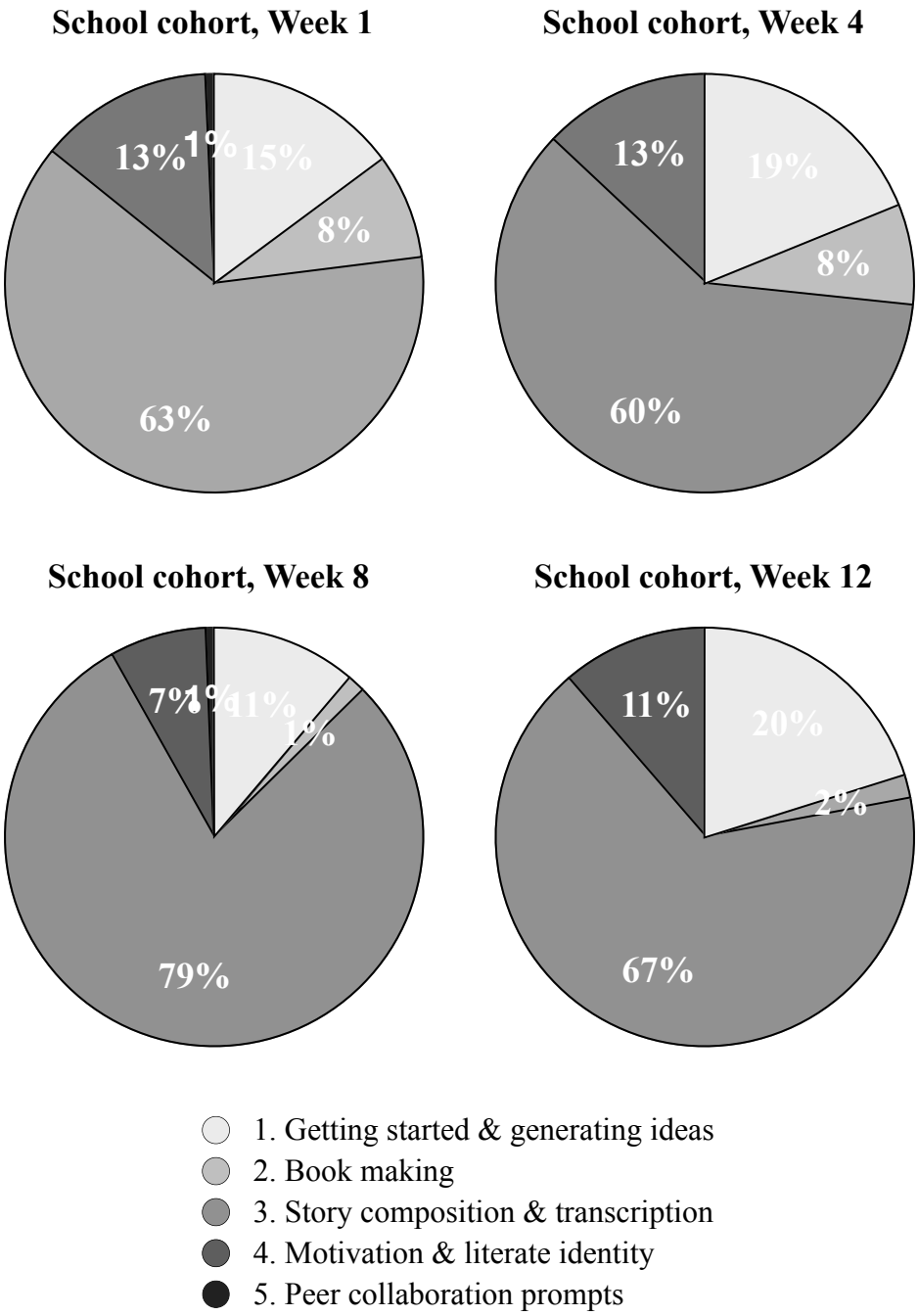


Figure 7.3d Teacher discourse category frequencies as a percentage of total utterance frequencies with school cohort

Table 7.3b Teacher-talk elaboration and coherence code groupings

Story composition & dictation grouping category	Sub-category code name	Code abbreviation
Elaboration	Repetition with expansion prompt	REP
	Expansion question	EQ
	Expansion suggestion	ES
Coherence	Coherence question	CQ
	Coherence prompt	CP

The results of the elaboration code groupings (see Table 7.3c) show that the frequency of elaboration codes decreased from 32 to 26 for the preschool cohort and from 29 to 27 for the school cohort. Coherence code frequencies also decreased for the preschool cohort from 25 to 20, and for the school cohort from 34 to 26. These results show that elaboration and coherence scaffolds did decrease in frequency, albeit by small amounts. To further explore these results, elaboration and coherence code groupings as a percentage of all teacher codings for the *Story composition & transcription* category were calculated. The goal was to see if these codes, while slightly smaller in frequency, might represent an even smaller percentage of discourse exchanged with the child during story composition and transcription. The results of these calculations (see Table 7.3d) show that elaboration codes decreased as a percentage, from 18% to 15% for the preschool cohort; but remained stable at 12% for the school age cohort. Coherence codes decreased for the preschool cohort, from 14% to 11%; and from 15% to 11% for the school cohort. When elaboration and coherence codes were combined, percentages decreased from 32% to 26% for the preschool cohort; and 27% to 23% for the school age cohort.

Table 7.3c Elaboration and coherence code grouping frequencies, by age cohort

		Code frequency							
		Preschool				School			
Grouping	Discourse code	Wk 1	Wk 4	Wk 8	Wk 12	Wk 1	Wk 4	Wk 8	Wk 12
Elaboration	REP	0	2	0	1	6	5	1	1
	EQ	19	16	13	15	11	25	19	16
	ES	13	9	12	10	12	20	18	10
	Total	*32*	*27*	*25*	*26*	*29*	*50*	*38*	*27*
Coherence	CQ	23	18	22	17	27	20	26	24
	CP	2	1	1	3	7	4	4	2
	Total	*25*	*19*	*23*	*20*	*34*	*24*	*30*	*26*

Table 7.3d Elaboration and coherence groupings as percentage of total story composition and transcription codes, by age cohort

	Frequency (%)							
	Preschool				School			
Code	Wk 1	Wk 4	Wk 8	Wk 12	Wk 1	Wk 4	Wk 8	Wk 12
Elaboration codes combined (and % of SCT codes)	32 (18)	27 (19)	25 (19)	26 (15)	29 (12)	50 (21)	38 (16)	27 (12)
Coherence codes combined (and % of SCT codes)	25 (14)	19 (13)	23 (17)	20 (11)	34 (15)	24 (10)	30 (12)	26 (11)
Elaboration and coherence codes combined (and % of SCT)	57 (32)	48 (32)	48 (36)	46 (26)	63 (27)	74 (31)	68 (28)	53 (23)

Note: 'SCT' is an abbreviation for the 'Story composition & transcription' coding category

Therefore, evidence was found that teacher-talk related to supporting elaboration and coherence decreased, adding a further source of evidence that transfer of responsibility did occur. That is, children needed less support to elaborate on story content and to communicate their narratives coherently. This result is supported by the earlier finding that children's MLU increased for both cohorts, which provides a different source of evidence indicating an increase in children's story elaboration and complexity.

7.4 Effects of using early writing as play-scripts on peer collaboration

It was expected that peer collaboration would be a feature of collaborative dialogue exchanged within the treatment. This was found to be the case when dialogue samples were analysed to establish the discourse categories. A category was therefore created to examine possible changes in peer collaboration across the study. This included utterances such as:

> 'Can you help me draw a kitty?' (prompting support with illustrations)
>
> 'You didn't say what the daddy does' (prompting elaboration)
>
> 'I don't know what to do next' (requesting support with generating ideas)
>
> 'Why don't you say they caught the monster and locked him up?' (story idea suggestion)

As reported in Table 7.2, child utterances coded as instances of *Peer collaboration* increased in frequency across the treatment period. For the preschool cohort (see Figure 7.4a) these frequencies increased from 11 to 42. For the school age cohort (also see Figure 7.4a) they increased from 1 to 38.

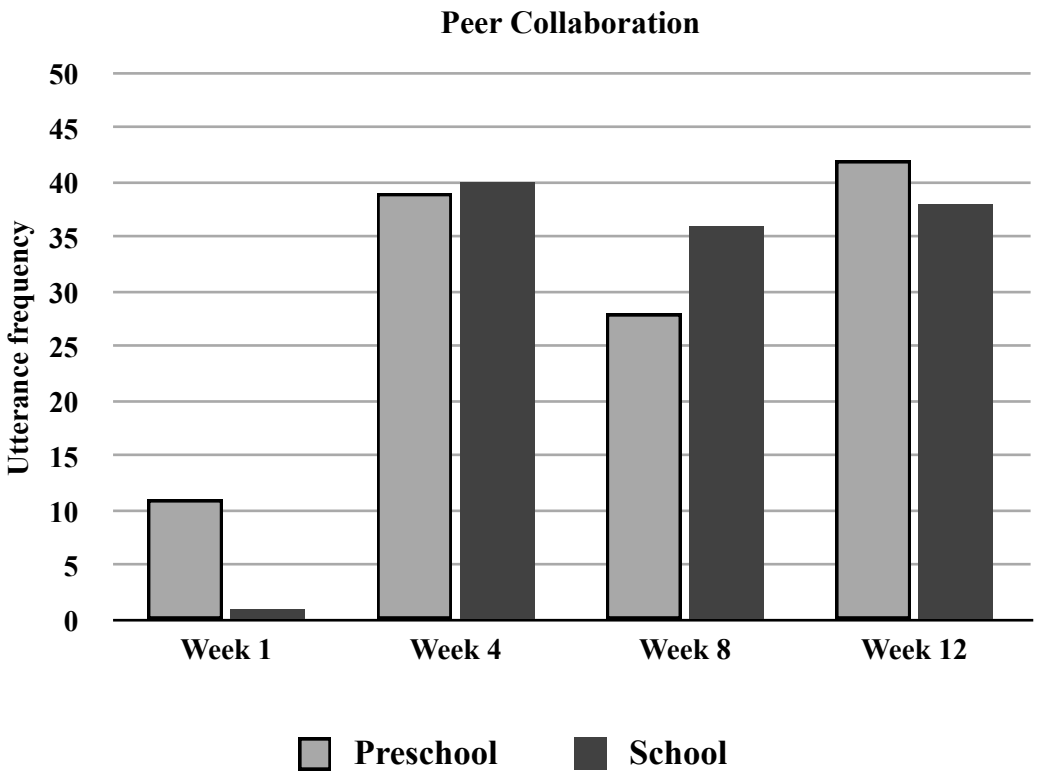


Figure 7.4a Frequency of preschool and school cohort peer collaboration utterances

Both cohorts showed a sharp increase in collaborative utterances within the early weeks of the treatment, and then these levels remained relatively stable across the study. These results indicate that children quickly took up opportunities to collaborate in support of their writing and that this collaboration remained a feature of child-talk throughout.

7.5 Effects of collaborative dialogue on literate language use

Another route by which collaborative dialogue within small group writing sessions was expected to support children's narrative development and literate identity was by creating an authentic context for literate language use. Literate language use was quantified by tallying coding frequencies for 'literacy-talk' (comments and questions) and 'literary-talk' (comments and questions). Literacy-talk was described in Section 5.3 as referring to instances where children engage in what is commonly referred to as 'code-based' talk, i.e. talk related to the code of how written symbols are used to represent sounds within spoken language. Literary-talk, however, related to 'meaning-based' talk supporting the construction of shared meaning. When codings of literacy- and literary-talk where combined, the results (shown graphically in Figure 7.5) show an increase in overt literate discourse across the treatment period for both age cohorts.

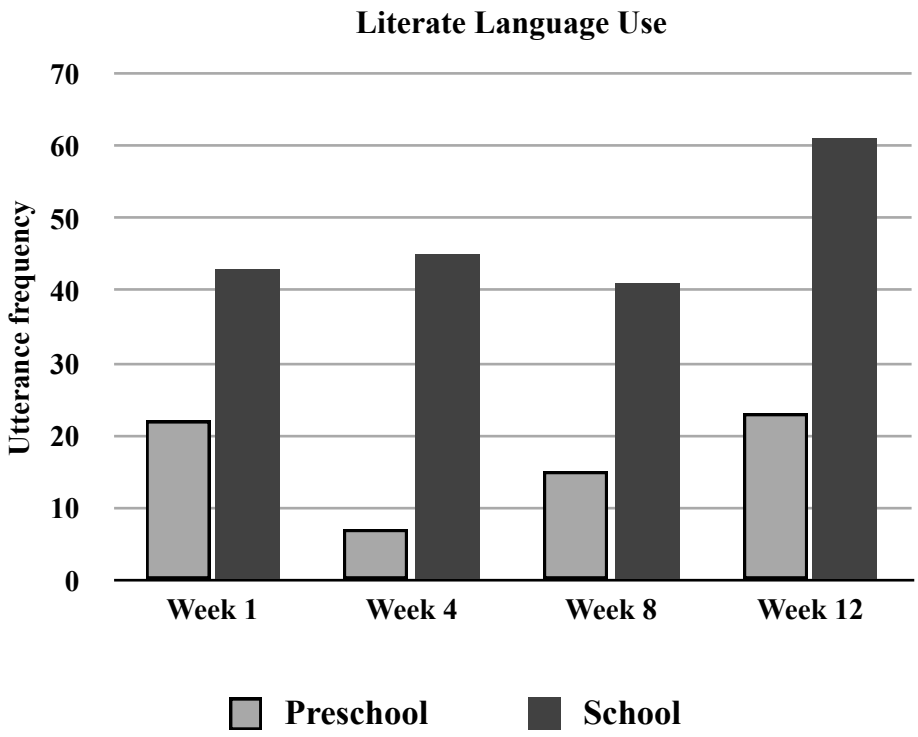


Figure 7.5 Frequency of child literate discourse utterances

Combined frequencies for the preschool cohort increased slightly from 22 to 23 codings; and increased from 43 to 61 for the school cohort. These results indicate that the intervention facilitated children's literate language use across the study, and that frequencies were consistently higher for the school age cohort.

7.6 Effects of collaborative dialogue on literate identity development

How children see themselves as writers is critical to their motivation to persist through the difficult challenges involved in learning to write, and the rewards they associate with being a writer (Bradford & Wyse 2013). Children who view themselves as competent meaning makers and communicators, and who receive positive feedback when sharing their written thoughts, are more likely to succeed in learning to write. Within the current study children's discourse within small group writing sessions was coded for instances of motivation to compose, enjoyment of composing, and positive statements about self as a writer. Evidence was sought of a possible increase in these *Motivation and literate identity* codings over the treatment period. It was hypothesised that these would increase, as children experienced repeated successful book-making and play-script enactments. Through a combination of increased composing skill, successful joint composing episodes, and positive peer and teacher

feedback, it was predicted that using writing as play-scripts would increase . *Motivation and literate identity* codings.

The results of motivation and literate identity code frequencies (shown in Figure 7.6), show a steady increase for both cohorts across the treatment period. For the preschool cohort, codings increased from 18 to 31 (a 72% increase); and for the school cohort, codings increased from 32 to 83 (a 159% increase). Possible reasons for the higher rise in codings for the school cohort when compared to the preschool cohort will be discussed in Chapter 9. Overall, the increases found for both cohorts suggests that children's motivation and literate identity were supported by the treatment. The case studies presented in Chapter 8 will explore this affective outcome through a qualitative lens, to show how individual children responded to opportunities to use writing as play-scripts and become part of a community of play script writers. Analysis of this individual and shared experience will seek to provide possible insights into the increase in motivation and literate identity outlined above.

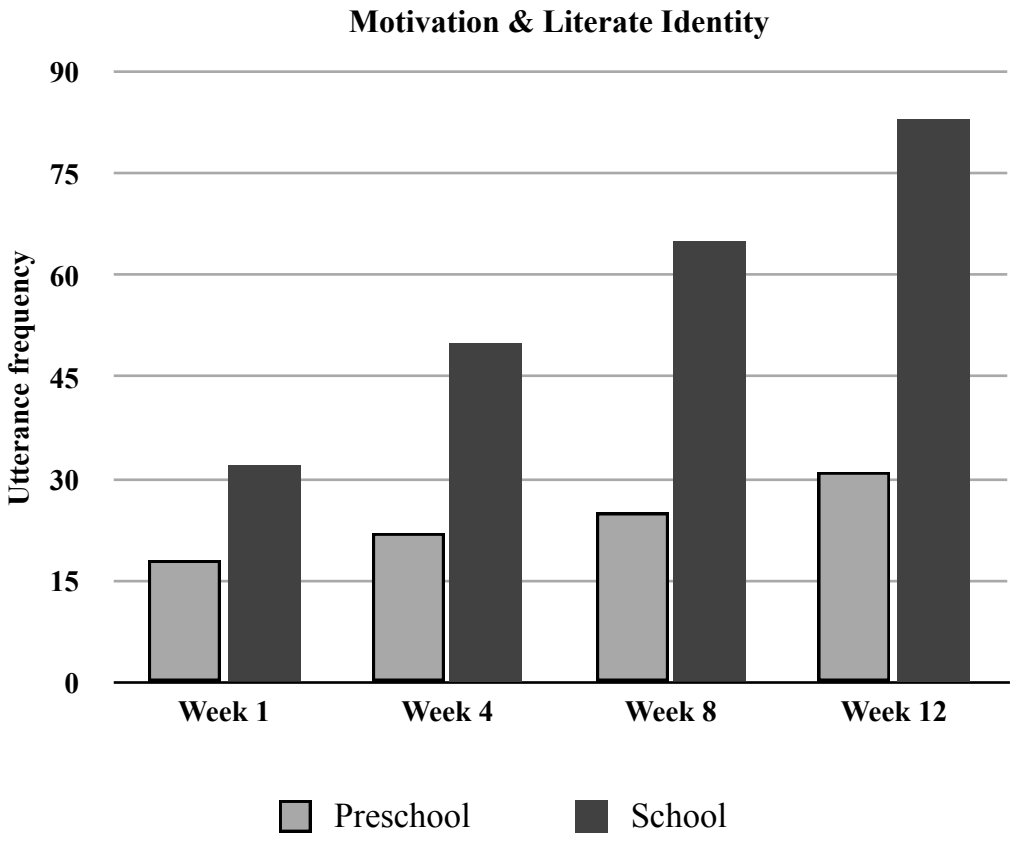


Figure 7.6 Frequency of preschool cohort child utterances coded as related to 'motivation and literate identity'

7.7 Summary

The current chapter sought to explore the effects of the WPS treatment on collaborative dialogue and literate identity. It was hypothesised that a 'transfer of responsibility' for collaborative dialogue and story composition would shift from teacher to child/ren. To test this hypothesis several aspects of child-talk were explored. It was found that child-talk increased in frequency. It was also shown to increase as a percentage of total talk exchanged within the small group writing sessions. Child-talk also shifted away from discourse aimed primarily toward the teacher (i.e. during story composition/dictation), to discourse aimed more toward peers, indicating increased peer collaboration. Of particular interest was the amount of talk children did within the story composition and dictation category, where an increase in utterance frequency was found. Furthermore, child utterance MLU was calculated. These results showed that MLU increased across the study for both preschool and school age children, providing evidence that children's storytelling became more elaborate and complex.

Teacher-talk was also analyzed for possible evidence of transfer of responsibility, by exploring changes in volume and type of linguistic and/or collaborative scaffolding. Contrary to the hypothesised outcome, it was found that overall teacher-talk did not decrease in volume for either age cohort. However, the amount of teacher-talk as a percentage of total dialogue exchanged did decrease (as a result of increases in child-talk). When teacher-talk was analyzed by category to explore possible changes in the function of teacher-talk, mixed results were found in overall frequencies and percentage of teacher-talk. That is, there were no clear patterns in how teacher-talk changed by analyzing differences between sub-categories. However, when the category of *Story composition & transcription* was explored in closer detail (to detect possible *within* category changes), it was found that teacher-talk aimed at scaffolding elaboration and coherence decreased across the study. Therefore, it was found that both the overall percentage of teacher to child talk decreased; and that elaboration and coherence scaffolds decreased. These findings provide evidence that transfer of responsibility occurred and suggest a mechanism through which it occurred, i.e. a reduction in the type of cognitive-linguistic scaffolds provided to the child.

These findings add to existing research exploring the types of cognitive-linguistic scaffolds which are supportive children's narrative development. While much of this research has focused on child-parent interactions, the current results demonstrate that similar types of

interactions occurred between teacher and child, and between children, within the WPS intervention.

The above discourse analysis also suggests that the playful and collaborative (i.e. 'low-risk' and motivating) context for authentic language interaction facilitated within the WPS intervention created the 'conditions of literacy learning' needed for children to extend their narrative production and comprehension skills. Language scaffolds were offered spontaneously in response to each child's communicative intent, rather than being pre-determined. This suggests that 'linguistically aware teaching' within authentic play-based early writing activities, can support measurable growth in children's narrative skills. The case studies presented in the next chapter illustrate these processes at the level of the individual child.

Chapter 8. Case studies: in search of the 'lived experience'

8.1 Compiling the case studies

The case studies describe the effects of using children's early writing as play-scripts on eight focal children (see Table 8.1 for an overview of participant details). Four preschool and four school age children were selected, with the aim of representing diverse learners according to: age, gender, race/ethnicity, language learner status, and initial oral language proficiency (Section 4.6 explains the participant selection process). The case studies seek to illustrate how children responded to the WPS intervention's two core components: picture book-making and the use of writing as play-scripts.

To briefly recap, the picture books were created in small group writing sessions (3-5 children), using a pre-printed book template (see Figure 4.5.1a). After mapping out their narrative through illustration, each child then worked with the teacher-researcher to jointly compose a written narrative to accompany their illustrations. Collaborative dialogue between children and children-teacher was promoted to support children's narrative composing. During regular (weekly or twice weekly) 'Story Play' sessions, the children's books were used as play-scripts. These were whole class times, with approximately 5-7 stories enacted each narrative play session. A class roster was used to offer equal opportunities for children to have their books used as play-scripts. When it was their turn, the child would select which of their books they wanted used as a play-script. They then selected peers to enact their characters, with encouragement to offer roles to children who had not yet performed that session and wanted to do so. After story players were selected, the child's book was read aloud by the teacher-researcher, with story players spontaneously enacting the child's written narrative. In this way, children's picture books became play-scripts, directing narrative play episodes as an integral component of the writing intervention.

During small group writing sessions children were free to choose their story topics, with the only restriction being that weapons or physical violence were not permitted (to comply with existing school policies). Each child typically spent between 20-30 minutes per session at the book-making table, usually completing their illustrations and written narrative within that time, but occasionally choosing to leave a book unfinished to return to next session. Each child created an average of 24 books, participated in the enactment of an average of 36 stories, and listened to approximately 160 child-authored stories across the intervention.

Table 8.1. Overview of case study participant profiles

Cohort	Case ID & Name	Age	Gender	Race/Ethnicity	Language Learner Type	Oral language (Low/High*)
Preschool	*1 Caminda*	4yr, 11mo	Female	Hispanic	Multilingual	High
	2 Daniel	4yr, 7mo	Male	Hispanic	Multilingual	Low
	3 Summer	4yr, 9mo	Female	African American	Monolingual	Low
	4 Jesse	4yr, 6mo	Male	Hispanic	Multilingual	Low
School	*5 Diego*	5yr, 2mo	Male	Hispanic	Multilingual	Low
	6 Maya	5yr, 10mo	Female	Hispanic	Multilingual	Low
	7 Mauricio	5yr, 5mo	Male	Hispanic	Monolingual	High
	8 Elisa	5yr, 9mo	Female	White	Monolingual	High

**Initial oral language proficiency was categorised as 'low' or 'high' based on MLU in words for the pre-study narrative retell. The median was calculated and children scoring below were classified as 'low' and those at or above were classified as 'high'.*

Depicting individual 'learners at work' was expected to help contextualise the study's findings in relation to its three main research questions: (1) In what ways does using children's early writing as play-scripts influence preschool and early school age children's narrative development?; (2) In what ways does collaborative dialogue change in response to using early writing as play-scripts?; and (3) Does using early writing as play-scripts increase preschool and early school age children's motivation to write and literate identity?

To this end, each case study was structured as follows to provide discussion on the above research questions based on individual children's lived experience within the intervention:

a) *Child profile:* a brief introduction to why the focal child was selected, including demographic information and general observational notes on the child's involvement within the classroom (based on initial observations and discussions with classroom teachers);
b) *Approach to writing:* discussion on how the child engaged with book-making, including which types of characters and themes they selected and how their approach to writing changed across the study period, e.g. their relative ease/difficulty with generating story topics, mapping out their narrative through illustration, and interacting with others when composing;
c) *Collaborative dialogue:* how the child engaged in dialogue with peers and the teacher-researcher when composing their stories, especially how they sought out and used multimodal and linguistic scaffolds to strengthen the quality of their narratives;

d) *Motivation and literate identity:* reflections on the child's overall interest in different aspects of the composing process and narrative play, whether or not they viewed themselves as a'writer', and how these factors changed in response to WPS;

e) *Narrative development:* discussion on how the child's narrative composition and comprehension skills changed in response to the WPS intervention, with examples from children's book artefacts, composing dialogue, pre- and post-treatment narrative retells, and comparison to same-age monolingual and/or multilingual peers within the SALT retell database (an in-built database which can serve as a quasi-experimental control group to enable comparative analysis) (Miller, Andriacchi & Nockerts 2011);

f) *Book artefacts:* samples of the child's completed books, to present the reader with primary data on the children's illustrations and written compositions.

g) Summary: a recap of the child's response to the intervention and the teacher roles selected to support the child.

The primary focus of the case collection was to explore how the *cognitive* and *linguistic* skills which support narrative composing and comprehension develop through sociocultural interaction. Just as general language competency emerges through joint attention and social dialogue, so too does narrative skill as a component of language (Meier 2009; Melzi, Schick & Kennedy 2011; Slaughter, Peterson & Mackintosh 2007). Dyson (1997, pp.17-18), referring to the ideas of Bruner and Bakhtin, explains how collaborative dialogue within the context of writing helps to 'apprentice' children into the world of literacy:

> Adults and more expert others "loan" children their own consciousness about language and language use (Bruner 1986, p.175); they thus negotiate the developmental gap, helping children to choose, encode, and reflect on their written choices...From a Bakhtinian point of view though, children's written language learning is not only enacted through helpful relationships; part of children's developmental challenge is to learn to manipulate relationships, to achieve particular responses from others, through the written medium.

The WPS process sought to provide children with differentiated multimodal scaffolds to extend their cognitive-linguistic skills, but also an immediate social context to build awareness of the effect of their composing choices on others (i.e. an authentic audience and purpose).

Each case explores the unique way that the focal children used multimodal semiosis when composing their narratives, and how this changed as their confidence and skills as narrative composers, enactors and critics grew. Each case also seeks to show how my role as teacher-researcher differed with each child, as I attempted to provide scaffolds matched to their

evolving narrative skills and literate identity, and my own evolving understanding of them as composers and individuals. While some children required considerable support expressing their ideas due to English language learning demands, others needed support generating ideas for characters/events or expressing their ideas coherently enough for an audience to follow.

My role was to interpret the many cues available to assess children's shifting needs and to respond with supports that kept them engaged in the work of narrative composing and, thereby, narrative development. Special attention was given to investigating: 1) how multilingual children negotiated the task of establishing shared meaning (intersubjectivity) when jointly composing narratives in English, and 2) differences in how preschool and early school age children approached the task of narrative composing and joint construction. The role of the teacher in joint construction is a complicated and delicate one, requiring keen observation to meet a child within their ZPD - seeking to move the child toward greater levels of skill and independence, but with the overall goal of not frustrating the composing process and thereby causing a breakdown in child engagement (Cortazzi & Jin 2007).

The case studies present detailed analysis of the role of joint construction in supporting children's transition from oral to written narrative competency. Cognitive-linguistic scaffolding was explored at the word, phrase, sentence, paragraph and text level (i.e. both micro and macro levels). The distinct role of peers and teacher-researcher in providing feedback to the child, and how this supported greater awareness of audience, clarity and preciseness in language, and overall coherence of meaning were explored. In this way, the case studies illustrate how collaborative dialogue within the context of small group writing sessions was critical to supporting children's narrative development within the WPS intervention.

The ultimate goal of the case study collection was to capture the idiosyncratic ways that diverse children approached the task of narrative composing, whilst also identifying common threads that suggest fruitful possibilities for supporting all children's narrative development within early childhood educational settings. I have sought to give the reader access to my observations and decision-making as an educator working alongside children, attempting to promote their engagement, literate identity and narrative development. It is hoped that this dual focus - on the child and on the educator - will highlight the many ways that using early writing as play-scripts can support a range of important early literacy outcomes. The

implications of these findings for different learners and settings will be discussed in Chapter 9.

8.2 The Preschoolers

8.2.1 Case 1: Caminda - The girl with strong magic who could make girls sleep for a whole year

Child profile

Caminda was four years and eleven months old at commencement of the study. She was a multilingual Spanish/English speaker, proficient in both languages. She easily switched between Spanish and English and often translated for peers who were less fluent in English. She frequently engaged in talk with peers and teachers, and was a leader of many play episodes. She also enjoyed 'making' artefacts at the arts and craft table. She was selected as a focal child due to her being a multilingual learner and having strong oral language skills across Spanish and English. Of interest was how she would use her multilingual skills to engage in written composition and whether the intervention would lead to increases in her English narrative competency and literate identity.

Approach to writing

Caminda was quick to embrace book-making. She bounded down the hallway to the small room that became our composing space for the twelve week study period. She excitedly received her first book, quickly declaring, 'I'm going to write about a Princess and a kitty!' She was a skilled artist, who created detailed and colourful illustrations for her books. She would diligently work on her illustrations until she decided they were just right, stating with authority: 'No, I'm still not done yet, I just need to add some more grass' or 'I think the house should be orange'. Her stories tended to center around one or two leading female characters and often involved elements of magic. She confidently composed her stories and brought them to life with animated voices and facial expressions as she dictated. She was proud of her skills as an illustrator and story composer, and was excited to take her books home at the close of each session.

Caminda enjoyed being commissioned by peers as an illustrator. She would offer her services through comments such as, 'I'm really good at Princesses, do you want me to do one for

you?' Children would often seek her out to draw specific characters or objects, and she would listen in as children discussed story topics to see what she might be able to offer support with. Her own stories often started out as loosely associated strings of characters and events, heavily influenced by characters and objects she enjoyed drawing, e.g. Princesses, castles and kittens.

Unlike many of her peers, whose characters and themes changed over the study period as they were influenced by other children's choices, Caminda stayed true to her own interests throughout. Her story themes included bravery in the face of danger, good triumphing over bad, and protecting those in danger. She was the lead 'Princess author', seeming to inspire both male and female peers to include Princesses in their stories. For example, several boys whose protagonists were consistently male super heroes, began to include Princesses in their stories. While these princesses tended to feature as characters in need of protection or rescuing, Caminda endowed her princesses with magical powers who typically solved their own problems.

Collaborative dialogue

Caminda's interaction with peers was mostly unidirectional, with Caminda offering illustration services and, occasionally, story ideas. She rarely sought or accepted support from peers. This was mainly due to her comparatively high level of skill as an artist and storyteller, but also because she showed a strong drive for autonomy over her work. Presenting her ideas to others provided Caminda with a source of social capital that she enjoyed wielding within her peer group. When it came to dictating stories, she had a clear sense of how she wanted her stories to be structured and how her characters should 'sound'. She brought her stories to life with an animated voice as she composed, easily switching her voice from mean/angry to sweet/approachable as she moved between characters.

My role when working with Caminda was mainly that of a 'supportive scribe', there to assist as an interested listener and helpful scribe. Caminda enjoyed the immediacy of seeing the impact of her stories on me as direct listener, but resisted joint composition. For example, when offered an idea for a story event or prompted to say more about a character, she would often say, 'No, I don't want to say that' or 'No, it doesn't go like that'. Given that Caminda was already a fluent storyteller, who composed with enough coherence for her stories to be understood by others, I took a very indirect approach at first. My initial aim was to build her

trust in me as a learning partner and to honor her seemingly already strong identity as an author. As we progressed through the study period, I focused on supporting her to strengthen her introductions and conclusions, and to work on her consciousness landscape.

When speech/thought bubbles were introduced in Week Four, Caminda was excited to add them to her illustrations, adapting one of her favourite objects to draw - flowers - so they became 'magic flowers' that could talk, hence needing speech bubbles. This simple scaffold prompted Caminda to include character dialogue in her stories, an element of writer's craft which she had previously not used. She also began to include mental state verbs such as 'wonder', 'know', and 'wanted'. These strengthened her development of the consciousness landscape, providing a concrete anchor to materialise or make tangible the interior world of character consciousness previously absent from her narratives.

Although Caminda continued to demand a high level of autonomy over the content and structure of her stories, she gradually became more receptive to feedback and collaboration. Appendix 9a shows an extended transcript of Caminda's composing dialogue in Week Six, as she worked with me to create her book, *The Hello Kitty* (underlined words are those that were written into Caminda's book). Lines 57-63 show my attempts to highlight for Caminda how a new scene she is attempting to add contradicts an earlier scene, leading to a breakdown in coherence.

> Child: Not all the pancakes.
>
> Teacher: Well, we said 'she ate all the pancakes, when the children went in they saw all the pancakes were gone, they knew who had eaten them, it was their friend Hello Kitty'.
>
> Child: No, she only ate one [hesitant, not sure how to repair contradiction].
>
> Teacher: Well, could we say she made some more pancakes and then she brought them to her mom?
>
> Child: Yeah!
>
> Teacher: <u>She made some more pancakes</u>.
>
> Child: Then she gave them to her mom and she said, 'wow, you brought lots and lots of pancakes!' [surprised/pleased voice]

She initially resists my prompt to revise, insisting that her earlier story event does not contradict desired addition (a scene in which Hello Kitty gives pancakes she has made to her delighted mother, despite having previous stated that Hello Kitty eats all of the pancakes she has made). She was unable to think of a 'fix' but clearly understood the incoherence brought to her attention. After I suggest a possible solution by way of a question, 'Well, could we say

she made some more pancakes and then she brought them to her mom?', she excitedly approved the revision 'Yeah!' and we were able to continue.

Travelling alongside Caminda as she moved through her imagined story worlds, asking questions and, if needed, suggesting possibilities to be accepted or rejected, was what seemed most effective. Lines 73-79 (Appendix 9a) provide an example of this composing dance, with Caminda always assuming the lead.

> Child: Oops, we forgot her talk [pointing to speech bubbles].
> Teacher: Ok, what's she going to say in this speech bubble [pointing]?
> Child: Um [thinking], she's gonna say, um she's gonna go with her mom right now.
> Teacher: Well, this is the page where she is saying that she wants something to eat.
> Child: No, no, no, she's gonna say 'I want to go with my mom'.
> Teacher: I want to go with my mom?
> Child: Yeah.

This exchange shows that Caminda clearly considered herself the sole author of her narrative, rejecting one of my suggestions outright and expanding on another to add new details and thereby make it her own.

At times Caminda insisted on the inclusion of phrases or scenes that lacked complete coherence, which I transcribed without pushing her to clarify further. Such decisions were aimed at keeping the story moving forward and not frustrating her composing efforts by insisting on complete coherence.

Motivation and literate identity

Caminda was a highly motivated composer. Her strong skills as an artist and storyteller gave her an immediate sense of competence and confidence to engage with book-making. Right from the outset she was happy to forego 'free play' in the classroom to create her books. She became even more willing after learning that her stories would be enacted by peers during narrative play sessions. Each time I visited the classroom she would ask, 'Is it my turn yet?', and was always willing to volunteer for extra an session if other children were absent or decided not to come that day.

Caminda had a strong sense of herself as a composer and enjoyed entertaining others with her stories. She used animated voices when dictating stories and delighted in the responses she received from fellow composers and myself. She was also highly motivated by the prospect of

taking her books home to share with her parents and siblings. She knew she had an eager home audience, evidenced by comments such as: ‘My mom is going to be so proud of me’ and ‘I can’t wait to read this to my sisters’. At the end of each writing session she would carefully stow her books away in her backpack before returning to free play. Her books were obviously highly valued creations. Actually, it was in response to Caminda’s intense emotional upset at not being able to take her book home at the end of her first session, that I decided to bring along a digital scanner to sequent sessions. This way I could copy the children’s books and return them immediately to their rightful owners. Caminda was much relieved!

Narrative development

Among her preschool cohort, all but one of whom were multilingual learners, Caminda’s oral language skills were high. She was eager to engage in talk about her activities and experiences, and routinely used pretense and narratives within her play. This verbal skill was apparent in Caminda’s confident pre-study retell (Appendix 11a). This story was told in rapid utterances, using instances of intonation matched to the character emotion conveyed in the original story prompt.

Her pre-study retell demonstrated strong story comprehension and a familiarity with narrative language patterns. She linked clauses and events with connectives such as ‘then’, ‘so’, ‘after’, ‘gonna’ and ‘because’. Her voice conveyed instances of emotional understanding (e.g. ‘surprised/worried/happy’ intonation), however, she only explicitly referred to character mental states once: ‘the frog loved the boy’. This resulted in a consciousness landscape that was almost completely undeveloped linguistically.

Caminda’s post-study retell (Appendix 11b) after twelve weeks of WPS showed improved understanding of story elements, including the need to introduce the characters and setting, tell events in order, and then conclude with commentary on the story resolution ‘then the pets laugh [about] what happen[ed] in the restaurant’. She paid considerably more attention to character mental states, linguistically communicating her understanding of what characters did and did not know (e.g. ‘the man didn’t saw the frog going to the salad’), stated character emotions (e.g. ‘they were mad’), and explained causal relationships (e.g. ‘then the pets laugh (about) what happen in the restaurant’). While she demonstrated an understanding of character mental states in her pre-study retell, this was communicated almost solely through intonation and facial expression, not linguistically through literate language.

Caminda's ability to use specific vocabulary, particularly nouns and correct pronouns, was a source of difficulty. Her grammar showed that she was still developing correct verb tense and word order in English, e.g. 'the girl was too mad a little bit' instead of 'the girl was also a little mad'. Her microstructural narrative production quality (Table 8.2.1a) showed several improvements across the study, including: increased mean length of utterance and total number of utterances, and decreased word and utterance level errors. These results provide evidence of increased language complexity, verbal facility and grammatical accuracy.

Table 8.2.1a Caminda's narrative production quality scores

	Variable	Pre-test *Raw score*	Post-test *Raw score*	*Difference*
Microstructural	*MLU (words)*	7.32	7.72	0.40
	TTR	0.28	0.26	-0.02
	Errors	16	13	-3
	WPM	83.14	73.35	-9.79
	Maze %	13	16	3
	Total Utter.	49	51	2
Macrostructural	Introduction	1	3	2
	Character Development	2	2	0
	Mental States	2	3	1
	Referencing	3	2	-1
	Conflict/Resolution	3	3	0
	Cohesion	3	3	0
	Conclusion	3	3	0
	TOTAL	17	19	2

MLU (words)=mean length of utterance in C-units, TTR=type token ratio, Errors=errors at the word or utterance level, WPM=words per minute, Maze=percentage of utterances containing maze words, TotalUtter.=total utterances used in retell.

Caminda's macrostructural scores (Table 8.2.1d), show increases for 'Introduction' (+2) and 'Mental States' (+1), but a decrease for 'Referencing' (-1); resulting in a two-point overall score improvement. Her decreased score for referencing was due to pronouns errors and imprecise nouns when referring to different characters (e.g. 'man' instead of 'waiter', and 'thing'/'trump' instead of 'saxophone').

When compared to same-age monolingual peers within the SALT retell database (*n*=29 pre-study and *n*=43 post-study; see Appendix 10a), Caminda's pre-study scores showed language skills above the database mean for: total utterances, total words, MLU, and number of different words. Her post-study scores increased in deviation above the mean for all but one of these variables (number of different words moved closer to the database mean, but remained slightly above at +0.17 SD). Her percentage of maze words increased, as did her omission of words and bound morphemes. Word and utterance level errors decreased, but

remained above the mean. These results confirmed Caminda's strong oral language skills, even when compared to monolingual peers. Despite lower grammatical accuracy, the complexity and richness of her language exceeded that of the majority of monolingual peers.

When compared to the SALT database of same-age multilingual peers (*n*=155 pre-study and *n*=26 post-study; see Appendix 10b), Caminda's skills reflected the relative strength I observed her to have within her multilingual classroom. The improvement in her scores in comparison to the multilingual database was more pronounced: mean utterance length increased by 1.8 SD, total number of utterances by 1.27 SD, number of different words by 2.14 SD. Compared to multilingual peers her results showed a decreased percentage of maze words (-.10 SD), fewer omitted words (-1.19 SD) and fewer omitted bound morphemes (-0.20 SD). Her scores were still above the mean for word level errors (0.61 SD) and utterance level errors (0.07 SD), but far less so than when compared to monolingual peers.

Caminda's narrative comprehension scores increased across the study (see Table 8.2.1b). Her scores on direct questioning showed increased literal comprehension and stable scores for inferential comprehension, with a one-point increase in total score. Her action and consciousness landscape utterance codings showed decreased attention to the action landscape and increased attention to the consciousness landscape. Caminda's NSS score for 'Mental States' increased due to a greater number of mental state words in her post-study retell; and her vocal intonation reflected greater overall communication of character mental states, e.g. using a 'funny' or 'angry' voice when narrating emotional events in the story.

Table 8.2.1b Caminda's narrative comprehension scores

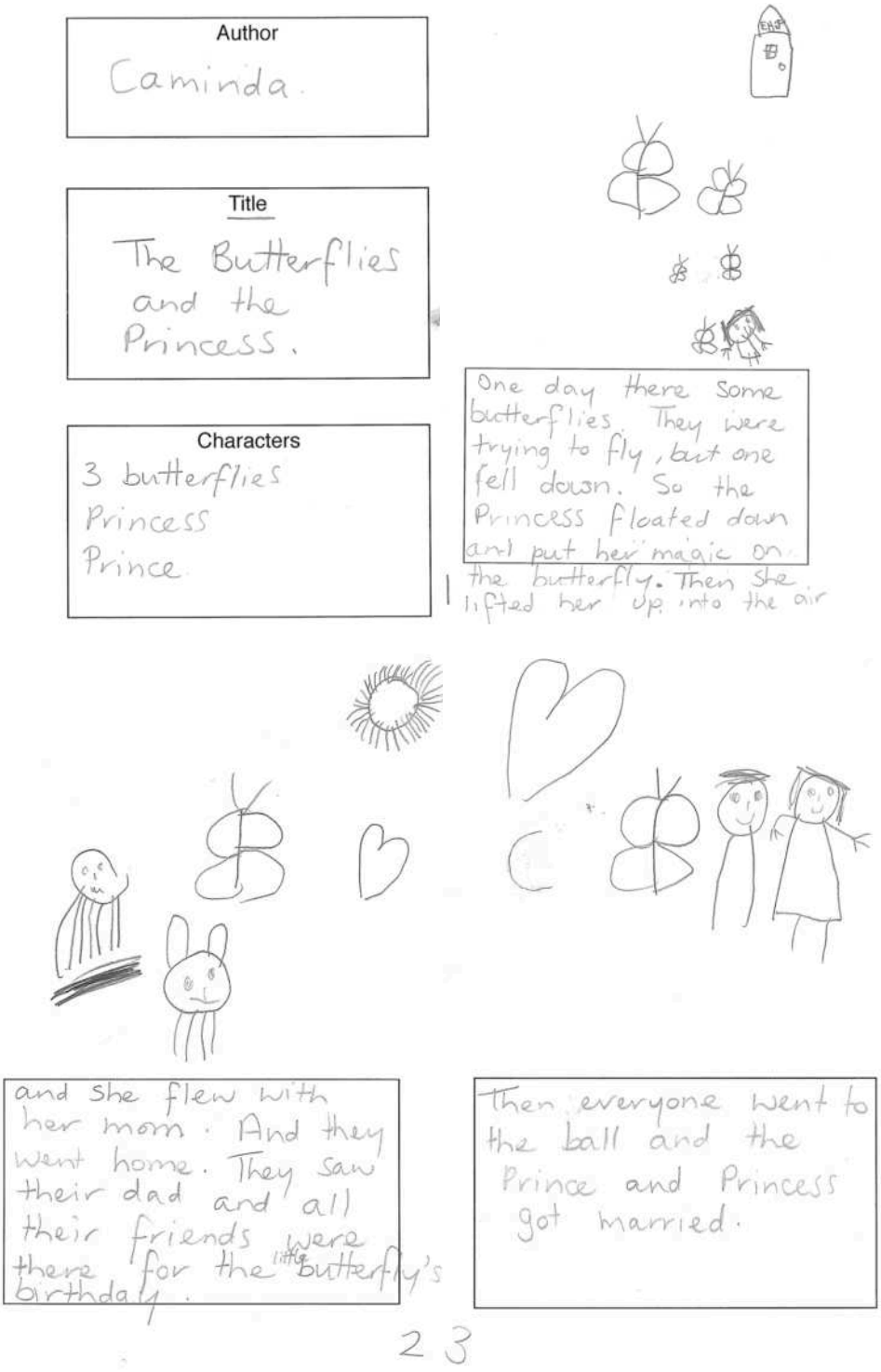
		Pre-test	Post-test	
	Variable	*Raw score*	*Raw score*	*Difference*
Direct questioning (number correct)	Literal	3	4	1
	Inferential	2	2	0
	Total	5	6	1
Narrative landscapes (number of utterances)	Action	42	32	-10
	Consciousness	9	16	7
	Consciousness to Action Ratio	0.21	0.5	0.29

These quantitative findings aligned with my classroom observations of Caminda's narrative development over the study period. Her book artefacts show how her early stories were composed as basic event chains, albeit with interesting characters and events, e.g. Princesses with magic and butterflies who have birthdays (see Figures 8.2.1a and 8.2.1b). They lacked

true narrative structure and character development. Her enthusiastic adoption of the use of speech/thought bubbles as literary devices prompted her to consider the internal world of character experience, expanding her development of the consciousness landscape. She began to increase her use of mental state words, dialogue and reference to internal thought; e.g. 'wondering', 'worried' and 'knew'. She also included words indicating causality, e.g. 'because', 'wanted', 'tried'; and degree of intensity, e.g. '*strong* magic' and '*so* happy. While her stories did not change considerably in length, they came to include more conventional story elements and were more coherent.

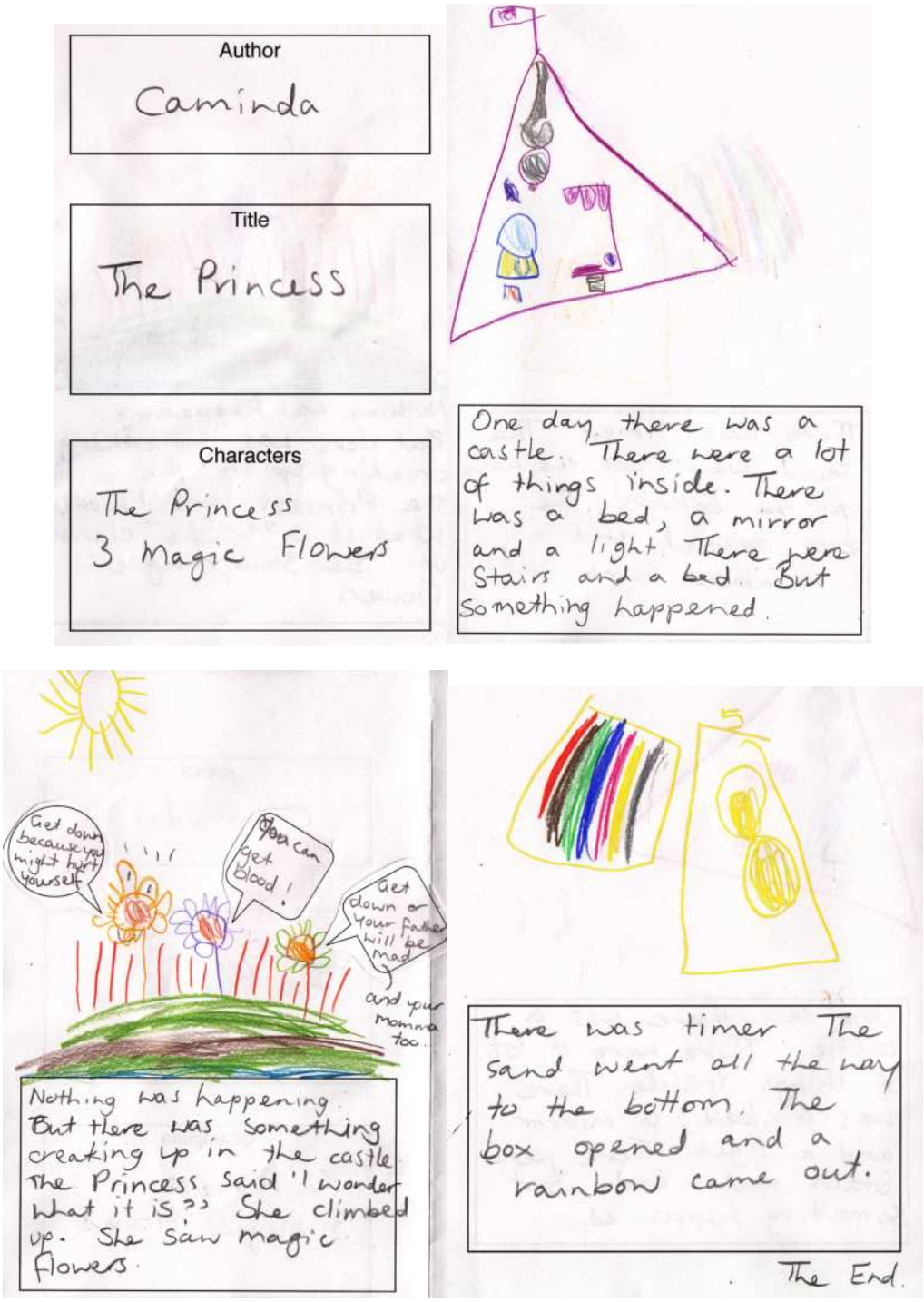
Overall, Caminda strengthened her narrative voice through opportunities to engage in narrative composition. She tried out more complex literary devices and enjoyed seeing the impact of those on her peer audience. For example, she became quite adept at building suspense in her stories through the inclusion of small details and actions, e.g. *'She heard something creaking. It was a crocodile. She ran!...Then the crocodile came creaking again...'* (Figure 8.2.1e). She invented playful characters, weaving in increasing amounts of interaction and dialogue between them, e.g. '*Superman came and saved the Princess. "Phew, thanks Superman, for saving me. I was worried those snakes were going to eat me". "My pleasure", said Superman'* (8.2.1f). She treasured her book creations as physical artefacts of her illustrating and composing work, but she also valued their use as play-scripts. She seemed to revel in seeing her strong storytelling skills appreciated by peers, who enjoyed enacting and watching her stories brought to life through narrative play. Her desire to be seen as a skilled writer propelled her narrative development forward.

Book Artefacts



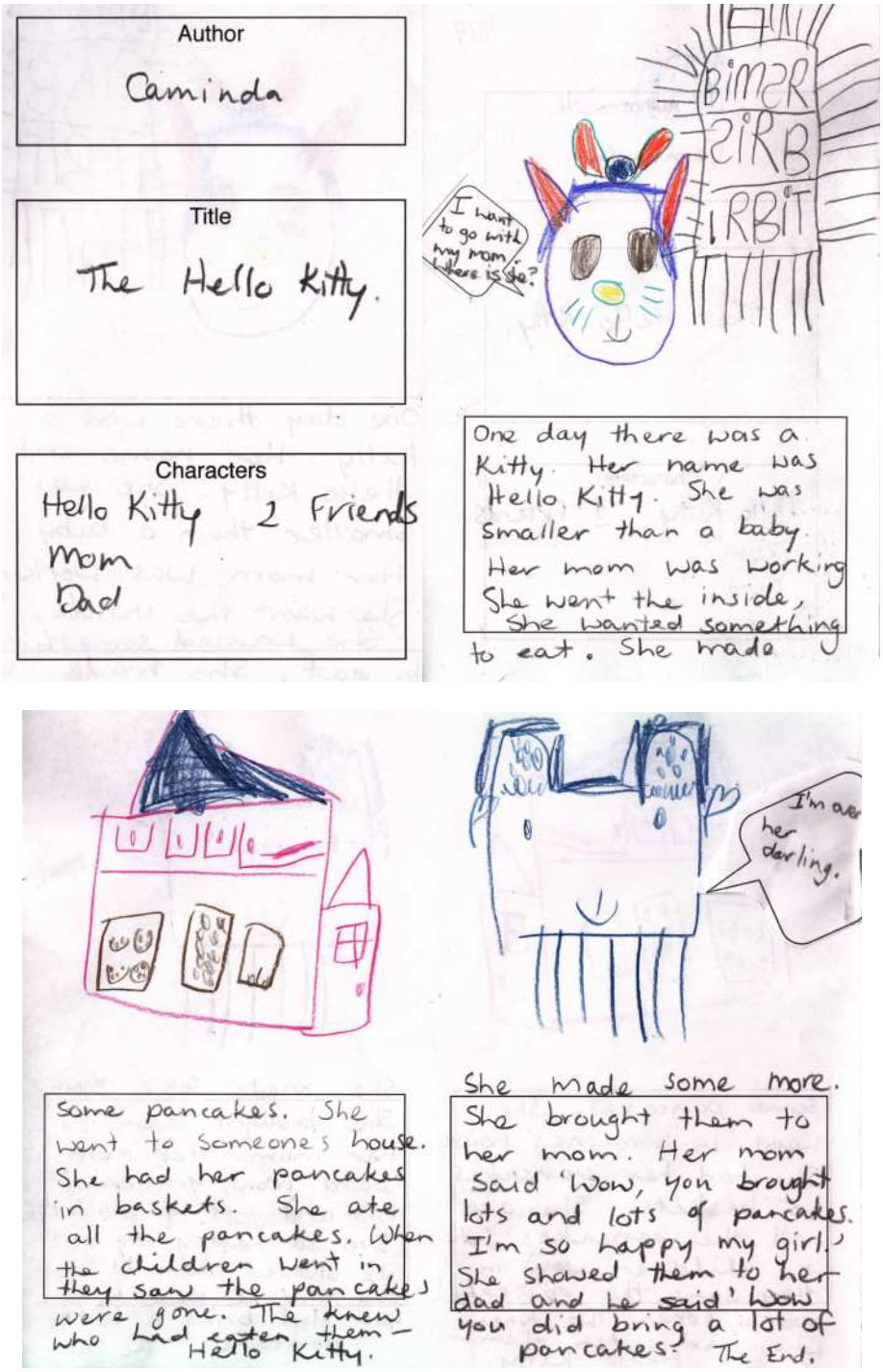
Written text: *One day there were some butterflies. They were trying to fly, but one fell down. So the Princess floated down and put her magic on the butterfly. Then she lifted her up into the air and she flew with her mom. They saw their dad and all their friends were there for the little butterfly's birthday. Then everyone went to the ball and the Prince and Princess got married.*

Figure 8.2.1a Caminda's book, *The Butterflies and the Princess,* written in Week One



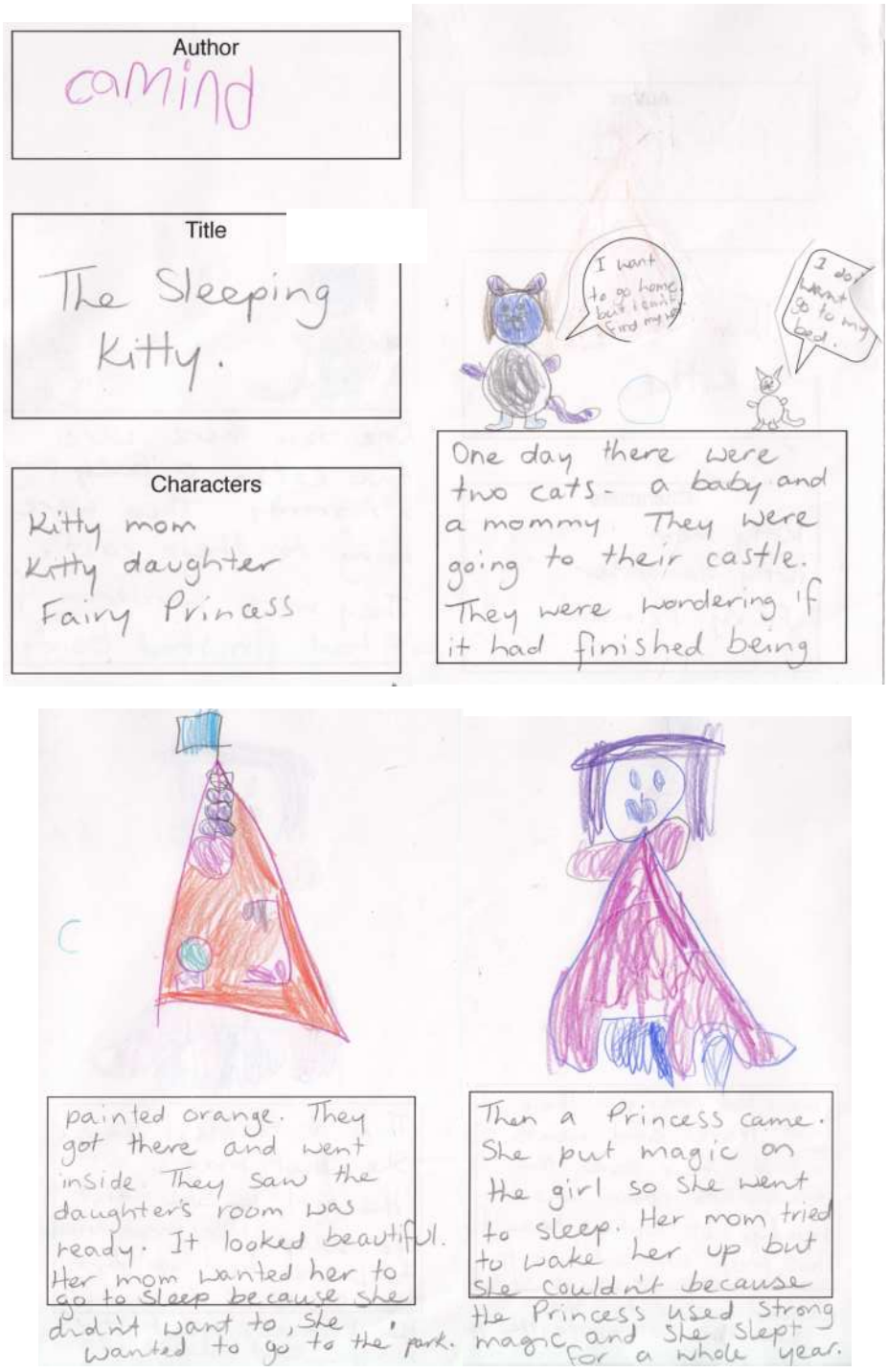
Written text: *One day there was a castle. There were a lot of things inside. There was a bed, a mirror and a light. There were stairs and a bed. But something happened. Nothing was happening. But there was something creaking up in the castle. The Princess said, 'I wonder what it is?' She climbed up. She saw magic flowers. There was a timer. The sand went all the way to the bottom. The box opened and a rainbow came out. The end.*

Figure 8.2.1b Caminda's book, *The Princess,* written in Week Four



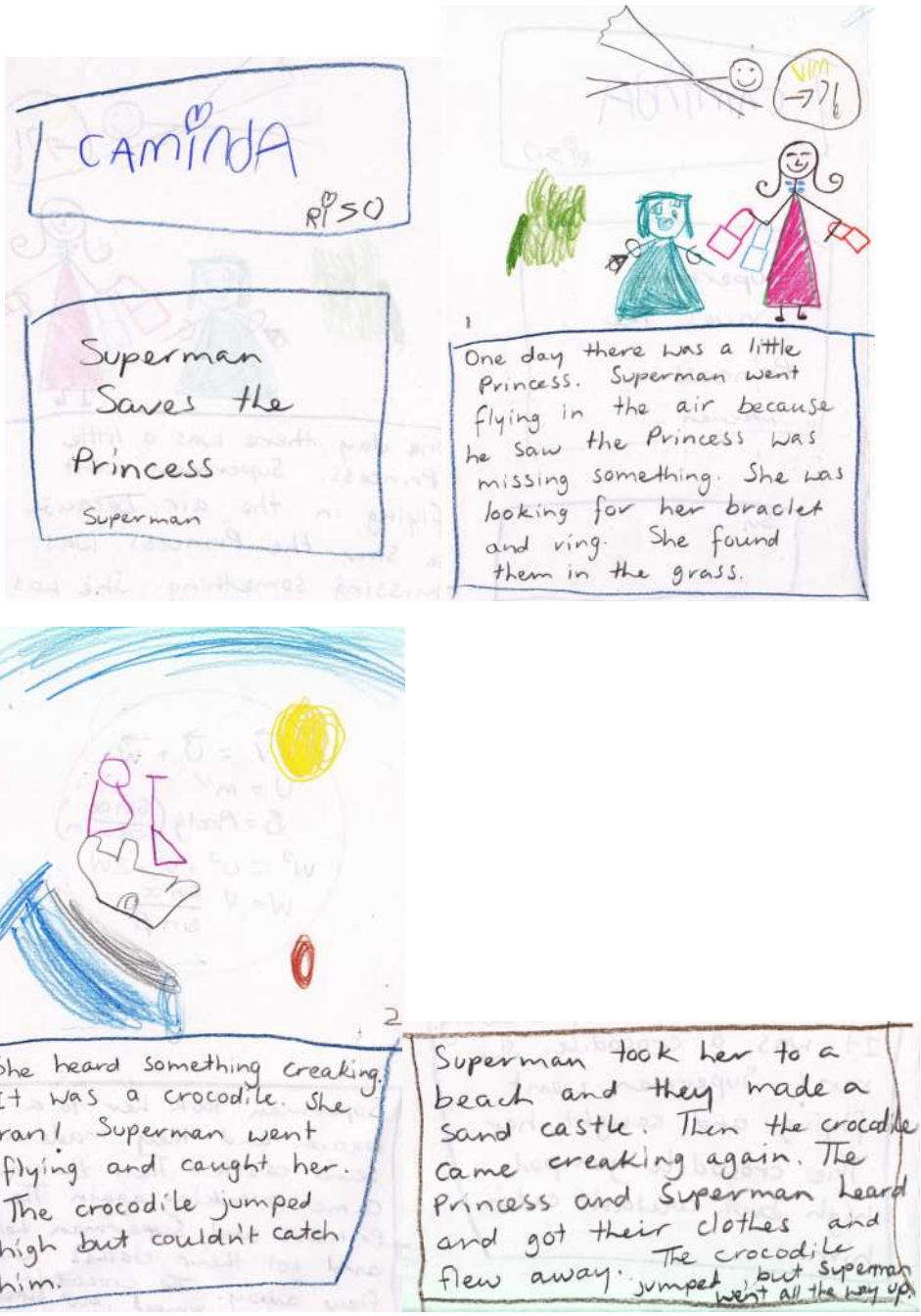
Written text: *One day there was a kitty. Her name was Hello Kitty. She was smaller than a baby. Her mom was working. She went inside, she wanted something to eat. She made some pancakes. She went to someone's house. She had her pancakes in baskets. She ate all the pancakes. When the children went in they saw the pancakes were gone. They knew who had eaten them - Hello Kitty. She made some more. She brought them to her mom. Her mom said, 'Wow, you brought lots and lots of pancakes. I'm so happy, my girl'. She showed them to her dad and he said, 'Wow, you did bring a lot of pancakes'. The end.*

Figure 8.2.1c Caminda's book, *The Hello Kitty*, created in Week Six



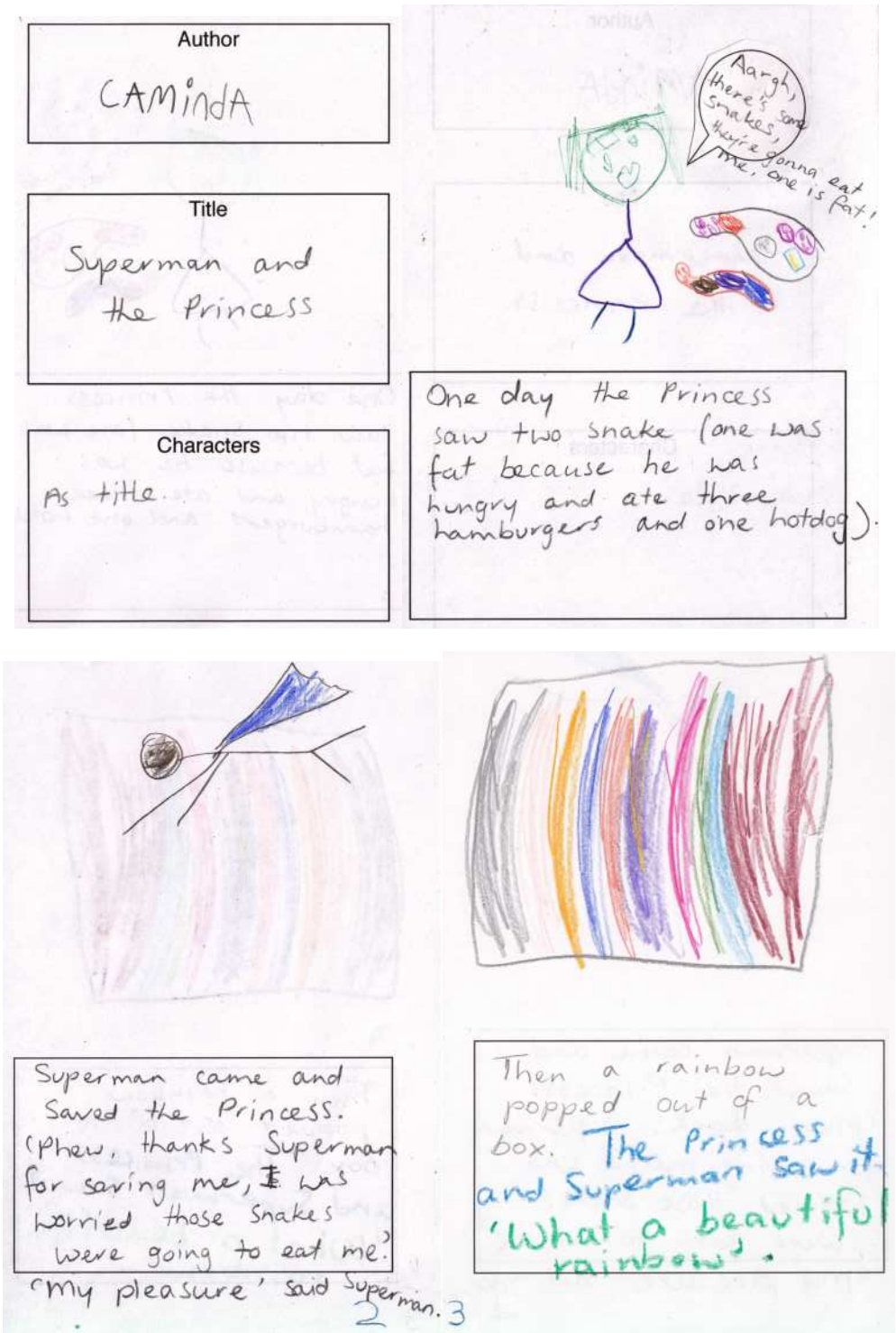
Written text: *One day there were two cats, a baby and a mommy. They were going to their castle. They were wondering if it had finished being painted orange. They got there and went inside. They saw the daughter's room was ready. It looked beautiful. Her mom wanted her to go to sleep because she didn't want to, she wanted to go to the park. Then a Princess came. She put magic on the girl so she went to sleep. Her mom tried to wake her up, but she couldn't because the Princess used strong magic and she slept for a whole year.*

Figure 8.2.1d Caminda's book, *The Sleeping Kitty*, created in Week Eight



Written text: *One day there was a little Princess. Superman went flying in the air because he saw the Princess was missing something. She was looking for her bracelet and ring. She found them in the grass. She heard something creaking. It was a crocodile. She ran! Superman went flying and caught her. The crocodile jumped high, but couldn't catch him. Superman took her to a beach and they made a sand castle. Then the crocodile came creaking again. The Princess and Superman heard and got their clothes and flew away. The crocodile jumped, but Superman went all the way up.*

Figure 8.2.1e Caminda's book, *Superman saves the princess*, created in Week Ten



Written text: *One day the Princess saw two snakes (one was fat because he was hungry and ate three hamburgers and one hotdog). Superman came and saved the Princess. 'Phew, thanks Superman, for saving me. I was worried those snakes were going to eat me'. 'My pleasure', said Superman. Then a rainbow popped out of a box. The Princess and Superman saw it. 'What a beautiful rainbow'.*

Figure 8.2.1f Caminda's book, *Superman and the Princess*, created in Week Twelve

Summary

Caminda was chosen as a focal child because of her multilingual learner status and high initial oral language skills. The case study discussion highlighted her strong interest in book-making and story composition. It showed how she used her existing drawing skills, knowledge of narrative elements and structure, and emerging English skills to confidently engage in the WPS process. Her pre-/post-study assessments showed increases in narrative production and comprehension skills relative to both monolingual and multilingual peers.

Caminda was highly motivated by the production of her picture books, which she enjoyed sharing with her family. Having a written artefact seemed to bolster her identity as a writer. She also enjoyed seeing her stories used as play-scripts, which provided her with an expanded audience for her writing (beyond her family) and helped her to consider how her stories impacted others.

In working with Caminda as teacher-researcher, my roles included assisting as scribe, interested listener, prompter of minor adjustments to enhance coherence, and modeler of conventional English grammar. I responded to Caminda's keen drive for independence as a composer by letting her take the lead as much as possible and encouraging her to support her peers as a skilled collaborative partner.

8.2.2 Case 2: Daniel - The boy who used super powers to roar bigger than monsters

Child profile

Daniel was four years and seven months old at the start of the study. He was a multilingual learner, whose expressive language skills were low in both Spanish (his home language) and English. While other children would converse fluently in Spanish, he seldom spoke in either Spanish or English. When he did speak his utterances were brief (1-3 word phrases). He tended to engage mostly in solitary or parallel object play, such as building with blocks or playing with the toy dinosaur set. He seemed to enjoy interacting with peers, but tended to be a follower of other children's play ideas rather than instigating or suggesting changes in the direction of play. When asked about his play, he typically responded by labelling the item he was playing with, 'blocks' or 'dinosaurs' and then continued to play. He was selected as a focal child due to his being a multilingual learner with low oral language skills. Of interest was how the treatment's multimodal approach would support his early emergent English narrative skills and literate identity.

Approach to writing

Daniel was excited to be invited to join the first book-making group, smiling and eagerly following me down the hall to our small composing room. He made eye-contact when the book template and book-making process were explained. When given his first book, he watched as other children chose a pencil and began to draw - some verbalising their character choices aloud: 'I'm going to do Superman!' and 'I'm doing a Princess and her kitty'. After a short pause and continued watching, he shouted, 'Mario...Luigi!', then began to draw, making animated sound effects and gestures as he drew.

Out of all his preschool peers, Daniel was the only child still predominantly using non-representational 'scribbles' to help plan and capture his thinking. During his first book making session he worked hard to create representational drawings, as he observed his peers doing (see Figure 8.2.2a). However, this type of drawing was difficult for Daniel and in subsequent sessions he switched to rapid scribbling to attempt to show his action-centered characters and, eventually, plot. He used his scribbling as a tool to delve deeper into his narrative world and to plan out his story. This scribbling was accompanied by non-linguistic sound effects, gesturing and whole body enactments.

At first Daniel seemed completely unaware of his different approach to illustration, immersed in his own imaginings while rapidly making marks upon the page. His first awareness seemed to come when another male child made the statement, ‘you draw like a baby, your drawings aren’t good’. At first he did not seem upset by the comment, not responding in any outward way. In an attempt to prevent discouragement and make explicit Daniel’s many skills, I countered with, ‘that’s not true, Daniel is putting a lot of detail into his drawings and I can tell there’s a lot happening in his story. He’s still learning about drawing so other people know what’s happening without him telling them, and that’s ok’. This statement seemed to satisfy both children in the moment, but in subsequent sessions Daniel started to make comments like, ‘I don’t know how to draw that, can you help me?’

Rather than insisting on Daniel’s independence during illustrating, I responded with broad suggestions like, ‘well, why don’t you draw a big circle for the body and then a little circle for the head...and you know how to do eyes and mouths and noses’. For the most part this was enough to support his continued efforts toward independence, but he began to ask other children to draw certain characters or objects for him. He seemed to enjoy this peer support, so I chose not to intervene, not wanting to disrupt this common use of drawing as a mediator of social relationships.

Daniel continued to be an animated ‘whole body’ storyteller throughout the study period, using gestures and sound effects to communicate the bulk of his intended meaning. His simple action-heap stories, based on characters from popular culture/media (e.g. Mario and Power Ranger), changed over time as he sought to appeal to his peer audience. He picked up new characters, plots and themes from his more elaborate storytelling peers. He tried out characters from other children’s stories and increased the level of interaction between characters within his own stories. He added problems and solutions to his stories, and began to develop the consciousness landscape by including simple mental state words such as ‘happy’, ‘sad’, ‘wanted’ and ‘know’. His stories evolved from basic descriptions of character actions to include references to character goals, decision-making, emotions and relationships. Daniel’s book artefacts (Figures 8.2.2b to 8.2.2h) show this progression.

Collaborative dialogue

Daniel was a language support sponge! After completing his illustrations he would excitedly exclaim, 'done, ready for words!' His eyes light up and he smiled as he anticipated the joint construction of his texts. He relied heavily on me to remember our conversations as he enacted and verbally labelled his characters and actions during the story planning and illustration phase. Appendix 9b provides a transcript of dialogue exchanged during Daniel's first book-making session. His finished story includes a few simple actions, which he first enacted with his whole body as he created his illustrations. Lines 8-16 provide an example of how I used my observations of Daniel's gestures and character embodiment to help him plan out his book and then to remind him of his plan as he continued to illustrate and enact his story.

> [words marked 'X' and phrases marked 'XX' were unintelligible]
>
> Teacher: What are you going to do your's about Daniel?
>
> Child: Mario could run [gesturing with arms in running motion].
>
> Child: And Mario (could and) he could walk with Luigi [slowing down arm gestures, smiling].
>
> Child: And XX and he could run [some words unintelligible, rapid gesturing and action sound effects].
>
> Child: And X could run faster.
>
> Child: And X Luigi.
>
> Child: And X I had this one [utterances told in rapid sequence, gesturing more movements and then pointing to imaginary object in the air in front of him].
>
> Teacher: Uhhuh, so this one could be him jumping [pointing to first page], this one could be him running really fast [pointing to second page], and then on the back you could draw Mario with his friend, Luigi?
>
> Child: Yeah [excited voice]!

When composing his story orally (see lines 27-64, Appendix 9b) Daniel needed support to expand his basic noun labelling into full sentences and to include the action ideas he had generated while illustrating. For example, when asked what he wanted his first page to say, he responded 'Mario', to which I responded with the suggested expansion (and character introduction) 'This is Mario'. When prompted to add an action sentence to his first page, he seemed unaware of how to proceed, so I reminded him of his earlier embodied action, 'Mario can jump up high, remember?', to which he excitedly responded 'Yeah!' while reenacting his earlier jumping movement. This transcript shows the intensive language support Daniel needed to engage in linguistic narrative composing.

Daniel was still operating within a stage of language development characteristic of younger children, wherein gesture and intonation serve as prominent cohesive devices, critical to holding emerging oral narratives together to establish shared meaning with others. His language use was primarily grounded in the 'here-and-now' object labelling and pragmatic functional language used in everyday activities. His understanding of how narratives 'go', i.e. the language patterns and structure typical of conveying characters and their interior worlds, was still very embryonic. However, he eagerly took up suggestions to expand his thinking linguistically, and was excited to engage in this work with others. As a result, his concept of story quickly evolved.

Daniel was an enthusiastic recipient of peer support, accepting suggestions for characters and events, and answering peer questions aimed at learning more about his stories. Appendix 9c provides a transcript of composing dialogue between Daniel, two other peers, and myself, in Week Eight of the study (Daniel's dialogue is preceded by the speaker label 'C2' for 'Child 2'). The transcript shows Daniel receiving multiple forms of support through collaborative dialogue with peers and myself. When it came time to compose on the page, his peers were able to help him retrieve events and details he had verbalised earlier during story illustration. For example, a child reminds Daniel that he had said that it was raining in his story, so he should get his characters inside and out of the rain (lines 58-68). His peer also wanted to hear about the mom's reaction in the story, 'Is the mommy going to get mad?', prompting Daniel to consider character mental states that he would have otherwise likely neglected. I was then able to use this opportunity to suggest a possible 'fix' to the plot to help Daniel strengthen the coherence of his narrative. While he was not able to do this revision on his own, he was an enthusiastic recipient of both peer and teacher support.

To help Daniel transfer his action-based 'pantomime' gesturing and visual imagining into a written narrative, it was essential that I engaged in conversation with him as he drew and enacted his stories. I needed to pay close attention to his gesturing and sound effects so I could later help him to bridge his contextualised here-and-now simple noun and verb labelling into the decontextualised and elaborated language needed to compose a written narrative. Unlike other peers, whose illustrations served as representational meaning anchors, Daniel's gestures and sound effects were his primary semiotic tools. He serves as an example of how I had to actively interpret a broader range of multimodal tools when working with students whose drawings were not yet representational and whose expressive language skills were limited.

Motivation and literate identity

Daniel was highly motivated by the prospect of his stories being enacted by his peers, as illustrated by the following excerpt (taken from Appendix 9c, lines 120-126):

> Child: You can take it and read the story [pointing to his book and then in direction of classroom]?
> Teacher: Yes, I will.
> Child: In the classroom [pointing again]?
> Teacher: Yep.
> Child: And the boy come and be [pointing to his book and gesturing peers enacting his story].
> Teacher: Yes [nodding and smiling].
> Child: Yay [smiling and jumping up and down with excitement]!

When it came time to enact his stories, he would quickly jump up from the class circle and immediately state who he wanted to play his characters, as if he had already had this planned. He always chose his preferred male peers. His stories provided him with opportunities to instigate and lead peer interactions (see Figure 8.2.2a). The use of his stories as play-scripts helped to carve out space for his voice to be heard within his classroom community. This seemed especially powerful for Daniel, whose expressive language skills often relegated him to the role of 'follower' among his more verbally proficient peers within other play and learning activities. Providing him with the time and support needed to plan his narratives and transfer them into language helped him to establish a more visible role within his peer group.

Despite his early developmental stage of drawing and oral language, Daniel persevered with the task of composing his stories. Though he seldom made overt references to himself as a writer, his experience of success in jointly composing texts seemed to bolster his confidence. He clearly enjoyed the individual attention he received during joint construction of his written text - being listened to, seeking to communicate and being understood, and having his stories responded to with genuine interest and delight. For Daniel, both peer and teacher attention seemed to be powerful motivating forces. His understanding of the power of narratives as a social tool grew across the study, as did his skills as a composer. His pride in these growing skills was evident as he held his completed books and as he stepped onto the stage to direct and enact his stories. Daniel used his stories to explore themes of friendship and personal strength, and seemed to enjoy casting himself in the role of helper.





Figure 8.2.2a Daniel 'on stage' helping to perform his story, enacting Spiderman shooting webs (top, at right) and then going to sleep (bottom, at right) (photographs taken by classroom teacher)

Narrative development

Daniel's early stage of expressive language development meant that composing oral narratives was challenging. His pre-study retell (Appendix 11c) demonstrates difficulty using specific noun referents to establish clarity when introducing his narrative, e.g. stating 'And he look at him' instead of 'The boy looked at the frog'. His utterances were short and included very few connectives to establish temporal sequence or causal relationships; the only instances being the repeated use of 'and' to link events, and once using 'but' to link two clauses in the sentence: 'And the X (unintelligible) come but they can't find him'. His narrative was absent of any mental state verbs or adjectives, and his vocal intonation reflected understanding of character mental states in only one utterance (the scene where the boy tells

his dog to be quiet, with Daniel using an impatient/angry tone showing how the boy spoke to his dog). The consciousness landscape was completely undeveloped linguistically. His retelling consisted of a string of event statements, resulting in low overall macrostructural quality scores (see Table 8.2.2a).

Daniel's post-study retell (Appendix 11d) shows several improvements. Although he continued to use many short utterances, he generated several longer utterances, which increased his MLU score. He also increased his linguistic development of the consciousness landscape through the use of mental state words and phrases, e.g. 'wanted', 'know', 'mad', 'gonna' (showing intention), 'didn't see' and 'coz he needed to'. His vocal intonation also showed much greater understanding and communication of the consciousness landscape. He used new connective words and phrases, such as 'when it was time to go', 'coz' and 'gonna'. These indicated increased awareness of the linguistic devices needed to establish cohesion between utterances, which helped to enhance the coherence of his narrative.

Daniel's narrative production scores pre- and post-treatment (Table 8.2.2c) showed increased microstructural scores for: total number of utterances, mean length of utterance and words per minute. His word and utterance level errors increased, however, this can be partly attributed to his increased total number of words and utterances. His macrostructural scores showed increases for: 'Introduction', 'Character Development', 'Mental States' and 'Cohesion'. Overall, his post-study retell was longer, his language more complex, and his narrative had a clearer structure.

Table 8.2.2a Daniel's narrative production quality scores

		Pre-test	Post-test	Change
	Variable	*Raw score*	*Raw score*	*Difference*
Microstructural	*MLU (words)*	4.58	5.93	1.35
	TTR	0.42	0.37	-0.05
	Errors	2	8	6
	WPM	56.32	66.76	10.44
	Maze %	7	7	0
	Total Utter.	31	48	17
Macrostructural	Introduction	1	3	2
	Character Development	1	2	1
	Mental States	1	2	1
	Referencing	2	2	0
	Conflict/Resolution	1	1	0
	Cohesion	1	2	1
	Conclusion	1	1	0
	TOTAL	8	13	5

MLU (words)=mean length of utterance in C-units, TTR=type token ratio, Errors=errors at the word or utterance level, WPM=words per minute, Maze=percentage of utterances containing maze words, TotalUtter.=total utterances used in retell.

When compared to same-age monolingual peers within the SALT database (*n*=19 pre-study and *n*=27 post-study; see Appendix 10c). His scores were mostly below the database mean for both pre- and post-treatment retells, however, his scores improved relative to this cohort in: total number of utterances, shifting from below the mean to above (-0.63 to +0.95 SD); his mean length of utterance increased by 1.75 SD; and his number of different words increased by 1.44 SD. His omission of words and bound morphemes increased. As stated above, this can be partly attributed to an increase in total words used, but also due to his low initial oral language proficiency and multilingual learner status. Overall, his scores indicated that his language skills increased relative to same-age monolingual peers.

When compared to same-age multilingual peers within the SALT database (*n*=30 pre-study and *n*=106 post-study, see Appendix 10d) Daniel's pre-study microstructural quality scores were below the mean, but less so than when compared to monolingual peers (as outlined above). His post-study scores demonstrated improvements, such that his scores were actually above the multilingual mean on certain variables. His total utterances increased by more than 2 SD (-0.44 to 1.54), his total words used increased by more than 1 SD (-0.81 to 0.35), and his MLU and number of different words went from below to above the mean. His word level errors showed a slight decrease and his utterance errors decreased by 1.28 SD; and both types of errors showed less deviation from the mean than when compared to monolingual peers.

Overall, Daniel's narrative production skills improved relative to monolingual and multilingual peers. His utterances became longer, he used a greater variety of words, and he made less word and utterance level errors. These results supported my observational assessment that Daniel had become more competent in expressing his thoughts linguistically. While he still relied heavily on non-linguistic modes to communicate when composing, these became increasingly accompanied by language. I also offered less linguistic scaffolding via recastings and suggested expansions during joint construction. These changes in collaborative dialogue also indicate increased confidence and linguistic skill (i.e. through a transfer of responsibility).

Daniel's narrative comprehension skills also improved across the study (see Table 8.2.2b). These scores show improvements in literal comprehension on direct questioning and in literal and inferential comprehension via landscape codings. These scores aligned with my observational assessment that Daniel's understanding of narrative discourse improved

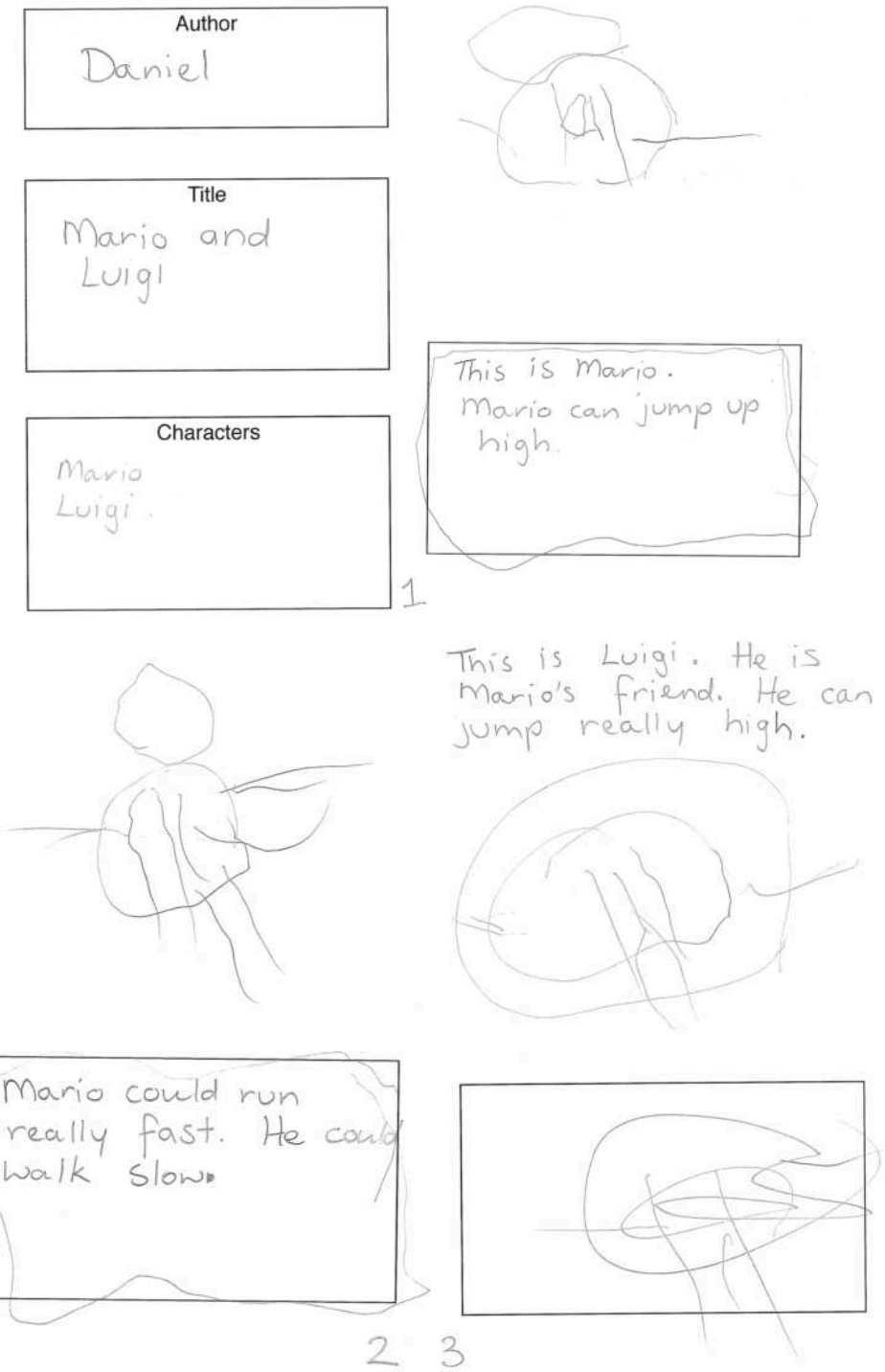
considerably over the study period. He began to pay far more attention to the consciousness landscape in his own stories. The inclusion of character dialogue and thinking, prompted by the availability of speech/thought bubbles, helped to make this aspect of a complete narrative tangible for Daniel.

Table 8.2.2b Daniel's narrative comprehension scores

		Pre-test	Post-test	
	Variable	*Raw score*	*Raw score*	*Difference*
Direct questioning	Literal	2	4	2
	Inferential	2	2	0
	Total	4	6	2
Narrative landscapes	Action	24	27	3
	Consciousness	4	14	10
	Consciousness to Action Ratio	0.16	0.52	0.36

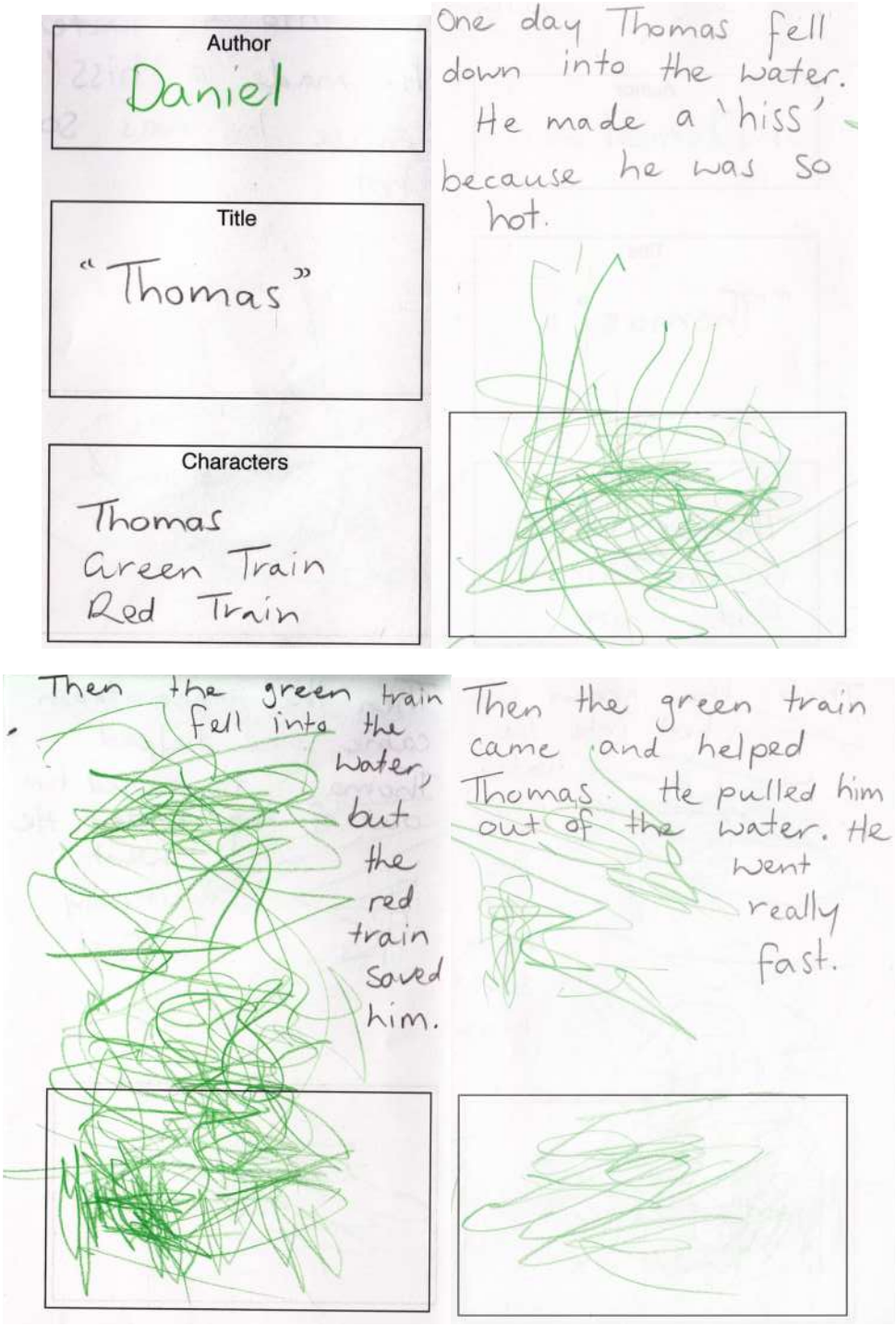
Daniel's book artefacts (Figures 8.2.2b to 8.2.2h) demonstrate how his narratives evolved from simple action/event chains to more conventional narratives with a problem and solution. Physically 'seeing' many narratives enacted and hearing the language that peers used to compose their narratives, supported Daniel to grasp this underlying narrative structure. He quickly came to understand that narratives involve intentional agents, with goals and outcomes that audiences want to learn about. His book artefacts show a steady increase in reference to character interaction, use of dialogue, and reference to motives/goals. His narrative contained limited use of metacognitive verbs (i.e. explicit reference to internal emotions), but this content was easier to infer through an increased coherence in his language.

Book artefacts



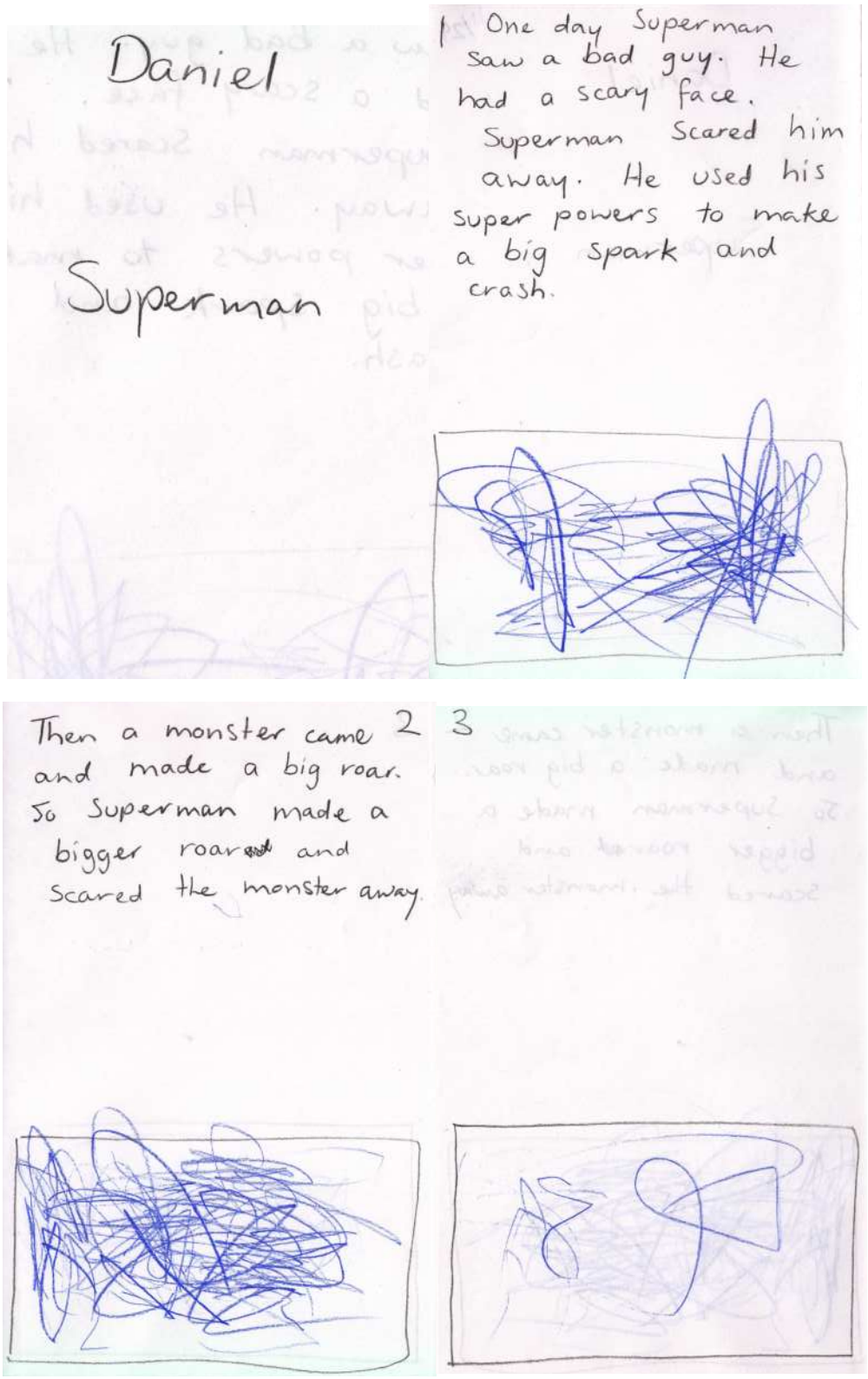
Written text: *This is Mario. Mario can jump up high. Mario could run really fast. He could walk slow. This is Luigi. He is Mario's friend. He can jump really high.*

Figure 8.2.2b Daniel's book, *Mario and Luigi,* created in Week One



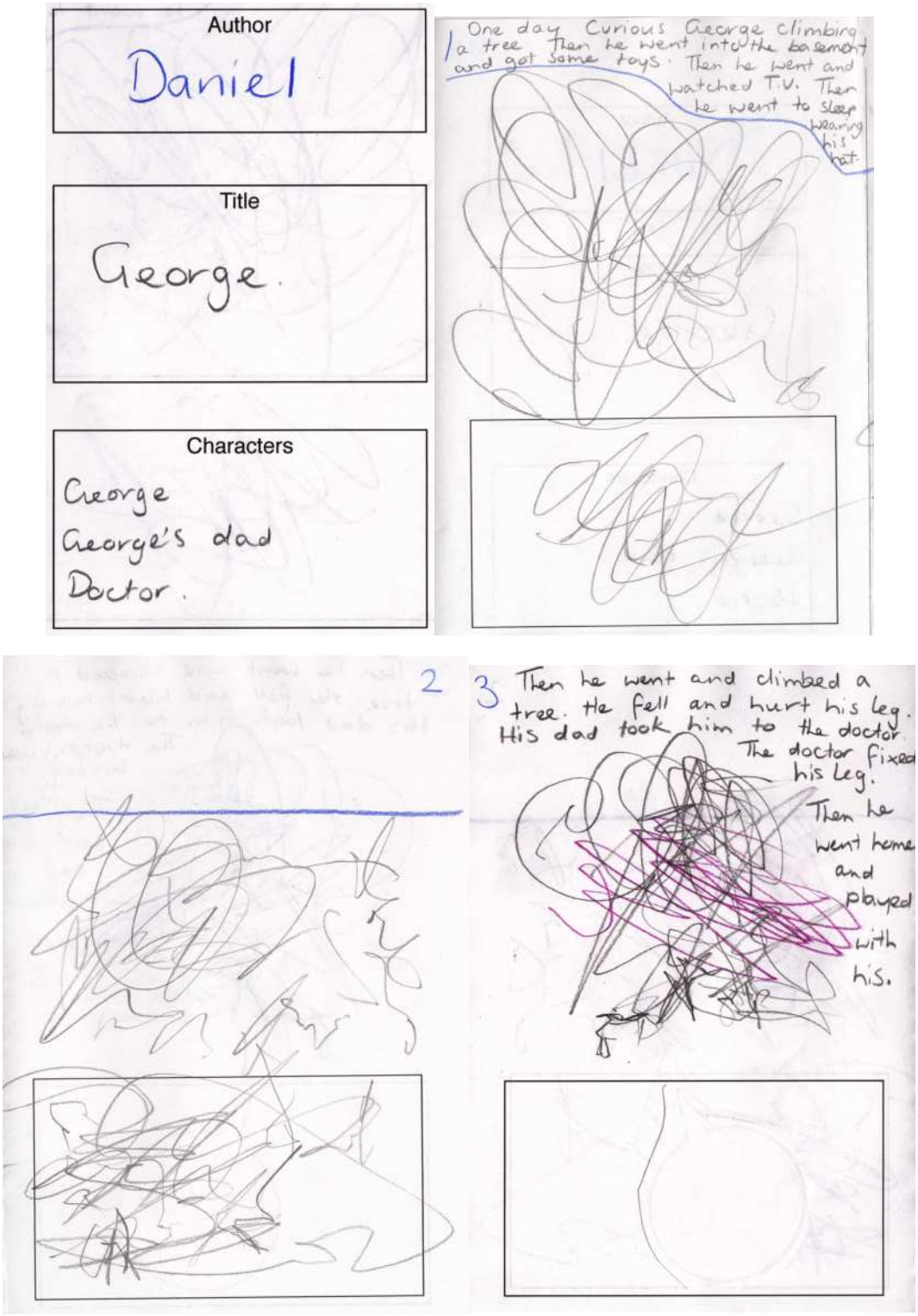
Written text: *One day Thomas fell down into the water. He made a 'hiss' because he was so hot. Then the green train fell into the water, but the red train saved him. Then the green train came and helped Thomas. He pulled him out of the water. He went really fast.*

Figure 8.2.2c Daniel's book, *Thomas,* created in Week Four



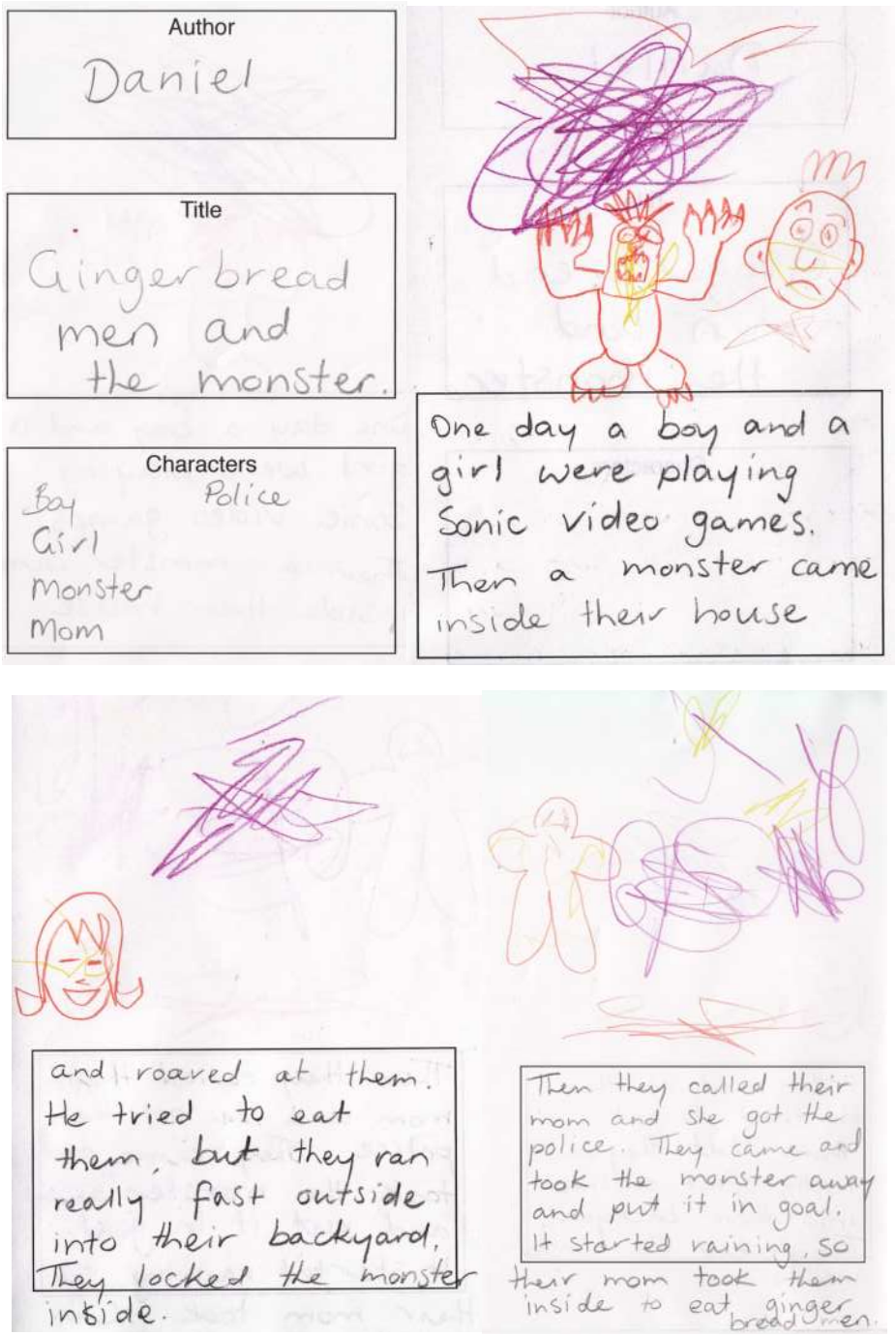
Written text: *One day Superman saw a bad guy. He had a scary face. Superman scared him away. He used his super powers to make a big spark and crash. Then a monster came and made a big roar. So Superman made a bigger roar and scared the monster away.*

Figure 8.2.2d Daniel's book, *Superman*, created in Week Six



Written text: *One day Curious George was climbing a tree. Then he went into the basement and got some toys. Then he went and watched T.V. Then he went to sleep wearing his hat. Then he went and climbed a tree. He fell and hurt his leg. His dad took him to the doctor. The doctor fixed his leg. Then he went home and played with his toys.*

Figure 8.2.2e Daniel's book, *George*, created in Week Eight

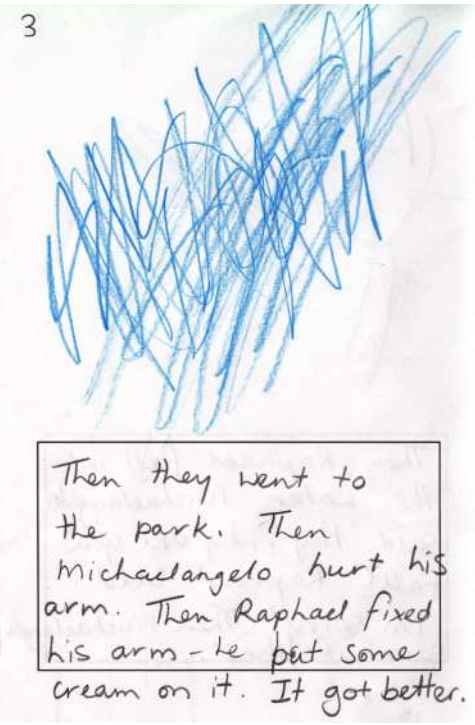


Written text: *One day a boy and a girl were playing Sonic video games. Then a monster came inside their house and roared at them. He tried to eat them, but they ran really fast outside into their backyard. They locked the monster inside. Then they called their mom and she got the police. They came and took the monster away and put it in gaol. It started raining, so their mom took them inside to eat gingerbread men.*

Figure 8.2.2f Daniel's book, *Gingerbread men and the monster*, Week Ten

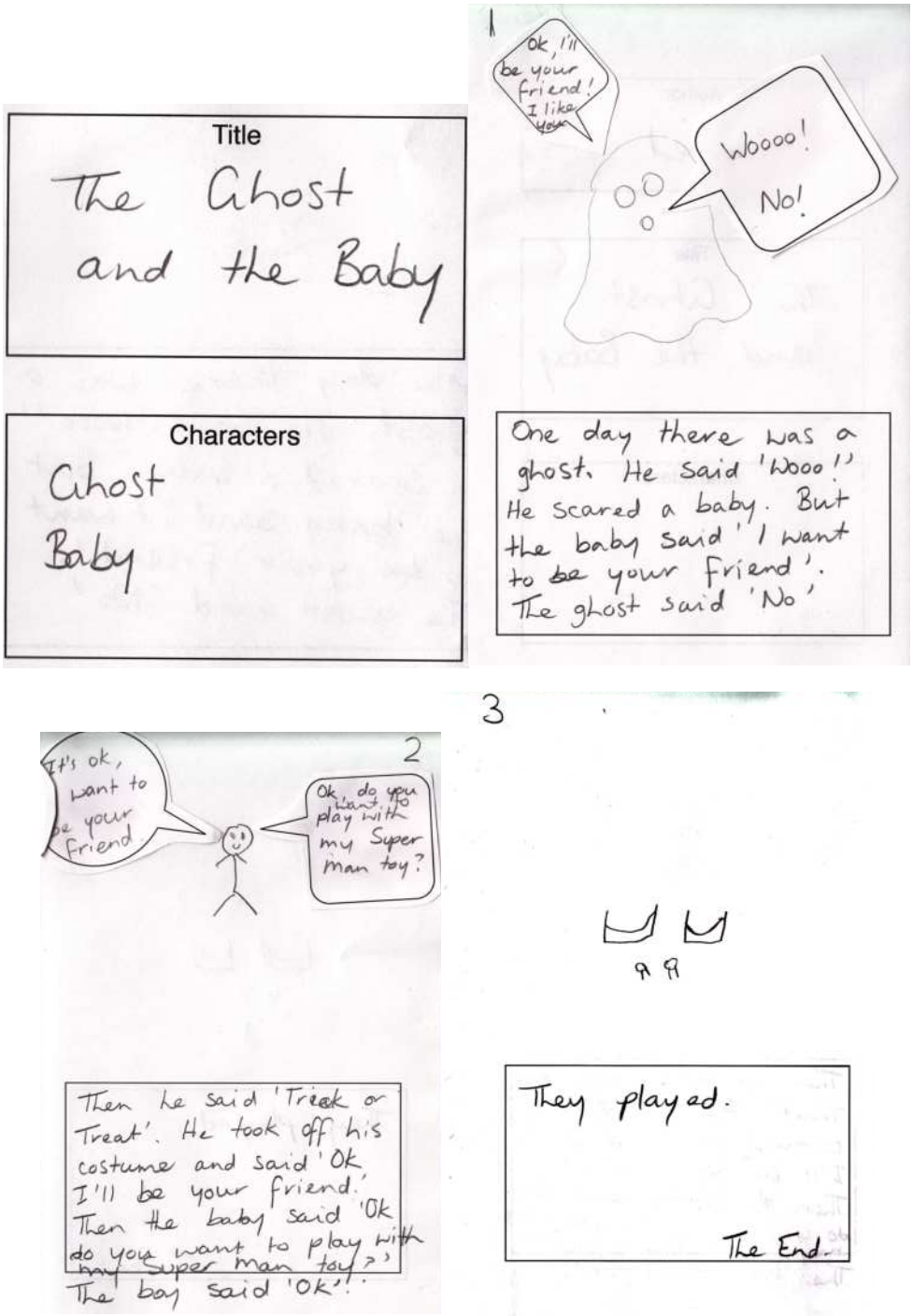






Written text: *One day Michaelangelo was playing by himself. Then his friend Raphael came. Then Raphael fell into the water. Michaelangelo said, 'Hey, why did you fall?' Raphael said, 'I'm sorry'. Then Michaelangelo saved Raphael. Then they went to the park. Then Michaelangelo hurt his arm. Then Raphael fixed his arm - he put some cream on it. It got better.*

Figure 8.2.2g Daniel's story, *Raphael and Michaelangelo*, created in Week Ten (illustrations by peer and Daniel)



Written text: *One day day there was a ghost. He said 'Wooo!' He scared a baby. But the baby said, 'I want to be your friend'. The ghost said, 'No!' Then said, 'Trick or treat!' He took off his costume and said, 'Ok, I'll be your friend'. Then the baby said 'Ok, do you want to play with my Super Man toy?' The boy said, 'Ok'. They played. The end.*

Figure 8.2.2h Daniel's book, *The Ghost and the Baby*, created in Week Twelve (illustrations by peer and teacher-researcher)

Summary

Daniel was chosen as a focal child due to his multilingual learner status and low initial oral language skills. His case highlights how the WPS process was able to accommodate variations in children's oral language skills, including those with lower levels of first and second language proficiency. Daniel's reliance on non-linguistic modes, such as sound effects, gesture and whole body enactment to establish intersubjectivity demonstrated the importance of supporting children's multimodal semiosis. Daniel also demonstrated the learning that occurred as children observed each other's composing choices. Through peer observation Daniel rapidly expanded his concept of narrative structure and use of language, borrowing character, plot and dialogue ideas to expand his narrative repertoire.

Daniel's retell assessments showed increases in his narrative production and comprehension skills relative to monolingual and multilingual peers. While written text composition remained challenging for Daniel, the use of multimodal semiosis and joint construction provided him with the linguistic scaffolding needed to engage in written composition. His narrative production increased in volume, complexity and accuracy; and his narrative comprehension showed increased literal comprehension and understanding of the dual landscape.

Daniel was highly motivated to engage in narrative composing due to the use of his writing as play-scripts. This gave him increased social attention and a 'voice' within his peer community. He enthusiastically welcomed linguistic support to achieve these social ends. His literate identity grew over the treatment period, evidenced by frequent verbalising of his excitement for having his books used as play-scripts.

In working with Daniel as teacher-researcher, my roles included serving as: interpreter of his non-linguistic semiosis, translator of his non-linguistic semiosis into oral and written language, co-creator of written texts, and an engaged and enthusiastic listener. Daniel's case demonstrates the intensive language support that some children needed to engage in written narrative composition. He also demonstrates the high level of engagement generated by the WPS process, despite the cognitive-linguistic challenges it posed.

8.2.3 Case 3: Summer - The girl who used her magic wand to zip-zap gorillas away

Child profile

Summer was four years and nine months old at the start of the study period. She was the oldest in her class and the only African-American (and only non-Hispanic) child. She was a monolingual English speaker, with low oral language skills. She slurred many speech sounds and spoke in a soft voice, which made her difficult to understand at times. My initial observational notes recorded Summer as a sought after playmate and a frequent leader of children's play activities. I also noted that she was quick to become frustrated when her attempts to communicate were misunderstood or ignored by peers. She was selected as a focal child due to her being the only African-American child in the class, her low initial oral language skills, and her tendency to become frustrated when faced with challenging tasks. Her teachers had reported concerns about her lack of interest in engaging in early literacy activities, including extended language interaction.

Approach to writing:

Summer's initial approach to book-making was characterized by quickly drawn basic sketches of main characters, e.g. a Princess or a boy. She was brief in her storytelling. Her early narratives tended to consist of causally unconnected events, with minimal development of the consciousness landscape. These early stories often involved two main characters doing everyday activities, such as getting dressed, eating, playing, and sleeping. However, in response to seeing her own and others' stories enacted through narrative play, Summer sought to distinguish her stories by adding more conflict and creating powerful characters who triumphed over malevolent foes, e.g. in Week 6 she created a girl with a magic wand who 'zip-zapped' away a menacing gorilla (Figure 8.2.3d). She also borrowed the idea of inserting super hero characters into her narratives to increase their dramatic tension.

As the study progressed Summer began to experiment with including character dialogue in her stories. She glued speech/thought bubbles into her books, initially choosing not to write words directly into them, instead inserting the dialogue into the main text of her narrative. Over time she began to ask to have dialogue and thought written into the bubbles, sometimes related to her written narrative and sometimes not obviously connected to any event/s in her story. She seemed to use the bubbles at such times to explore what a character *might* think or

say given their age, relationships and personality. For example, in Week 8 (Figure 8.2.3e) and Week 12 (Figure 8.2.3g) she adds speech bubbles containing dialogue between two characters that are only briefly referred to in the story. In this way, the speech/thought bubbles seemed to help Summer explore the consciousness landscape, even though she mostly resisted including their contents directly into the main text of her narrative. She did include some dialogue in her written narratives, which she enjoyed seeing peers enact. She would laugh out loud at particularly dramatic lines she had created, such as 'Everybody run for your lives!'. She would also request at times 'tell them what they need to say', referring to the dialogue she had recorded only in her speech/thought bubbles.

Collaborative dialogue

When it came to composing her written narrative, Summer would often begin by dictating short phrases that lacked coherence as a narrative text. When her composing efforts were responded to with questions or suggestions aimed at supporting elaboration, she seemed unable to see when or why her attempts to communicate lacked coherence. She was defensive of her first attempts to compose and seemed to respond to my attempts at linguistic scaffolding as unwelcome criticism. I found that the most productive way to support her composing was to take a very indirect approach, by showing enthusiasm for her verbalized concepts and asking interested questions that would hopefully prompt her to voluntarily share more about her imaginings. Appendix 9d shows an extended transcript of one such exchange, in Week Eight of the study. Lines 30-46, show how I attempt to prompt Summer to add extra details about what 'the magic boy' does in her story, which she initially declines, so I choose to move on, then she interjects adding extra event details:

Child: It's the magic boy.

Teacher: Ah, so then does the magic boy come [not yet discussed in story]?

Child: Yeah.

Teacher: <u>Then a magic boy came</u>, and what did he do?

Child: And he haded [had] a mustache.

Teacher: He had what [didn't understand child's intended noun]?

Peer: Matches [another child at the table interjects].

Child: No, mustache!

Teacher: Ah, mustache, the hair like this [gesturing hair above the lip], on your face?

Child: Uhhuh.

Teacher: <u>He had a mustache</u>.

Teacher: What happens at the end, does the magic boy do anything?

Child: No.

Teacher: No, ok.

Child: He went in the house.

Child: He go to sleep.

Teacher: Alright, He went in the house and went to sleep.

Joint construction seemed more difficult for Summer than for many of her preschool peers, possibly due to her low expressive language skills and low tolerance for frustration. She seemed to need extra reassurance that her ideas were viewed as interesting and valued. Initially, she seemed on guard and ready to reject the book-making process if she did not experience success. She benefited from opportunities to collaborate with peers, e.g. receiving support with illustrations and being invited to enact characters when their stories were used as play-scripts. Without the immediacy of a peer audience and linking written composing to narrative play, I suspect that Summer would have been far less motivated to engage in the book-making process.

Summer's illustrating and oral composing efforts waxed and waned throughout the study period. As such, I worked extra hard to engage her in conversation during the story planning and illustration phase, so that my linguistic scaffolding would seem less intrusive when it came time to compose her written narrative. That is, I used this 'research' prior to written composing to tailor my scaffolding to what I already knew about her narrative. I also opted not to pursue prompts aimed at having her elaborate on her thinking if she did not seem receptive (due to high frustration and/or low motivation). This low-pressure, interested-scribe approach left Summer in control of her composing choices, which often resulted in her volunteering further elaborations (as described above).

Motivation and literate identity:

Summer did not seem particularly interested in book-making at first. She rushed through her illustrations and seemed to want to have her words written down as quickly as possible so she could return to other classroom activities. Unlike most of her preschool peers, the prospect of completing 'her' books and taking them home to share with family members did not seem motivating enough to warrant the effort involved in written composing. She did not yet see herself as a writer or seem to value the opportunity to be seen as such. Whether this was due to a real or perceived lack of support for literacy at home (i.e. she thought no one would be interested in reading her stories) and/or the linguistic challenges inherent in composing, was

unclear. However, Summer's interest in composing increased when she saw her own and others' stories used as play-scripts. She quickly adopted a more dramatic and elaborate storytelling style designed to entertain her peers. She took inspiration from other children's stories and composing choices. Her stories showed evidence of 'borrowed' characters, objects and events.

The narrative play aspect of the intervention seemed most powerful for Summer. She always chose to play the lead character when her books were used as play-scripts, and she enjoyed selecting peers to play her other roles. She always volunteered to help enact peer stories and would become emotionally upset if she was not chosen. She was a dramatic performer, who enjoyed playing powerful roles such as monsters, princesses, and parents. She also enjoyed seeing the impact of her narrative play approach on others, often giggling as she saw the reaction of her peer audience to her dramatic enactment of different roles. She continued to show little value in her finished book artefacts, other than in their function as tickets to take center stage during narrative play. When her books were returned to her, she would either place them next to her and leave them behind as she moved between play areas, or hastily throw them on top of her other belongings in her cubby area.

Throughout the study Summer consistently showed a lack of interest in illustrating unless she had the support of peers or an adult. She knew what she wanted to depict, but was reluctant to create her own illustrations. This was partly due to a lack of fine motor control and partly because she was easily frustrated when her drawings did not turn out the way she wanted. Rather than insisting on independent representational drawing, I encouraged her to seek help from peers or to just try to get 'something' (i.e. a character or object important to the story) down on paper, e.g. 'just draw the girl or the house'. When help from others was not available, Summer would typically hastily draw in a single character or object, sometimes without attempting to make it representational, and then ask to have her words written. These minimalist drawings nonetheless served the main purpose for having children engage in illustration, which was to help them to practice planning out their narratives. I was pleased that Summer at least seemed to recognise the benefit of this illustrating process. This approximation of the process was enough.





Figure 8.2.3a Summer 'on stage' helping to perform another child's story (photographs taken by classroom teacher).

Overall, while composing was not easy for Summer, she soon began to willingly come along to her scheduled book-making sessions and showed growth in her skills and identity as a writer. The social power of seeing her stories brought to life through narrative play provided an immediate purpose and audience for her writing which she valued. This gradually enabled her to open herself up to feedback and incorporating improvements into her narratives. My role was a delicate one. I needed to pay close attention to her shifting interest, prompting her to extend herself during times when she seemed more open to feedback, or simply recording her words verbatim (even if they lacked coherence) in an attempt to support her continued interest and engagement.

Narrative development:

Summer's oral language skills at the start of the study were low. Appendix 11e shows a transcript of Summer's pre-study narrative retell and Appendix 11f shows her post-study retell. Table 8.2.3a shows Summer's microstructural and macrostructural narrative production quality scores. While her post-study retell contained fewer utterances, these were longer and more lexically diverse. Her macrostructural results showed increased scores for: 'Introduction', 'Character Development' and 'Conflict Resolution'. Although her score for 'Mental States' did not change, she used a greater number of mental state words (e.g. mad, sad, bad, screamed). Her narrative comprehension scores (Table 8.2.3b) showed increases in literal comprehension on direct questioning; and increased consciousness landscape comprehension on retell codings. Her post-study retell showed increased use of vocal intonation to convey character mental states when narrating emotional moments in the story.

Table 8.2.3a Summer's narrative production quality scores

	Variable	Pre-test *Raw score*	Post-test *Raw score*	*Difference*
Microstructural	*MLU (words)*	5.39	5.68	0.29
	TTR	0.38	0.42	0.04
	Errors	39	32	-7
	WPM	72	48	-24
	Maze %	10	8	-2
	Total Utter.	42	36	-6
Macrostructural	Introduction	1	2	1
	Character Development	1	2	1
	Mental States	2	2	0
	Referencing	1	1	0
	Conflict/Resolution	1	2	1
	Cohesion	1	1	0
	Conclusion	2	1	-1
	TOTAL	9	11	2

MLU (words)=mean length of utterance in C-units, TTR=type token ratio, Errors=grammatical errors at the word or utterance level, WPM=words per minute, Maze=percentage of utterances containing maze words, TotalUtter.=total utterances used in retell.

Table 8.2.3b Summer's narrative comprehension scores

	Variable	Pre-test *Raw score*	Post-test *Raw score*	*Difference*
Narrative landscapes	Action	35	24	-11
	Consciousness	4	12	8
	Consciousness to Action Ratio	0.11	0.29	0.18
Direct comprehension questioning	Literal	3	4	1
	Inferential	2	2	0
	Total	5	6	1

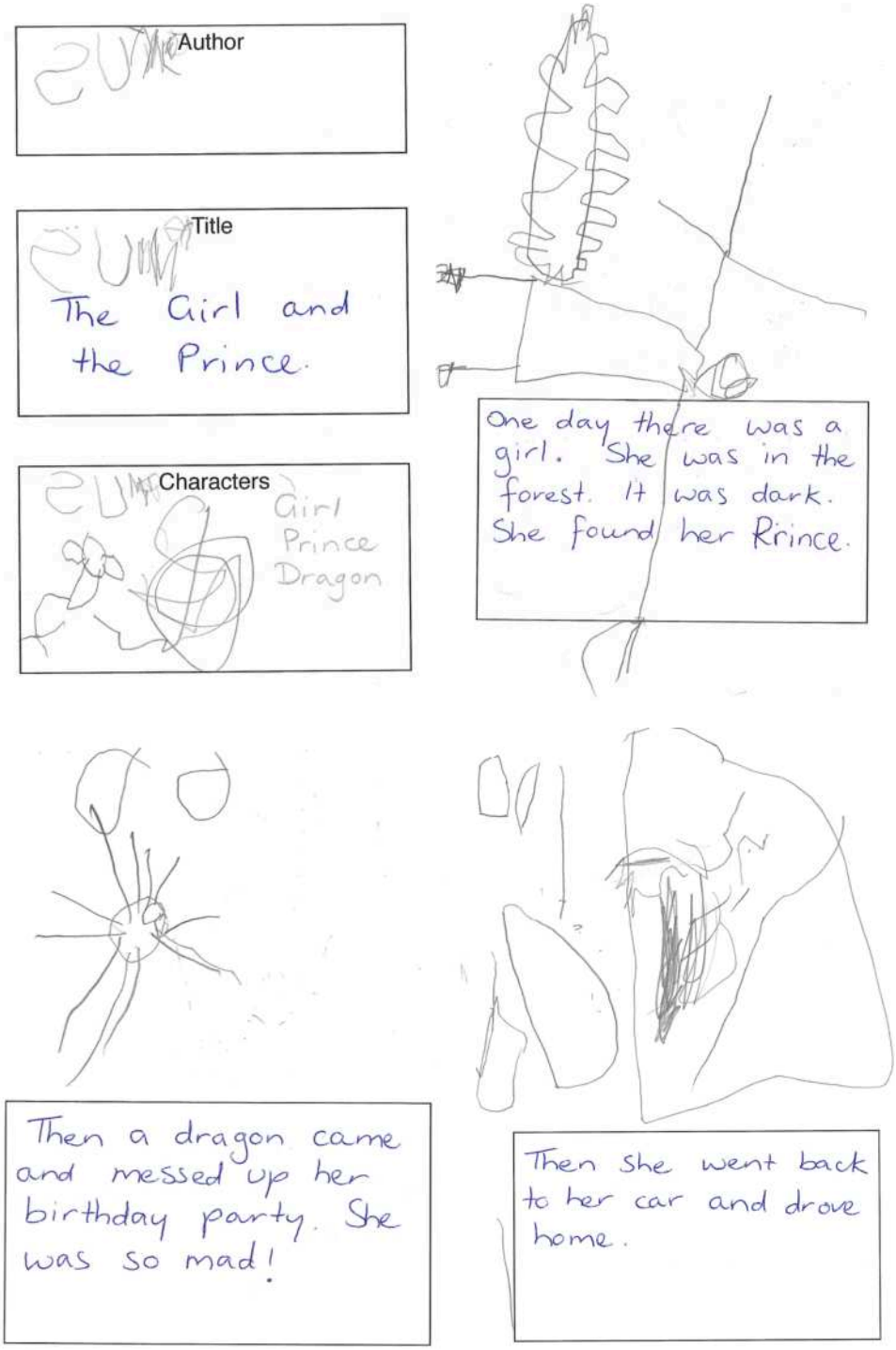
As can be seen from Summer's book artefacts (Figures 8.2.3b to 8.2.3g), her written narratives became more structured across the study. She began to link events with clearer causal connections, and established a stronger beginning, middle and ending structure. This increased the overall coherence of her narratives. She also began to incorporate character

dialogue and increased her linguistic reference to character mental states. For example, in Week Two she composed the sentence: 'She was so mad!', without elaborating to tell her readers why; whereas in Week Ten she composed the sentence: 'Their mom was mad *at them for eating the donuts*', which is causally elaborated and, thereby, more coherent.

When compared to same-age SALT database monolingual peers (*n*=29; see Appendix 10e) Summer's pre-study scores confirmed my initial observations of her expressive language difficulties. Her scores were below the mean for utterance length (-1.10 SD), morphemes (-1.28 SD), and lexical diversity (-0.43 SD). Her scores for accuracy of language production demonstrated low syntactic skills compared to monolingual peers, with the following results: omitted words: +6.01 SD; omitted bound morphemes: +2.57 SD; and word level errors: +3.97. Her post-study retell scores showed an increase in her utterance length and lexical diversity scores relative to SALT data monolingual peers. Her omissions and errors also decreased relative to this database. These results indicated increases in her complexity and accuracy.

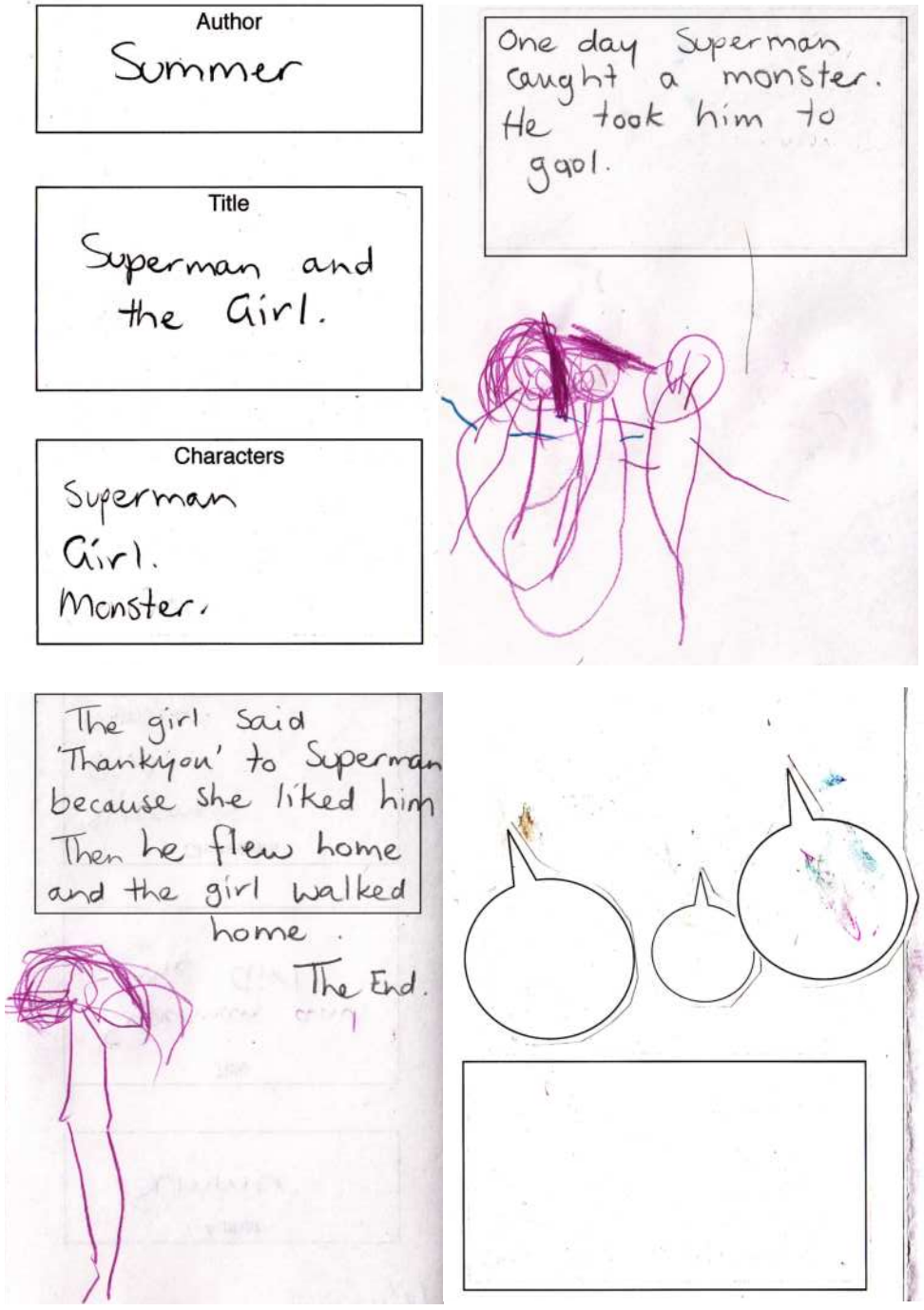
Overall, the playful and social nature of using writing as play-scripts seemed to pull Summer into greater language use and linguistic planning. She clearly understood the impact of different composing choices on her peer audience. She noticed when peers used effective writers' craft - especially dramatic characters, events and dialogue - and tried this out in her own stories. And while she required a more flexible and indirect approach to scaffolding than most of her peers, she gradually became more receptive to feedback and revision. Summer was definitely a child who benefited from the immediate and authentic purpose and audience that WPS provided.

Book artefacts



Written text: *One day there was a girl. She was in the forest. It was dark. She found her Prince. Then a dragon came and messed up her birthday party. She was so mad! Then she went back to her car and drove home.*

Figure 8.2.3b Summer's book,*The Girl and the Prince*, created in Week Two



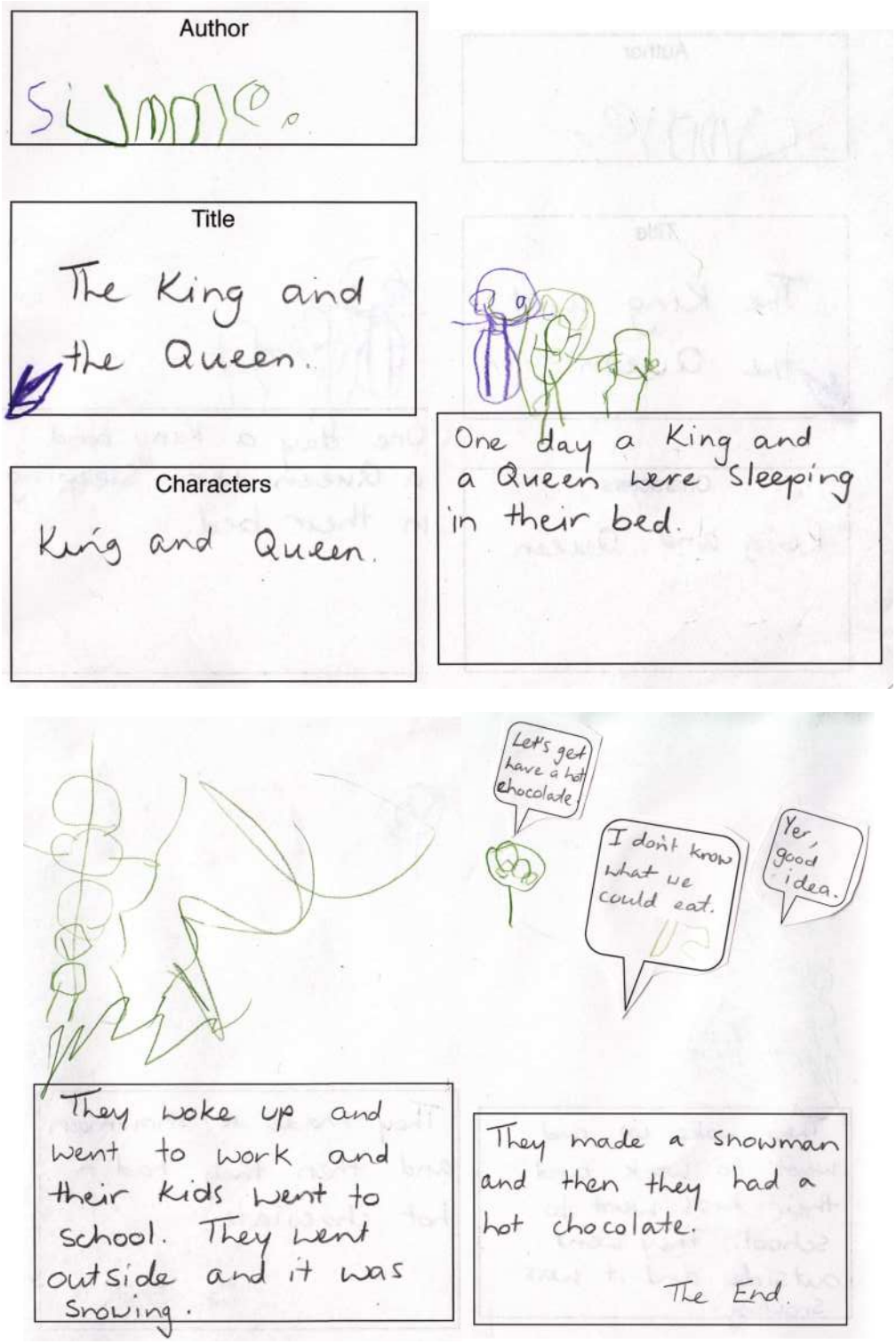
Written text: *One day Superman caught a monster. He took him to gaol. The girl said 'Thank you' to Superman because she liked him. Then he flew home and the girl walked home. The end.*

Figure 8.2.3c Summer's book, *Superman and the Girl*, created in Week Four



Written text: *One day a little girl was painting. She painted a giant yo-yo. Then she ran away because a gorilla was in the paint. The little girl said, 'Everybody run for your life!' They ran away and then the little girl got a magic wand and zip-zapped the gorilla away. The end.*

Figure 8.2.3d Summer's book, *The Girl and the Gorilla*, created in Week Six



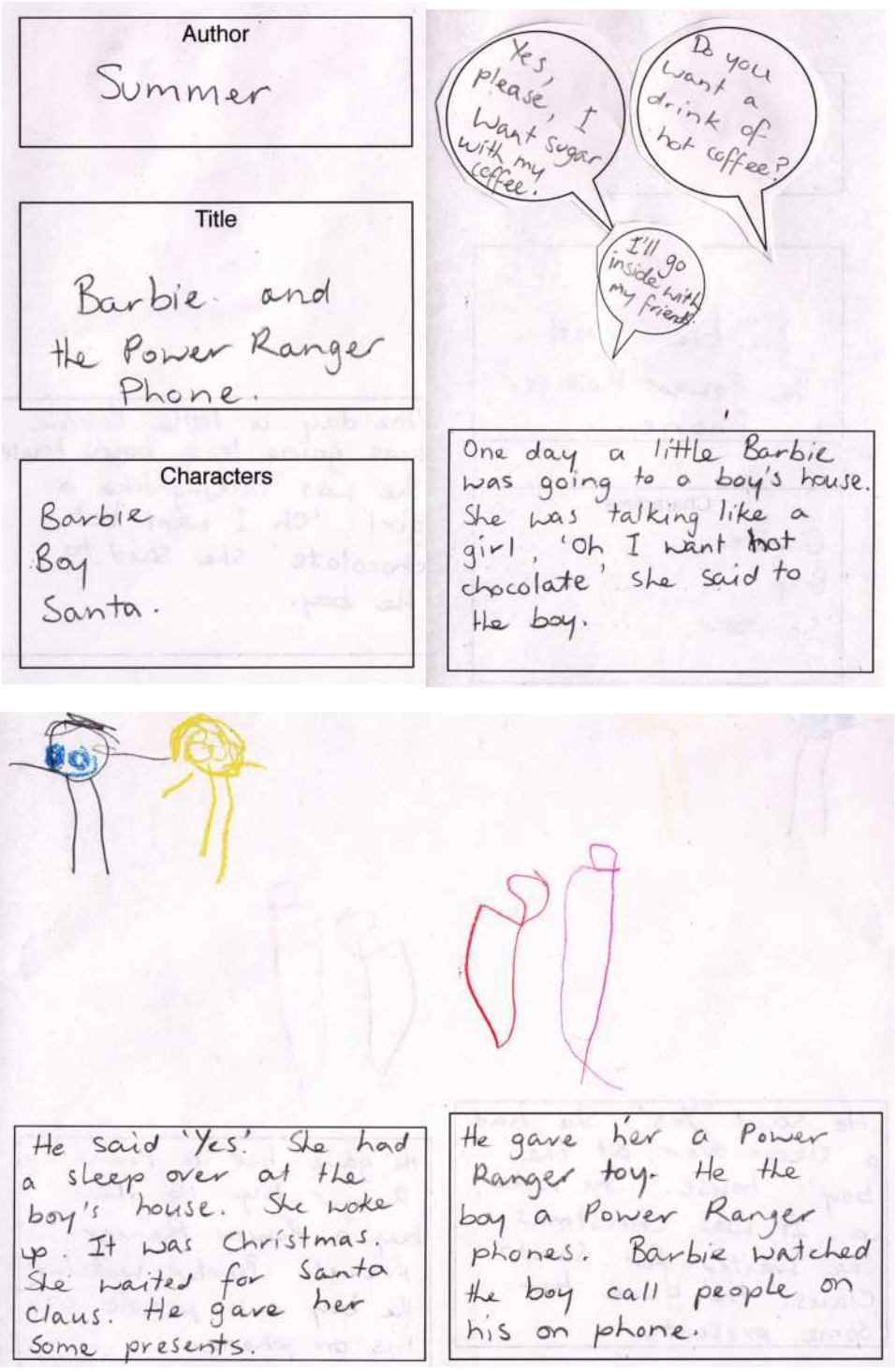
Written text: *One day a King and a Queen were sleeping in their bed. They woke up and went to work and their kids went to school. They went outside and it was snowing. They made a snowman and then they had a hot chocolate. The end.*

Figure 8.2.3e Summer's book, *The King and the Queen,* created in Week Eight



Written text: *One day the girl went shopping. She got lots of bags. She got candy and toys for her children. The kids snuck and ate the donuts at home. Their mom was mad at them for eating the donuts.*

Figure 8.2.3f Summer's book, *The kids and the mom*, created in Week Ten (illustrations drawn by Caminda and an adult volunteer, at Summer's request)



Written text: *One day a little Barbie was going to a boy's house. She was talking like a girl, 'Oh, I want hot chocolate', she said to the boy. He said, 'Yes'. She had a sleepover at the boy's house. She woke up. It was Christmas. She waited for Santa Claus. He gave her some presents. He gave her a Power Ranger toy. He gave the boy a Power Ranger phone. Barbie watched the boy call people on his phone.*

Figure 8.2.3g Summer's book, *Barbie and the Power Ranger phone*, created in Week Twelve

Summary

Summer was chosen as a focal child due to her low initial oral language skills and her teachers' concerns that she was reluctant to engage in early literacy activities (including extended language interaction). Her case discussion highlighted her lack of motivation to engage in drawing or book-making for their own sake. Her difficulties with fine motor control and sustaining attention likely explained this reluctance. However, Summer became motivated to engage in written narrative composition through the use of her writing as play-scripts. She enjoyed having peers listen to and enact her stories, and enjoyed engaging in narrative play. While she continued to show limited interest in her finished book artefacts, she began to compose longer, more complex, and more coherent stories.

Summer's pre-/post-study retells showed increases in narrative production skills relative to her monolingual peers, with the gap narrowing for most variables under investigation. Her comprehension scores showed increased literal comprehension, and increased understanding of the consciousness landscape. The WPS treatment also seemed effective in supporting Summer's literate identity. While she continued to struggle with drawing as a precursor to written transcription, she demonstrated increased interest in written composing. Her case serves to highlight the potential for using early writing as play-scripts to engage reluctant transcribers in the important work of practicing their composing skills. Without the considerable collaborative and multimodal scaffolds afforded through the WPS process, Summer would likely have chosen not to engage in book-making and the text-level composing practice it enabled. Her case highlights the critical importance of providing a motivating social context for early writing and helping children to overcome transcription difficulties so they do not completely thwart composing skill development.

In working with Summer as teacher-researcher, my role included: carefully assessing Summer's oscillating motivation to engage in book-making, easing back on prompts for her to illustrate when she seemed reluctant; providing consistent encouragement to support her motivation to write and literate identity development; and taking a very low-pressure approach to prompting elaborated language use and coherence. Overall, my decision to prioritise Summer's engagement and motivation, rather than independence as an illustrator or absolute coherence in her composing, seemed to be an effective approach.

8.2.4 Case 4: Jesse - The boy who helped robots and monsters learn to share blocks

Child profile

Jesse was four years and six months old at the start of the study. He was a multilingual (Spanish/English) speaker, whose oral language skills seemed fairly average among his peers. He seemed to enjoy playing with a range of different peers; at times leading, and at other times being directed by, peers. He used mostly Spanish during his play, but occasionally chose English instead. He used English mostly when speaking with his main classroom teacher, who was a monolingual English speaker. When speaking with his bilingual teachers he switched between Spanish and English. Jesse was cooperative and followed instructions when asked to complete specific tasks or during transitions. He rarely became upset or frustrated, instead communicating his wishes to peers and seeking help from teachers if his attempts to negotiate were not reciprocated. He engaged in a range of play activities and enjoyed the many new experiences his teachers offered within his preschool setting. He was chosen as a focal child because of his interest in engaging in new tasks and his being a multilingual learner.

Approach to writing

Jesse's stories were action-packed, often featuring popular media super heroes as leading characters. He played out high stakes scenarios of good versus evil. He chose his characters quickly and often started by drawing his characters, then pausing after to think about what challenges he might construct for them to wrestle with. He was confident in his drawing skills, always choosing to create his illustrations independently. He also independently generated his own story ideas. As he saw other children's stories composed and performed, and as his own sense of story evolved, he became more elaborate in his storytelling.

Jesse's first story (Figure 8.2.4b) was centered on a single character, Spider Man, and was comprised of a series of actions that Spider Man could do. By Week Three (see Figure 8.2.4c) he was composing stories with multiple characters, that included problems and solutions. He quickly adopted composing strategies to make his stories more suspenseful and to create strong 'hero' characters capable of saving others in danger and ridding his narrative world of evil doers. His illustrations became more elaborate as the study progressed, to match his more complex stories. Compared to his peers, Jesse was slow to take up the invitation to include

character speech/thought bubbles, however, he did begin to include these by Week Six (two weeks after they were introduced).

While his stories remained heavily action centered throughout the study, Jesse's development of the consciousness landscape improved considerably. He began to include explicit linguistic reference to character emotions and thinking; e.g. 'Then the monster came, he was *mad* because he *wanted* all the blocks. *So* the boy robot *said*, 'Don't be mad, you can play with us'. 'Ok', and they shared the blocks.' (composed in Week Ten, see Figure 8.2.4f) and 'My mom and dad were *happy*...Now he [the monster] couldn't *scare* anyone anymore' (composed in Week Twelve, see Figure 8.2.4g).

Collaborative dialogue

As with most of his multilingual peers, Jesse was still developing much of the language needed to communicate his thinking in English. Unlike many other peers, however, Jesse seemed to have a good understanding of narrative structure and story elements, which he used right from the outset to successfully generate ideas for characters and plot. He used the illustration process to plan out his narratives, rarely changing or seeming to make up the story as he engaged in dictation/joint-construction. As the study period progressed he showed slightly more improvisation in his stories in response to dialogue with peers and myself, but he mostly knew how he wanted his stories to go before engaging in dialogue with others. He enjoyed sharing his ideas, but this mostly served as a source of validation rather than inspiration.

Jesse's main need for linguistic scaffolding was in translating his ideas, first into English, and then into the type of elaborated language needed for a coherent written narrative. He was motivated to receive linguistic scaffolds by the goal of composing stories he could share with his peers, teachers and family. His story illustrations and emerging English skills enabled me to help him extend his English oral narratives so he could achieve this goal.

Appendix 9e shows an extended transcript of Jesse's composing dialogue in Week 2 (dialogue is marked as 'C1' for Child 1, Daniel (Case #2, above); 'C2' is Child 2, Jesse; and 'T' for teacher-researcher). It shows Jesse's talk as he creates his illustrations and plans his story. Lines 15-28 show my attempts to help Jesse expand his simple language and gestures to express his ideas linguistically using more elaborated speech. 'He shooted the webs [gesturing

webs shooting from his hands while making wooshing sound effects], to which I responded with questions aimed at prompting him to elaborate with more linguistic detail: 'He shoots them out of his hands?...What do they land on?...Is he trying to catch something?...What's he trying to catch?'. This simple exchange highlights how I was constantly seeking to insert language into the children's narrative thinking, so they could then use this as a resource when they came to compose their written stories. Jesse's English vocabulary and semantic understanding were such that he was able to utilise much of this scaffolding during composing. That is, he was able to retain language that was provided and use it as his own when composing. Those with lower levels of English proficiency (such as Daniel, Case #2), continued to need additional scaffolding when composing.

Motivation & literate identity

Jesse was a motivated composer! He came in each session eager to begin. He easily generated story characters and events, and was deliberate in his illustrations. He took pride in sharing his illustrations and telling others about his stories. He was quietly confident in his ideas and was capable of correcting those who misunderstood his stories. He also resisted suggested changes if they did not fit his preexisting sense of his characters or plot. He had a high level of ownership over his stories. He handled his completed books with care and reported excitement at being able to share them with his family.

Narrative play clearly provided Jesse with an extra motivation to compose. He understood and accepted the scheduling system created to provide all children with an equal opportunity to have their stories heard and enacted, however, he would typically ask after composing each story 'Is it Story Play today?' or 'Is it my turn today?' He usually chose to play the lead role in his stories, but occasionally chose to let others enact his stories while he watched. Jesse seemed to derive satisfaction from simply having composed his stories and seeing them brought to life; unlike other peers, he did not seem to use his stories to place himself in the center of attention. Being acknowledged as the author of his stories seemed reward enough.



Figure 8.2.4a Jesse enacting one of his stories (top and middle) and serving as an audience member as his story is performed by peers (bottom) (Photographs taken by classroom teacher)

Jesse was sad when the study came to an end and I would no longer be visiting his classroom on a daily basis. Perhaps more than other children, he seemed to value the interpersonal relationship that book-making and joint construction had enabled us to build. He enjoyed being closely listened to and understood, having his ideas responded to with encouragement and working together to enhance them on the page. This process seemed to carve out time for Jesse to feel heard, something that his busy classroom teachers were often unable to do. On my last day in the classroom he asked his teacher, 'Can we still do stories?' She was able to tell him, 'Yes, we can, Ms Heidi has already given me the books'. He was happy that the storytelling baton was being passed on. His teacher had earlier told me that she was looking forward to continuing the process with the class, after seeing how much they enjoyed and benefited from it, commenting 'They are so much better at telling stories now, and I can see them using more language and telling more stories in their play'.

Narrative development

As stated earlier, Jesse seemed to have a strong understanding of narrative structure, but did not yet have the English language skills needed for proficient oral composing. That is, he seemed to know what he wanted to say conceptually, but struggled with how to express it linguistically. Appendix 11g shows Jesse's pre-study retell and Appendix 11h shows his post-study retell. Table 8.2.4a presents his microstructural and macrostructural narrative production quality scores. This data shows that Jesse's language became more elaborated and precise over the study period (with increased MLU and TTR). His NSS scores show increased linguistic development of macrostructural story components, resulting in a 4-point overall increase in NSS score.

Table 8.2.4a Jesse's narrative composition scores

	Variable	Pre-test *Raw score*	Post-test *Raw score*	*Difference*
Microstructural	*MLU (words)*	5.36	8.56	3.2
	TTR	0.27	0.33	0.06
	Errors	15	16	1
	WPM	51.4	46.56	4.84
	Maze %	12	23	11
	Total Utter.	45	36	-9
Macrostructural	Introduction	1	2	1
	Character Development	1	2	1
	Mental States	1	2	1
	Referencing	1	1	0
	Conflict/Resolution	1	1	0
	Cohesion	1	1	0
	Conclusion	0	1	1
	TOTAL	6	10	4

MLU (words)=mean length of utterance in C-units, TTR=type token ratio, Errors=errors at the word or utterance level, WPM=words per minute, Maze=percentage of utterances containing maze words, TotalUtter.=total utterances used in retell.

When comparing Jesse's microstructural scores to the SALT database mean for same-age multilingual peers (*n*=30 pre-study and *n*=30 post-study; Appendix 10f), his language complexity increased dramatically against the database mean over the study period, from -0.11SD to 2.98SD. His total completed words increased from 0.73 to 1.5SD and his number of different words increased from 0.66 to 1.09SD. His omissions and errors also decreased considerably, with word omissions decreasing from 2.58 to 0.82SD and utterance level errors from 3.47 to 1.57SD. When compared to same-age SALT database monolingual peers (Appendix 10g), however, Jesse's scores showed an even more pronounced increase in MLU, from -1.01 to 2.85SD. As expected due to his being a multilingual learner, he produced less unique words, and made more omissions and utterance errors than his monolingual peers, but this difference decreased across the study.

Jesse's narrative comprehension scores (Table 8.2.4b) show strong literal comprehension across the study, and an increase in inferential comprehension. His post-study retell showed increased linguistic development of the consciousness landscape. These results support my classroom observations that Jesse had a strong understanding of both the action and consciousness landscape within his own narratives, and that his ability to demonstrate this understanding linguistically increased across the study.

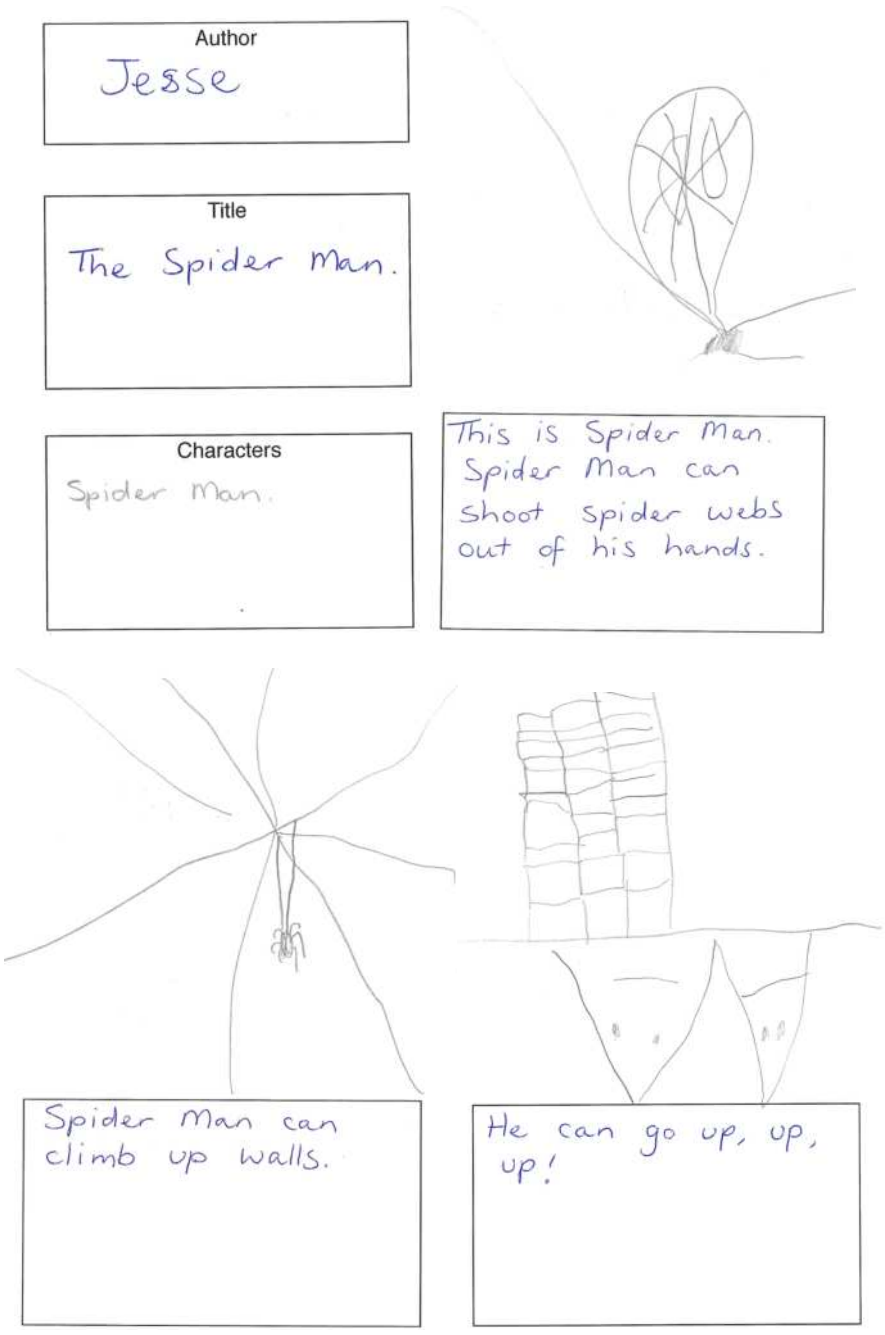
Table 8.2.4b Jesse's narrative comprehension scores

		Pre-test	Post-test	
	Variable	*Raw score*	*Raw score*	*Difference*
Narrative landscapes	Action	38	23	-15
	Consciousness	8	13	5
	Consciousness to Action Ratio	0.17	0.36	0.19
Direct comprehension questioning	Literal	4	4	0
	Inferential	1	2	1
	Total	5	6	1

Overall, Jesse's narrative composition scores showed that he was able to communicate his narrative thinking using more complex language and with fewer errors. He also increased his linguistic development of the dual landscapes required of true narratives. His book artefacts (Figure 8.2.4b to 8.2.4g) capture this progression, from his simple one character action-heap story in Week One (*'Spider man can...he can...and he can...'*) to his multiple character, problem/solution story in later weeks. His final story composed in Week 12 (Figure 8.2.4g) contains: a traditional story opener (*'One day...'*), a setting/character introduction (*'...my mom and dad were in a monster's castle'*), explicit reference to character motive and story problem

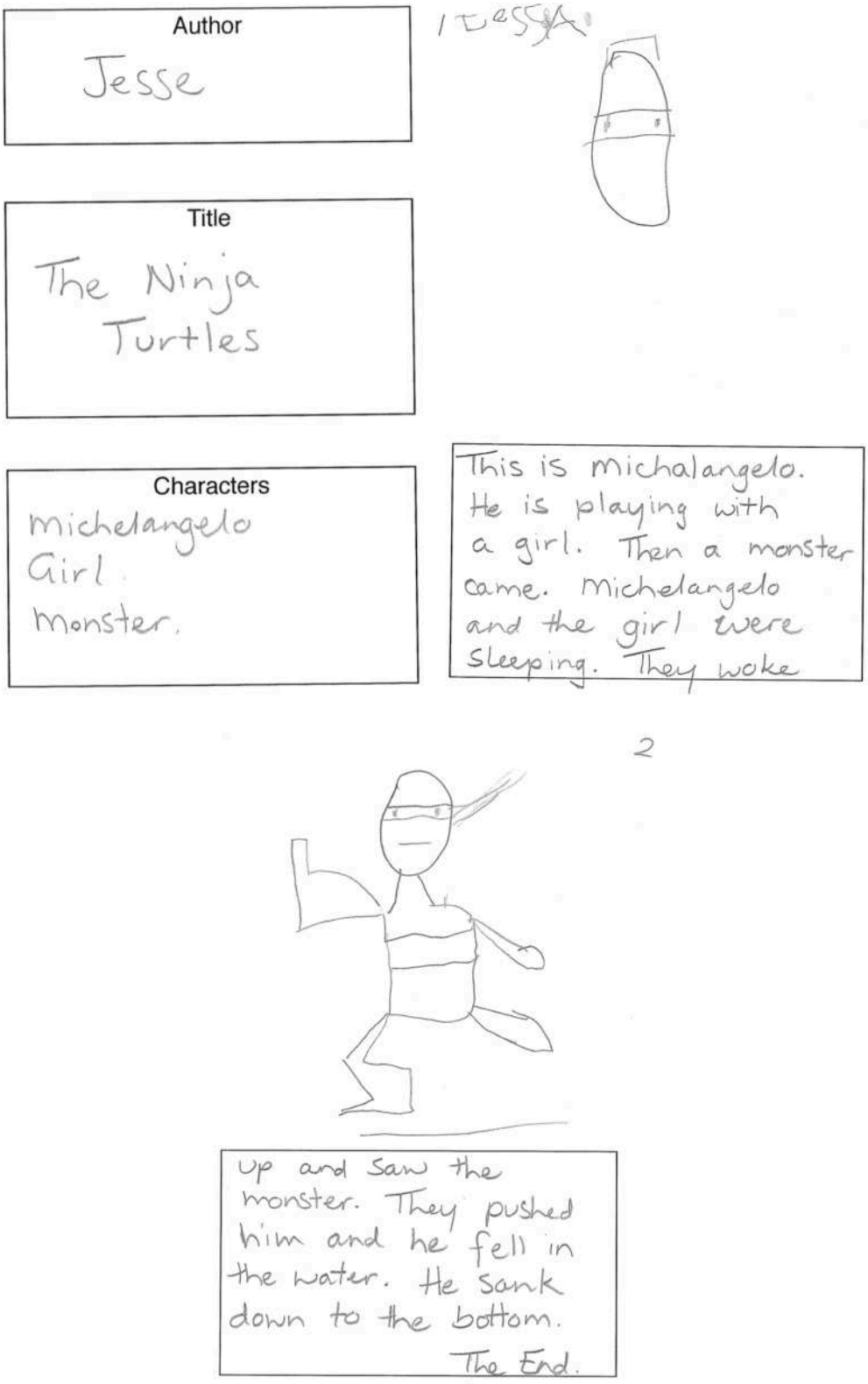
(*'The monster tried to push them'*), the protagonist's response (*'I came to help. I used my wrists to shoot webs...'*), and a resolution with explicit reference to character emotions (*'I wrapped him up...he couldn't talk...mom and dad were happy...now he couldn't scare anyone anymore'*).

Book artefacts



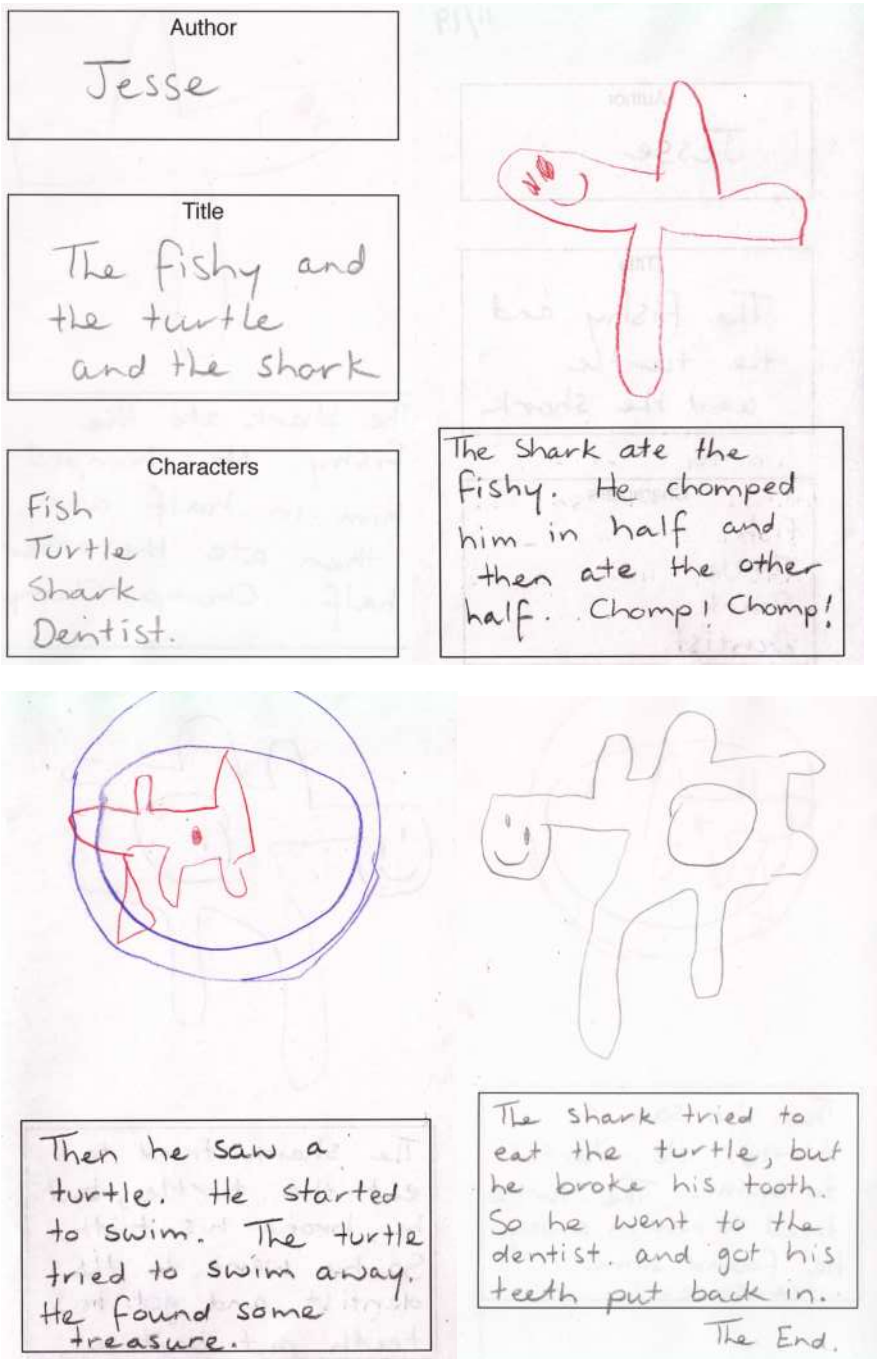
Written text: *This is Spider Man. Spider Man can shoot spider webs out of his hands. Spider Man can climb up walls. He can go up, up, up!*

Figure 8.2.4b Jesse's book, *Spider Man*, created in Week One



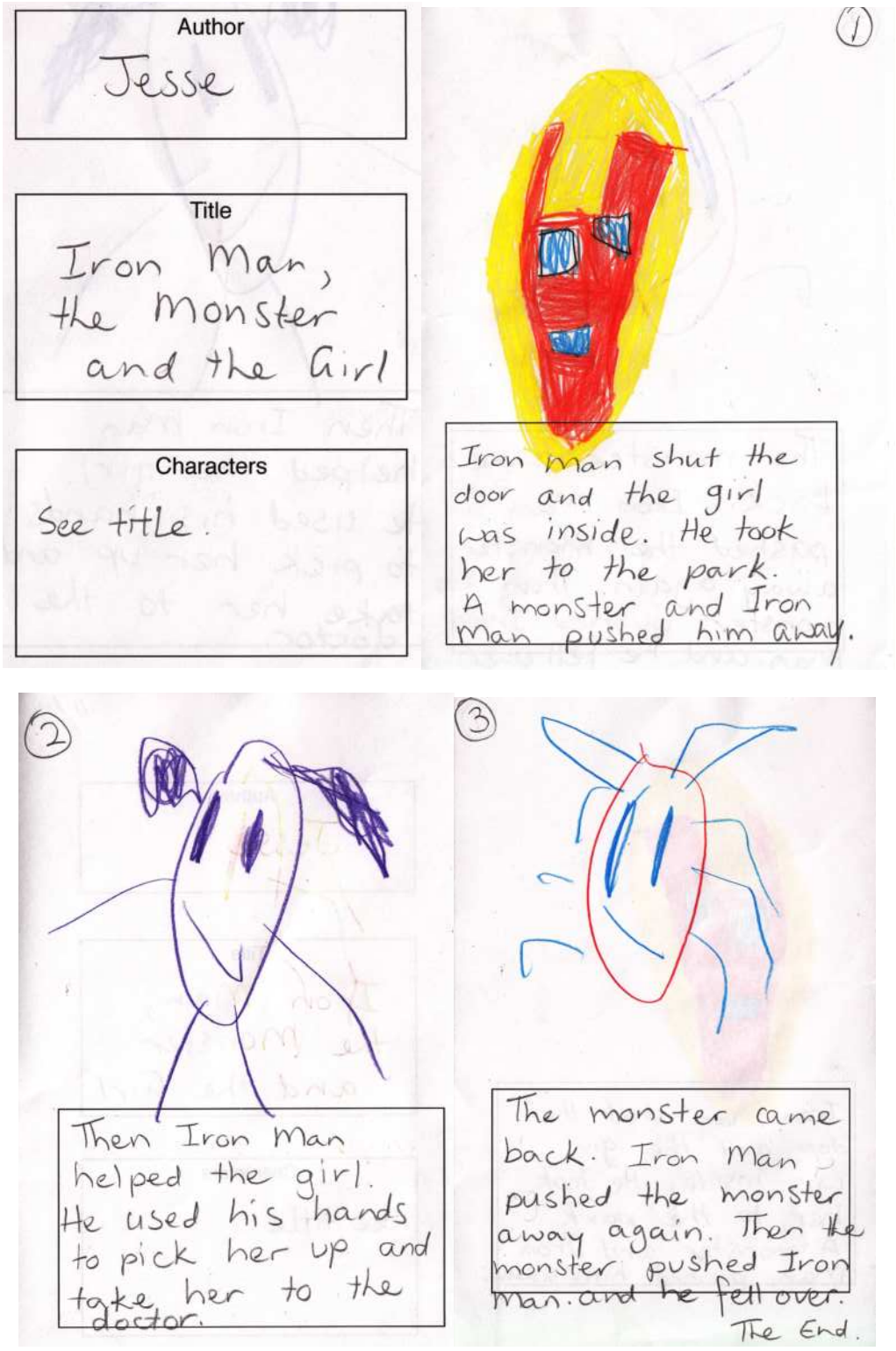
Written text: *This is Michelangelo. He is playing with a girl. Then a monster came. Michelangelo and the girl were sleeping. They woke up and saw the monster. They pushed him and he fell in the water. He sank down to the bottom.*

Figure 8.2.4c Jesse's book, *The Ninja Turtles*, created in Week Three



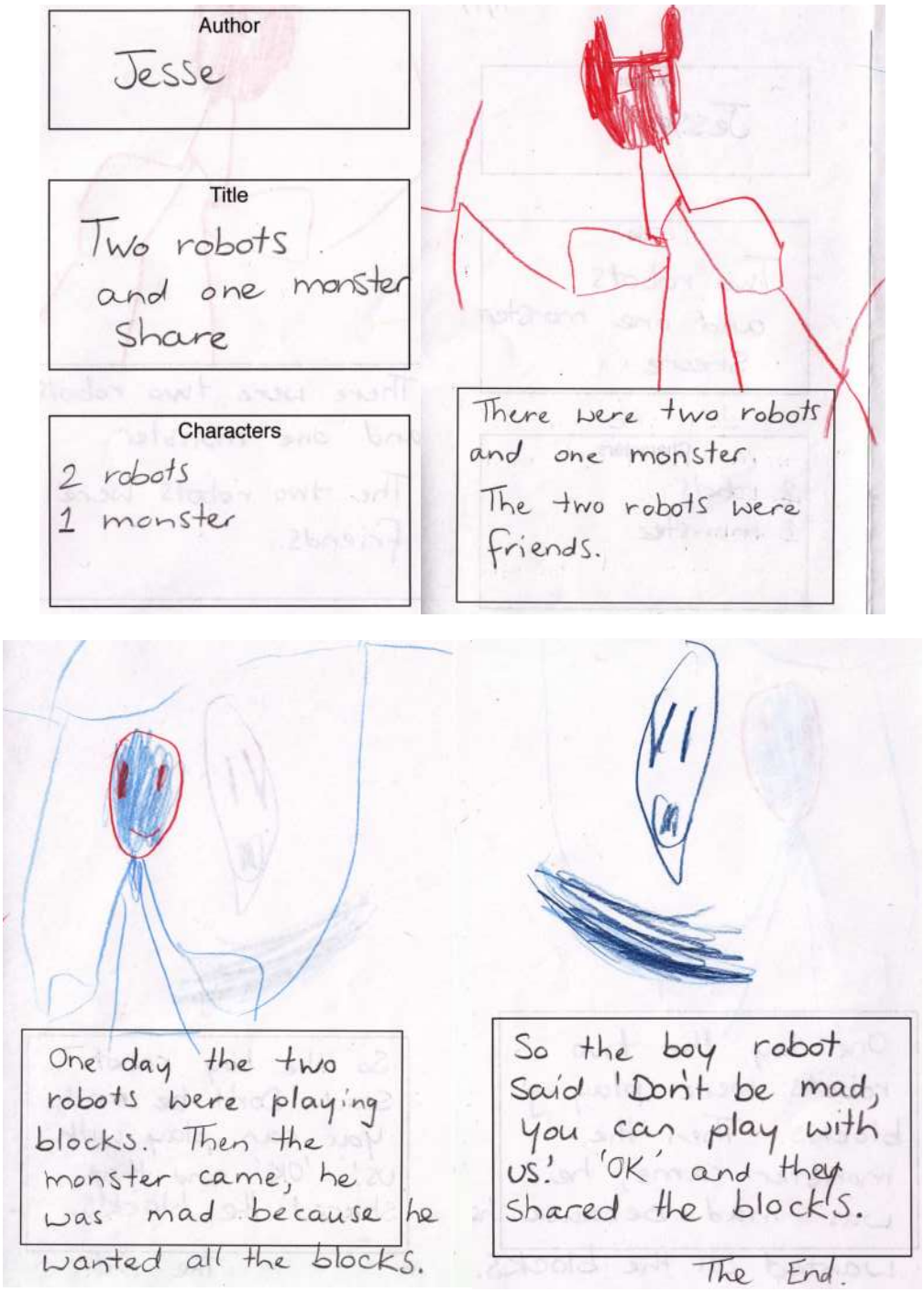
Written text: *The shark ate the fishy. He chomped him in half and then ate the other half. Chomp! Chomp! Then he saw a turtle. He started to swim. The turtle tried to swim away. He found some treasure. The shark tried to eat the turtle, but he broke his tooth. So he went to the dentist and got his tooth put back in. The end.*

Figure 8.2.4d Jesse's book, *The fishy and the turtle and the shark*, created in Week Six



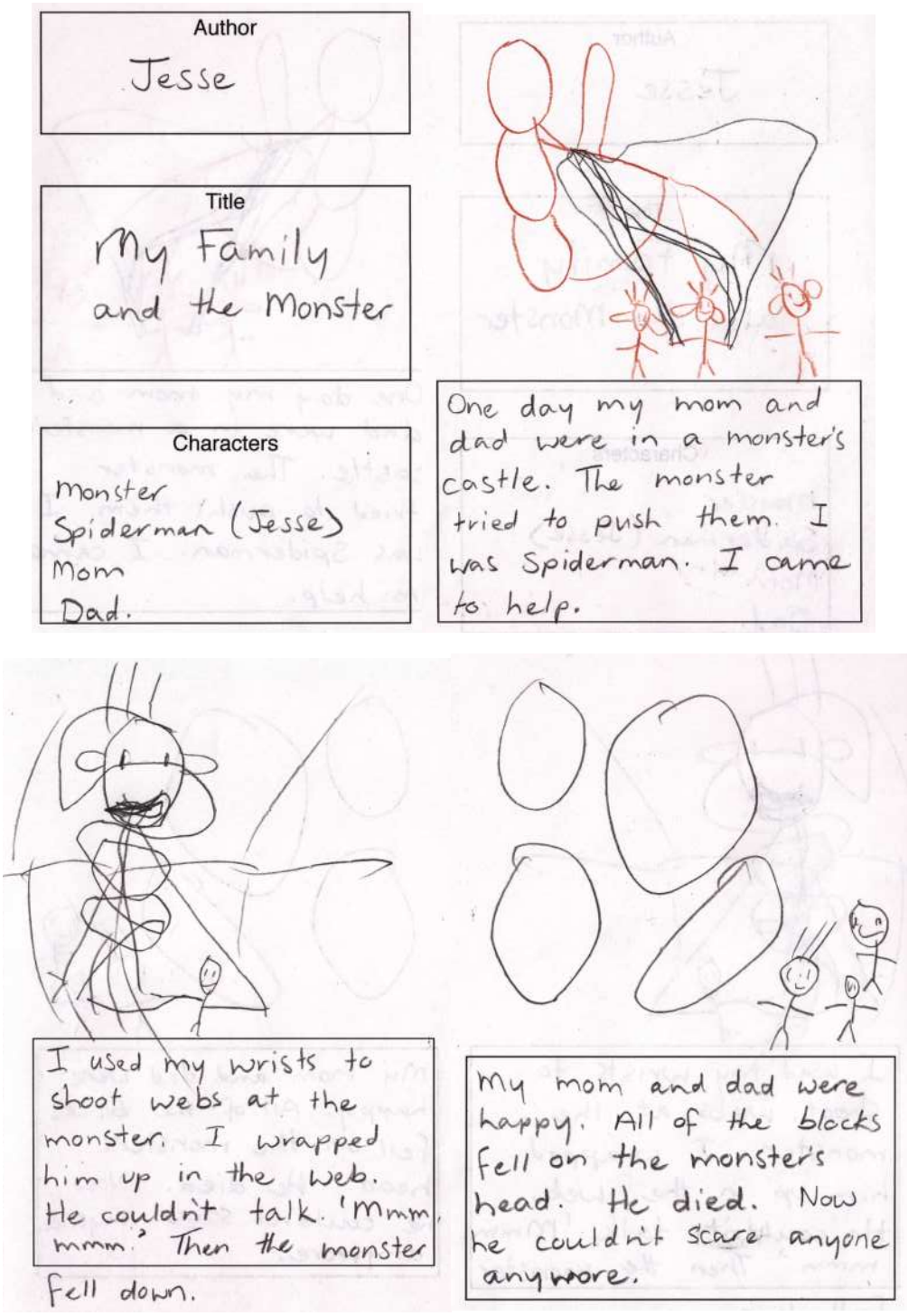
Written text: *Iron Man shut the door and the girl was inside. He took her to the park. A monster came and Iron Man pushed him away. Then Iron Man helped the girl. He used his hands to pick her up and take her to the doctor. The monster came back. Iron Man pushed the monster away again. Then the monster pushed Iron Man and he fell over. The end.*

Figure 8.2.4e Jesse's book, *Iron Man, the Monster and the Girl*, created in Week Eight



Written text: *There were two robots and one monster. The two robots were friends. One day the two robots were playing blocks. Then the monster came, he was mad because he wanted all the blocks. So the boy robot said, 'Don't be mad, you can play with us'. 'Ok', and they shared the blocks. The end.*

Figure 8.2.4f Jesse's book, *Two robots and one monster share*, created in Week Ten



Written text: *One day my mom and dad were in a monster's castle. The monster tried to push them. I was Spiderman. I came to help. I used my wrists to shoot webs at the monster. I wrapped him up in the web. He couldn't talk, 'Mmm, mmm'. Then the monster fell down. My mom and dad were happy. All of the blocks fell on the monster's head. He died. Now he couldn't scare anyone anymore.*

Figure 8.2.4g Jesse's book, *My family and the monster*, created in Week Twelve

Summary

Jesse was selected as a focal child because he was a multilingual learner expected to show high levels of engagement in the WPS process. His case shows that he did immediately engage with the intervention's book-making and writing as play-scripts components. He used his skills as an illustrator and his emerging English skills to successfully communicate his narrative thinking. He appeared to begin the study with a solid understanding of basic narrative structure. While his ideas were simple event sequences, they were logically ordered and easy to follow. He was eager to take up the linguistic scaffolds provided so that he could capture his thinking in words, which could then be shared with and enacted by peers.

Jesse's pre-/post-study retells showed increases in narrative production and comprehension skills relative to monolingual and multilingual peers. He demonstrated strong literal comprehension across the study and increased inferential comprehension. These results supported my observations that Jesse's receptive language skills were more advanced than his expressive skills. He was able to make use of language scaffolds offered throughout each writing session. Unlike other children, who only seemed to able to assimilate language scaffolds during story dictation/composing, Jesse seemed particularly ready and able to incorporate new language at different stages of the composing process.

The intervention provided Jesse with many new opportunities to extend his literate identity. He valued his picture book artefacts, looking forward to sharing them with his family and his peers. His growing confidence was also demonstrated through his willingness to experiment with new characters and increasingly complex story structures. He enjoyed the immediate feedback he received within joint composing episodes and verbally expressed his sadness when the intervention ended.

In working with Jesse as teacher-researcher, my role was one of interested listener, scribe, and prompter of language elaboration. Jesse's motivation to extend his communication skills, his already emerging English skills, and his solid understanding of narrative structure, meant that I was able to focus almost solely on linguistic supports for elaboration, vocabulary and grammar. This was provided through recasting with expansions and/or grammar corrections based on Jesse's non-verbal communication (e.g. through gesture or illustration) and through questioning (e.g. '*how* did the fishy get away?..*why* did he want to get away?').

8.3 The Schoolers

8.3.1 Case 5: Diego - The boy who gives cakes to super heroes for saving the day

Child profile

Diego was five years and two months old when he first arrived at the book-making table. He was a bilingual, Spanish/English speaking child. His English skills seemed adequate enough to enable participation in the activities of his classroom, but his expressive language skills seemed limited compared to many of his bilingual peers. In my preliminary observations I had recorded Diego as a quiet child who seemed to be enjoying the new routines and activities that came with starting school. He followed along during whole class lessons, participated when invited or required to do so, and seemed happy to interact with peers and teachers. He was chosen as a focal child due to an interest in how he would respond to the treatment given his low initial oral language skills and his being a multilingual learner.

Approach to writing

Diego's early narratives focused on one or two central characters, with a small number of events. His simple illustrations matched his still emerging concept of story. In these early stories, he would start out by choosing his characters and sometimes decide on a central event, although this was also often prompted through discussion. The following is an excerpt of dialogue between Diego and myself during his first book-making session:

> Teacher: What's your book going to be about, Diego?
> Child: Me and my brother [moving his hand to show me his illustration of two characters standing side by side].
> Teacher: Ooh, what are you and your brother going to do in this story?
> Child: Um... [appearing not to know or have decided, pause for thinking].
> Teacher: Where *are* you and your brother [prompting identification of setting to help with event generation]?
> Child: Um... going to Mexico.
> Teacher: Ooh, how do you get there?
> Child: Um, airplane.
> Teacher: Ok, so maybe you could draw you and your brother on the airplane over here [pointing to the next page].
> Child: Yeah [he smiles and begins to draw].

Diego was happy to talk about his illustrations if others initiated dialogue, and he also seemed to enjoy receiving suggestions for characters and plot. As the above exchange suggests, Diego used dialogue to propel his story plot forward, generating events in response to questions I posed as interested listener. Early in the study period this question-creation dynamic seemed

to occur mostly during the story illustration phase, however, as the study progressed this shifted more to the written composition phase. That is, he became more independent in mapping out his basic story structure through illustration, and then used collaborative dialogue to expand this linguistically as we engaged in joint composition.

Collaborative dialogue

Diego was enthusiastic about collaborating with me when composing his stories. He enjoyed being listened to and sharing his imaginings, and also seemed to enjoy and appreciate receiving the linguistic support needed to compose his written narratives. Appendix 9e shows Diego's composing in Week One of the study. As this was our first composing interaction, I was careful not to prompt too much for elaboration or clarification, instead assuming the role of curious scribe. As with all children in the study, this first session was used to build rapport and learn about Diego as a storyteller. The transcript is indicative of Diego's early approach to composing, in which he would begin by labelling a keyword such as a character name or action, and only expand these into full sentences and concepts in response to questioning and, at times, suggestions. He was capable of generating ideas for characters and events, but needed prompting to do so and had difficulty expressing them with enough coherence for listeners to follow.

After his first successful book-making session and participating in the enactment of several peer-authored stories, Diego attempted to compose a much more complex story in his second session; see Appendix 9f for a transcript of this composing dialogue. What became quickly apparent during this exchange, was that Diego needed intensive scaffolding to compose longer stories. He needed support to keep track of story details and to identify what information he still needed to provide so that his listeners could follow his intended meaning.

Diego's utterances were often quite 'telegraphic', communicating key nouns and verbs, but not the connectives needed for full coherence. As I had found when working with many of the preschool children, Diego too relied heavily on nonverbal gestures, facial expressions and his illustrations to establish shared meaning. For example, in response to being asked what happened next in his story (see lines 58-68 in Appendix 9f) he pointed to the illustration he had created of his sister and gestured actions to show 'getting dressed', and then held his hands around his face while saying 'dressed up, flower' to show that it was her face that had become a flower. Without our previous conversations or being present to interpret Diego's

gestures and illustrations, I would not have known that it was Diego's sister who was 'dressed up' *like* a 'flower'. As was the case when working with the preschool participants, I had to draw on a wide range of multimodal meaning making efforts to understand his thinking. Because this meaning had largely been co-created earlier, I was able to successfully bridge the gap between his oral language skills and intended meaning, to help maintain a successful written composing experience.

What stood out for me in working with Diego, was how eager he was to expand his narrative thinking through collaborative dialogue. Written storytelling was a new form and function of language use for Diego. Even with his illustrations to serve as contextual anchors, generating the decontextualised language required to compose a written narrative was clearly challenging. Being a multilingual learner, the transition from oral to written narrative was harder for Diego than it was for many of his monolingual peers. Some of these additional struggles were evident in his use of grammatically incorrect verb tense, and limited or incorrect use of determiners and connectives, e.g. 'Get in my motorcycle' instead of '*I got on* my motorcycle'.

As the study progressed, Diego began to tackle more complex stories. Figure 8.3.1d shows Diego's story *I fell off the box,* written in week five. The book is five pages long, including two extra pages that Diego added himself. He used speech bubbles; some of which he wrote words in, others remained empty, serving as place holders for dialogue presented in the main text of his story. The illustrations in this book show considerably more attention to detail, such as a range of facial expressions and multiple characters drawn into settings. While this story has familiar characters from Diego's family, it also contains fantasy characters such as talking animals and a flying man. When dictating this story Diego excitedly composed with minimal teacher input, fluently composing character dialogue and expressing character thinking and emotion both linguistically and non-linguistically (through intonation). For example, when he composed the sentence 'I said "what are you doing up there?"' (page 3) he showed surprise and disbelief in his voice, evidence that he was actively casting himself into his self-created fictional setting and events. This story ends with familiar themes of family, relationships and caregiving, when his mother comes to help him after he calls for her, returning him home where he 'was ok', safe after the suspense and adventures of his story. This provides an example of how quickly his stories evolved.

Toward the end of the intervention, Diego began to experiment with an increased variety of characters and plots. His story, *The electric ball,* written in Week Eight (Figure 8.3.1e) contains himself and his brother again as central characters, but also contains nine 'little and magical' people. He tells the story of an electric ball that, when touched, makes people's 'hair go crazy!' Then, enter into the story the nine mysterious characters, whose hair, when they touch the ball, 'didn't go crazy at all, because they were little and magical'. When asked if he wanted to dictate words for his last two pages, perhaps to tell more about his 'magical' characters, he said: 'No, maybe I'll do that next time'. While his story is lacking a conclusion and does not inform the reader what happened to him after his hair 'got stuck in the wall', it does show that he is beginning to experiment with more complex cause/effect relationships and quite effectively conveys a sense of mystery and magical forces, both of which were new elements for Diego up to that point. Given this progression and his clear composing satisfaction, I chose not to prompt further expansion.

By the end of the study, Diego was composing stories that resembled more of a true narrative. His story, *The Driver's Birthday* (Figure 8.3.1f), written in Week Twelve, contains an introduction, setting, character goals, explicit reference to character emotions, and a satisfying ending: 'He was feeling happy. He said "Thank you" to his friends...He gave everyone a hug'. His story lacks all of the details necessary to be fully coherent, e.g. why was the train driver carrying food into the forest for his own birthday party, if it was a surprise party? Again, given that he had included most elements of a coherent story and was proud of his accomplishments, I chose to simply compliment his efforts and move on.

Motivation and literate identity

Diego was a keen observer of how several of his peers, who were more confident and skillful composers, used stories designed to have a strong impact on their audience. He was quick to notice the inclusion of powerful characters and the dramatic impact of the theme of 'good versus evil'. He enjoyed watching and participating in bringing these more dramatic peer stories to life. As the study period progressed, Diego borrowed some of these techniques to enhance his own stories. The goal of creating stories coherent enough for peers to enact provided a social motivator for Diego to persevere with the task of composing. As with many other children, seeing his stories read aloud and enacted gave rise to feelings of accomplishment and pride that drove further composing efforts.

During book-making and story composition, Diego tended not to consciously project or verbalise the anticipated impact he thought his stories would have on his peers. However, when it got to the point in story composition where he was asked to list his characters (as they were written onto the front of his book), his eyes would light up and he would excitedly tell his roles and state who he was going to 'be' when his story was performed. He typically chose to play himself in his stories, suggesting that he enjoyed projecting the leading role he cast himself into in most of his stories. He also enjoyed choosing peer actors, typically offering roles to his close male friends first, but also freely choosing girls when 'female' roles were being filled or when prompted to offer roles to children who had not been chosen to act recently. When it came to performing other children's stories, Diego was more reserved. He rarely volunteered to act, but would do so if specifically called upon by a friend. He also seemed to really enjoy watching other children's stories being performed, actively listening throughout and giving enthusiastic applause at the end.

Despite Diego's obvious composing challenges, his persistence with taking up the scaffolds provided meant that he was able to compose stories that were far more complex and coherent than he would have been able to produce on his own. Despite the need for additional linguistic scaffolds, the conceptual content of Diego's stories remained his own. By recasting and expanding his utterances, the richness of his mental imagining was able to take linguistic shape. His pleasure and satisfaction in being understood were clearly evident through his facial expressions, vocal intonation and comments. He clearly maintained a feeling of ownership over these stories. The ambitious goals he set for himself as a writer suggest that he was far from intimidated by the challenge of composing. He quickly began to tackle rich characters and complicated plots. His quiet creativity became apparent and he clearly saw writing as a way of sharing this side of himself with others. Given his somewhat shy personality, composing seemed to give him the space needed to share aspects of himself that were often not possible in other parts of his busy school day.



Figure 8.3.1a Diego looks on as his story is read aloud (top) and spontaneously performed by peers (bottom) (photographs taken by classroom teacher).

Narrative development

Diego's pre-study narrative retell (Appendix 11i) showed that he had some helpful English language skills to draw on to produce his narrative. His vocabulary demonstrated knowledge of precise words, e.g. 'escaped', 'screamed', 'barked', and 'reindeer'; however, he struggled at other points to use appropriate words, e.g. using 'ball' instead of 'jar', 'following' instead of 'chasing', and 'screamed' instead of 'yelled'. These vocabulary constraints impacted his ability to accurately reflect the meaning of the text and, as a result, possibly his full understanding. His retell also contained many filled pauses and maze words, making his speech disjointed and difficult to follow. Rather than retelling the story using the syntax characteristic of a written narrative (i.e. with its many linguistic connective devices), his

choice of words and phrases rendered his retelling more like a list of events. This could have been due to unfamiliarity with the task, but given that his early stories also resembled primitive narratives, it seems more likely that this was due to his unfamiliarity with written narrative language (at least in English).

In contrast, Diego's post-study retell (Appendix 11j) contained less maze words, errors and abandoned utterances, indicating increased comfort and skill in producing narrative language. His narrative quality results (Table 8.3.1a) show that his MLU decreased slightly between his pre-study and post-study retells, however, his TTR increased. Therefore, while his utterances did not increase in length, he used a wider variety of words. His macrostructural scores show an increase in total NSS score from 13 to 15; with his scores for 'Mental States' increasing by 2 and 'Conclusion' increasing by 1. These results reflect the macrostructural improvements I observed in the classroom.

Table 8.3.1a Diego's narrative retell scores

		Pre-test	Post-test	
	Variable	*Raw score*	*Raw score*	*Difference*
Microstructural	*MLU (words)*	6.52	5.9	0.62
	TTR	0.36	0.48	0.12
	Errors	8	4	-4
	WPM	66.26	47.61	-18.65
	Maze %	7	3	-4
	Total Utter.	35	25	-10
Macrostructural	Introduction	2	1	-1
	Character Development	2	2	0
	Mental States	1	3	2
	Referencing	2	2	0
	Conflict/Resolution	2	2	0
	Cohesion	2	2	0
	Conclusion	2	3	1
	TOTAL	13	15	2

MLU (words)=mean length of utterance in C-units, TTR=type token ratio, Errors=grammatical errors at the word or utterance level, WPM=words per minute, Maze=percentage of utterances containing maze words, TotalUtter.=total utterances used in retell.

Appendix 10h shows Diego's microstructural results compared to same-age multilingual peers within the SALT database (n=244 pre-study and n=111 post-study) and Appendix 10i shows his comparison to monolingual peers (n=43 pre-study and n=58 post-study). Relative to the multilingual database mean, his scores for MLU decreased; TTR increased; word omissions and errors decreased; and utterance errors increased slightly (but remained below the mean). Relative to monolingual peers, his scores for MLU decreased; TTR increased considerably; mazes and abandoned utterances decreased; and word omissions and errors decreased. His results relative to both language cohorts showed decreased performance in syntax, but an

increase in semantics and accuracy of language production, i.e. stronger vocabulary and less mazes, omissions, errors and abandoned utterances.

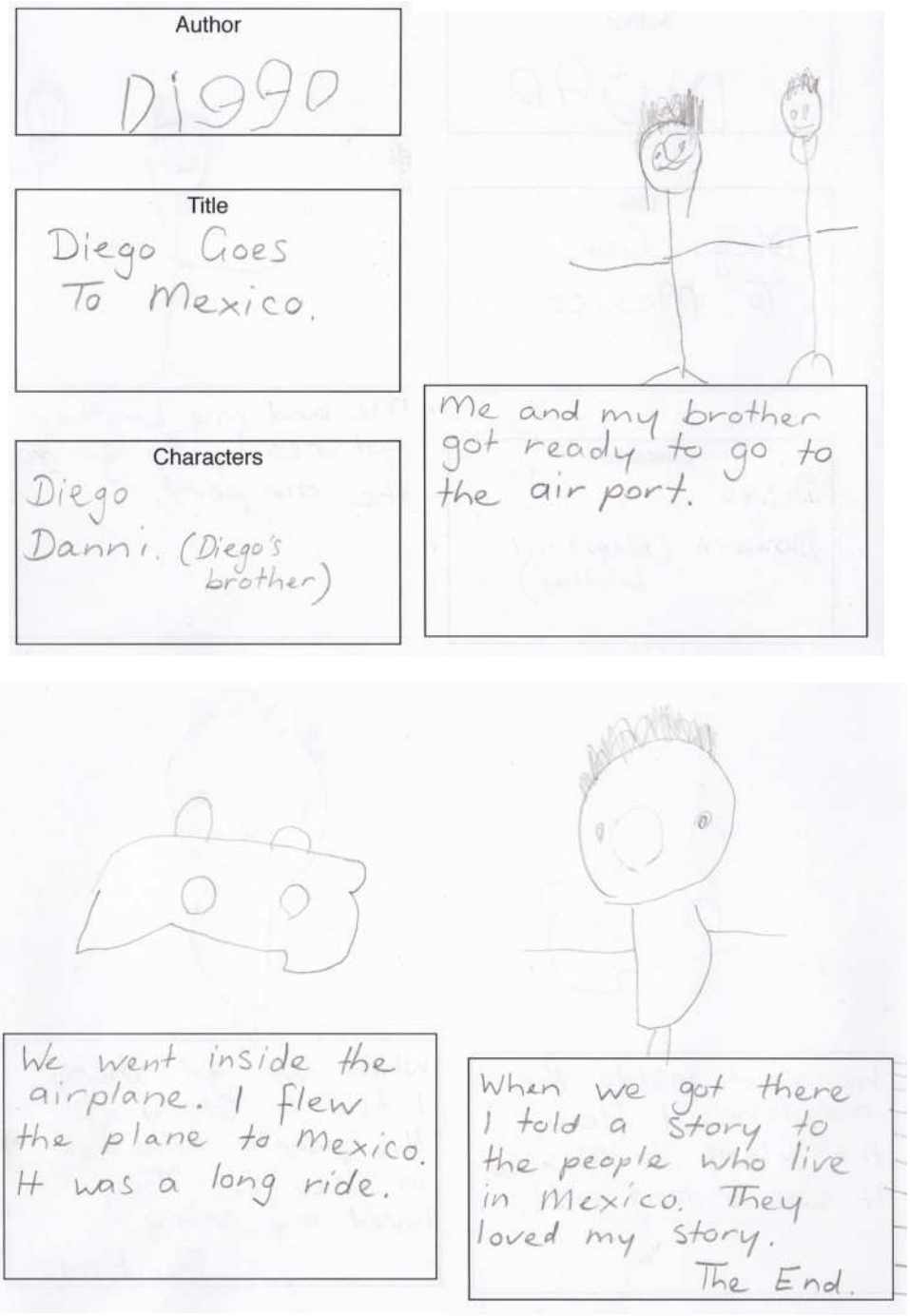
When it came to his narrative comprehension, Diego's results (Table 8.3.1b) show increased attention to the consciousness landscape, and an increase in the ratio of consciousness to action landscape codes in his retells. His results for direct questioning showed stable literal comprehension scores and an increase in inferential comprehension.

Table 8.3.1b Diego's narrative comprehension scores

		Pre-test	Post-test	
	Variable	*Raw score*	*Raw score*	*Difference*
Narrative landscapes	Action	17	16	-1
	Consciousness	1	8	7
	Consciousness to Action Ratio	0.05	0.31	0.26
Direct comprehension questioning	Literal	3	3	0
	Inferential	1	2	1
	Total	4	5	1

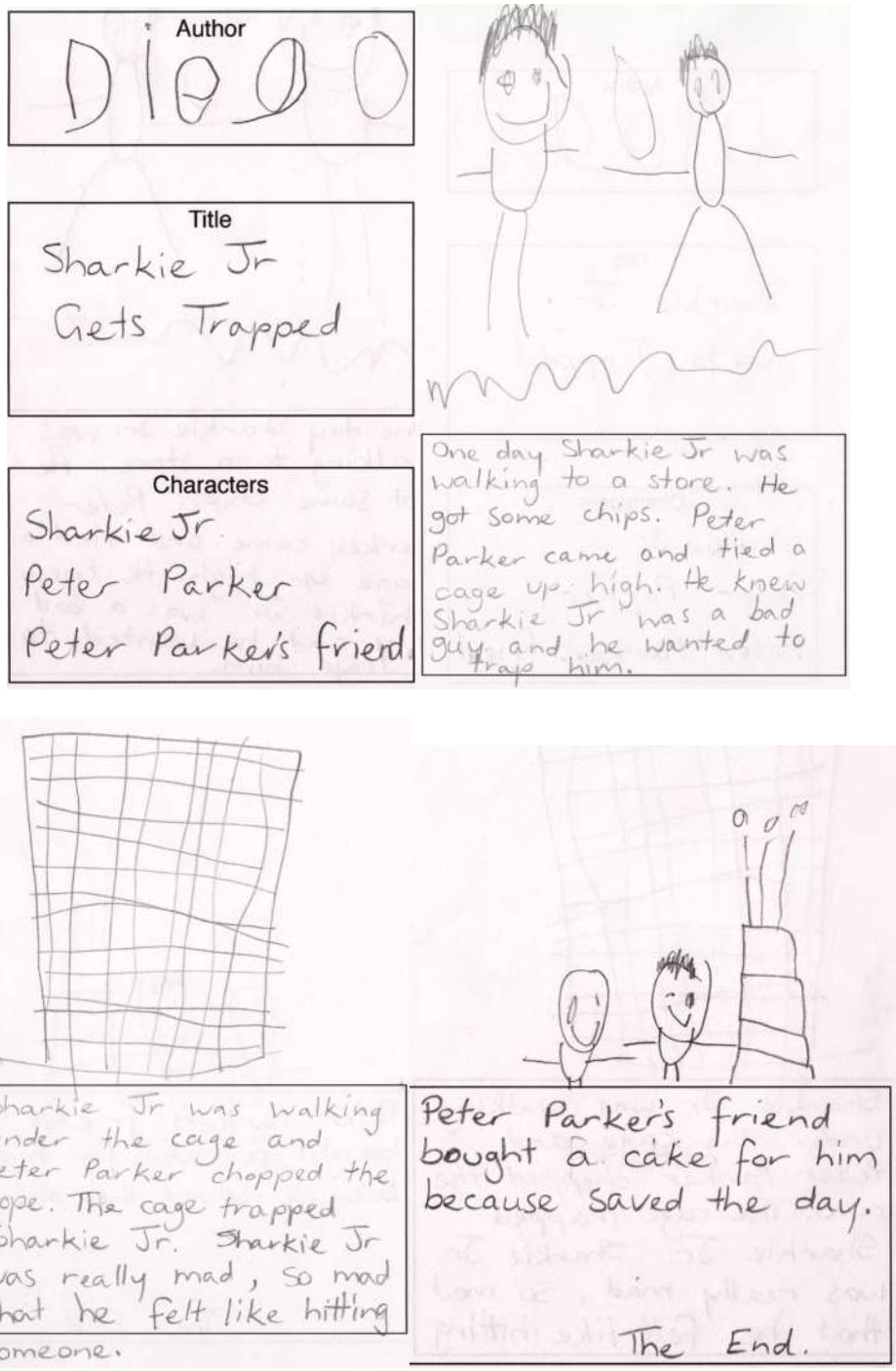
Overall, these results are consistent with my observations regarding Diego's challenges with expressive language when composing his own written narratives. He was still developing the vocabulary needed to express his thinking in English. Although he continued to struggle with using precise and elaborated language, his ability to formulate accurate sentences using English syntax did improve. He also showed improvements in his thinking about character mental states, which led to improved development of the consciousness landscape within his own narratives. Figures 8.3.1b to 8.3.1f present examples of Diego's book artefacts, which demonstrate how his stories evolved from a simple event-sequence realistic fiction narrative in Week One (Figure 8.3.1b); to a multiple character and event fantasy narrative spanning five pages in Week Five (Figure 8.3.1d); to a much more causally connect and, therefore, coherent realistic fiction narrative in Week Twelve (Figure 8.3.1f) containing a traditional story opener, character dialogue, and explicit reference to character mental states.

Book artefacts



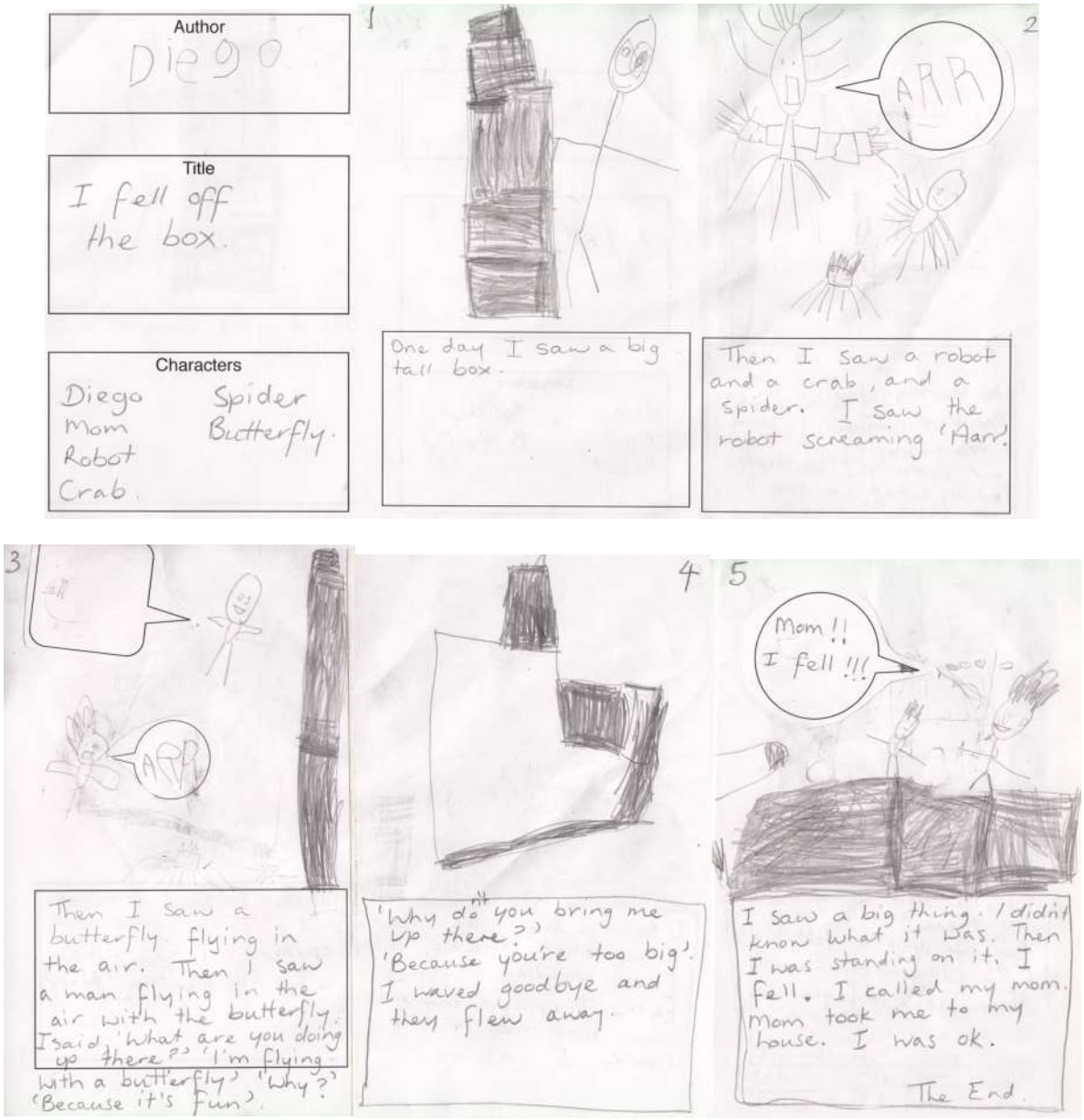
Written text: *Me and my brother got ready to go to the airport. We went inside the airplane. I flew the plane to Mexico. It was a long ride. When we got there I told a story to the people who live in Mexico. They loved my story. The end.*

Figure 8.3.1b. Diego's book, *Diego goes to Mexico*, created in Week One



Written text: *One day Sharkie Jr was walking to a store. He got some chips. Peter Parker came and tied a cage up high. He knew Sharkie Jr was a bad guy and he wanted to trap him. Sharkie Jr was walking under the cage and Peter Parker chopped the rope. The cage trapped Sharkie Jr. Sharkie Jr was really mad, so mad that he felt like hitting someone. Peter Parker's friend bought a cake for him because he saved the day. The end.*

Figure 8.3.1c. Diego's book, *Sharkie Jr gets trapped*, created in Week Three



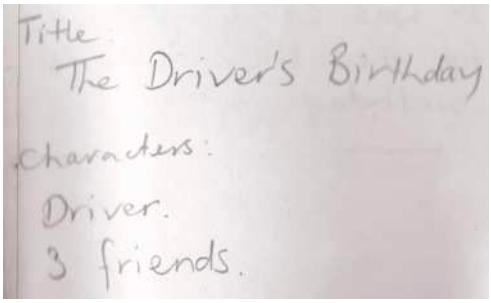
Written text: *One day I saw a big tall box. Then I saw a robot and a crab, and a spider. I saw the robot screaming, 'Aarr'. Then I saw a butterfly flying in the air. Then I saw a man flying in the air with the butterfly. I said, 'What are you doing up there?' 'I'm flying with a butterfly'. 'Why?' 'Because it's fun'. 'Why don't you bring me up there?' 'Because you're too big'. I waved goodbye and they flew away. I saw a big thing. I didn't know what it was. Then I was standing on it. I fell. I called my mom. Mom took me to my house. I was ok. The end.*

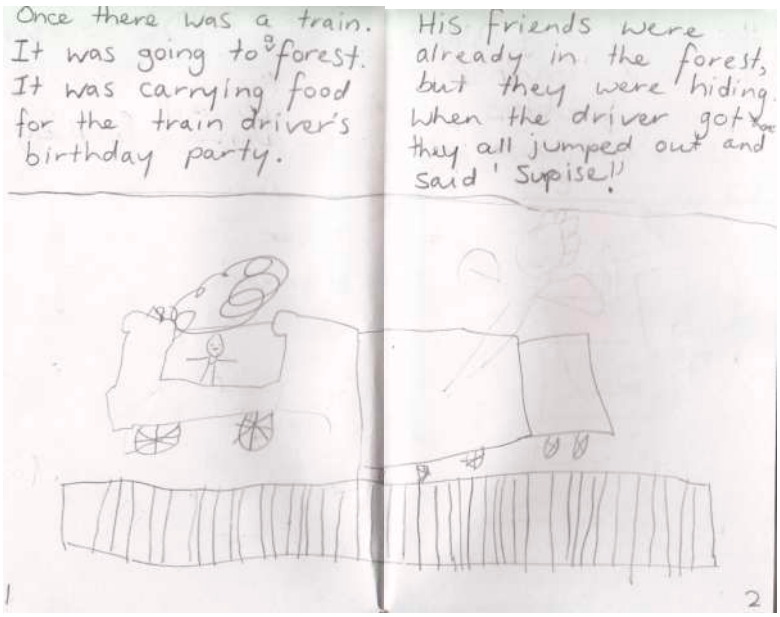
Figure 8.3.1d Diego's book, *I fell off the box,* created in Week Five

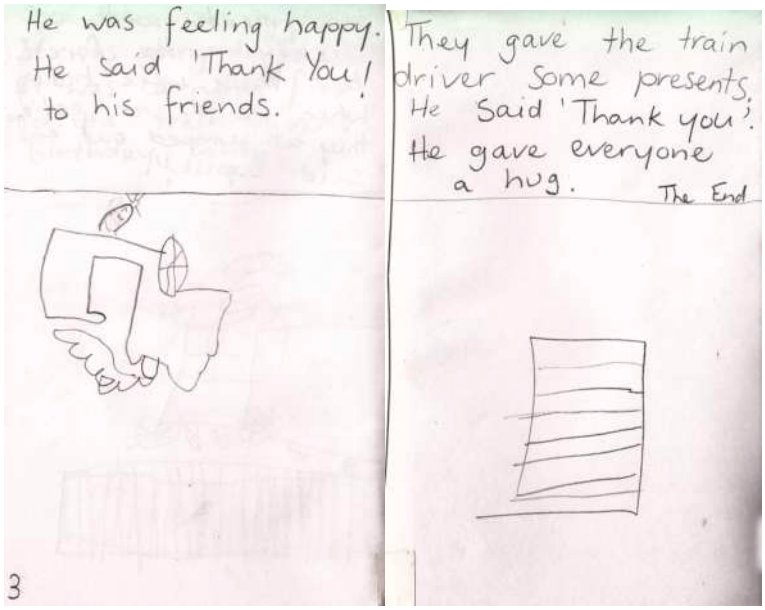


Written text: *One time my brother touched a ball with electricity in it. It made his hair go crazy! Then I touched the ball and my hair got crazy. It stuck in the wall. 'Oh no, help me'. Then nine little people came and they touched, but their hair didn't go crazy at all because they were little and magical. The end.*

Figure 8.3.1e. Diego's book, *The electric ball,* created in Week Eight







Written text: *One day there was a train. It was going to a forest. It was carrying food for the train driver's birthday party. His friends were already in the forest, but they were hiding. When the driver got there, they all jumped out and said 'Surprise!' He was feeling happy. He said 'Thank you!' to his friends. They gave the train driver some presents. He said 'Thank you'. He gave everyone a hug. The end.*

Figure 8.3.1f Diego's book, *The Driver's Birthday,* created in Week Twelve

Summary

Diego was chosen as a focal child for case study because of his low oral language proficiency and being a multilingual learner. The case study highlighted Diego's development of narrative planning skills and his experimentation with increasingly complex narrative structures. While he struggled to generate the language needed to compose with sufficient coherence, he was eager to receive the support needed to do so. His case also demonstrated the usefulness of the illustrating process in helping Diego plan out his stories and as an anchor to help communicate his thinking during written composition.

His pre-/post-study retells showed increases in narrative production and comprehension skills relative to both monolingual and multilingual peers. His vocabulary and accuracy of language production increased, while his utterance length decreased slightly. These results were in line with the difficulty noted in Diego's use of elaborated language when composing his own stories. His inferential comprehension increased, which was consistent with increased development of the consciousness landscape within his own narratives.

As with Daniel (Preschool Case #2), the use of his early writing as play-scripts seemed to offer Diego a 'safe' and highly valued method of gaining positive peer attention. Like Daniel, Diego was a quiet member of his classroom community. The use of his writing as play-scripts carved out a space for him to share his voice. This motivated his efforts at composing and seemed to push him to create increasingly challenging composing goals for himself.

In working with Diego as teacher-researcher, my roles included helping Diego to engage in extended narrative planning, elaborated language use, and insertion of enough detail to establish coherence. Diego quickly pushed himself to compose more sophisticated stories, which left me to focus on supporting the language skills he needed to match his ambitious goals.

8.3.2 Case 6: Maya - The girl who sang a beautiful song all by herself

Child profile

Maya was five years and ten months old at the start of the study. She was quiet in the classroom, but had a range of friendships and was a popular work and play partner. She was a multilingual learner (Spanish/English), who typically chose to converse in English at school. Spanish was the primary language spoken in her home. Based on my initial observations I had recorded that Maya appeared to enjoy school and followed along with what was happening in the classroom. She rarely sought to draw attention to herself, instead preferring to let others volunteer responses while she listened. When called upon to give her ideas, she often seemed hesitant, as if unsure of her thinking or how to express herself in English. Maya was chosen as a focal child due to her being a multilingual learner, with low initial oral language proficiency and because of her reluctance to engage in classroom discourse.

Approach to writing

Maya first joined the book-making table toward the end of the first week of the study, after having heard and seen several peer stories performed. She quickly decided on her topic and began to draw, creating detailed illustrations that helped her to plan out the creative story she composed when it came time to write. This first book showed evidence of an understanding of narrative structure by including a problem and solution, and the impact of creating intriguing characters (e.g. a woman sitting on a cat 'because she thought it was a chair!'). Maya's ease of generating characters and plot was sustained throughout the study. She seemed to immediately gravitate toward book-making as a way to share her imaginative side.

All of Maya's books contained fantasy stories. Her book artefacts, Figures 8.3.2b to 8.3.2g, show her experimentation with combining realistic and fantasy fictional elements. She generated a range of interesting characters, such as talking pumpkins with 'bad' and 'nice' personalities and engaging problems such children in need of being rescued from monsters. She also made use of familiar everyday childhood experiences, such as singing, making snowmen and going 'trick-or-treating'; creating settings and events that were easily relatable for her peer audience and performers.

She enjoyed creating her illustrations, which she took her time to create. She included a lot of detail in her drawings, which she seemed to use to help her plan out her narratives. She rarely

sought to bring attention to her illustrations or stories during the planning/illustrating phase, but was happy to give brief responses when questions were posed by myself or peers. In this respect she was more independent than many of her peers, who often sought inspiration and validation from others. Maya enjoyed drawing and imagining in the company of her peers, but her book-making was a more solitary and inner process.

Collaborative dialogue

What was most interesting about Maya's interactional style during joint construction, was her increased confidence to engage in talk. Unlike in the more structured, question-response-evaluation type dialogue that permeated much of the rest of the classroom discourse, book-making seemed to provide Maya with a safe space to take more risks in the ideas she offered. She enjoyed dictating her stories, responding with shy smiles after telling different parts of her story and seeing the surprise, interest or amusement they generated. It was clear that she enjoyed the freedom to create her own textual playgrounds, which also created an authentic context for her to engage in language production and receive linguistic scaffolding.

Maya's composing language was simple at first and she needed considerable scaffolding to engage in the linguistic elaboration and structural planning needed for a true narrative. As with other peers, she lacked awareness of listener perspective. Her characters and plot were ambitious, but she lacked the language skills needed to establish clear reference to specific characters or provide enough causal explanation for others to fully follow along. For example, her story *Maya and her family* (Figure 8.3.2b) has a problem and solution (family gets lost and then finds their way back home), but leaves the reader confused about the insertion of the mysterious 'woman on a cat' character (why was she there?, what did the family think/feel about encountering her?, and what happened to her when the family found their way out of the forest?). In this first story I didn't push Maya to explain why she had included this mysterious character or highlight the many questions I had. As explained above, the primary goal of the early book-making sessions was to establish the necessary conditions for learning needed to build rapport and risk-taking.

Maya seemed to create certain characters and events purely for the creative and playful pleasure of it, without seeing the need to weave them together into a larger coherent story fabric. This was common among many of the preschool aged children in the study, but less common among the school aged children.

Appendix 9g shows an extended transcript of Maya's composing dialogue in Week Six. Her story opens with a scene in which Maya is counting to 100, then switches to Christmas morning, and then to Ms. Bracco (Maya's teacher) coming to her house and the two of them having a 'pillow fight'. The story starts out as a primitive narrative due to the absence of character goals or motivations, and is only weakly causally and temporally connected through the central 'Christmas' theme. In parts of the story, through collaborative dialogue we were able to lift the level of her language to more closely resemble that of a chain narrative. That is, we were able to expand her language to provide insights into character mental states. The following excerpt (Appendix 9g, lines 18-38) is an example of this exchange:

> Child: Miss Bracco came to my house [smiling at insertion of her teacher into her story].
>
> Teacher: Miss Bracco came to my house [interested voice].
>
> Child: She forgot my present [shocked and disappointed tone]!
>
> Teacher: She forgot my present [imitating and exaggerating child's intonation].
>
> Child: But I said, "that's alright, we can have a pillow fight" [mischievous voice].
>
> Teacher: She forgot my present, so I said "that's alright, we can have a pillow fight" [amused repetition/confirmation]?
>
> Child: Yeah [smiling].
>
> Teacher: So, you said to Miss Bracco we can have a pillow fight, did you have a pillow fight?
>
> Child: Yeah [smiling].
>
> Child: Then when she left my mom yelled at me.
>
> Teacher: We had a pillow fight [amused voice].
>
> Child: That was my idea [proud voice].
>
> Teacher: It's a pretty fun idea [enthusiastic voice]!
>
> Teacher: When Miss Bracco left my mom yelled at me, is that what you want it to say
>
> Child: Yeah.
>
> Teacher: Why did she yell at you?
>
> Child: Because it was Christmas and she didn't know that we were having a pillow fight.
>
> Teacher: Uh, ok, because she didn't want you to have a pillow fight?
>
> Child: Uhhuh.
>
> Teacher: Ok, my mom yelled at me because she doesn't like pillow fights?
>
> Child: Yeah.

Her sentence starts out as 'then when she [Ms. Bracco] left my mom yelled at me'. Through collaborative dialogue we are able to add the causal explanation 'because she [Maya's mom] doesn't like pillow fights', which gives the listener/reader the information they need to understand the mother's reaction, hence developing the consciousness landscape.

Toward the end of the study period Maya began to show evidence of improved story structure and coherence. For example, her final story *The Super Hero Dog and The Girls* (Figure 8.3.2g), showed increased causal explanation and linkage between events. Maya tells her readers the problem (the girls are sad because their dog is missing), the reason for the problem (their dog is away fighting the bad guy), and provides a resolution (they find their dog and are happy). While her final stories were shorter than some of her earlier stories, they were more coherent and satisfying for the listener/reader, i.e. there were no big questions left unanswered. Maya also needed less scaffolding to establish this coherence, despite continued need for support with expanding her English into full and grammatically correct sentences. She also took up the invitation to add speech/thought bubbles to her stories, which helped her to develop the consciousness landscape more fully. This growth in Maya's narrative skills will be discussed further below.

Motivation and literate identity

Maya was an enthusiastic illustrator and composer. She brought her rich everyday life experience into her stories, including tales of family life and common childhood pursuits. She enjoyed the opportunity to engage in creative pretense throughout the study. As mentioned above, having freedom to choose the contents of her stories and time to develop her ideas seemed to support greater amounts of talk from Maya. She presented her ideas with quiet confidence and used the linguistic supports provided through collaborative dialogue to successfully create stories that her peers enjoyed. She easily generated ideas for writing and was focused throughout her book-making sessions.

Maya enjoyed having her stories performed by the class. When it was her turn and her name was called out, she would jump to her feet and wait for her characters to be called out. She always chose her close female friends as fellow actors whenever possible. Although her narrative play style was reserved, she usually chose to play the leading role in her stories. She would follow along and make small gestures to show understanding of the events, sometimes whispering to friends to tell them what they needed to do. At the close of her stories she would stand in front of the class and smile as they applauded, then quietly return to her seat. Despite her shyness in front of the class, it was clear that she enjoyed enacting her stories. She also volunteered to help enact her friends' stories.







Figure 8.3.2a Maya center-stage as main character performing her story (top and bottom) and watching as peers join her on stage in other roles (middle) (photographs taken by classroom teacher)

Maya's confidence as a composer solidified across the study. While she did not explicitly make verbal reference to herself as a writer, her pride in her stories was clearly evident. She

became increasingly confident when dictating her stories and began to experiment more in the types of stories she created. This strengthening of her 'voice' within the classroom culminated in her sharing a surprise talent with the class. She had revealed to me during our final story book-making session, in which she made reference to the song 'Let it be' from the movie *Frozen*, that she knew all of the lyrics and liked to sing it. After her final story was performed, I asked if she wanted to sing the song for the class. To both my and Maya's classroom teacher's amazement, she took up the invitation. After she had finished performing the whole song, the class responded with a wild round of applause and Maya was clearly beaming with pride. Without her own writing to carve out this opportunity, Maya's talent as a singer would likely have gone unnoticed. This provides one small example of how writing can provide unique ways for children to share their interests and skills, whilst also building identity and community.

Narrative development

Appendix 11k shows Maya's pre-study narrative retell. As discussed earlier, although book-making and composing seemed to encourage greater amounts of talk from Maya, she struggled throughout the study to adequately keep track of listener/audience perspective to provide the referencing and causal explanations needed to construct a fully coherent narrative. Her pre-study retell demonstrates this difficulty. She confuses nouns, e.g. 'dog' instead of 'boy' in the opening sentence; and she makes many prepositional errors, e.g. 'the dog got head and stuck...stuck from the jar' instead 'the dog got his head stuck in the jar'. She clearly comprehends the events in the story and her vocal intonation even demonstrated awareness of the consciousness landscape at different points, however, she struggled to communicate this linguistically. Her retell contains limited literate language, showing minimal elaboration and internal reference.

Appendix 11l shows Maya's post-study retell and Table 8.3.2a shows her pre-/post-study narrative quality scores. Her microstructural scores show an increase in syntactic complexity (MLU) and vocabulary (TTR), and a decrease in errors and mazes across the study. Her macrostructural scores showed increased scores for 'Introduction', 'Mental States' and 'Conclusion'. These results provide additional support for the improvements I observed within the classroom. Maya became more adept at structuring her stories coherently (i.e. increased macrostructural quality) and she needed less support to articulate her ideas in English (i.e. increased microstructural quality).

Table 8.3.2a Maya's pre-study and post-study narrative retell quality scores

	Variable	Pre-test *Raw score*	Post-test *Raw score*	*Difference*
Microstructural	*MLU (words)*	6.24	6.71	0.47
	TTR	0.29	0.35	0.06
	Errors	23	5	-18
	WPM	87	70.56	-16.44
	Maze %	14	12	-2
	Total Utter.	53	34	-20
Macrostructural	Introduction	1	2	1
	Character Development	2	2	0
	Mental States	1	2	1
	Referencing	2	2	0
	Conflict/Resolution	3	3	0
	Cohesion	2	2	0
	Conclusion	2	3	1
	TOTAL	13	16	3

MLU (words)=mean length of utterance in C-units, TTR=type token ratio, Errors=grammatical errors at the word or utterance level, WPM=words per minute, Maze=percentage of utterances containing maze words, TotalUtter.=total utterances used in retell.

When compared to same-age multilingual peers within the SALT database (*n*= 243 pre-study and *n*=303 post-study, see Appendix 10j) Maya's microstructural scores remained fairly stable for most variables. A notable improvement was the reduction in her errors, with word level errors shifting from +1.76SD to -0.88SD and utterance level errors from +2.10SD to -0.93SD. When compared to same-age monolingual peers within the SALT database (*n*= 72 pre-study and *n*=71 post-study, see Appendix 10k) Maya's microstructural scores were well below for many indicators, but showed shifts toward the mean. Her MLU went from -0.95SD to -0.43SD and TTR from -1.93SD to -0.63SD. The most drastic shift was in her decreased errors, with word level errors decreasing from +8.15SD to +0.56SD and utterance level errors from +4.73SD to -0.65SD.

Maya's narrative comprehension scores (Table 8.3.2b) showed that her literal comprehension remained strong and her inferential comprehension increased. Her post-study retell also contained an increased frequency of utterances aimed at developing the consciousness landscape, which mirrors increases I observed in Maya's composition of her own stories.

Table 8.3.2b Maya's pre-study and post-study narrative comprehension scores

	Variable	Pre-test *Raw score*	Post-test *Raw score*	*Difference*
Narrative landscapes	Action	41	24	-17
	Consciousness	3	10	7
	Consciousness to Action Ratio	0.07	0.29	0.22
Direct comprehension questioning	Literal	4	4	0
	Inferential	0	2	2
	Total	4	6	2

Overall, the above results confirm the improvements I observed across the study. Maya became more proficient at structuring her narratives coherently and using elaborated language to communicate her thinking. The reduction in her word and utterance level errors was also reflected in her own story composing. I needed to offer less recastings and other prompts to help her compose grammatically correct sentences. Maya was an attentive listener and participant during joint construction. She understood that my aim was to help her tell her stories as best as she possibly could, so she would carefully consider the language or prompts I provided to see if they 'fit' with her intended story. This careful listening enabled her to develop an 'ear' for how English works within written narratives, and over time she was able to more independently adjust her own word choice according to her communicative intent.

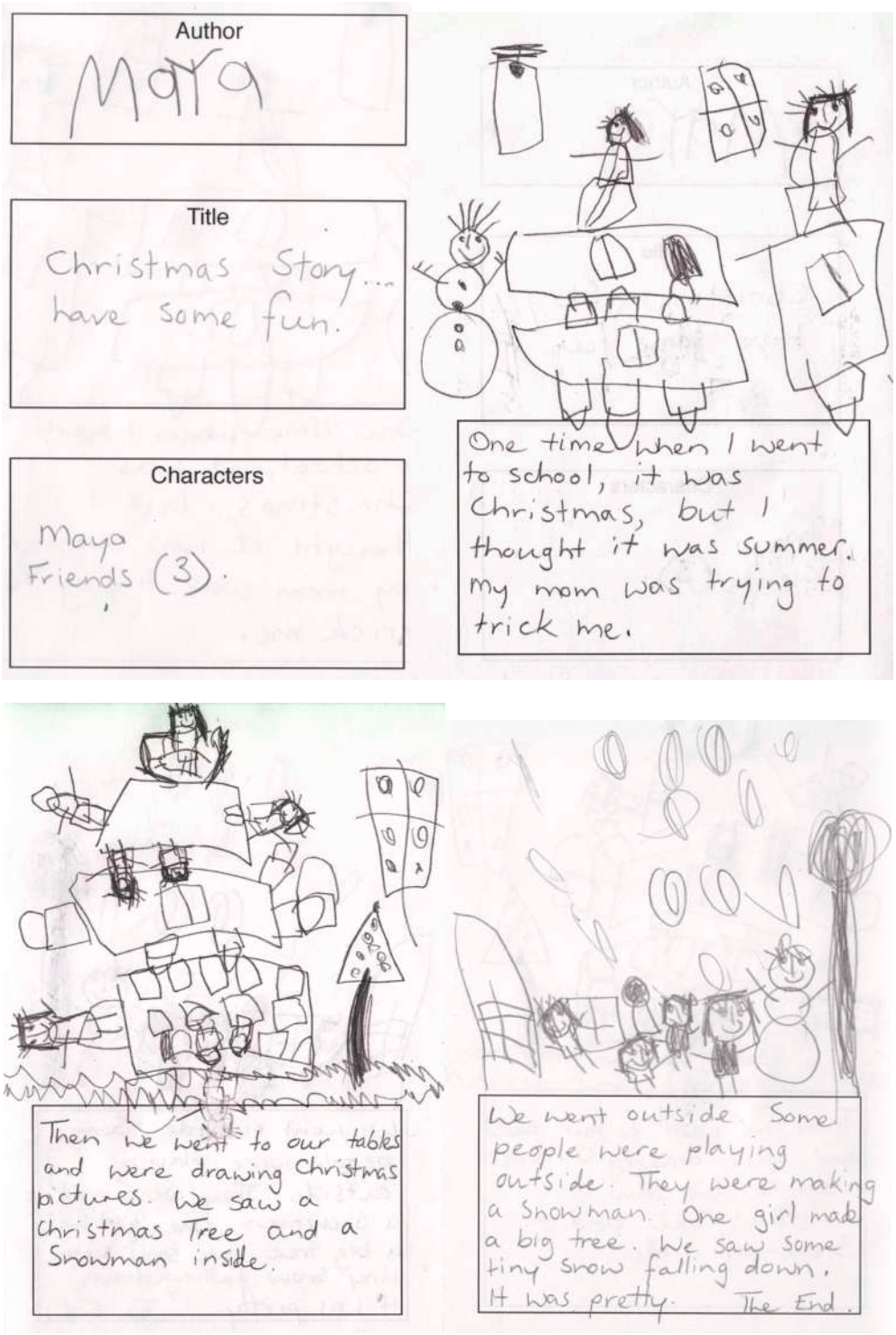
Figures 8.3.2b to 8.3.2g present samples of Maya book artefacts across the study, showing her consistent attention to creating detailed narrative drawings. These also show that her early written narratives were creative fantasy event-chains (Figures 8.3.2b and 8.3.2c), which lacked sufficient reference to character mental states and inclusion of causal details to establish coherence. Toward the middle of the intervention Maya increased the coherence of her narrative by creating a clear problem and solution (Figure 8.3.2d) and inserting speech/ thought bubbles which assisted her to plan out and include dialogue in her written text (Figure 8.3.2e). Toward the end of the study she was writing much longer stories, adding extra pages and using them to highlight her personal interest in singing (Figure 8.3.2f). Her final story, written in Week Twelve (Figure 8.2.3g), contains all necessary story grammar elements (Introduction, problem, resolution) and explicit references to character mental states ('very sad' and 'happy').

Book artefacts



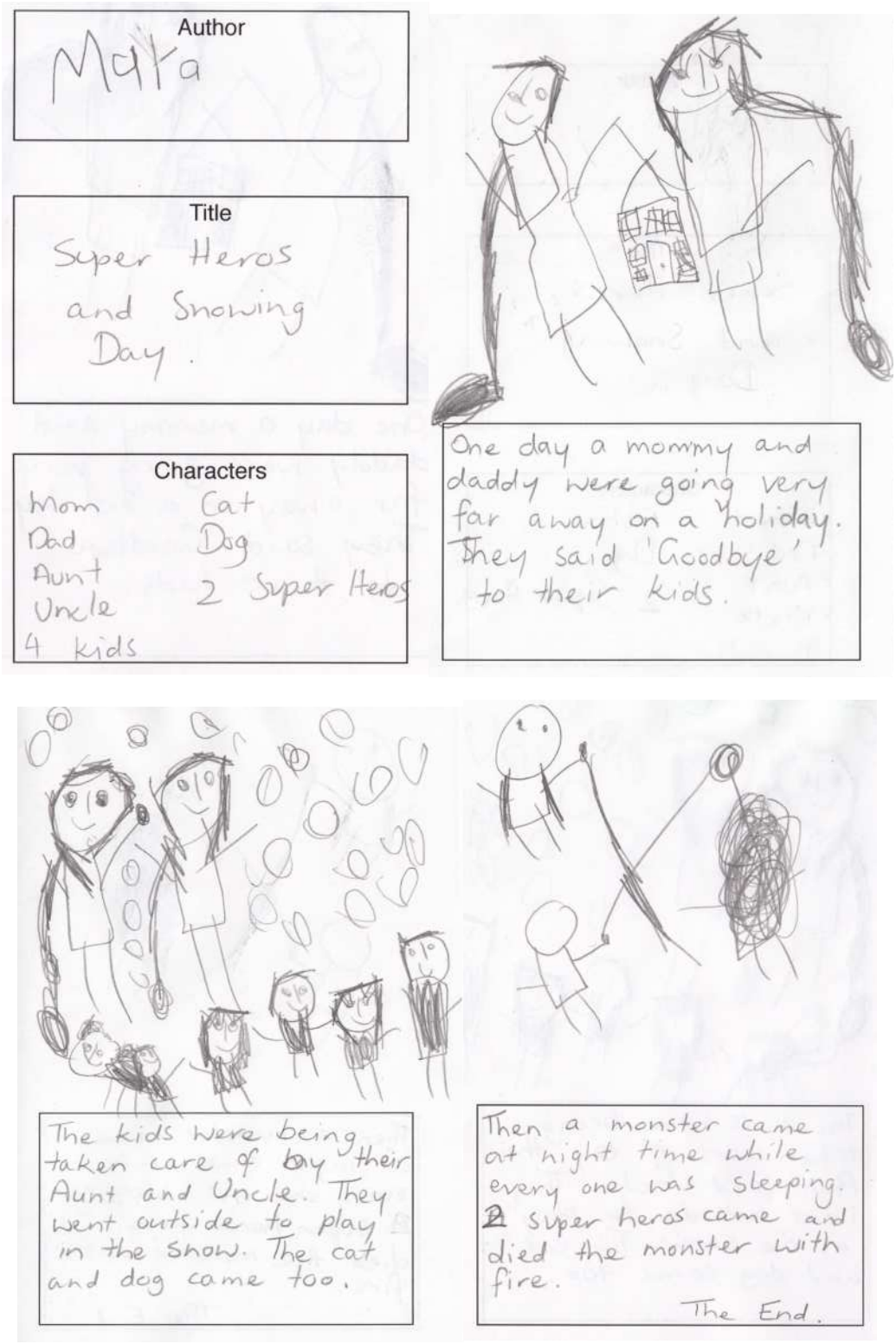
Written text: *One day my family got lost in the woods. We were walking and went to one side and then the other side and then the other side, and then we didn't know which way we were going. We saw a cat and an old girl was sitting on the cat. The old girl thought the cat was a seat! Then we found which way we went and we went home. The end.*

Figure 8.3.2b Maya's book, *Maya and her family*, created in Week One



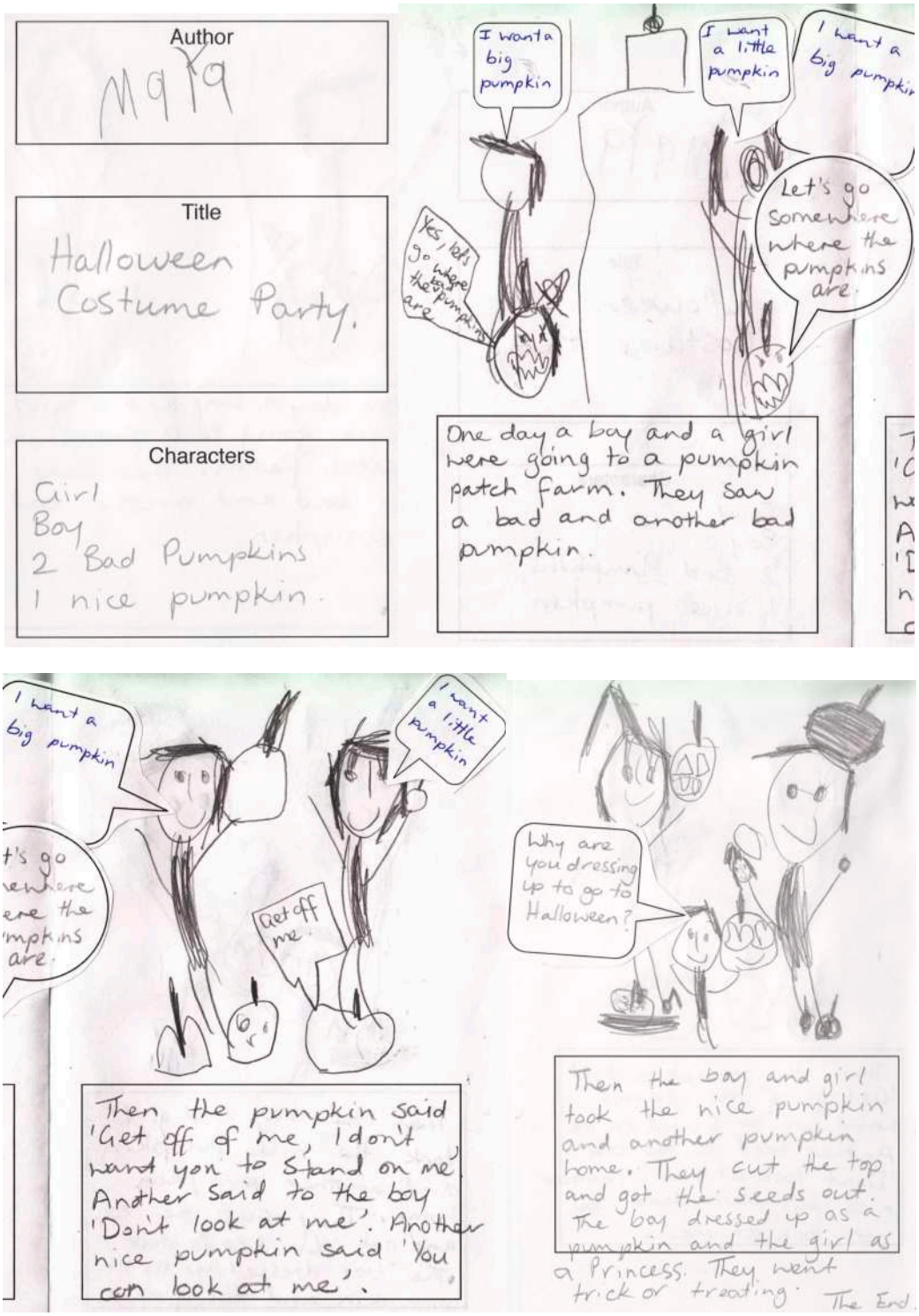
Written text: *One time when I went to school, it was Christmas, but I thought it was summer. My mom was trying to trick me. Then we went to our tables and were drawing Christmas pictures. We saw a Christmas Tree and a snowman inside. We went outside. Some people were playing outside. They were making a snowman. One girl made a big tree. We saw some tiny snow falling down. It was pretty. The end.*

Figure 8.3.2c Maya's book,*Christmas Story...Have Some Fun*, created in Week Three



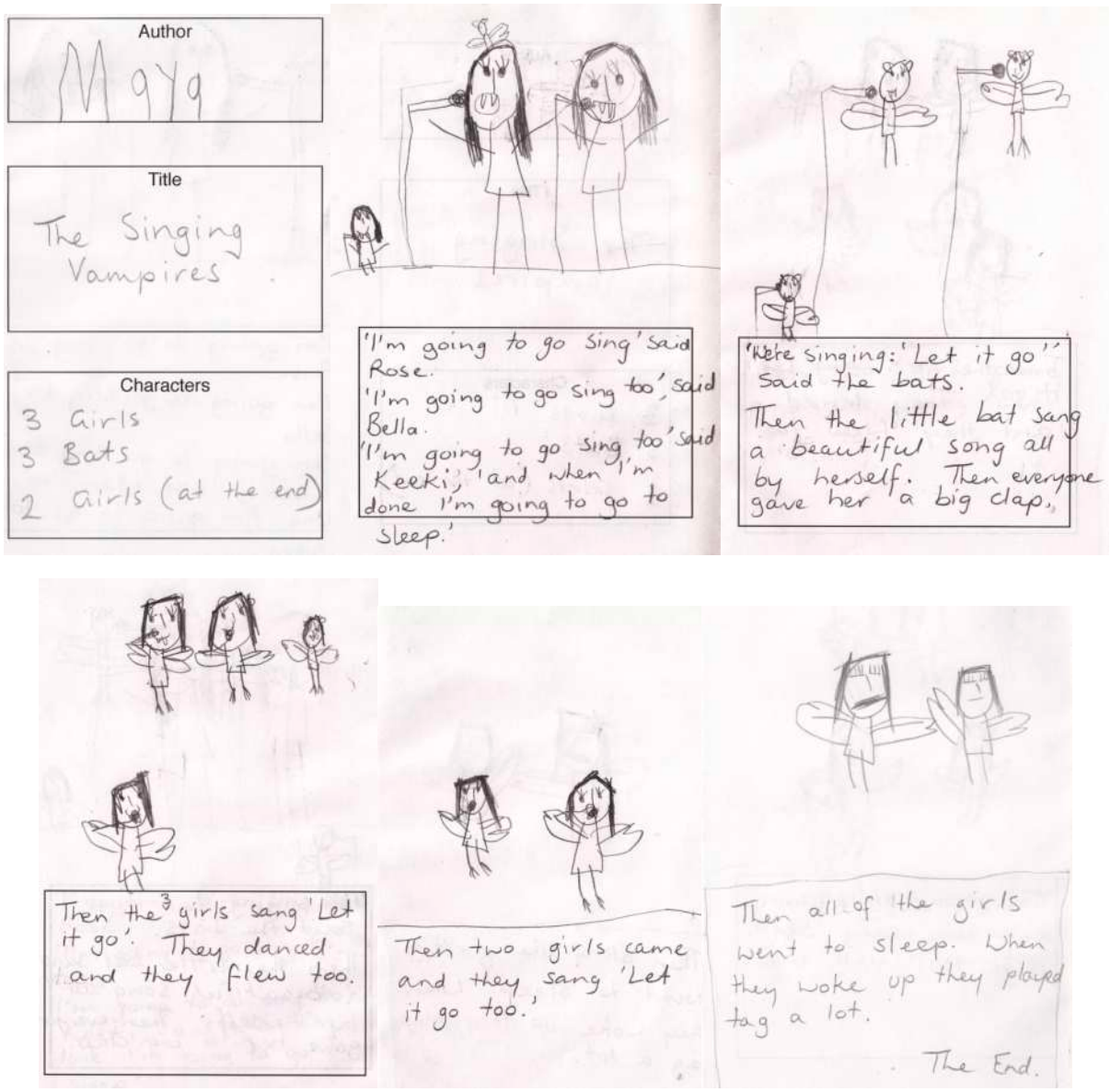
Written text: *One day a mommy and daddy were going very far away on a holiday. They said 'Good bye' to their kids. The kids were being taken care of by their aunt and uncle. They went outside to play in the snow. The cat and dog came too. Then a monster came at night while everyone was sleeping. Two super heroes came and died the monster with fire. The end.*

Figure 8.3.2d Maya's book, *Super heroes and snowing day*, created in Week Five



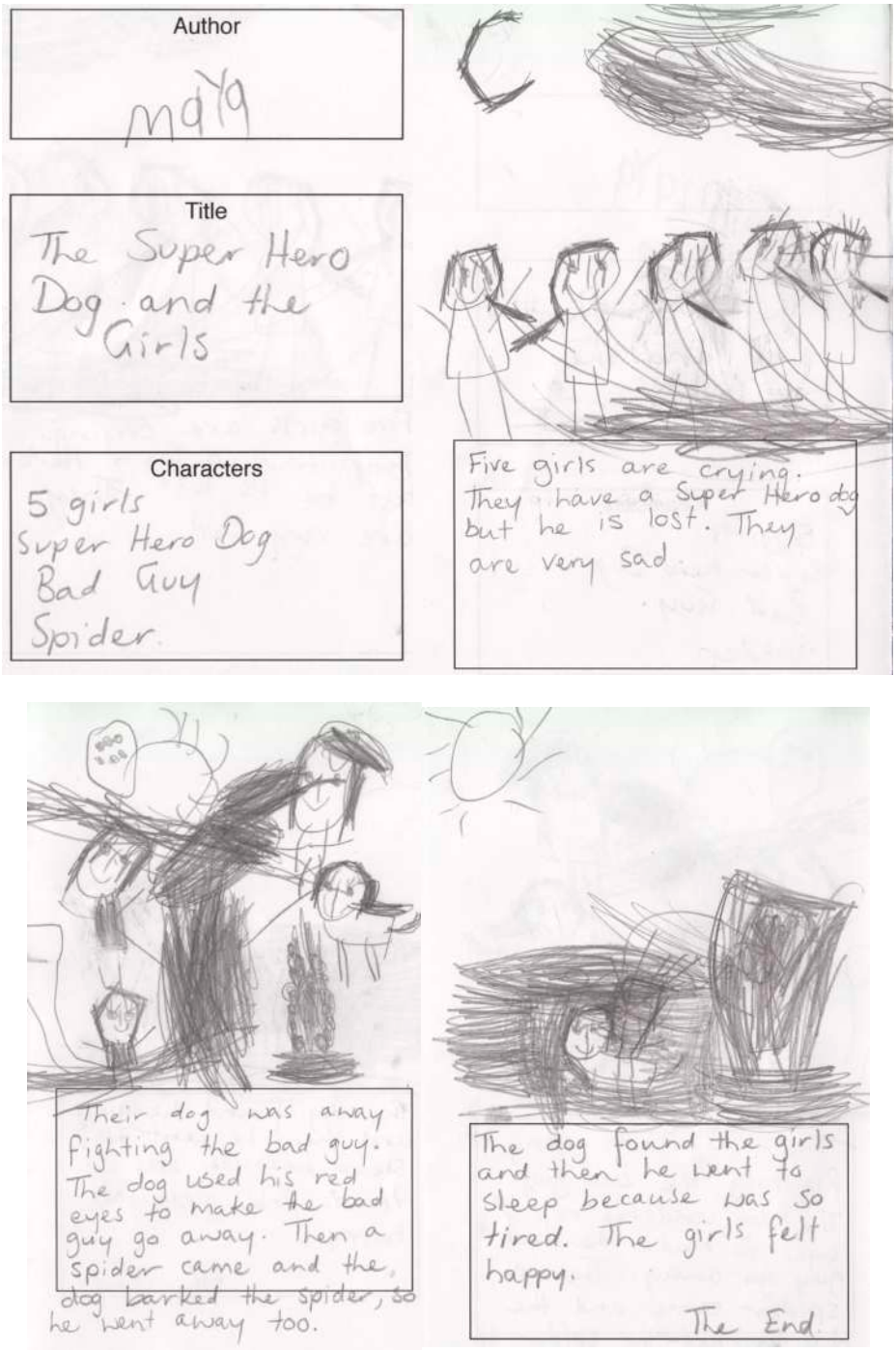
Written text: *One day a boy and a girl were going to a pumpkin patch farm. They saw a bad and another bad pumpkin. Then the pumpkin said, 'Get off of me, I don't want you to stand on me'. Another said to the boy, 'Don't look at me'. Another nice pumpkin said, 'You can look at me'. Then the boy and girl took the nice pumpkin and another pumpkin home. They cut the top and got the seeds out. The boy dressed up as a pumpkin and the girl as a Princess. They went trick or treating. The end.*

Figure 8.3.2e Maya's book, *Halloween Costume Party*, created in Week Eight



Written text: *'I'm going to go sing', said Rose. 'I'm going to go sing, too', said Bella. 'I'm going to go sing too', said Keeki, 'and when I'm done I'm going to go to sleep'. 'We're singing "Let it go"', said the bats. Then the little bat sang a beautiful song all by herself. Then everyone gave her a big clap. Then the three girls sang 'Let it go'. They danced and they flew too. Then two girls came and they sang 'Let it go' too. Then all of the girls went to sleep. When they woke up they played tag a lot. The end.*

Figure 8.3.2f Maya's book, *The Singing Vampires*, created in Week Ten



Written text: *Five girls are crying. They have a Super Hero dog but he is lost. They are very sad. Their dog was away fighting the bad guy. The dog used his red eyes to make the bad guy go away. Then a spider came and the dog barked at the spider, so he went away too. The dog found the girls and then he went to sleep because he was so tired. The girls felt happy. The end.*

Figure 8.3.2g. Maya's book, *The Super Hero Dog and The Girls*, created in Week Twelve

Summary

Maya was chosen as a focal child for case study because she was a multilingual learner with low oral language proficiency, who was reserved in participating in classroom discourse. The case study discussion highlighted the fact that the WPS process seemed to provide a 'safe space' for Maya to engage in extend language use. She needed considerable support to produce the kind of elaborated language needed for written narrative coherence, but was a willing recipient of scaffolding during joint construction.

Her pre-/post-study retells showed improvements in narrative production and comprehension skills relative to both monolingual and multilingual peers. She showed decreases in her word and utterance level errors, suggesting growth in her understanding of how English 'works' (i.e. grammar). Her language complexity (MLU) also increased, indicating increased elaboration.

The WPS treatment offered Maya with unique opportunities to share her creative imagination and talents. Writing enabled her to share details about her personal life and talents which may otherwise have remained hidden, e.g. her singing talents. Thus, in addition to boosting her literate identity through successful composing experiences, it also helped to develop her broader social identity.

In working with Maya as teacher-researcher, my role was one of interested listener, scribe, prompter of elaboration and coherence, and celebrator of risk-taking. Given Maya's typically reserved participation in classroom discourse, a key priority was establishing a positive rapport to encourage her active involvement. She seemed particularly attuned to my positive feedback, which quickly resulted in increased language use on her behalf.

8.3.3 Case 7: Mauricio - The boy with the powerfulest characters of all

Child profile

Mauricio was five years and five months old at the start of the study. He was a functionally monolingual English speaker, although his parents and extended family often conversed in Spanish and English. He was a very social child, who engaged with peers constantly. He was highly verbal and imaginative, continuously seeking to infuse humor and play into even routine classroom activities. My initial observational notes recorded Mauricio as highly social and talkative, somewhat distractible (needing extra reminders of tasks/expectations), but easily redirected and generally happy to comply with teacher requests. His classroom teacher described him as 'high energy', 'entertaining' and at times 'distracting' (to peers). Mauricio was chosen as a focal child because of his high initial oral language skills and his attention challenges.

Approach to writing

From the outset of the study, Mauricio was highly engaged in the process of illustrating and composing his stories. His stories were full of action, playing out dramatic themes of conflict, power and justice. He used his knowledge of popular culture as inspiration for characters and plots; e.g. Figure 8.3.3e shows his book, *The Jet Didn't Come Back*, in which the protagonist is 'Octimus Prime', based on the fictional character 'Optimus Prime' from the *Transformers* toy and movie franchise (Hasbro 2016). His stories featured dramatic characters throughout. His story illustrations were immediately captivating to the eye, depicting busy scenes of conflict and danger (see Figures 8.3.3b to 8.3.3h). Just as his oral compositions were defined by a distinctive 'voice', Mauricio's illustrations had a distinctive visual style - scattered with dark, repeated lines and animated facial expressions.

Socially, Mauricio had a powerful presence within his peer group. He actively sought to share his story ideas during the illustration phase and to have others affirm his choice of characters, plot and themes. He would seek out feedback through comments such as, 'Isn't that funny?' or 'Don't worry, I'm going to make sure he gets caught, won't that be good?' He embraced the writing as play-scripts process to engage others in his ideas, creating action-rich stories designed to appeal to his peer audience. He was adept at creating interesting characters, who he would bring to life through a variety of animated voices, facial expressions and bodily gestures as he illustrated and composed. His excitement for story composition was enjoyed by

his peers, who would frequently laugh at his stories as he narrated them aloud. He clearly enjoyed the positive attention he received as a composer from peers and myself as teacher-researcher.

From the outset Mauricio sought to include dramatic scenes of conflict and mortality in his stories. Despite the repeatedly communicated prohibition of violence in their stories ('people getting hurt on purpose is not allowed'), Mauricio often illustrated elaborate 'battles' that had to be negotiated and altered during story composition. Rather than use a 'zero tolerance' approach, in which stories of violence were cast aside entirely, I attempted to honor their characters and relational struggles, whilst steering him to create less aggressively wrought outcomes. Shifting course in his narratives was difficult for Mauricio at first, but his desire to entertain others by composing stories that were deemed 'permissible' provided enough motivation for him to do so.

Collaborative dialogue

Right from his first composing session, it was clear that Mauricio had a strong sense of himself as the 'author' of his stories, confidently correcting peers and teachers when they misinterpreted his intended meaning. Despite this confidence, he struggled to compose with enough detail for others to follow his elaborate characters and plots. He would leave out crucial causal details, fail to explain relationships between characters, and not communicate character motives or thinking. He was a fast-paced storyteller and was highly animated during composing. He was quick to become impatient when I struggled to keep up with his narration and became easily frustrated when I persisted with questions aimed helping him repair breakdowns in coherence (and in my understanding as immediate listener).

Appendix 9h shows a transcript of our dialogue as we composed Mauricio's second book, *Territory Battle,* in Week Two. It shows several times when Mauricio needed to be told explicitly that his narrative lacked coherence, e.g. line 90, where I state 'Hang on, it needs to make sense, I'm trying to understand your story, so that everyone understands when I *read* your story [emphasising the link to its potential use as a play-script]'. He was so engrossed in his story that he often failed to provide enough referencing for me to follow his thinking. The following excerpts provide two examples of such exchanges (Appendix 9h, lines 96-102 and 118-133):

> Child: They were hurted [hurt] so bad [pained voice].

Teacher: *They were* <hurted> *hurt so bad*.

Child: No, hurt!

Teacher: That's what I said, 'hurt' [pointing to word written].

Child: You got 'hurt'?

Teacher: Uhhuh, that's what it says, 'they were hurt so bad!' [imitating child's intonation].

Child: Now another one's turn [referring to the next page].

Child: A Tyrannodon.

Teacher: *A tyrannodon*^

Child: A little tiny creature with wings who eats crabs.

Teacher: *A little tiny creature with wings*^

Child: Who eats crabs [becoming impatient again]!

Teacher: Hang on, I can't write that fast.

[...then several mores exchanges...]

Teacher: Did the Tyrannosaurus Rex get his territory?

Teacher: Did the T-Rexs go away?

Child: Mhm.

Teacher: So let's say, *the T-Rexs went away*.

Child: Mhm, they are two, they fight [pointing to page already written].

Teacher: Uhhuh, that's done.

Teacher: But how does the Tyrannodon come into the story [referring to new character child has introduced on the final page]?

Child: He had to fly and the Tyrannosaurus Rex is his friend.

Teacher: Oh, right, so^

Child: he^ [beginning to narrate new scene]

Teacher: Hang on, this says 'a tyrannodon, a little tiny creature with wings who eats crabs, 'came to visit his friend' [suggesting coherent connection]?

Child: And then [starting to dictate next event without responding to coherence prompt]^

Teacher: Hang on, listen, did he come to visit his friend, the tyrannosaurus?

Child: Yes.

Teacher: Ok, we need to say that, so people understand.

Teacher: Came to visit his friend the tyrannosaurus.

Mauricio was able to accept this type of direct feedback, due to his strong desire to have his stories understood by his peer audience. Similarly, in other stories, he was able to revise violent scenes so they would comply with the class no-violence rule. As the study progressed Mauricio became less frustrated by such prompts and needed less support to compose coherent and non-violent stories.

The extended transcript provided in Appendix 9h captures slightly less than 10 minutes of composing dialogue. Mauricio's speech accounts for 81 out of the 173 speaking turns exchanged, showing how prolific and persistent he was when engaged in collaborative dialogue. It also serves to highlight the depth of linguistic scaffolding that can be provided when children's own communicative goals are at the heart of language interaction. When immersed in his rich imaginings, Mauricio's overall goal of composing stories that his peer audience would enjoy, enabled him to do the cognitive-linguistic work needed to strengthen the quality of his narrative composing.

Motivation and literate identity

Mauricio's motivation to engage in story illustration and composition was high from the outset of the study. He enjoyed the freedom to choose his own topics for writing. After the book-making process was explained during the first session, he asked with excitement, 'you mean, we can write about *anything*?' He had a rich imagination and quickly embraced the writing as play-scripts process. By the second week of the intervention he was adding additional pages to his books to capture his elaborate narrative thinking (see Figure 8.3.3d, 8.3.3g and 8.3.3h). He had a lot to say and clearly enjoyed the opportunity to do so.

Mauricio's motivation to share his stories with others helped him to persist through the sometimes difficult and frustrating task of written composition. As discussed above, when dictating his story *Territory Battle* (see Figure 8.3.3d), he struggled to wait as his story was written and to convey his thoughts with enough detail to be coherent to others. Collaborative dialogue provided him with immediate feedback to help him strengthen the macrostructural quality of his narratives, so they could be used as play-scripts and enjoyed by his peer audience. This was essential to his later feelings of success as his stories were enacted by peers. He was highly motivated by the tangible purpose and audience that narrative play provided. After completing a story he would often ask excitedly, 'Can mine be next?' His enthusiasm also spurred on others' engagement in creating and enacting their stories.



Figure 8.3.3a Mauricio during narrative play: on the sidelines, watching peers perform one of his stories (top); waiting to make his entrance on stage as main character (center); and improvising an amusing extension to his narrative after his written story is completed (bottom) (Photographs taken by classroom teacher)

During narrative play Mauricio was an enthusiastic actor, consistently raising his hand to offer to play characters in other children's stories. When his stories were enacted, he enjoyed choosing peers to play his characters and confidently arranged his actors on 'stage' in preparation for his stories to begin. He always played a leading role in his own stories and enjoyed choosing preferred friends to play alongside him. However, he willingly accepted teacher suggestions when others were waiting for a turn at acting. His flexibility in these times did not seem to detract from his enjoyment of having his stories performed. It was clear that he enjoyed the 'limelight', no matter who he shared it with. His spontaneous enactment of stories was animated and often showed creative improvisation that other children enjoyed (see Figure 8.3.3a).

Narrative development

Mauricio was an enthusiastic and entertaining storyteller. He brought a strong author's voice to the table on his first book-making session, easily selecting characters and creating dramatic storylines. He used animated voices and seemed to have a good feel for how stories go. He had a good vocabulary in English, but sometimes struggled to retrieve words fluently, frequently inserting 'um' and 'ah' as fillers while he searched for the word or phrase needed to communicate his ideas.

Mauricio's pre-study retell (Appendix 11m) shows elements of the same dramatic enactment style that infused his storytelling throughout the study. He needed reminding to 'tell' the story rather than 'pretend' to be the characters through whole body enactment. It also shows him inserting extra details not in the original story prompt, seemingly for dramatic effect. For example, he added new details, with creative lines such as: 'One little bee just stinged [stung the dog]!' and 'He got a new friend, name Jumpy', and added sound effects for the owl and frog 'Hoot, hoot!' and 'Oak!' His desire to entertain by bringing stories to life was evident in this very first composing episode. So too, were his still emerging skills in building narrative cohesion. He jumps from event to event without providing enough causal or mental state information for a listener to easily follow his story.

Mauricio's post-study retell (Appendix 11n) shows. Table 8.3.3a shows his pre-/post-study microstructural and macrostructural narrative production quality scores. The complexity of his language increased considerably, with his MLU increasing from 6.64 to 8.86 words. His number of word and utterance errors, and maze words, decreased. Therefore, while his overall

number of utterances decreased, he used more complex language, made fewer errors, and repeated less words/phrases. His macrostructural scores showed improvement in the following story grammar elements: Introduction, Mental States and Conclusion; resulting in an overall macrostructural score increase of 3 points.

When compared to same-age monolingual peers in the SALT database (*n*=63 pre-study and *n*=63 post-study; see Appendix 10l) Mauricio's retell scores show: a decrease in total utterances and total words; a large increase in MLU (2.45 SD); an increase in TTR; a large decrease in maze words (2.1 SD); and a decrease in word and utterance level errors. These results align with my observational assessment of changes in Mauricio's composing skills across the study. His change in macrostructural quality was most obvious, resulting in him needing far less scaffolding to compose coherent narratives.

Table 8.3.3a Mauricio's narrative retell scores

	Variable	Pre-test *Raw score*	Post-test *Raw score*	*Difference*
Microstructural	*MLU (words)*	6.64	8.86	2.22
	TTR	0.44	0.45	0.01
	Errors	16	10	-6
	WPM	88.21	70.67	-17.54
	Maze %	18	11	-7
	Total Utter.	48	23	-25
Macrostructural	Introduction	1	2	1
	Character Development	2	2	0
	Mental States	2	3	1
	Referencing	2	2	0
	Conflict/Resolution	2	2	0
	Cohesion	2	2	0
	Conclusion	2	3	1
	TOTAL	13	16	3

MLU (words)=mean length of utterance in C-units, TTR=type token ratio, Errors=errors at the word or utterance level, WPM=words per minute, Maze=percentage of utterances containing maze words, TotalUtter.=total utterances used in retell.

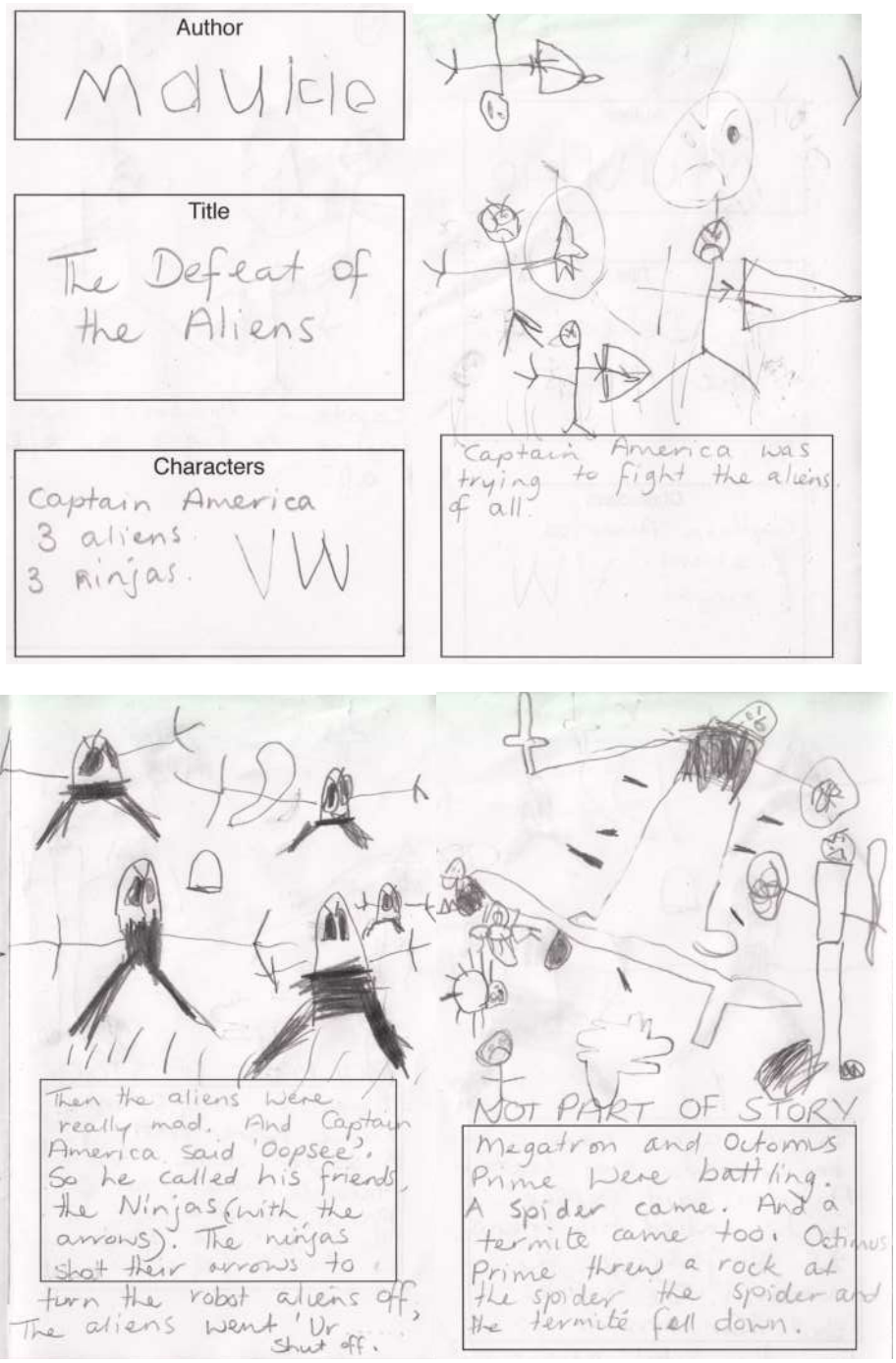
Mauricio's narrative comprehension scores, shown in Table 8.3.3b, show stable scores for direct questioning. His retell utterance codings show decreased attention to the action landscape and increased attention to the consciousness landscape.

Table 8.3.3b Mauricio's narrative comprehension scores

	Variable	Pre-test *Raw score*	Post-test *Raw score*	*Difference*
Narrative landscapes	Action	33	17	-16
	Consciousness	4	9	5
	Consciousness to Action Ratio	0.10	0.35	0.25
Direct comprehension questioning	Literal	4	4	0
	Inferential	1	1	0
	Total	5	5	0

Overall, Mauricio's narrative skills improved across the study. His desire to tell interesting and entertaining stories pushed him to work on improving the overall structure and coherence of his stories (see his book artefacts, Figures 8.3.3b to 8.3.3h). Collaborative dialogue and joint construction of his texts provided Mauricio with direct feedback needed for him to develop greater audience awareness. He struggled with keeping the details of his complicated stories in mind, and knowing what/when to insert crucial details to build coherence and plot. While his low frustration tolerance and eagerness to 'just write it down' and move on sometimes made collaboration difficult, he became a more willing partner over time. He benefited from frank feedback such as 'but, it doesn't make sense, we need to tell ____(who/ what/why/how details)'. Mauricio's determination as a composer served as a model for his peers, urging them to tackle more ambitious characters and plots. When his stories were used as play-scripts he always had many eager volunteers. It was clear that they too had noticed and enjoyed Mauricio's narrative skills.

Book artefacts



Written text: *Captain America was trying to fight the aliens of all. Then the aliens were really mad. And Captain America said, 'Oopsie'. So he called his friends, the Ninjas (with the arrows). The Ninjas shot their arrows to turn the robot aliens off. The aliens went, 'Ur, shut off'.*

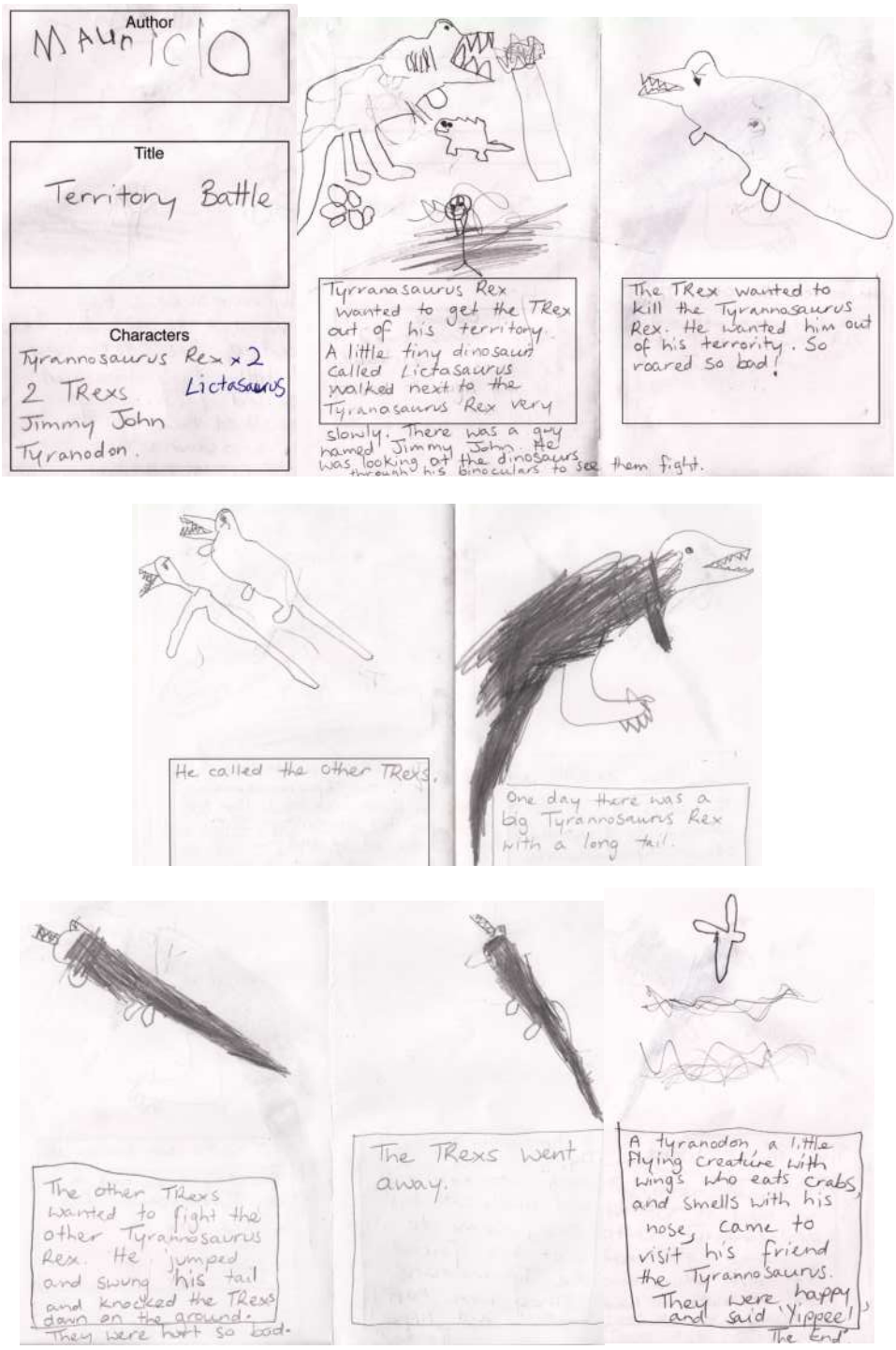
NOT PART OF THE STORY (accompanying unrelated illustration on back of book): Megatron and Optimus Prime were battling. A spider came. And a termite came too. Optimus Prime threw a rock at the spider. The spider and the termite fell down.

Figure 8.3.3b Mauricio's book, *Captain America defeats the aliens*, created in Week One



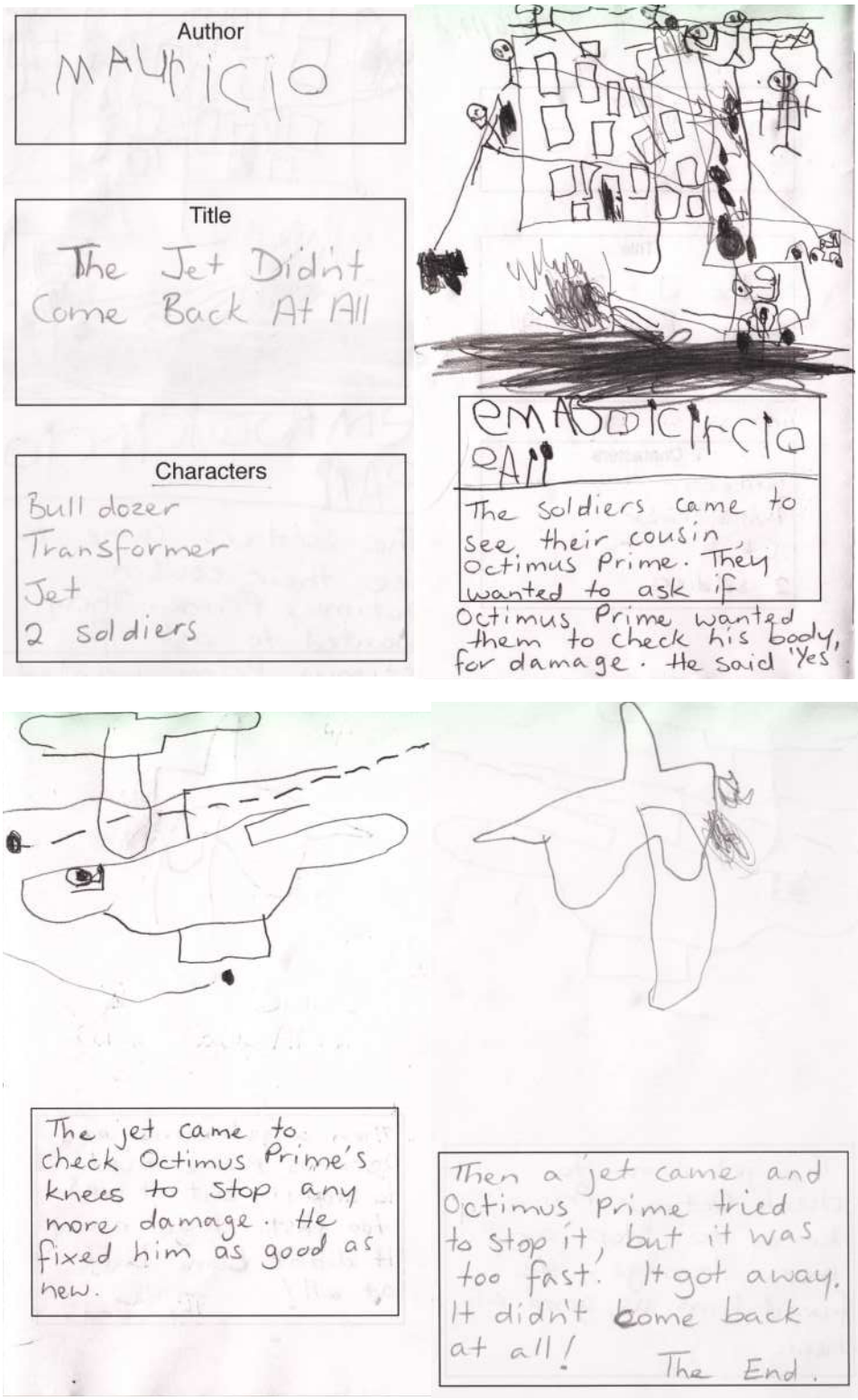
Written text: *One alien was stepping on top of the building. One alien was climbing down to a car. A helicopter came and smooshed the two aliens. Then one alien was stepping on a giant rock. One alien jumped in the water swimming, but he had no eyes. He didn't know a tornado was coming. The end.*

Figure 8.3.3c Mauricio's book, *The aliens and the helicopter,* created in Week Two



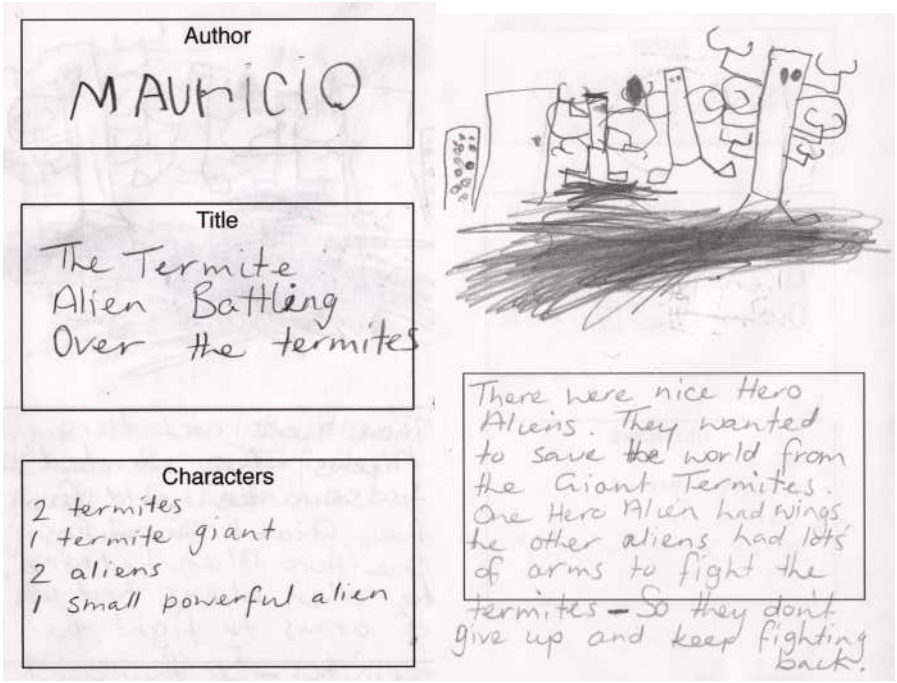
Written text: *Tyrannosaurus Rex wanted to get the T-Rex out of his territory. A little tiny dinosaur called Lictosaurus walked next to the Tyrannosaurus Rex very slowly. There was a guy named Jimmy John. He was looking at the dinosaurs through his binoculars to see them fight. The T-Rex wanted to kill the Tyrannosaurus Rex. He wanted him out of his territory. So he roared so bad! The other T-Rexs wanted to fight the other Tyrannosaurus Rex. He jumped and swung his tail and knocked the T-Rexs down on the ground. They were hurt so bad. The T-Rexs went away. A tyranodon - a little flying creature with wings who eats crabs, and smells with his nose - came to visit his friend the Tyrannosaurus. They were happy and said, 'Yippee!' The end.*

Figure 8.3.3d Mauricio's book, *Territory Battle*, created in Week Four



Written text: *The spiders came to see their cousin, Octimus Prime. They wanted to ask if Octimus Prime wanted them to check his body for damage. He said, 'Yes'. The jet came to check Octimus Prime's knees to stop any more damage. He fixed him as good as new. Then a jet came and Octimus Prime tried to stop it, but it was too fast. It got away. It didn't come back at all! The end.*

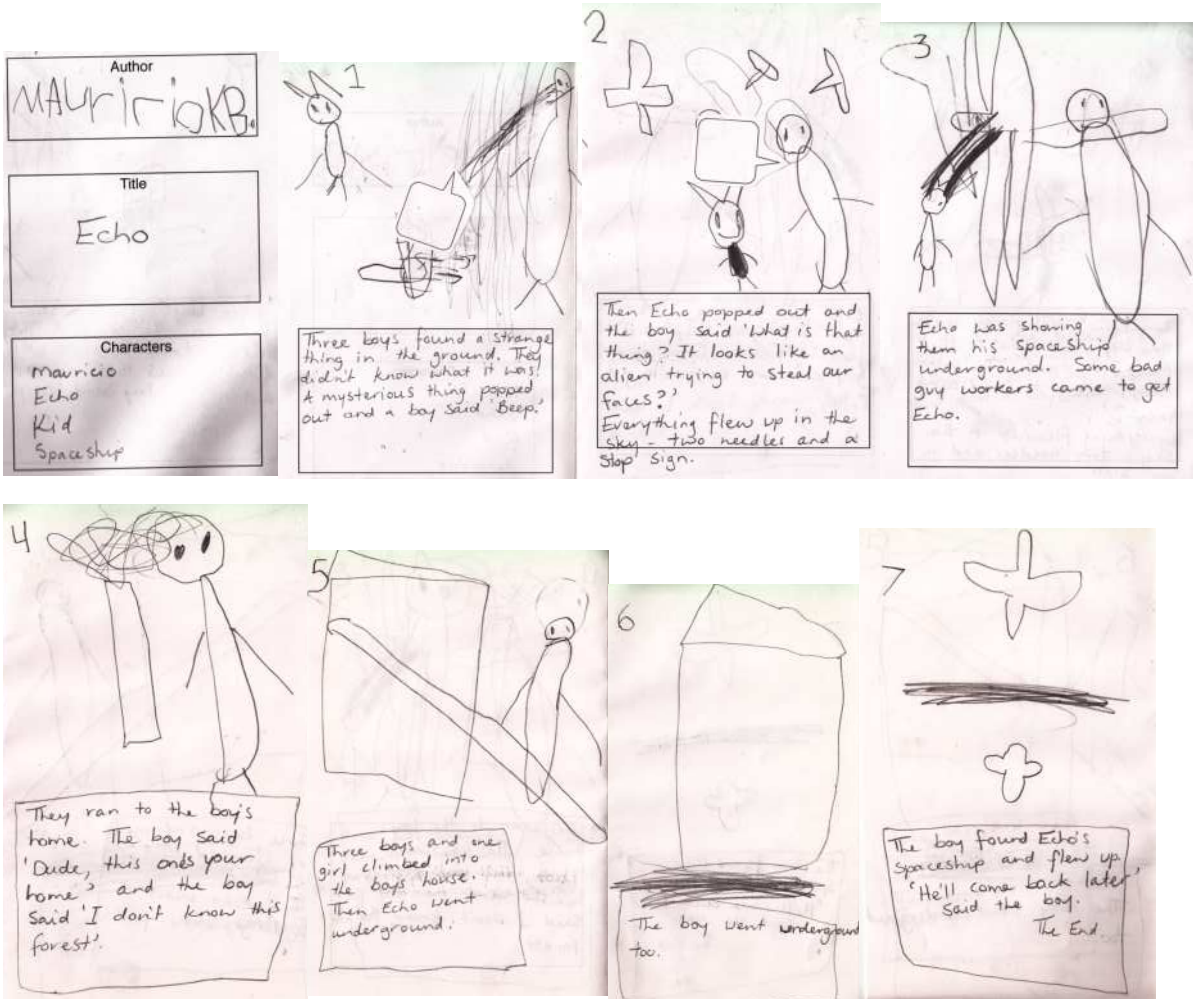
Figure 8.3.3e Mauricio's book, *The Jet Didn't Come Back*, created in Week Six





Written text: *There were nice Hero Aliens. They wanted to save the world from the Giant Termites. One Hero Alien had wings, the other aliens had lots of arms to fight the termites - so they don't give up and keep fighting back. There was a little alien. He was the powerfulest of all. He wasn't a bad guy, he was nice. The aliens are flying and using their eyes to put the termites on fire. The small alien sneezed and accidentally light the flower on fire. The other alien said, "Don't worry, I'm a water alien, nothing can go wrong'. The end.*

Figure 8.3.3f Mauricio's book, *The Termite Alien battling over the termites*, created in Week Eight



Written text: *Three boys found a strange thing in the ground. They didn't know what it was. A mysterious thing popped out and a boy said, 'Beep'. The Echo popped out and the boy said, 'What is that thing? It looks like an alien trying to steal our faces?' Everything flew up in the sky - two needles and a stop sign. Echo was showing them his spaceship underground. Some bad guy workers came to get Echo. They ran to the boy's home. The boy said, 'Dude, this one's your home' and the boy said, 'I don't know this forest'. Three boys and one girl climbed into the boy's house. Then Echo went underground. The boy went underground too. The boy found Echo's spaceship and flew up. 'He'll come back later', said the boy. The end.*

Figure 8.3.3g Mauricio's book, *Echo*, created in Week Ten



Written text: *One day there was a little bee looking for nectar. He was trying to eat all of the nectar so he could grow up. He dropped a piece of nectar and saw a motorbike. He said, 'Oh my goodness, how did that motorbike get here in the forest?' Then he went to town and told all of the people about the motorbike. The monster laughed and said, 'There's no such thing as motorbikes in the forest!' Then he told the alien, who said, 'Hmm, that's a weird mystery, let's go see this motorbike'. The bee grabbed his toy motorbike to show the alien what motorbikes look like. Then they went looking. They found it. Then a guy came and said, 'Hey, that's my motorcycle.' The bug and the alien said, 'Hey, that's your motorcycle?' 'Yer, I crashed it when my wheel went flat. Can you help me push my motorcycle into town?' 'You want us to help push it into town? Everyone is scared of us. The bee stings and my head can turn around'. So they dressed up in disguises and helped the man. The end.*

Figure 8.3.3h Mauricio's book, *The Mysterious Motorcycle in the Forest*, created in Week Twelve

Summary

Mauricio was chosen as a focal child because of his high initial oral language skills and struggles with attention. His case discussion showed that, while he frequently engaged in verbal exchange within the classroom and had a strong vocabulary, he had difficulty considering multiple perspectives, providing causal details, and adequately conveying complex character mental states (i.e. motives, thought). Perhaps due to his attention struggles, he needed considerable support to use decontextualised language to provide sufficient details for listeners to follow his complex stories. He also became easily frustrated when prompted to do so. However, his high motivation to share his stories with his peers and have them enact through narrative play enabled him to become more receptive to feedback. Across the treatment period, this resulted in Mauricio needing less scaffolding to compose coherent narratives.

Mauricio's pre-/post-study retells showed increases in narrative production and comprehension skills relative to his monolingual peers. The length of his utterances increased substantially and his word/utterance level errors decreased. His development of story grammar elements also improved, resulting in improved macrostructural scores.

Overall, the WPS treatment appeared to provide Mauricio with valued opportunities to share his animated composer's voice. He clearly enjoyed entertaining his peers through his creative and dramatic narratives. The positive feedback he received propelled his composing efforts and seemed to strengthen his literate identity.

In working with Mauricio as teacher-researcher, my role was overwhelmingly one of prompting coherence building. This occurred as I prompted Mauricio to consider his audience and slow down enough to keep track of his story details and fill in the gaps as needed. Given his high level of motivation for his writing to be used as play-scripts, I was able to take a very direct approach to insisting that Mauricio do this work. As the study progressed, he became more independent in doing this work.

8.3.4 Case 8: Elisa - The girl who liked to write true long stories

Child profile

Elisa was five years and nine months old at the start of the study. She was a monolingual English speaker, who had high oral language skills among her mixed mono-/multilingual class peers. My classroom observations had noted her as a confident child, who already seemed skills in many of the tasks she was engaged in at school. She had strong invented (phonetic) spelling skills and could already read texts above her grade level (observations supported by classroom assessments). She enjoyed interacting with peers, but was focused during work times. Elisa was chosen as a focal child due to her high initial oral language and early literacy skills.

Approach to writing

Elisa was a confident narrative composer. She was very precise and deliberate in her selection of language and had a strong sense of 'how stories go'. Compared to many of her peers, her stories had a high level of coherence. They were well organised, with clear introductions and easy to follow descriptions of characters and events. She developed both the action and consciousness landscape in her narratives, including details of character motives, feelings and relationships. She easily selected topics to write about and took her time to plan out her stories and create detailed illustrations for her books.

In the first two weeks of the study Elisa composed several simple fantasy stories about animals who got lost and found their way back to safety. In Week Three of the study she injured her ankle playing sport at school and was absent for several days. When she returned to school, her narratives began to include to detailed recounts of salient personal experiences. She wrote about injuring herself, going on a class excursion to a pumpkin farm, and helping to host a surprise birthday party for her grandma. After several weeks of writing true personal narratives she began to compose fantasy stories again. These were shorter, but showed new forms of experimentation with writing.

Elisa's choice of varied narrative styles showed an understanding of the different functions that narratives serve, from entertaining, to reminiscing, to informing. She seemed to enjoy the freedom to select which style best matched her desire to communicate, choosing to convey real experiences when she had something interesting to write about or switching to fantasy to

play with her own imaginings. Interestingly, her personal experience narratives were more elaborate than her fictional narratives, possibly due to the embodied experience invoking richer imagery and a clearer chronological order.

Collaborative dialogue

Elisa needed very little support to compose her narratives. She was a confident composer, who had a clear sense of the story she wanted to tell before dictation began. She had an obvious 'ear' for stories, using syntax and language that showed strong familiarity with written narratives. Appendix 9i shows an extended transcript of one of Elisa's fantasy stories, composed in Week Nine. Despite numerous peer interruptions Elisa seemed to effortlessly compose her story, as if walking through a vivid movie in her mind. This transcript provides examples of how I took opportunities to scaffold greater awareness of the conventions and craft of writing when working with Elisa, e.g. how punctuation can be used to show strong emotion and explicit rules for when/how to use techniques that she could transfer into her own writing in the future. For example, in lines 22-29, we discuss when/why to use exclamation points:

> Child: She said 'there's a pumpkin in the sky' [surprised/alarmed voice]!
>
> Teacher: Sure, She said, there's a pumpkin in the sky! [imitating child's intonation]
>
> Teacher: Mhm.
>
> Teacher: [turning to include rest of group] Who remembers what this thing is called [pointing to exclamation point just written in Elisa's story, discussed with group in a previous session]?
>
> Child: Um, I do [Elisa, raising her hand to explain].
>
> T Mhm, what is it?
>
> Child: It's like you gotta say it dramatically.
>
> Teacher: Uhhuh, it's called an exclamation point, when you're saying something with strong emotion or drama, uhhuh.

It also shows how I co-opted her into the role of mentor-author for her peers, having her share strategies she used in her writing and how they helped to convey her intended meaning. Lines 144-150 demonstrate this:

> Teacher: Now, when we perform your story [writing on post-it], I'm going to tell people how you used some really great words to show what your characters were thinking and feeling, and how you used exclamation points for~
>
> Teacher: Do you remember what you used them for?
>
> Child: To show mom was screaming and really scared of the pumpkin [smiling].
>
> Teacher: To show someone being scared, yeah [adding child's words to post-it to share with peers].

Teacher: Ok, great story [smiling].

Child: I've got five pages [surprised/proud voice]!

Teacher: You do!

Although Elisa's coherence was already strong, I also helped her to strengthen this at times, by asking questions aimed at having her elaborate with additional details to more fully convey a specific event, motive or action using decontextualised language (lines 4-16):

Child: I was walking to school.

Child: I saw a pumpkin.

Child: A friendly pumpkin.

Teacher: [transcribing first two sentences as dictated without verbally repeating, then verbally repeating sentence just dictated] A friendly pumpkin.

Teacher: Mhm.

Child: I wanted to catch it.

Teacher: Mhm [scribing].

Child: But I couldn't reach that far!

Teacher: But I couldn't reach that far.

Teacher: Should we tell people where the pumpkin was, why you couldn't reach it?

Child: Yeah, it was *way* up in the sky [voice stretching out 'way' to emphasise height].

Teacher: Alright, It was way up in the sky [imitating child's intonation/stress].

Teacher: Ok, so, 'I couldn't reach that far, it was way up in the sky' [rereading and imitating child's intonation].

This language interaction occurred naturally, as I reflected understanding of her story and sought to learn more about her narrative thinking. Elisa responded enthusiastically, adding extra details with seeming ease.

Motivation and literate identity

Despite having the skills to write her own stories, Elisa seemed to enjoy having her stories transcribed. Not having to engage in the mechanics of handwriting and the conventions of spelling freed her to focus solely on composing. This enabled her to compose long stories, which she clearly enjoyed, e.g. when she exclaimed (Appendix 9i, line 149) 'I've got five pages! using a surprised/proud voice. She narrated each word in her stories carefully and often smiled after completing a sentence, almost as if delighting in the unveiling of a personal masterpiece. She enjoyed the immediate feedback she received through dictation, as she saw the effect of her composing on me as her listener and scribe. Her eyes would light up when a specific sentence had it's desired effect and she would laugh at my response.

Elisa took a great deal of pride in her book-making. As explained above, she was deliberate in both her illustrations and composing. She enjoyed having her stories performed by peers, sometimes choosing to play a role herself, but not always. In a manner consistent with her methodical book-making, she would stand before the class and carefully choose who should play each role, seeming to weigh up the relative capabilities of her peer actors and their suitability for each of her roles. She chose a variety of male and female peers, and was happy to include children suggested by teachers from those awaiting a turn.

Elisa also enjoyed sharing her competence as a composer, especially being invited to share specific techniques with the class. In these moments she would proudly, yet with humility, tell her peers what she had done in her writing and how it helped to show what she was trying to communicate, e.g. 'I wanted to tell how scared my mom was, so I showed how she screamed a little bit, "argh!"' She was an attentive listener as other mentor-authors shared their strategies, and enjoyed giving peers feedback on their stories. She easily identified elements of stories she liked, e.g. 'I liked how you said that the dog 'yelped', I could really imagine how scared it was'. She also enjoyed making suggested improvements, e.g. 'maybe you need to tell what happened after you left, so we know how it ends'. It was in the giving of feedback that Elisa's growing confidence as a writer seemed most apparent. This was the aspect of using the children's stories as play-scripts that really seemed to provide unique opportunities for her to distinguish herself as a 'writer' - as a literate individual capable of critiquing and celebrating others' work.

Narrative development

As mentioned above, Elisa had high oral language skills at the outset of the study. Appendix 11o shows the transcript of her pre-study retell. She uses a range of connectives that help to create a cohesive story, e.g. temporal connectives such as 'the next morning', 'suddenly', 'finally', 'while' and 'again'. She uses precise nouns, verbs and adjectives, e.g. 'antlers', 'smashed', 'carried', 'splashed' and 'familiar'. She also shows some attention to the consciousness landscape, by referring to character goals and thinking, e.g. 'looked' (i.e. searched for), 'decided', 'wanted' and 'went out to check'.

Appendix 11p shows the transcript of Elisa's post-study retell. While this retell contained fewer utterances, these were longer in length, and contained more unique words and less maze words (see Table 8.3.4a). Elisa's macrostructural scores showed mixed results. She scored a

one point increase in for 'Introduction' and 'Mental States', but a one point decrease for all other components. Her score for 'Referencing' was impacted by her inability to use precise or correct nouns in parts of her retell, e.g. 'waitress' instead of 'waiter' and 'him' instead of 'me' (when producing dialogue for the boy). She developed the problem in the story but then skipped over details of the resolution, reducing her score for 'Conflict/Resolution'. Her 'Conclusion' of the story also lacked detail: 'then they were so happy what had happened'. Overall, this story was retold more like a series of events being listed off, rather than a cohesive narrative. As others have found, narrative retells are not always the best indicator of children's narrative production skills. For some children generating their own story topics and events can generate greater interest and, thereby, more elaboration and cohesion (McCabe & Rosenthal Rollins 1994; Peterson, Laing Gillam & Gillam 2008). Given the discrepancy between her pre-/post-study results and the skills she demonstrated in her classroom composing, this seemed true for Elisa.

Table 8.3.4a Elisa's narrative retell scores

	Variable	Pre-test *Raw score*	Post-test *Raw score*	*Difference*
Microstructural	*MLU (words)*	7.54	8.77	1.23
	TTR	0.34	0.41	0.06
	Errors	2	2	0
	WPM	70.73	70.19	-0.54
	Maze %	6	5	-1
	Total Utter.	47	28	19
Macrostructural	Introduction	2	3	1
	Character Development	2	2	0
	Mental States	1	2	1
	Referencing	3	2	-1
	Conflict/Resolution	3	2	-1
	Cohesion	3	2	-1
	Conclusion	3	2	-1
	TOTAL	17	15	-2

MLU (words)=mean length of utterance in C-units, TTR=type token ratio, Errors=errors at the word or utterance level, WPM=words per minute, Maze=percentage of utterances containing maze words, TotalUtter.=total utterances used in retell.

When compared to same-age peers in the SALT database (n=73, pre-study; n=72, post-study; see Appendix 10m) Elisa's microstructural scores showed improvements in MLU, increasing from 0.75 to 2.16SD; and her TRR increased from -0.81 to +0.55SD. Her omitted words decreased further below the mean, and all other omissions and errors remained fairly stable and below the mean. This cohort comparison provides further evidence that Elisa's language became more complex and elaborate over the study, and was sophisticated for her age.

Elisa's results show the importance of considering a range of microstructural and macrostructural indicators when assessing young children's narratives. At the macrostructural

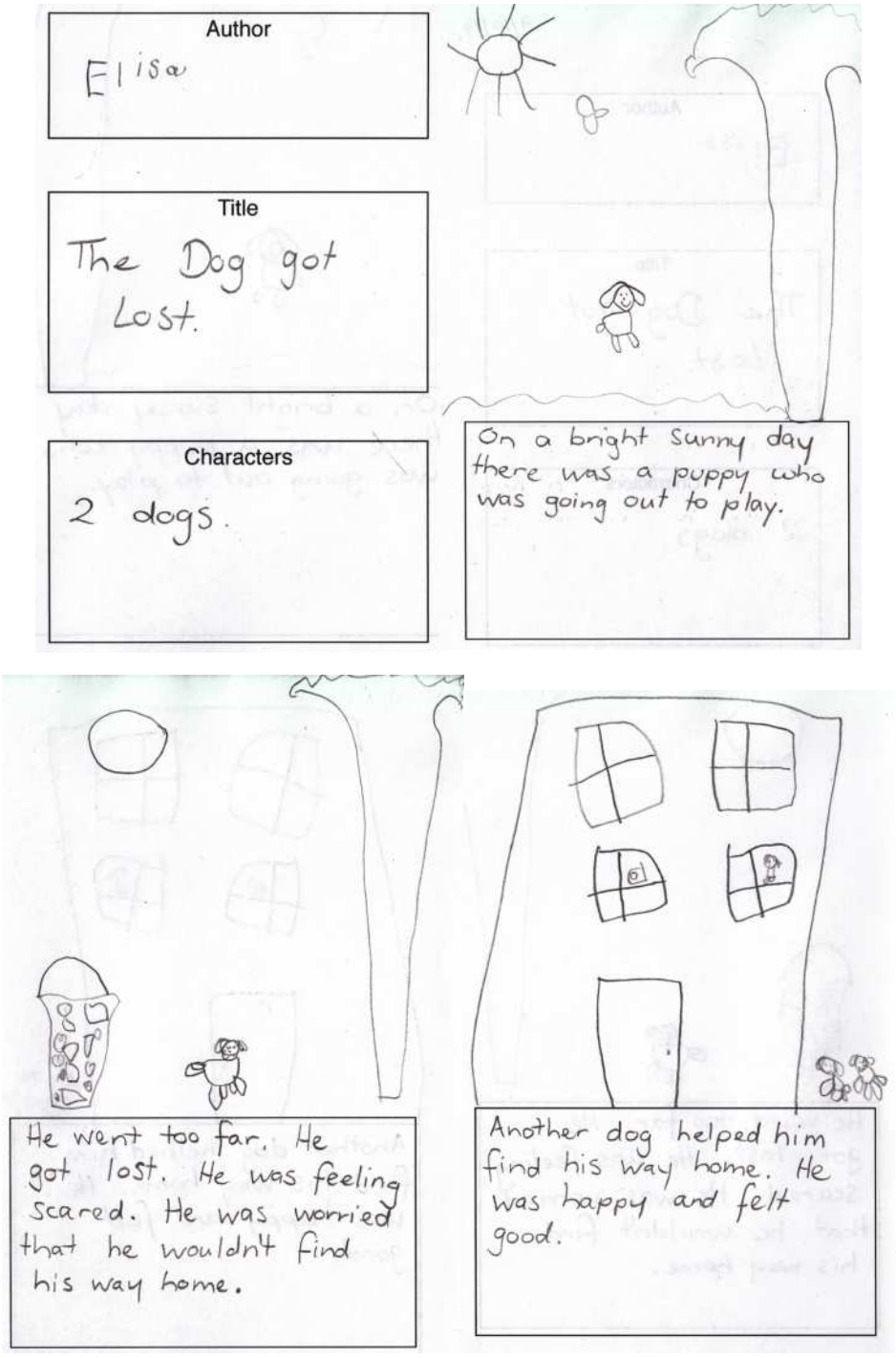
level, using only her total NSS score, Elisa's performance would appear to have declined. However, the story grammar element most crucial to development of the consciousness landscape (and essential to true narratives) - 'Mental States' - increased, as did the proportion of her utterances aimed at development of the consciousness landscape versus the action landscape. As stated earlier, Elisa became highly invested in telling her own stories and the discrepancy between her retells and classroom composing (at the macrostructural level) serves as an example of the need for teachers to consider multiple sources of information when evaluating the relative strengths and weaknesses in children's narrative composing skill development.

Elisa's narrative comprehension scores (Table 8.3.4b) show that she maintained strong literal comprehension across the study and that her inferential comprehension increased. Her strong inferential comprehension scores indicate that Elisa's 'theory of mind' was more developed than many of her peers, who struggled to correctly infer character's false beliefs by considering contradictory physical evidence (i.e. what the character *thought* would happen as opposed to what *actually* happened). Her development of the consciousness landscape within her own narratives - and across narrative types (see Figures 8.3.4a to 8.3.4i) - also suggests a strong theory of mind. Right from her first story, she gave unprompted details on character thinking and emotions. She also demonstrated the ability to narrate in either first- or third-person perspective. Her results suggest that the WPS process was able to accommodate her more advance narrative skills and build upon these to strengthen her narrative comprehension.

Table 8.3.4b Elisa's narrative comprehension scores

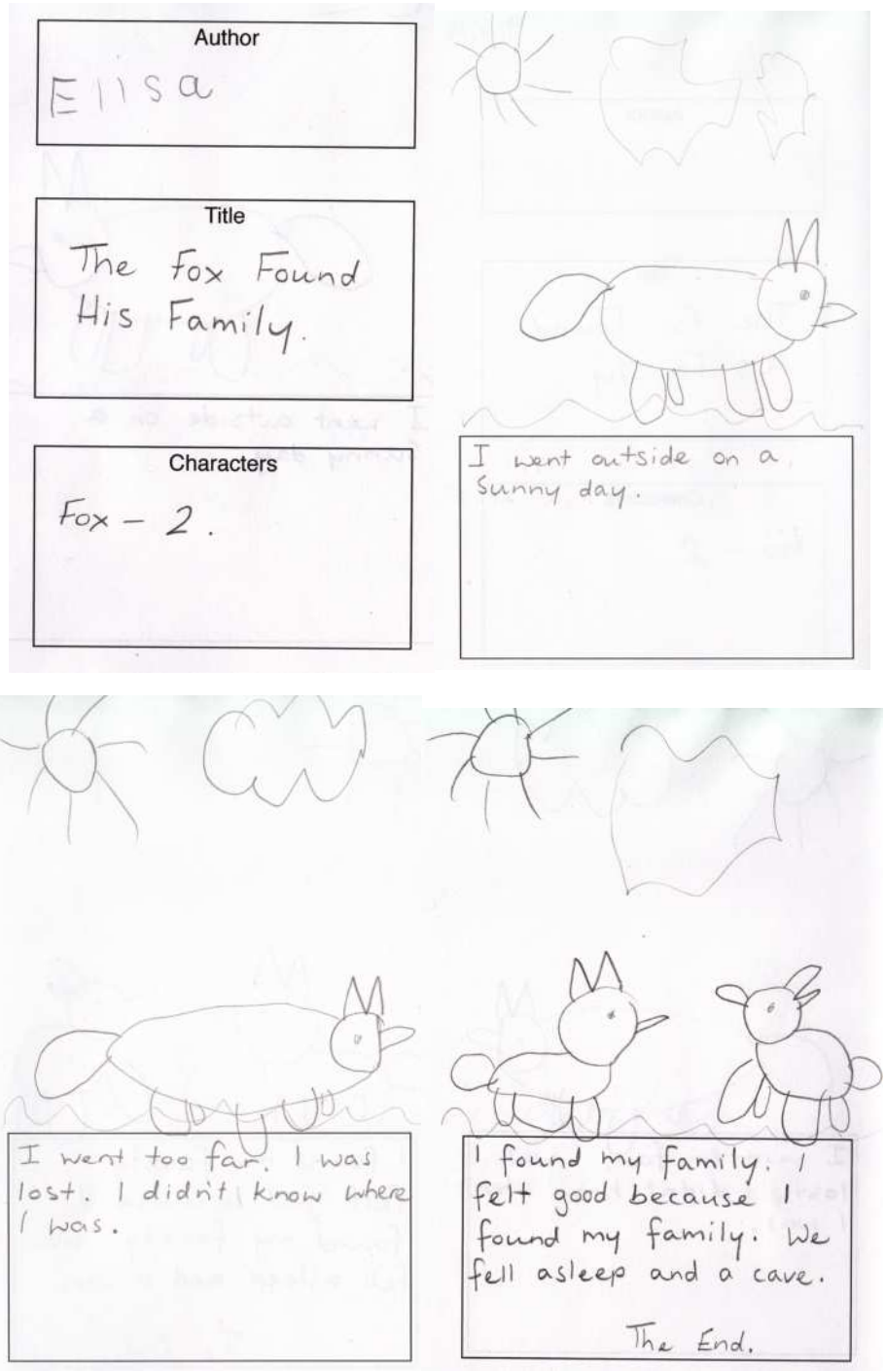
		Pre-test	Post-test	
	Variable	*Raw score*	*Raw score*	*Difference*
Narrative landscapes	Action	37	22	-15
	Consciousness	5	8	3
	Consciousness to Action Ratio	0.12	0.27	0.15
Direct comprehension questioning	Literal	4	4	0
	Inferential	2	4	2
	Total	6	8	2

Book artefacts



Written text: *On a bright sunny day there was a puppy who was going out to play. He went too far. He got lost. He was feeling scared. He was worried that he wouldn't find his way home. Another dog helped him find his way home. He was happy and felt good.*

Figure 8.3.4a Elisa's book, *The dog got lost*, created in Week One



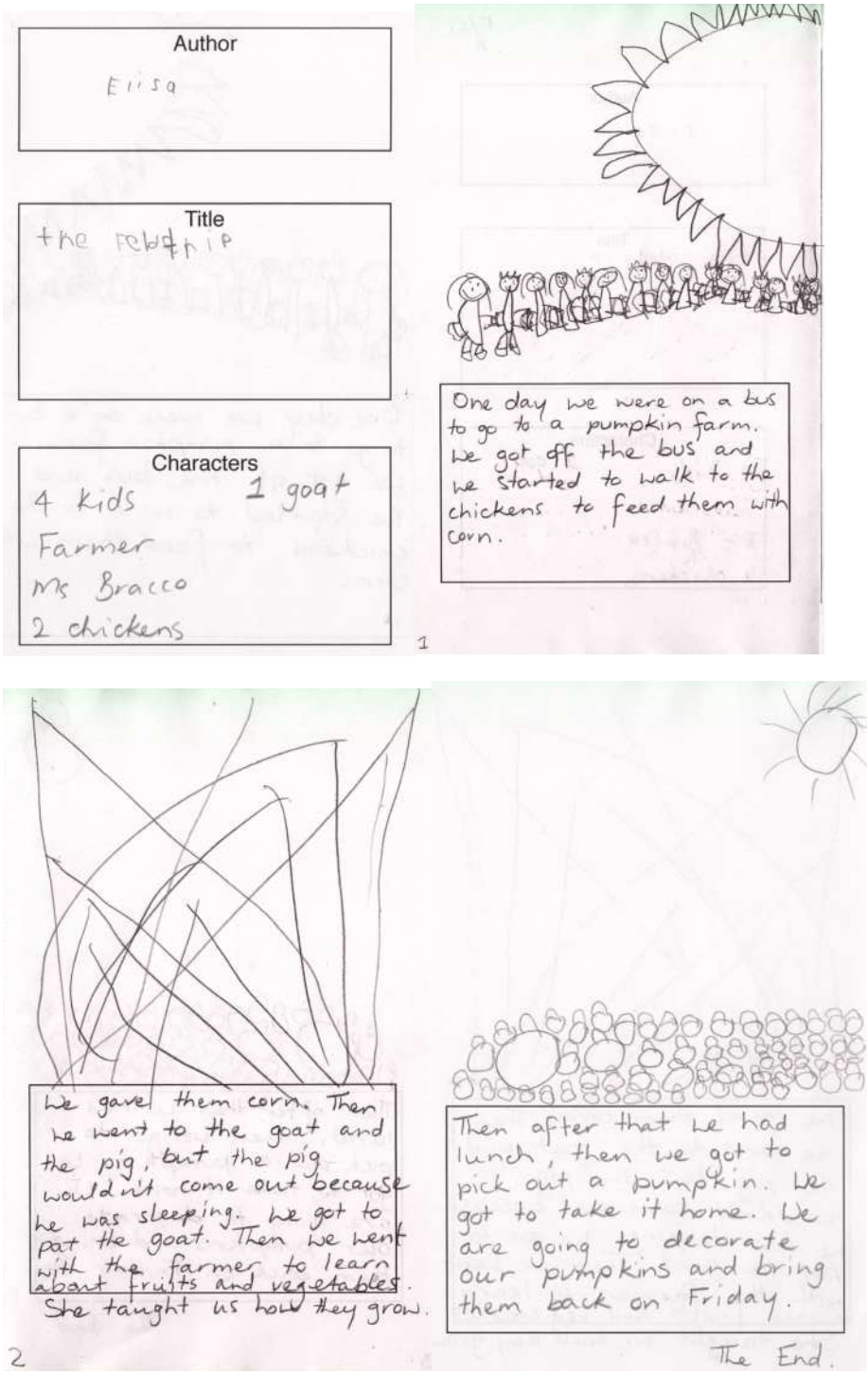
Written text: *I went outside on a sunny day. I went too far. I was lost. I didn't know where I was. I found my family. I felt good because I found my family. We fell asleep in a cave. The end.*

Figure 8.3.4b Elisa's story, *The fox found his family*, created in Week Two



Written text: *One day I was playing in the gym. Me and Alexis were running very fast. We slipped and fell down. My ankle hurt a lot! It got really puffy. So my mom took me to the hospital. We had to wait in the waiting room for a little while. The doctor called us. We went into another room. I went to class I drew a picture with my friends. My ankle was still hurting. I had to wear a bandage and my mom's sock. I had to walk on both feet. I had trouble walking. The end.*

Figure 8.3.4c Elisa's book, *My foot got hurt,* created in Week Four



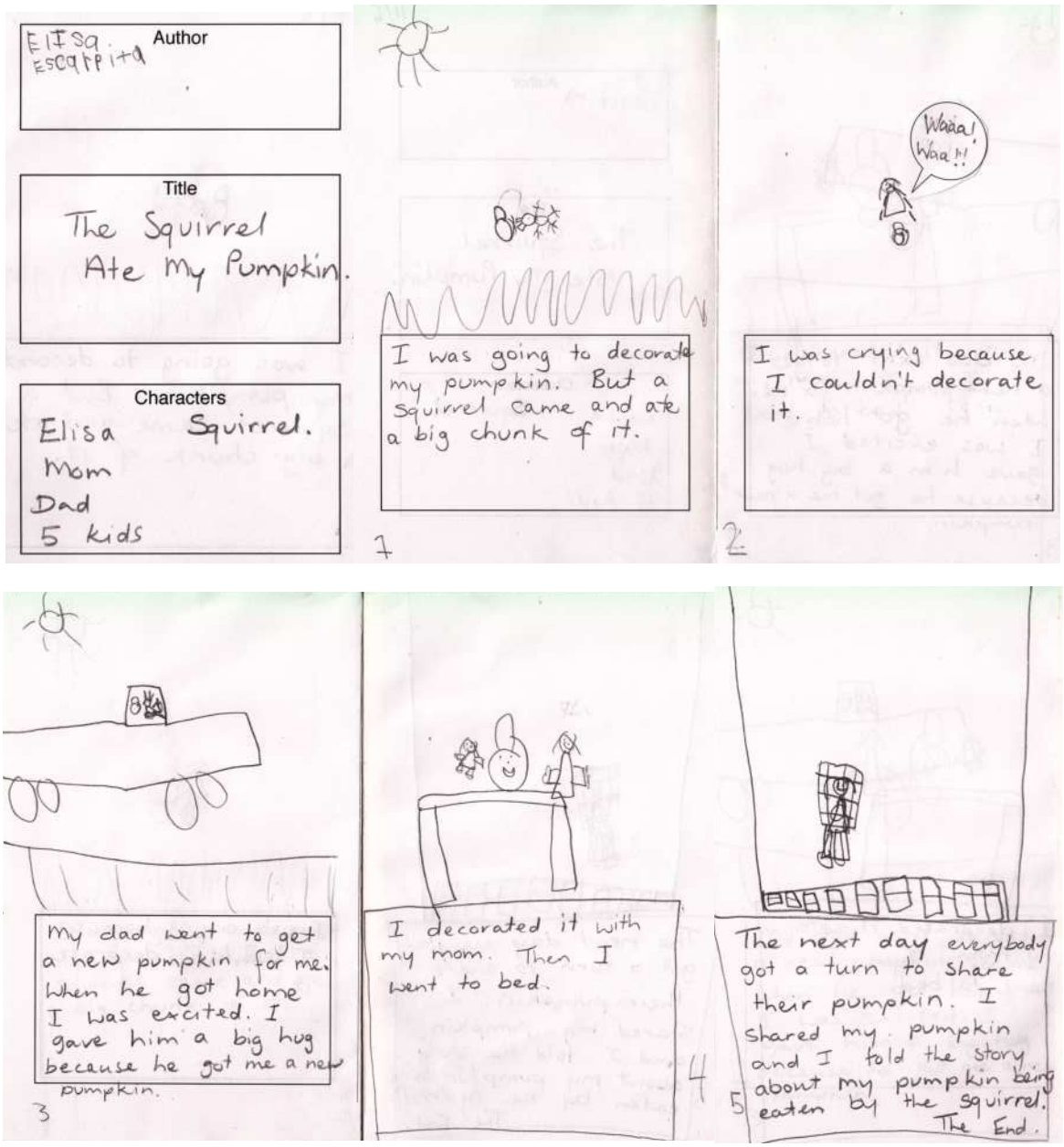
Written text: *One day we went on a bus to go to a pumpkin farm. We got off the bus and we started to walk to the chickens to feed them with corn. We gave them corn. Then we went to the goat and the pig, but the pig wouldn't come out because he was sleeping. We got to pat the goat. Then we went with the farmer to learn about fruits and vegetables. She taught us how they grow. Then after that we had lunch, then we got to pick out a pumpkin. We got to take it home. We are going to decorate our pumpkins and bring them back on Friday. The end.*

Figure 8.3.4d Elisa's book, *The field trip*, created in Week Six



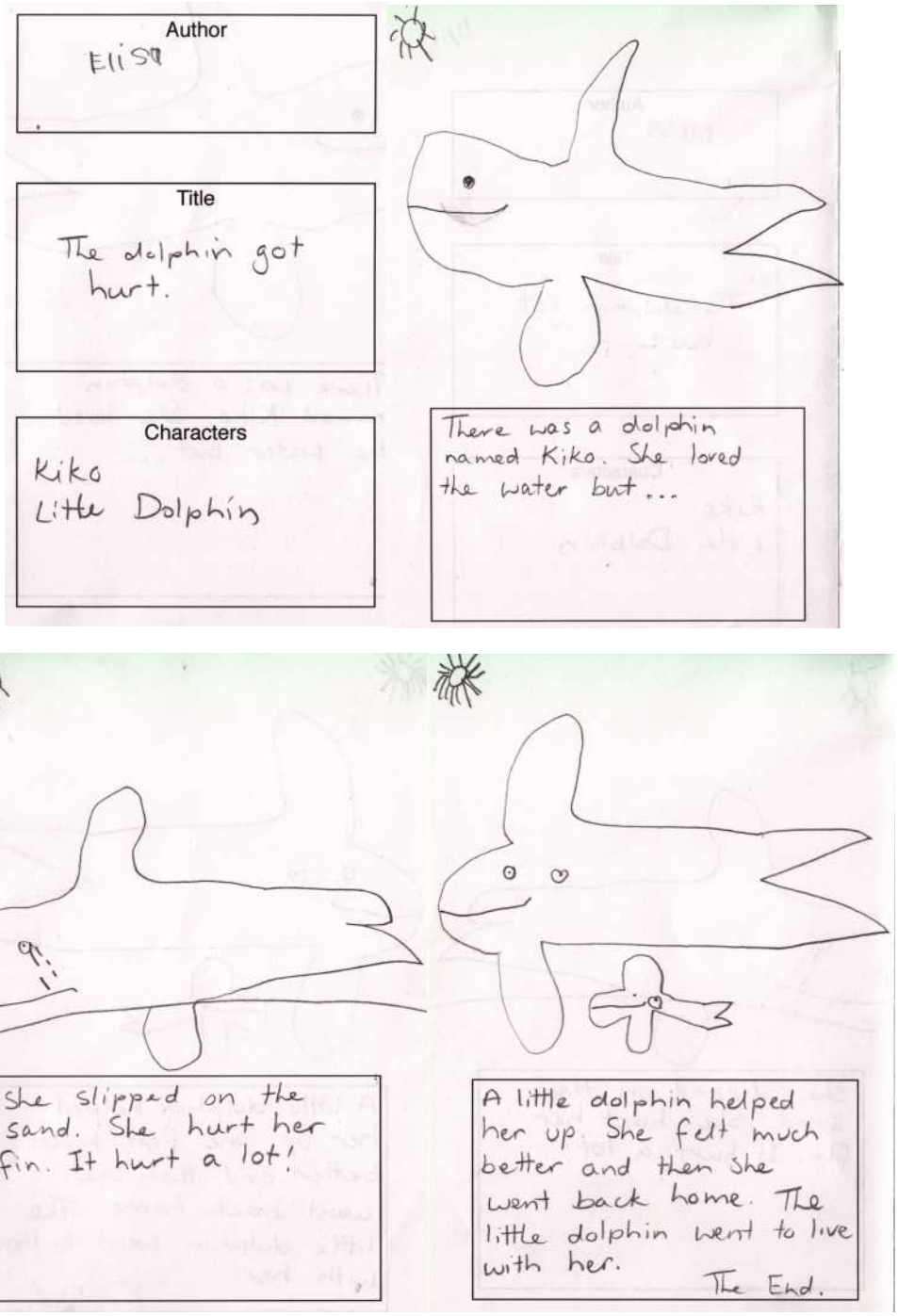
Written text: *One day I went to the beach with my Grandma and my cousin. We saw a crab. We tried to pick it up. It stinged Grandma. My cousin picked up the crab. I tried to warn her that the crab would sting her, but she didn't listen. So she just picked up the crab, but it didn't sting her. Grandma screamed, 'Aargh!' She thought it would sting my cousin. So we went back home for Grandma's surprise. She didn't know why we were going home. So Grandma said, 'Why do we have to go home?' 'Because we have to meet daddy', said my cousin. So we got in the house. But Grandma was still outside waiting. We all went to hide because we had to hide from Grandma because it was her birthday. Grandma walked in the door, we said, 'SURPRISE!' We were all happy. Then we gave her her presents. She was happy, even though she didn't have friends over. She still felt happy. And all of us felt happy. The end.*

Figure 8.3.4f Elisa's book, *Grandma's birthday*, created in Week Eight



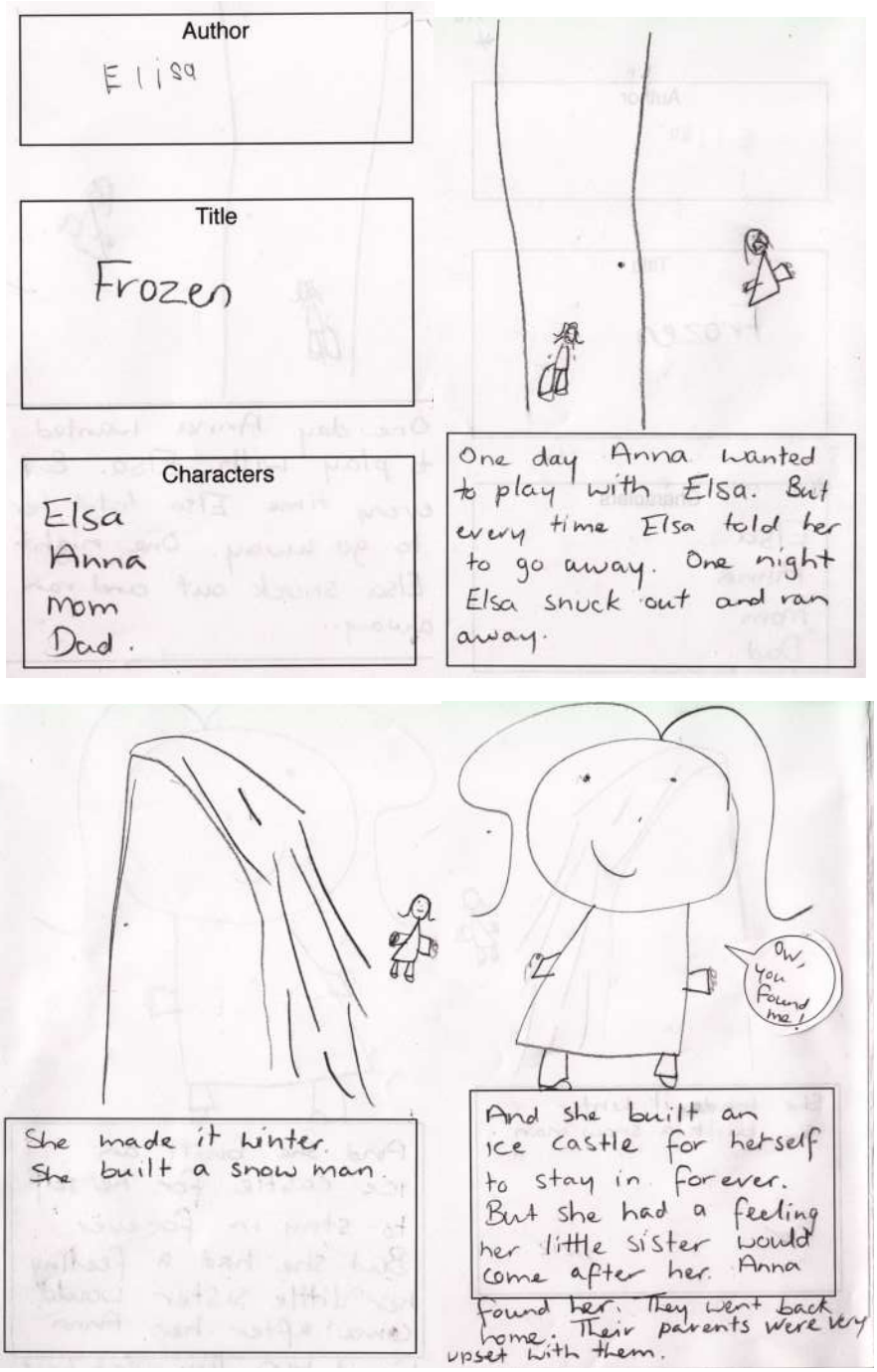
Written text: *I was going to decorate my pumpkin. But a squirrel came and ate a big chunk of it. I was crying because I couldn't decorate it. My dad went to get a new pumpkin for me. When he got home I was excited. I gave him a big hug because he got me a new pumpkin. I decorated it with my mom. Then I went to bed. The next day everybody got a turn to share their pumpkin. I shared my pumpkin and I told the story about my pumpkin being eaten by the squirrel. The end.*

Figure 8.3.4g Elisa's book, *The squirrel ate my pumpkin*, created in Week Ten



Written text: *There was a dolphin named Kiko. She loved the water but...she slipped on the sand. She hurt her fin. It hurt a lot! A little dolphin helped her up. She felt much better and then she went back home. The little dolphin went to live with her. The end.*

Figure 8.3.4h Elisa's book,*The dolphin got hurt*, created in Week Eleven



Written text: *One day Anna wanted to play with Elsa. But every time Elsa told her to 'go away'. One night Elsa snuck out and ran away. She made it winter. She built a snowman. And she built an ice castle for herself to stay in forever. But she had a feeling her little sister would come after her. Anna found her. They went back home. Their parents were very upset with them.*

Figure 8.3.4i Elisa's book, *Frozen*, created in Week Twelve

Summary

Elisa was chosen as a focal child because of her high initial oral language and early literacy skills. Her case study discussion highlighted her already strong oral narrative composing skills. Her pre-study retell and early written narratives were logically organised and rich in detail. Across the study she demonstrated an ability to compose various genres, including realistic fiction, personal recounts and fantasy. She used the WPS process to experiment with these different text types and was scaffolded to extend her understanding of explicit elements of writer's craft (e.g. punctuation to strengthen communication of character emotion).

Elisa's pre-/post-study retells showed increases in both narrative production and comprehension skills across the study. Her utterance length and vocabulary increased, indicating increased language quality at the microstructural level. Her macrostructural scores (in particular, the NSS component of 'Mental States') showed increased development of the consciousness landscape. She maintained her strong literal comprehension and increased her inferential comprehension scores. These results, coupled with her own narrative compositions, suggest that the WPS treatment was effective in strengthening her higher order narrative production and comprehension skills.

Overall, the WPS process provided opportunities for Elisa to experience success in extended text composition. Even with her relatively strong transcription skills (relative to peers, most of whom were not yet capable of phonetic spelling, as Elisa was), enabling her to focus solely on composing likely afforded her insights into her skills as a composer which she would otherwise not have had. These experiences were clearly motivating for her, evidenced overtly through verbal comments and implicitly through body language (smiling, laughing) when composing and having her books used as play-scripts.

In working with Elisa as teacher-researcher, my role was one of helpful scribe, prompter of enhancing elaboration, attentive audience, and explicit mechanics/craft tutor. I also made use of Elisa's advanced composing skills and readiness for more explicit teaching to begin exposing other children to increased metacognitive awareness of the writing process.

8.4 Case collection summary

The above case collection presented an in-depth look at how individual preschool and school age children responded to the WPS intervention. It was shown that book-making provided new experiences in early writing. For the preschool children, the intervention offered their first experiences in written text composition within their preschool setting (confirmed by classroom teachers). For the school children, the intervention enabled them to engage in more complex extended text-level written composition work. These experiences were shown to have a unique yet positive impact on each child's literate identity development. Similarly, the use of children's writing as play-scripts was shown to be motivating for each focal child, with all using writing to explore and experience social power and belonging.

The case collection demonstrated the ways in which children used their unique repertoire of multimodal skills and preferences to engage in written narrative composition. Those with lower levels of oral language proficiency employed numerous non-linguistic modes to share their narrative thinking. Some relied heavily on gesture and bodily enactment (Daniel), others on drawing and gesture (Jesse), and others on drawing and prosody (Diego). Others experienced difficulty entering into shared semiosis using any mode, yet were motivated by the use of their writing as play-scripts to tackle the challenge of written composing (Summer). Children with higher levels of oral language proficiency (Caminda, Mauricio and Elisa) were shown to engage in multimodal semiosis also, but relied more heavily on their linguistic skills.

Regardless of oral language proficiency or multimodal preference, the case collection demonstrated that all focal children benefitted from collaborative dialogue to receive differentiated cognitive-linguistic supports for written composing; and that narrative play created a motivating purpose for writing which facilitated further multimodal and collaborative exploration of narrative meaning. My role as teacher(-researcher) was shown to require close attention to each child's communicative *intent* to scaffold increasingly sophisticated literate (i.e. written) language use. This required a patient and genuine concern for each child's engagement and literate goals to establish the necessary 'conditions of literacy learning'. The collection illustrated the complex sociocultural processes at play within the intervention, and help to explain how and why the quantitative results presented in Chapters 6 and 7 were obtained. These will be discussed further in the next chapter.

PART 4: DISCUSSION

Chapter 9. Early writing as play-scripts: insights from/for the classroom

The current chapter discusses the study's quantitative and qualitative data, to investigate how and why using children's early writing as play-scripts was found to support a range of early literacy outcomes in the current study.

The discussion begins by exploring how the WPS intervention unfolded within each age cohort (preschool and then school), with the following topics explored:

(a) connections to children's broader literacy experience within each focal site (i.e. early childhood or school curriculum and pedagogy);
(b) effects on children's narrative development;
(c) the nature and role of collaborative dialogue;
(d) effects on children's motivation to write; and, lastly,
(e) effects on children's literate identity development.

Commonalities and differences in the intervention's effects on diverse learners across both age cohorts are then explored by: language learner type (monolingual or multilingual), initial oral language proficiency (low/high), and gender. Next, the use of technology as an assessment and identity-building tool, and to strengthen partnerships with families in support of children's early literacy learning, is discussed. The chapter concludes with a review of the challenges and limitations of the study relevant to interpreting and extrapolating its findings.

The above topics address the study's main research questions and hypotheses: (1) Did the WPS treatment lead to significant improvements in children's narrative production and comprehension skills; (2) Was collaborative dialogue the mechanism through which learning occurred, with evidence of a transfer of responsibility from teacher to children?; and (3) Did the treatment lead to increases in children's motivation to write and literate identity development?

9.1 In the preschool setting

9.1.1 Links with preschool curriculum and pedagogy

Children's learning within the preschool study site occurred primarily through physical exploration, play, and social interaction with peers. The site promoted itself as being guided by a Reggio Emilia philosophy of child learning through inquiry and close relationships between children, educators and families (Edwards, Gandini & Forman 2012). The children spent the majority of their day engaged in self-directed activity within the range of materials on offer within their classroom. Children were encouraged to participate in a wide variety of activities, but were mostly free to choose what appealed most to them. The children participated in several whole group 'circle' times (lasting approximately 15-20 minutes), which included activities such as singing, role playing and book reading.

The role that classroom teachers played in the children's learning was primarily one of setting up the physical environment and facilitating child to child interactions. Being a Reggio-inspired site, careful attention was placed on the classroom serving as a 'third teacher', with open-ended activities and materials fostering child agency and creativity. Teachers worked hard to ensure the classroom was prepared with supplies and spaces for children to use in their play, but rarely engaged directly in play with children as 'co-players' (Baumer, Ferholt & Lecusay 2005). Their verbal interactions were primarily managerial and focused on supporting communication between children.

Support for early literacy learning was offered through environmental print, book reading, and the availability of reading and writing materials within the classroom. Children listened to books read aloud several times each week, but engaged in very few writing activities. They were exposed to handwriting and basic phonics through being asked to write their name on paintings and other artefacts. Occasionally children would volunteer, or be invited, to construct oral narratives to share personal experiences, e.g. in response to a book or photograph. Some, but not all, children also spontaneously created fictional narratives within their sociodramatic play. The children were not observed to be involved in any written text-level composition activities.

It was hypothesised that the WPS intervention would present opportunities for the preschool children to engage more intentionally in literacy learning, especially written text composition. These opportunities were predicted to increase children's narrative composing and

comprehension skills, as they engaged in repeated text composition and interpretation activities. It was predicted that the preschool children would enjoy the physical process and product of book-making, and be motivated to compose by seeing their stories brought to life within sociodramatic play. Due to these factors it was also predicted that the intervention would have a positive effect on the preschool children's development of literate identity.

9.1.2 Effects on narrative development

The quantitative results presented in Chapter 6 indicated that the WPS intervention was effective in supporting the preschool cohort's narrative production and comprehension skills. Each of these are discussed below. Firstly, narrative production skills are discussed (at the microstructural and then macrostructural level); and secondly, effects on literal and inferential narrative comprehension are discussed.

The preschool cohort's narrative production scores (Section 6.1.2) improved at the microstructural level, showing an increase in language complexity (MLU). Due to reduced numbers when participants were grouped by age, the *p* value on the MLU increase was reduced to just below alpha (p=.06). A repeated measures analysis confirmed that the interaction between age and MLU was not significant. Therefore, the observed increase in MLU indicated that the intervention was effective in supporting preschool children's language use to become more syntactically complex and elaborated. This occured through an increase in elaborated noun phrases and subordinate clauses. Given the known correlation between MLU and written language proficiency (Berninger & Abbott 2010), this result suggests the intervention was successful in helping children to progress along the oral to written language continuum.

At the macrostructural level, the preschool cohort's narrative retell scores showed an increase in five out of the seven NSS components investigated: *Introduction, Character Development, Mental States, Conflict Resolution* and *Cohesion*. A significant increase in total NSS score was obtained (p=<0.01), indicating that the WPS intervention was effective in supporting children's development of the text level features needed to successfully represent characters' subjective experience through narrative.

Additional evidence of improvement in narrative production skill was found in the results of the discourse analysis presented in Chapter 7. This showed that the frequency and complexity

(MLU) of preschool child-talk within small group writing sessions increased across the study. That is, children did more talking and their language was more elaborated. It was also found that the frequency and percentage of teacher-talk related to prompting elaboration and coherence during story composition episodes decreased. This provided two sources of evidence that a transfer of responsibility for composing from teacher to child occurred.

These results suggest that, as hypothesised using a sociocultural view of learning, collaborative dialogue within small group writing sessions was the mechanism through children's narrative production skills increased across the intervention. The preschool case studies presented in Chapter 8 (Section 8.2) provided individual accounts of how these language interactions unfolded (to be discussed discussed in detail in the next section). They are representative of the ways in which the preschool children used multimodal semiosis to engage in composing; and how I, as teacher-researcher, sought to encourage their multimodal meaning making to expand their *linguistic* competency related to narrative production.

In relation to the preschool cohort's narrative comprehension skills, the results (Section 6.2.2) showed a significant increase for literal comprehension on direct questioning; and literal and inferential comprehension using landscape retell codings. The increase in consciousness landscape codings demonstrated an increase in children's use of explicit mental state words (e.g. 'they were so *mad* at him') and implicit prosodic mental state references (e.g. 'then the frog jumped out of her salad!' [alarmed voice, communicating understanding of woman's distress without explicit linguistic reference to character's mental state]).

While scores for inferential comprehension on direct questioning did increase, they did not reach the alpha level. This discrepancy in results in inferential understanding, as measured through the retell coding procedure and direct questioning, could be due to the use of false-belief questions to assess children's inferential understanding via direct questioning. These tasks have been shown to be particularly difficult for preschool age children, whose theory of mind is still relatively underdeveloped (Atkinson et al. 2017; Curenton 2011). Preschool age children experience difficulty inhibiting dominant responses, e.g. what the child knows actually happened versus what a character thought happened (Snedeker 2008). Therefore, inferential questions based on less complex implied mental states, i.e. those not requiring children to reconcile contradictory action/consciousness details, may have generated more congruent results. Conversely, it is also likely that prosodic references to mental states are a

particularly sensitive indicator of inferential comprehension, which has been found in other studies (Hellbernd & Sammler 2016).

Overall, the results of the study provide a strong level of evidence that using children's early writing as play-scripts is an effective play-based approach capable of supporting complex text-level narrative composition and comprehension skills in preschool age children.

9.1.3 The role of collaborative dialogue

The study sought to explore the role of collaborative dialogue in facilitating learning within the intervention. Discourse analysis techniques (see Chapter 7) were used to investigate the dialogue that occurred within the small group writing sessions. Time sampling across the study showed an increase in the ratio of child-talk to teacher-talk, indicating that children needed less teacher input to successfully compose their narratives. This also provided broad evidence suggesting that the hypothesised transfer of responsibility from teacher to child had occurred.

When the different types of teacher scaffolding were analysed, it was found that elaboration and coherence prompts decreased. These scaffolds were most closely linked to supporting children's composing, thereby providing more specific evidence of a transfer of responsibility. These shifts in the amount and type of linguistic scaffolding support the hypothesis that collaborative dialogue was the process through which increases in children's narrative competency were obtained. That is, as children's skills increased, scaffolds were reduced, as expected within a sociocultural view of learning. The case studies showed how this occurred spontaneously, with adjustments made within each composing episode based on teacher knowledge and direct observation of each child's communicative intent, composing skills, and motivation. These results reflect findings in other studies which have demonstrated the benefits of collaborative dialogue in supporting children's language learning (Halliday 2004b; Maine & Hofmann 2016; Rojas-Drummond et al. 2013; Webb 2009).

The case studies presented in Chapter 8 depicted four preschool children selected due to their diverse stages of oral language and narrative development. For example, Caminda (Case #1) had a strong concept of story and advanced vocabulary, and was skilled in both Spanish and English. In contrast, Daniel (Case #2) had a very early emergent sense of story and low oral language proficiency in his home language of Spanish and his preschool language of English.

Despite their varied entry points, each child showed evidence of narrative and literate identity development in response to the WPS intervention.

The case studies demonstrated the role of multimodal collaborative dialogue in each focal child's involvement, but especially those less proficient in oral language (monolingual or bilingual). These children (Daniel, Summer and Jesse) relied more heavily on enactive, gestural, prosodic and pictorial meaning making to establish intersubjectivity. They also benefited from my close attention to their multimodal semiosis across the entire book-making process, i.e. not just within story composition. This enabled me to provide linguistic scaffolds that were less obtrusive. For example, in supporting Daniel, by attending to his story enactment and other nonverbal modes as he was creating his non-representative drawings, I was able to build a partial understanding of his intended narrative before we attempted to compose his written text. This interaction provided him with language he was able to use in verbal composing and enabled me to remind him of ideas he had generated earlier. These interactions made his written composing more successful.

The dialogue that occurred within book-making supported children's written narrative development in a number of important ways. Firstly, as children illustrated their narratives across multiple pages, they engaged in talk about their narratives which enabled them to practice the planning skills needed to connect narrative events temporally and causally. This talk served as a form of oral rehearsal for their written narrative. Secondly, as they shared their ideas for characters and events, children often received spontaneous feedback from peers regarding inconsistencies in story details or failures to provide adequate causal explanations (e.g. 'but you didn't say how they got out of the rain!'). This strengthened the coherence of children's narratives and helped them to build their consideration of text audience. Thirdly, the dialogue that occurred between child and teacher was able to accommodate variation in children's semiotic skills and preferences. This composing dialogue also served as a vicarious scaffold for other children, who would 'listen in' as peers practiced their composing. This provided additional composing models.

The various processes by which language develops through sociocultural interaction have been well documented, and include: joint attention, emotional attunement, concern for the child's communicative intent, and positive elaboration supports. Much of this existing research has focused on child-parent interactions (Aarts, Demir & Vallen 2011; Hart & Risley

1992; Melzi, Schick & Kennedy 2011), or peer collaboration and how it can be enhanced (Stude 2014; Webb 2009). The current study provides new evidence of the role that responsive child-teacher interactions can play in supporting children's narrative development, in particular the literate language characteristic of written expression.

The discourse analysis techniques (see Chapter 7) helped to make visible and measurable the specific cognitive-linguistic scaffolds used to extend children's narrative functioning within the WPS treatment. These were found to include dialogue aimed at supporting children to: generate ideas for their narratives; discuss their illustrations to assist with thinking through and planning their story structure; compose their written narrative (including joint construction when necessary); and reflect on their growing competencies to promote literate identity development. These categories suggest a framework which educators can use to support children's composing and analyse their own interactions. The categories can also be used to set learning goals and monitor children's progress toward independence.

As discussed in the literature review (Chapter 2 and 3), play and narrative are intertwined, and the multimodal and social interaction supported through sociodramatic play uniquely lends itself to supporting young children's early literacy development. As Vygotsky argued, multimodal and social play provides a context for young children to move beyond contextualised 'here and now' experience to traverse more advanced (i.e. decontextualised) cognitive terrains. Play serves as a bridge into abstract thought. Within the study, it was shown that the collaborative dialogue that occurred within writing and the use of writing as play-scripts provided a bridge into more advanced forms of narrative thought. Story arc and author's craft become physical and affective experiences, building a deep sense of narrative structure and writing's potential to move self and others (i.e. demonstrating true purpose and audience).

9.1.4 Motivation to write

When the preschool children were first invited to engage in book-making, some were clearly unsure about whether or not it warranted relinquishing their 'free play' time. Most participated initially, I suspect, because they were curious about me as a newcomer within their classroom. They were also willing to try out a new activity, with the option of perhaps opting out next time if free play proved more alluring. Almost immediately, most children saw the book-making process as an activity that was complementary to their classroom play. They

made use of content from their classroom fantasy play; and borrowed character and event ideas from books, movies and other media sources. This reflects findings in other qualitative studies of children's writing, which show that children readily make use of play themes and popular culture when given the freedom to determine their own writing topics (Haas Dyson 1997; Marsh 2014; Paley 2010).

Children's choice of writing topics suggested they were motivated to use writing to explore themes of violence. It was decided in the current study that overt violence would not be permitted. This choice was not as straightforward as it might first seem. Certain educators and child development theorists argue that permitting violence in play can help children process and make sense of difficult issues they encounter within their media and actual physical worlds (Katch 2001; Lee 2016). Culturally, however, violence within children's play is typically viewed as something which should be discouraged or prohibited. The decision to ban overtly violent narrative content and play within the current study was made to respect existing policies within each study site.

Despite the communicated rule that 'no one gets hurt on purpose' (i.e. no overt violence), the preschool children sought out and easily found other ways to explore issues of power and conflict, usually in the form of 'good' versus 'bad' characters. Boys tended to create and enact powerful 'helper' roles, e.g. a super hero or friend called upon to protect others from threats of harm. Their narratives involved more overt forms of risk, danger and conflict. 'Battles' occurred without reference to specific acts of harm. For example, Daniel's (case #2) story composed in Week 6:

> One day Superman saw a bad guy. He had a scary face. Superman scared him away. He used his super powers to make a big spark and crash. Then a monster came and made a big roar. So Superman made a bigger roar and scared the monster away.

The girls tended to be motivated to compose narrative worlds in which they cast themselves into roles of high social competence as valued 'helper' or 'helped' roles, e.g. a fairy with magical powers, a friend who gets to determine the course of play activities, or roles reserved for much older people in real life (e.g. driving to the store or taking care of younger siblings while parents are absent). For example, Summer's (case #3) story composed in Week 6:

> One day a little girl was painting. She painted a giant yo-yo. Then she ran away because a gorilla was in the paint. The little girl said, 'Everybody run for your life!' They ran away and then the little girl got a magic wand and zip-zapped the gorilla away.

For both boys and girls, narratives seemed to serve the purpose of proving that they mattered to others, evidenced by offering to help others, or being worthy of assistance and protection themselves. As other researchers (Haas Dyson 1993, 1997; Meier 2009; Paley 2004) have found, all of the preschool children in the current study seemed to use their composing to explore and experience different forms of power and belonging. This was something all preschool children in the current study voluntarily relinquished their 'free play' to engage in.

Interestingly, the preschool children wrote exclusively fantasy stories, whereas the school age children wrote a combination of fantasy, realistic fiction and recounts of personal lived experiences. The preschool children typically also created lead character roles that were exclusively intended for themselves to enact during narrative play, whereas the school age children also created leading roles intended for peers. The preschool children's narratives typically involved magical powers or high stakes roles that would not be 'realistic' for them to take on in real life. This finding is also consistent with previous research, which shows that preschool children are preoccupied with fantasy stories that explore 'themes of aggression, death, hurt, or misfortune', whereas school age children begin to shift toward a preference for true stories based on personal experience (McCabe & Rosenthal Rollins 1994, p.46). The preschoolers' stories seemed to be composed with a clear eye on the dramatic tension they thought would appeal to their peer actors and audience members during enactment, e.g. Super Man saving innocent victims from a wicked monster or a little girl who uses her magic wand to disappear a rampaging gorilla.

Children's enthusiasm for experimenting with different characters, settings and events suggests that choice of writing topics was a critical motivational factor. The few children who did not seem to value the book-making process itself (i.e. illustrating and composing a written 'product'), willingly chose to continue participating after they discovered their writing would be used as a play-script. The immediate social purpose for composing, i.e. to direct sociodramatic play with peers and showcase their unique exploration of story content, motivated their involvement in book-making.



Figure 9.1.4 Preschool children spontaneously negotiating narratives, looking to peers and teachers for cues about how to enact different roles and unfolding events (photographs taken by classroom teacher)

The preschool children developed new understandings of the different functions that texts could serve among their peer and home audiences. As Street (1985) and Dyson (2002) explain, literacy can not be *transmitted*, rather it is *created* by participants as they seek to interpret and transmit meaning. It is socially situated and driven by the inter- and intrapersonal goals of individuals and groups. The immediacy of stories functioning as social 'play currency' within their peer community provided a new and distinct social imperative for literacy learning. This proved motivating enough for all children to tackle the challenging cognitive-linguistic demands of written text composing, irrespective of language learner status or initial oral language proficiency. The observed increase in child discourse related to positive motivation and literate identity provided quantitative evidence of this motivation.

The physical act of book-making was motivating for many of the preschool age children. This was especially true for those with more advanced drawing and narrative skills, who immediately relished the new opportunity to have their 'writing' skills highlighted in the books they created. They were excited to take their books home each day, suggesting that being seen as a 'writer' within their family was valued. Research has shown that children whose parents view them as competent emergent writers also view themselves as such, and that engaging in emergent writing enables children to 'practice and develop their hypotheses about what written language is for and how it works' (Bradford & Wyse 2013, p.253). Given that children's early writing experiences differ according to distinctive personal, social and cultural factors (Martello 2004), educational settings have a critical role to play in providing opportunities for all children to experience writing and view themselves as capable emergent writers. Children's excitement for sharing their books with their families in the current study suggests this was supported through the WPS process.

Using children's writing as play-scripts was shown to motivate even reluctant writers to engage in composing. This was explored in the case study on Summer (case #4). She was a child for whom the fine motor demands of drawing and the cognitive-linguistic demands of written composing were challenging. Likely as a consequence, she was reluctant to engage in book-making and appeared not to value her books as products in their own right. However, after seeing her first story enacted by peers and helping to enact other children's stories, she quickly became a willing participant in book-making sessions.

While Summer's initial reluctance to compose was more extreme than others, the remaining preschool case studies discuss the ways in which using writing as play-scripts was an important motivational factor for other types of learners. Daniel (case #2) frequently verbalised his excitement for his stories to be enacted by peers, 'You take the story and read it to the class? Yay!' Daniel's limited oral language skills often relegated him to being a follower in most play activities. The use of his writing as play-scripts, however, carved out a space for his voice to be heard. Similarly, Jesse (case #4) was able to retain the language scaffolds provided while illustrating his story to engage in more independent composing when it was time to dictate his story, which increased his sense of authorship.

Given that motivation is critical to achievement in writing, the combined motivational factors of choice over writing topics and the use of writing as play-scripts likely explains at least part

of the intervention's effectiveness (Hidi & Boscolo 2006; Pinxten et al. 2010). Combining drama and writing has been found to increase motivation and writing quality in previous studies (Anderson 2012; Ewing 2015; Mages 2008; Rainio & Marjanovic-Shane 2013). The current study adds to this body of research, showing this to be true for emergent preschool writers as well.

9.1.5 Development of literate identity

It was hypothesised that the WPS process would support children's literate identity development by: clearly positioning children as 'authors'; making child-authored texts a central focus of children's early literacy practice and interaction; and providing the scaffolding needed for all children to experience success as composers. The WPS process was shown to differ markedly from traditional story dictation approaches, in which the child is asked to produce an oral narrative on-demand to a teacher scribe who intentionally withholds linguistic scaffolding (McNamee & Chen 2007; Wood Ray & Glover 2008). It is the position of the current study that this approach privileges children with already strong oral language skills. In the WPS approach, the child first 'writes' their book pictorially and with supports available through collaborative dialogue with peers and teacher. Written composing then occurs after this authoring process is completed by the child. During written composing the teacher serves not only as scribe, but as a willing joint-composer if the child seeks and/or requires support. The teacher actively works to provide the linguistic scaffolding needed for successful written text composition, as determined by the child's own communicative goals.

Rather than detracting from children's ownership of the literate process and product, the current study provided evidence that a more direct and active teacher role can effectively support diverse children to strengthen their literate skills and identity. Children's positive references to literate identity were found to increase across the study. It was hypothesized that this would occur are children developed feelings of self-efficacy in response to successful composing episodes and through the social enjoyment and feedback they experienced through the use of their writing as play-scripts. Time-sampling of child-talk during writing sessions showed a steady increase in children's positive references to: composing, the use of their writing as play-scripts, and themselves as writers. The preschool case studies presented detailed accounts of how this occurred for individual children, evidence by their taking of new risks in their choice of characters and plot, expressing their excitement for their stories to be enacted, and verbally and non-verbally expressing pride in their written accomplishments.

Linking writing with narrative play spurred the creation of a lively literate community among the preschool cohort. One that mattered to them because it was shared and linked to their broader interest in sociodramatic play. Paley (1981, p.12) discovered the importance of linking composing with sociodramatic play after many years of unsuccessfully trying to engage reluctant composers in story dictation

> it had always seemed enough just to write the children's words. Obviously it was not; words did not sufficiently represent the action, which needed to be shared. For this alone, the children would give up play time, as it was a true extension of play.

Being a 'writer' had tangible value within this social context. The above discussion on how this motivated children's engagement in composing is intimately bound with the study's effects on their literate identity.

9.1.6 Outcomes for diverse learners

The study's multimodal and collaborative methods were expected to be particularly beneficial to children with lower levels of oral language proficiency, whether monolingual or multilingual. The current section looks briefly at the impact of the intervention on the preschool cohort's diverse learners. Section 9.3 explores treatment effects on diverse learners across both age cohorts.

The intensive, yet unobtrusive, language supports offered to children during book-making sessions was found to effectively support a range of skill levels. For example, children who began the study with a very limited concept of 'story' were able to use their observation and enactment of other children's stories to literally see and hear how narratives unfold through a particular structure, how choice of characters influences plot, and how composing can create opportunities to try on powerful social roles. Daniel (Case #2) was one such child. He relied on peer modelling to learn how to engage in book-making. His early books were comprised of non-representational drawings, accompanied by excited vocalising and whole body enactments. He needed heavy linguistic scaffolding to translate his largely non-verbal meaning making into written language which could later be enacted. His first stories were unconnected action heaps (Applebee 1980), devoid of goal-oriented behavior or development of the consciousness landscape (Bruner 1990). However, through multimodal peer and teacher scaffolding, his stories soon came to resemble true narratives, with both an action and consciousness landscape.

As discussed above, the traditional ST-SA approach to dictation, where teachers resist engaging in joint-composition to 'honor' children's own 'voice', would have likely left Daniel feeling frustrated and unsuccessful. This was true for other learners whose language skills were limited. In working to support these children, I was cautious to honor their communicative intent and offer scaffolds in a spirit of learning more about their thinking, to support them to communicate that with others. It was not about trying to force a particular level or style of language performance, which would have surely adversely affected their motivation to engage in the process. This was critical given the role of motivation in willingness to engage in writing, which has obvious implications for skill development and, thereby, literate identity.

The use of children's writing as play-scripts seemed to provide 'proof' that navigating the labyrinth of written language would 'pay off' within the relationships and play that mattered to children. This was true for all of the preschool children, but especially those for whom extended decontextualised language use was new and somewhat daunting territory. As Graves (cited in Newkirk 2013, p. 15) argued, 'children want to write'. They intuitively sense the power of solidifying and crafting their thoughts and feelings into written words, then seeing the impact of those words on others. The use of their writing as play-scripts had an immediate impact within the relationships they cared about, thereby motivating their efforts.

Broadening the role of multimodal semiosis and collaborative dialogue has the potential to improve academic outcomes for 'at risk' language learners. As Alvarez (2017, p.104) argues 'multimodality in literacy aims to broaden understandings of the various ways children construct and reveal knowledge, such as visuals and behaviours, juxtaposing narrow views of verbal and written language as the only modes of expression'. Contrary to deficit theories, which position multilingual and disadvantaged children as lacking the skills needed to engage in higher level text work, the current study demonstrated that a multimodal approach can empower diverse preschool learners to successfully engage in written text composition.

9.2 In the school setting

9.2.1 Links with school curriculum and pedagogy

The school age cohort was a kindergarten class comprised of 20 children, ages 5-6. Their learning activities were typical of many Kindergarten (first year of formal schooling)

classrooms in the United States, with a strong emphasis on the teaching of early reading and mathematics skills. Ninety minutes of each day were assigned to literacy instruction, with approximately 60 minutes spent on reading and 30 minutes on writing. It was hypothesized that the WPS process would support the school age children's early literacy development by complementing their learning of code-based print conventions with higher level meaning-based text composition and comprehension activities. It was also hypothesised that the WPS process would present a motivating purpose and audience for writing, based on children's continued interest in engaging in play with peers and their reduced opportunities to do so (when compared with their preschool play experiences).

Writing instruction across the study period was devoted mostly to 'Small Moment' personal narrative writing (Weeks 1-7), and then to 'How to' procedural writing (Weeks 8-12). In the Small Moments unit the children were encouraged to illustrate true events from their life, then use their emerging phonics skills to write a sentence or two about their illustration using 'invented' spelling (Chomsky 1971). Stories were typically limited to one page due to students' limited knowledge of writing conventions and the limited amount of time assigned to engage in writing. Children spent most of their writing time working independently, and were expected to work quietly without discussing their writing with others. The teacher would typically circulate around the room during this time to keep students on task and confer with individual students when possible.

The teacher devoted approximately 20 minutes each week to an 'Author's Chair' session, during which children were invited to share a piece of their writing with the class. Approximately 5 students shared each week, which gave each child approximately one opportunity each month to share a piece of their writing. After sharing their writing the child received a round of applause, but feedback on the content of their writing was not given. The children each had a 'writing partner', assigned by the classroom teacher, with whom they would occasionally discuss writing ideas as part of whole class instruction, e.g. the teacher might invite students to 'Tell your partner about a time when you felt ____ (then several minutes given to share), you might want to write about that today'.

The physical environment within the classroom was primarily occupied by work tables and academic learning materials, with one small area containing 'play' materials (e.g. a miniature kitchen and basic costumes). Children spent most of their time working on academic tasks,

seated in groups at tables or gathered as a whole class on the rug. 'Choice' time occurred at the end of each school day for 15-20 minutes, if other academic activities had been completed. During this time the children could choose their own activities, including sociodramatic play. Most students chose to engage in drawing or board games during choice time.

Unlike the preschool study site, where children spent the majority of their day engaged in self-directed activity and multimodal social interaction, the school age children had limited time to choose either the content or process of their learning. This meant few officially sanctioned opportunities to engage in self-initiated meaning making with others. Despite this fact, and consistent with other research into children's social lives within school settings , they nonetheless unofficially reclaimed moments across their school day to do so. It was hypothesized that the WPS approach would prove effective with the school age children because it harnessed their innate desire to learn through social interaction and play; and because it provided the scaffolding needed for meaningful level-text composition, which was expected to prove satisfying for all children, but especially those with lower levels of language proficiency.

9.2.2 Effects on narrative development

The school cohort's narrative production and comprehension skills were found to improve across the study period. Pre-/post-study retell results (Section 6.1.2) showed that their narrative production quality increased at the microstructural level, with increases in language complexity (MLU), vocabulary (TTR), and accuracy (reduced maze words and errors). Increased MLU indicated that their language use had become more syntactically elaborate, through increased elaborated noun phrases and subordinate clauses. Increased TTR demonstrated an increase in lexical diversity, e.g. unique content words to describe story characters, events and mental states. Both of these linguistic features (MLU and TTR) have been found to correlate with written language proficiency (Berninger & Abbott 2010). The accuracy/fluency variable (i.e. reduced maze % and errors) improvements also indicated that children's ease of generating narrative language increased. Combined, these results indicate that the intervention was successful in supporting several key linguistic skills related to written language competency.

At the macrostructural level, the school cohort's narrative production results showed significant increases for the following NSS components: Introduction, Mental States and Conclusion; and for overall total score. The improved score for Mental States indicated that the intervention's focus on the consciousness landscape, through collaborative dialogue and the use of speech/thought bubbles as a multimodal device to materialise this aspect of a quality narrative, had a positive effect on children's use of metacognitive verbs (as part of the scoring criteria for Mental States within the NSS). Overall, these NSS scores demonstrate that the intervention was effective in supporting significant growth in the school age children's text level narrative production skills.

The school age cohort's narrative comprehension scores (Section 6.2.2) also showed increases. Both literal and inferential comprehension scores increased significantly on the direct questioning task. Inferential scores on this task were relatively stronger than for the preschool cohort (effect size 1.14, compared to 0.24 for the preschool age cohort; see Section 6.3). As discussed in relation to the preschool cohort, the use of false-belief questions to assess inferential comprehension is a relatively stringent approach. The significance of the observed changes in the school cohort's performance is therefore noteworthy. For dual landscape retell codings, the school children demonstrated the hypothesised decrease in action codings and increase in consciousness codings. This provided evidence of a change in comprehension focus away from the action landscape and toward the consciousness landscape, i.e. increased understanding of the metarepresentational content needed to comprehend implied internal states. These changes suggest that the intervention was effective in supporting growth in the school age cohort's higher order comprehension skills.

9.2.3 The role of collaborative dialogue

The discourse analysis presented in Chapter 7 explored the sociocultural processes expected to facilitate children's narrative development within the intervention. It was found that the school children supported one another by: sharing story ideas, asking questions, seeking elaborations, validating different composing choices, and expressing enjoyment of each other's composing efforts. Time sampling showed that the frequency of children's utterances coded as *Peer collaboration* increased sharply in the first three weeks of the study and then remained stable across the study. This result aligns with my observations working with children within the book-making sessions. That is, children quickly recognised opportunities

to share their composing interests and talents, and use book-making and play-script enactment as relationship building opportunities. This remained true across the study.

The type and volume of teacher scaffolding also changed across the study. Time sampling showed an increase in the ratio of child-talk to teacher-talk, and an increase in the length of child utterances within this dialogue. This suggests that children became more independent in initiating dialogue and that their talk became more elaborated. It was also shown that teacher elaboration and coherence prompts decreased within the *Story composition and transcription* discourse. These scaffolds were the most closely related to supporting children to produce successful narratives (i.e. coherent enough to be used as a play-script). Combined, these changes provide evidence of the hypothesised transfer of responsibility from teacher to child, explaining the dialogic process by which the above described intervention effects were obtained.

The school age case studies, presented in Chapter 8 (Section 8.3), provided a detailed account of the role that collaborative dialogue played in supporting individual children's learning. The interpersonal (i.e. relational and affective) scaffolds critical to motivating children's engagement in book-making and written composing were highlighted, as well as the cognitive-linguistic scaffolds they needed to capture their narrative thinking in written text. Each case study showed the idiosyncratic motives and multimodal strategies used by children to engage in joint construction. The focal children were representative of the school cohort's more advanced language and narrative skills compared to the preschool children. Their stories were longer, their plots had a greater numbers of episodes, and their overall structure was more organised and coherent. Nonetheless, the case studies also demonstrated that collaborative dialogue continued to be critical in creating new zones of proximal development for these older children.

The school participants used their relatively more advanced language skills to tackle bigger challenges as composers. For example, Mauricio (case #7), was an ambitious and animated composer, who benefited immensely from scaffolding to establish causal connections so as to build coherence within his narratives. Elisa (case #8) benefitted from being released from the conventions of written transcription to compose longer texts, experiment with new genres, and begin to learn explicit elements of author's craft (e.g. how punctuation can be used to emphasise emotion). Rather than moving away from needing or wanting support through

collaborative dialogue, the school age children were arguably more eager to engage in this joint process. They knew they had stories to share with others and enjoyed receiving the support needed to do so.

The diversity of language and composing skills within the school case studies reflect those found across the school cohort. In constructing each case, attention was paid to showing how children used multimodal semiosis to compose. For some children (such as Diego, case #5), the use of drawing, gesture, facial expression and enactment remained critical to enabling them to establish enough intersubjectivity to engage in joint construction. Encouraging this multimodal semiosis was therefore essential to them being understood and thereby able to maintain a sense of authorship over their narratives. As will be discussed below (Section 9.4.3), my role as teacher(-researcher) required ongoing assessment of each child's language skills, motivation, and communicative goals to decide which scaffolds would be most effective. This included close attention to children's multimodal semiosis.

9.2.4 Motivation to write

The school children engaged immediately with the invitation to compose stories on topics of their choosing. Similar to the preschool students, they frequently made use of popular media content when choosing characters and events. Their sense of story was more advanced and most children easily got started as soon as they sat down at the book-making table. They seemed more conscious than the younger children of how their peers received their story ideas. This discourse analysis showed that they engaged in more discussion about characters and plot, seeking more input and validation during book-making episodes. As with the preschool children, their stories involved conflict and tension, but were less fantasy oriented. Some children wrote about personal experiences and others composed realistic fiction narratives that included their friends and family members as characters.

The school age children enjoyed creating their book 'products', but happily accepted their classroom teacher's request that they remain at school as part of their 'learning portfolio'. This was very different from the preschool children, who relished taking their books home each day to share with family members. Given this, the school age children seemed to compose more for their peers, than for any status it might earn or reinforce at home.

The content and themes that emerged among the school children's stories were largely split along gender lines. This suggested differences in children's purposes/motivations for writing.

Similar to the preschool children, the boys' stories tended to be more action-centered and the girls' more relationship-centered. For example, the boys' stories involved more dramatic action-centered episodes connected to physical threat, danger and conflict; whereas the girls' stories involved more relationship-centered episodes of joint activity, cooperation, and everyday family life.

Both boys and girls were motivated to compose longer stories and use more complex language compared to their preschool counterparts. Their stories included more characters and events, and were told with more advanced development of story elements. They relied less on nonverbal communicative modes throughout the book-making and composing phases, but those students with lower oral language proficiency and/or who were multilingual learners continued to refer to their illustrations and use gesture, facial expression and prosodic cues to establish and maintain intersubjectivity during joint composing.

Consistent with research on theory of mind development, these older students showed the expected increased ability to consider multiple perspectives and communicate mental states linguistically within their narratives (Astington 1990; Hasni et al. 2017). Their more advanced cognitive-linguistic skills were reflected in their composition of stories which contained greater amounts of dialogue, internal state references, and content clearly aimed at appealing to their audience through the use of humor and suspense. They enjoyed adding speech and thought bubbles to enhance this element of their writing. Unlike the younger children, however, whose speech/thought bubbles often remained outside their main text, most of the school age children quickly began to incorporate character dialogue and internal thought into the main text of their writing. The visual scaffold of the thought/speech bubble quickly became redundant, despite certain children continuing to add them to their illustrations for personal aesthetic reasons (e.g. because they liked that it made their writing 'look like a comic' or other graphic novel type texts they enjoyed reading).

The use of their writing as play-scripts was highly motivating for the school age children. All students took up the invitation to have their stories performed, even those who chose not to help perform their own stories. Interestingly, the few students who at times chose not to act out roles in their own stories, always volunteered to help act out their friends' stories. Thus, the interpersonal dynamics at play within the school age peer group during writing as play-scripts episodes were more complicated, but all children seemed to enjoy opportunities to play

different roles. The heightened vulnerability to social judgement associated with age seemed to be behind some children's choice not to perform in their own stories, a risk that seemed to be reduced when performing other children's stories.



Figure 9.2.4 Children's stories take center stage among the adult-authored texts in the school age classroom (top); a show of hands by those wanting to be chosen as actors (bottom) (photographs taken by classroom teacher)

After some intentional discussion at the start of the study period about volunteering to play different roles in children's stories, both boys and girls were willing to take on roles not matched to their actual gender identity. Compared to the preschool children, their acting was more animated and showed a stronger ability to engage in perspective taking using their

schema for different social roles and situations. Their positive verbal references to the use of their writing as play-scripts indicated that the intervention's linking of writing with narrative play was a motivational factor in the school age cohort's engagement in written composing.

9.2.5 Development of literate identity

It was hypothesised that the WPS intervention would enhance the school age cohort's already developing literate identity, by providing new opportunities to engage in extended text composition. The was expected to build their awareness of their skills and potential as 'writers'. It was also hypothesised that the linguistic support and feedback children were expected to receive through the intervention's collaborative and play-based approaches would increase children's self-efficacy related to writing. These combined factors were expected to have an overall positive effect on children's literate identity.

The WPS intervention played a distinctly different role in the school age children's literate identity development. Many children already saw themselves as 'writers' due to the fact that they had begun formal schooling and were engaged in other writing activities across the curriculum. However, the WPS process expanded their understanding of the writing process and their power as authors, by releasing them from transcription responsibilities. Just as read-alouds release students from the burden of decoding to focus on higher level text comprehension work, collaborative writing releases students from the conventions of written transcription to focus on higher level text composition work (McCarrier, Pinnell & Fountas 2000).

For many of the school age children the WPS process was their first experience in extended text level composition. As described earlier, the work they did during writers' workshop was typically limited to a single page and 1-3 sentences. In contrast, during collaborative writing they routinely composed stories of 3-5 pages and up to 30 sentences. This extended text level composition was a source of tremendous pride for many children, evidenced by their voluntary adding of extra pages to their books and verbal statements such as 'look at how long my story is!' and 'I can't wait to share this in Story Play!' The frequency of school age child-talk coded as *Motivation and Literate Identity* (results presented in Section 7.6) was shown to grow steadily across the study period, providing evidence of an increase in children's literate identity.

The book-making and writing as play-scripts components of the intervention served to support children's literate identity in two major ways. Firstly, by providing them with timely and individualised support to grow as writers; and, secondly, by creating a literate community in which children were motivated to compose through the authentic purpose and audience they offered one another. The WPS process provided a time for children to seek and receive feedback as writers, thereby expanding their understanding of composing choices and craft. This collaborative dialogue was largely absent from their regular classroom writing activities, despite being advocated for by the developers of the workshop approach used in their classroom (Calkins 1994; Graves 1994).

Finally, the WPS intervention appeared to extend the school age children's understanding of the potential of their 'voice' to have an impact others through writing. By releasing them from the task of written transcription, children were able to compose and revise much longer and more complex texts. Repeated opportunities to determine what they wanted to say, then share their ideas with others and receive multiple forms of feedback (i.e. through collaborative dialogue, story enactment, and structured peer feedback after story enactment) enabled this expanded understanding of self as a writer.

The study has demonstrated that use of the WPS process can support young children's complex written narrative and literate identity development critical to long-term academic success. Children's interest in narrative play can be used to provide them with experiences in extended composing, long before their mastery of written conventions would allow. 'Balanced literacy' proponents call for an evidence-based focus on code-based and meaning-based outcomes from the earliest stages of development (Pressley et al. 2002). Converging evidence from cross-disciplinary research supports both the short- and long-term benefits of this approach (Ewing 2006; MacKenzie 2011). The WPS process offers a developmentally appropriate play-based strategy to support meaning-based (i.e. text level) skills.

9.2.6 Outcomes for diverse learners

A notable difference between the preschool and school aged children was their differing reliance on verbal and nonverbal communicative modes. Those in the older cohort used less enactive and gestural modes, but continued to make frequent use of pictorial and prosodic modes to establish intersubjectivity. Their drawing and language skills were more advanced, reducing their need to rely on other nonverbal modes. Age maturation was likely partially

responsible for the school cohort's increased language skills, however, there were other likely contributing factors. The school cohort had a smaller percentage of multilingual learners and many of these children had completed one to two years of dual language preschool education at the school. While data was not collected on how this experience impacted their language development, other studies have shown that dual language preschool attendance supports stronger outcomes in English language acquisition (Gutierrez, Zepeda & Castro 2010). Another likely contributing factor was an increased average amount of parent time in the US. The school community contained considerably more second and third generation immigrants, likely resulting in stronger English proficiency to support children's language learning within the home (Fisher, Frey & Rothenberg 2008, p.11). The preschool community had a much higher percentage of newly arrived immigrant families, as shown in publicly available demographic data.

The WPS process supported diverse school age learners by providing a playful context to engage in complex text composition. Students with lower levels of oral language proficiency were able to use their multimodal skills and receive scaffolding to gradually assume greater responsibility for using written language patterns and structures to compose higher quality narratives. The school age case studies showed that collaborative dialogue within the book-making process provided differentiated support for diverse skill levels, from early emergent to more advanced oral language proficiency and familiarity with written narrative language. The invitation to 'make a book, it can be about anything you like' proved enticing, with all children readily able to draw from their personal experience and cultural knowledge to generate topics of interest to them.

9.3 Effects on diverse learners across both age cohorts

The current section explores the intervention's impact on diverse learners across both age cohorts, as explored by: language learner status (monolingual/multilingual), initial oral language proficiency (low/high), and gender. Each of these were explored due to persistent disparities found in children's academic outcomes based on these groupings. The study's impact on these sub-groups was therefore of high interest, in particular effects on narrative development as the key area of early literacy targeted.

9.3.1 Language learner status (monolingual and multilingual)

Several differences were noted in the intervention's effects on narrative competency when participants were grouped by language learner type. Firstly, in relation to narrative production (Section 6.1.4), results at the microstructural level indicated stronger improvements in MLU for multilingual learners than monolingual learners. In fact, the post-treatment MLU mean for was higher for multilingual learners than monolingual learners. Growth in TTR, however, was stronger for monolingual learners. This TTR result could indicate that vocabulary development is supported by a minimum level of syntactic proficiency, i.e. a sense of 'how a language works', to aid in semantic development (i.e. vocabulary growth). It might be the case that grammar development precedes vocabulary development in multilingual learners (Devescovi et al. 2005). Given time constraints in the current study this was not able to be explored, but remains an interesting question for future research.

Secondly, in relation to results for narrative production at the macrostructural level, it was shown that both monolingual and multilingual participants demonstrated significant gains in the following NSS components: *Introduction, Mental States* and *Character Development*. Gains in total scores were significant for both groups, but slightly higher for monolingual learners. A repeated measures ANOVA, however, showed no significant interaction effect by language learner type, with both groups showing significant gains over time.

Two out of the three NSS components which showed significant increases were directly targeted through the study's design: *Character Development* and *Mental States*. As discussed in the Methodology section (5.1.1), scores for these components are assigned according to children's literate language use, in particular their use of metalinguistic and metacognitive words (Heilmann et al. 2010). Both are essential to development of the consciousness landscape within narratives. It was for this reason that children were encouraged to add 'speech/thought bubbles' to their picture books, to make these elements more tangible. The improvements noted for these specific components, therefore, provides evidence of the intervention's positive effects on specific linguistic skills required for proficient written expression. Positive effects were observed for all language learners.

Improvements in narrative comprehension (Section 6.2.4) were found to be significant for both language learner groups. Monolingual learners had higher pre-/post-treatment means for literal and inferential comprehension as measured by direct questioning, but both groups

showed significant improvements. On dual landscape codings, the frequency and ratio of utterances related to the action versus consciousness landscape were very similar, with multilingual children slightly outperforming monolingual children on codings for the consciousness landscape. Both groups demonstrated a significant increase in development of the consciousness landscape.

The persistent achievement disparity that exists between monolingual and multilingual learners in many countries has made research into effective pedagogy to support multilingual learners a shared imperative (for a review, see, for example: Bialystok 2007, on the US context; and Gibbons 2009, on the Australian context). Strengthening oral language skills and literate discourse to support multilingual learners' move from oral to written (i.e. literate) language use is often cited as a priority (Bernstein 2016; Gort 2006; Hyland 2007). Previous studies have shown that collaborative dialogue addresses both of these needs, as it facilitates the discourse needed to push children to: explain their ideas, fill in gaps or clarify inconsistencies in their talk which leads to listener confusion, and overtly discuss word/phrase meanings and grammar as they co-construct texts (Fisher, Frey & Rothenberg 2008). This language *use*, driven by an immediate communicative purpose and audience, provides real-time feedback and support needed to scaffold increased levels of language proficiency (Rojas-Drummond et al. 2013).

The high percentage of multilingual learners in the current study (preschool cohort: 95%, and school cohort: 68%) had widely varying English skills, as is typically found in multilingual classrooms (Bernstein 2016; Boerma et al. 2016; Dockrell, Stuart & King 2010). The results of the current study add to the existing research base demonstrating the potential for multimodal and collaborative dialogue to be used as an effective pedagogical tool to support improved early literacy outcomes for multilingual learners. This dialogue occurred within the authentic contexts of book-making, using writing as play-scripts, and discussing children's own written texts. It was shown that both preschool and early school age multilingual children actively made use of multiple semiotic modes when composing and comprehending narrative texts, including: drawing, gesture, facial expression, bodily enactment, intonation, and linguistic and non-linguistic vocalising.

Overall, the quantitative results of the current study provide evidence that the intervention's multimodal and collaborative approach was particularly effective in supporting multilingual

children's academic language proficiency. Firstly, all narrative production skills critical to academic language use were shown to increase: vocabulary, syntactic complexity and text level structure. The results of the current study therefore align with previous research which has found that multimodal and collaborative dialogue support elaborated language use by multilingual learners (Alvarez 2017; Kuby & Vaughn 2015; Ledin & Samuelsson 2016).

Traditional approaches to story dictation, in which the child is asked to produce an oral narrative spontaneously, would have failed to provide many of the supports for learning that were available in the current study. It was found that book-making carved out space for children to use drawing as a narrative planning tool and as a non-linguistic mode to share their narrative thinking. Traditional approaches also intentionally limit the amount of linguistic scaffolding provided to the child, out of concern it might diminish the child's sense of ownership and accomplishment. The current study showed that collaborative dialogue and joint construction provided children with timely supports which they welcomed to fulfill their own communicative intentions.

9.3.2 Oral language proficiency

When effects on narrative development were explored by initial oral language proficiency (OLP) - low/high grouping - several interaction effects were identified. It was found (see Section 6.1.5) that language complexity (MLU) gains were greater for the low OLP group, with their post-treatment mean increasing to just below that of the high OLP group's post-treatment mean. Gains in language accuracy (i.e. reduced errors) showed a marginal interaction effect, with increases slightly stronger for the high OLP group. The treatment was shown to be equally effective in supporting improvements in vocabulary (TTR) and overall macrostructural quality (NSS) quality for both proficiency groups. Therefore, the intervention was shown to support improvements for both groups, but most strongly for the low OLP group in the case of language complexity.

Narrative comprehension scores (see Section 6.2.5) showed significant improvements in literal comprehension for both proficiency groups. Inferential score increases reached the significance level for the high OLP group, but were just below alpha for the low OLP group (p=.08). Dual landscape codings showed the hypothesised decrease in action landscape and increase in consciousness landscape codings. These changes were significant for both groups, indicating that the intervention was effective in supporting all children to increase their

attention to and understanding of the dual landscape, which is critical to higher levels of narrative comprehension (Curenton 2011; Ligeza 1998).

Despite the importance of high quality language interactions in supporting children's oral language development, it has been found that teacher talk within educational settings is often focused on managerial tasks rather than quality language interactions. More 'cognitively challenging conversation' is needed, as characterised by the use of varied vocabulary, elaborated syntax and prompts which engage children in literate discourse (Massey 2004; Smith, M & Dickinson 1994). Pedagogical approaches which facilitate these more stimulating forms of language interactions are needed, not just for multilingual learners whose oral language learning needs are obvious, but for monolingual children with lower levels of language proficiency (Dickinson, Golinkoff & Hirsh-Pasek 2010).

The WPS intervention demonstrated that a play-based approach to early writing can create effective dialogic supports for language learning. It was shown that learners with lower oral language proficiency (monolingual and multilingual) were supported through scaffolding within multimodal and collaborative dialogue. The results of the study, when analysed by initial oral language proficiency showed that the WPS intervention led to significant gains in children's narrative production and comprehension skills; and that, in some instances, it was more effective for children who had the highest language learning needs. Thus, the current study presents an evidence-based pedagogical strategy to support the language development of children with diverse oral language skills.

9.3.3 Gender

Gendered differences in literacy skills emerge early in life, with girls outperforming boys on most cognitive and behavioural measures of 'school readiness' (Pianta, Cox & Snow 2007). This gap is exacerbated by socioeconomic factors, with the gap widening as family income decreases (Moschion 2017). This suggests that literate aptitude is not gendered, but generated by complex social factors influencing opportunities for literacy learning. Much as been written, for example, about disparities in home language learning opportunities (Hart & Risley 1999; Heath 2012); and teacher and societal expectations influencing children's literate identity development and subsequent effects on achievement (OECD 2015). These findings have led to calls for effective 'early interventions', capable of engaging all children in quality language and literacy learning.

It was shown (Section 6.1.3) that the WPS intervention was effective in supporting the narrative production skills of boys and girls. In relation to microstructural quality, the complexity (MLU) of children's language increased significantly for both genders. Improvements in vocabulary and accuracy were similar for both genders and close to the significance level. Girls had consistently higher pre- and post-treatment means across all microstructural variables, with the exception of words per minute (boys had slightly higher pre- and post-treatment means). In relation to macrostructural narrative production quality, both genders demonstrated significant improvements in specific components of the NSS. Both showed significant improvements in conveying character 'Mental States', which are essential to development of the consciousness landscape and production of a 'true' narrative (Bruner 1990). Scores for girls were consistently higher on pre- and post-treatment means for all NSS components, with the exception of Mental States, with boys slightly outperforming girls (pre- and post-treatment).

Scores for narrative comprehension by gender grouping (Section 6.2.3) showed significant increases in literal and inferential comprehension for both genders on direct questioning. Girls had slightly higher pre- and post-treatment means for literal and inferential comprehension. The contribution of children's retell utterances to development of the action and/or consciousness landscape showed very similar change scores for both genders, with significant decreases in action and increases in consciousness landscape coding frequencies for both groups. This indicates that both boys and girls became more tacitly and overtly able to construct inferences to understanding characters' internal states, as shown through retells and directing questioning respectively.

As discussed above in relation to the two focal age cohorts (9.1 and 9.2), and in the case study collection (Chapter 8), gender differences were identified in the purposes for writing which seemed to appeal to boys versus girls. Boys tended to compose more dramatic action-centered narratives exploring themes of danger, conflict and protecting others. Girls tended to compose stories that were more realistic and relationship-centered exploring themes related to family, friendship, everyday life, and social competence. Thus the study's promotion of children's choice over writing topics enabled both boys and girls to pursue different writing topics and goals; and multimodal collaborative dialogue within book-making provided the linguistic scaffolds needed for them to experience composing success related to these goals.

It has been found that self-efficacy correlates with achievement in writing, and that this correlation is stronger for boys than girls (Bruning et al. 2013). That is, it appears especially critical that boys experience success in their early composing experiences to ensure they develop positive attitudes toward writing. Part of the intervention's effectiveness with both boys and girls might lie in how its design compensated for differences in children's self-regulation, which has been found to be lower in boys across the early years (Zaslow & Martinez-Beck 2005). Several features of the intervention are relevant to how it accommodated children's varying levels of self-regulation: (a) by encouraging multimodal semiosis, the impact of differences in verbal ability were reduced (with lower verbal ability correlated with lower self-regulation; Skibbe et al. 2011); (b) by providing support with transcription, children were able to focus on generating ideas and text structure, without becoming overwhelmed; and (c) using writing as play-scripts provided an immediate and motivating purpose and audience for writing which may have helped children with lower self-regulation persist with the cognitively challenging task of composing.

These factors, and the results of the current study, suggest a promising early intervention strategy to help educators address disparity in literacy outcomes based on gender. In particular, supporting positive early writing experiences by accommodating differences in language ability and self-regulation.

9.4 Differences across settings

9.4.1 Play opportunities and challenges

Opportunities to engage in play differed markedly by age in the current study. They reflect differences commonly found in preschool versus school settings in many developed countries; wherein children spend the majority of their time engaged in play within preschool settings, then experience a sharp reduction in play opportunities upon entering formal schooling (Briggs & Hansen 2012; Jarrett 2016). In schools play is often limited to unstructured 'recess' times, which can total as little as 30 minutes across a school day.

Much has been written about the 'state of play' in preschools and schools (Burghardt 2016; Jarrett 2016; Wood 2012). In preschools, while play is still seen as the best pedagogical approach to supporting children's learning, educators are experiencing increased pressure to address a range of explicit learning outcomes within play. This has led to research

distinguishing ‘free play’ from forms of ‘guided play’, with the latter involving higher levels of teacher scaffolding and involvement (Wood 2013). Guided play presents a way for educators to honor children’s right to play and agency, whilst also attempting to address a range of important early learning outcomes more directly (Weisberg et al. 2016; Weisberg, Hirsh-Pasek & Golinkoff 2013). However, intervention studies aimed at demonstrating how explicit skills can be developed through guided play are limited (Baumer, Ferholt & Lecusay 2005; Hakkarainen et al. 2013). The current study addresses this need, showing how the WPS process can be integrated within existing preschool activities to support explicit literacy outcomes, i.e. vocabulary, syntactic complexity, and narrative composition and comprehension.

In schools, kindergarten teachers have long advocated for the need to ‘transition’ children into more formal approaches to learning by maintaining an emphasis on learning through play (Fesseha & Pyle 2016). Like their preschool counterparts, however, school educators have experienced increased accountability pressures. This has resulted in increased emphasis on the teaching and assessment of discrete early literacy sub-skills (Ewing 2006; Jarrett 2016). To combat the false dichotomy between play and learning, it has been argued that educators need to demonstrate the interconnections between the two constructs (Bodrova 2008). The WPS intervention investigated in the current study offers one way to demonstrate how harnessing play’s motivational and integrating power can enhance and broaden the range of learning outcomes addressed within early school age classrooms, particularly related to important text level composition and comprehension outcomes. This was shown to enhance children’s motivation to engage in literacy learning and strengthen their literate identity. Therefore, play can be advocated for as *necessary* to support early literacy learning.

9.4.2 Place in broader curriculum

The WPS process had differing connections to children’s learning experiences within each focal site, given overarching differences in pedagogical approach. In the preschool setting, it increased intentional supports for early literacy learning, by engaging children in book-making and the use of writing as play-scripts. This increased opportunities for extended literate language use, text composition and text comprehension activities. This gave many children their first experiences in being a ‘writer’, which had positive effects on their literate identity (as discussed in Section 9.1.4). For the preschool educators, who were already familiar with Paley’s ST/SA approach, the inclusion of book-making and multimodal

scaffolding through joint construction, seemed like 'natural' next steps. The lead preschool teacher reflected at the end of the study, 'I am seeing them create more stories in their play now' and 'I will definitely keep this going'.

In the school setting the WPS process also increased opportunities for children to engage in literate discourse, text-level composition and comprehension, and multimodal learning through sociodramatic play. By releasing them from the demands of written transcription, children were able to focus on using their existing multimodal skills to practice written composing. Given that written composing increases the cognitive-linguistic demands on children when compared to purely oral (i.e. conversational) narratives, this provided a critical form of scaffolding to extend their transition from oral to written discourse. The use of their writing as play-scripts was also highly motivating for the school age children, who enjoyed the authentic purpose and audience for writing which this created, as well as new opportunities to engage in sociodramatic play. For school educators, the WPS process provides a model of how to integrate play to enhance existing early literacy practices.

9.4.3 Teacher role(s)

In addition to portraying children's lived experience within the treatment, the case study collection presented in Chapter 8 sought to show how my role as teacher(-researcher) differed according to children's individual needs. This 'role' was therefore comprised of multiple roles, some used with all children and some which formed part of a repertoire from which to draw when supporting individuals. Table 9.4.3 contains an overview of these general and specific roles, with some used more frequently within each age cohort. This table also contains references to specific focal children within the case study collection in which different roles were discussed, including the assessments (summative and formative) that informed my selection of roles. As a collection, they demonstrate the cumulative and moment-to-moment assessment of children's communicative goals, motivation, literate identity, and narrative composing skills to adjust scaffolding based on individual needs.

As discussed in the Methodology section (4.5.3), the intervention's design was informed by a set of sociocultural 'conditions of literacy learning' which reflect the complex cognitive, affective and social factors which support literacy learning. These include: immersion in literate activity and community; student ownership and agency within reading and writing tasks; feedback without pressure to incorporate it immediately; authentic audiences and

purposes for literate practice; approximation, rather than a rigid set of expectations that apply to all learners regardless of point of development; experimentation; and collaborative dialogue. The role of the teacher within such a model necessitates a dynamic response to children's shifting skills, interests, goals, and levels of engagement/motivation. The case studies sought to capture my efforts to fulfill this challenging task. Despite my best efforts, I fell short at times, but continuously returned to these guiding principles to engage in critical reflection on how I could better support individual children.

Table 9.4.3 Teacher roles within the WPS intervention, linked with case examples

	Role	Descriptor	Case #
General (used with all children)	*Multimodal interpreter and promoter*	Actively attend to, and reciprocate, children's range of semiotic modes	All
	Linguistic scaffolder	Prompt increase in elaboration, coherence, and structure	
	Literate language user	Promote intentional discussion of texts	
	Immediate audience	Provide positive affective response to child's composing choices and efforts	
	Literate identity builder	Promote micro and macro discourse about writing and child as 'writer'	
	Materials provider	Supply child with physical resources to engage in writing	
Specific (used as needed)	*Joint composer*	Offer story ideas (settings/characters/events)	2,4,5
	Intensive linguistic scaffolder	Intensive recasting to help child bridge the gap between intended and actual utterances in terms of vocabulary and syntax	2-6
	Unobtrusive scribe	Transcribe verbatim to maintain engagement	3
	Peer collaboration prompter	Recruit peers to support each other, e.g. with illustrations, character or event ideas	1-3
	Coherence challenger	Push ambitious composers to make their narratives more coherent (when motivation and literate identity are strong)	7
	Motivational coach	Encourage efforts of child experiencing difficulty with illustrating or composing	3
	Explicit author's craft coach	Use composing as an authentic way to teach child elements of author's craft	8

The discourse analysis and case studies also demonstrated the intentionally more active teacher role within the WPS approach compared to a traditional ST/SA approach (i.e. where the teacher functions primarily as a passive scribe in isolation with a single child). By situating writing within small groups and by involving children more directly in the creation of written texts, the teacher role was made more 'literate'. That is, by engaging children in a community of peer writers working on the creation of written play-scripts the role of the teacher in linking narratives, play and writing was more explicit. By introducing speech/ thought bubbles as playful and tangible devices to increase children's development of the consciousness landscape, teacher expectations were also increased for children to address this important feature of true narratives. Given the diverse language learning needs of the study's participants, the responsive teacher role described above sought to make ST/SA a more equitable and effective language and literacy learning experience.

9.5 Assessment of early literacy outcomes

9.5.1 Links with mandated curricula

The intervention addressed many mandated learning outcomes within each study site, e.g. listening/viewing and responding to texts, exposure to new vocabulary, and development of concepts of print. It also expanded the breadth and depth of text level meaning-based literacy learning that both age cohorts were engaged in. There is often a paradigm shift in how 'quality' instruction is defined in preschool versus school settings, shifting from *relational and interactional* factors (in preschools) to *content and skills* factors (in schools) (Bodrova 2008). The current study attempted to merge these two paradigms, such that content and skills attainment were *facilitated* through quality interactions and relationships. As others have argued, there is much to be gained by seeking to align best practices across this largely artificial divide (Roskos & Christie 2011; Singer, Michnick Golinkoff & Hirsh-Pasek 2006).

While school curricula have become more proscriptive in terms of discrete sub-skills to be taught and assessed, they provide little guidance on how teachers should facilitate these outcomes using practices informed by broader understandings of child development. The current study suggests that the use of play-based strategies within a balanced literacy framework offers a developmentally appropriate solution to assist educators in facilitating both code-based and meaning-based outcomes from the earliest stages of children's learning.

9.5.2 Multimodal assessment

As just mentioned, the teaching and assessment of discrete code-based sub-skills has been on the rise. These skills are frequently assessed using decontextualised tasks, such as letter naming, vocabulary matching, and sentence repetition. At best, these measures give an incomplete picture of children's early literacy skills, which are complex and context dependent. At worst, such assessments can lead to children being considered 'developmentally delayed' or 'learning disabled' (Limbos & Geva 2001; Yoon 2014). The current study approached the task of assessing children's narrative skills using more ecologically valid measures (Heilmann et al. 2010). Narrative retells were used to generate naturalistic samples of children's language use, which were then analysed for evidence of *contextualised* discrete skill use. Similarly, children's comprehension was assessed through conversation (direct questioning) and coding of retells for evidence of dual landscape understandings. This provided a range of data to assess children's processing of authentic text meaning.

The methods used to construct the case studies demonstrated how children used drawing, gesture, enactment, intonation and verbal language to communicate their narrative thinking. This valuable multimodal data was gathered to inform the selection of instructional supports, shown to be especially helpful when working with multilingual learners and children with low oral language proficiency. For these children, considering linguistic output alone would have failed to capture the depth of their narrative thinking. Multimodal assessment enabled greater insights into children's communicative intent, which could then be used to provide linguistic scaffolds targeted to their specific needs. For some children this involved support with content vocabulary, while others benefitted from support to use correct syntax or insert causal connectives.

Research has demonstrated how multimodal assessment can enhance understandings of how children 'read' texts. Jacobs (2013, cited in: Callow 2018 p.7) recommends that multimodal reading assessments should include:

> performative qualities, the discussion and creation of texts, ongoing portfolios of student work, assessment of students as they read and view multimodal texts as well as the need to consider the social purpose, textual features, and the ideological interests that texts engender.

Paris and Hofman (2004, p.210) argue that such assessments 'can help teachers to focus on comprehension skills of young children even if the children have restricted decoding skills,

few experiences with books, or limited skills in speaking English'. These same arguments hold true for the many writing skills not related to transcription. The current study has demonstrated the depth of composing work that young children are ready to engage in using their existing multimodal skills.

Thus, multimodal assessments are needed to understand the full range of semiotic competencies of young children, particularly those whose skills may not be strong in print (i.e. code-based) or linguistic modes. This is critical to move beyond deficit approaches, using assessment to construct a profile of student's skills, knowledge, and potential through authentic tasks (Bengochea, Sembiante & Gort 2017). Research into assessment of the multimodal semiosis that occurs within play also offers useful suggestions for how this might be done in relation to early literacy (Wessell-Powell, Kargin & Wohlwend 2016). The study provides an example of how this can be done in early writing. That is, using book-making and its associated collaborative dialogue as an authentic context in which to assess how children deploy all of their semiotic skills to engage in written narrative composition.

9.5.3 Integration with technology

Technology was used to support the teaching and learning process throughout the WPS intervention. Firstly, the digital scanning of children's books enabled sharing of written products with teachers and families. It also enabled creation of a longitudinal digital archive of children's progress as composers and involvement in authentic literacy learning. The discussion of children's book artefacts contained in the case studies (Chapter 8) showed how this use of technology enabled powerful reflection on children's development. It also highlighted children's motivation to take their books home each day, which played an important role in connecting families to their child's learning (to be discussed further in section 9.5.4) and strengthening the children's literate identity.

Audio recordings of collaborative dialogue within book-making sessions also enabled post hoc analysis of the types of talk which supported children's narrative composing. This provided insights into how children approached composing. For example, their relative ease or difficulty associated with: generating ideas, using precise language, organising and connecting sentences, using mental state words, addressing specific story grammar elements, or revising when inconsistencies or contradictions were highlighted. This analysis enabled the targeting of specific skills in subsequent composing episodes.

The use of the 'systematic analysis of language transcripts' ('SALT') software (Miller, Andriacchi & Nockerts 2011) provided an efficient and reliable way to measure discrete language skills. Learning how to use the SALT conventions initially took time, but then facilitated speedy assessment of language features which would have otherwise been laborious (e.g. MLU or maze word percentage). Being able to compare children's scores to the SALT language databases helped to evaluate children's skills against a broader range of same age peers. This was especially helpful for multilingual students, for whom comparison with monolingual peers presented obvious issues. Analysing their results against larger samples of multilingual retells enabled clearer assessment of their growth, as demonstrated in the case studies presented in Chapter 8.

9.5.4 Meaningful home-school connections

Embracing the universal cultural practice of storytelling can provide educators with a powerful way to honor the sociocultural resources that all children bring to their educational settings (Haas Dyson & Genishi 1994). Storytelling can also provide an authentic way to engage families as partners in their child's school literacy learning, which can have long-term benefits for their academic outcomes (Crawford & Zygouris-Coe 2006; Dail & Payne 2010; Hamel et al. 2013; Hindman & Morrison 2011; McNulty, Prosser & Beining 2011; Spencer, Falchi & Ghiso 2011). Positioning families as holders of valued 'funds of knowledge' can serve to enrich the learning process and build community (Moll et al. 1992). This reciprocal relationship is especially important for multilingual children and families, who can face greater language and cultural barriers when it comes to involvement in their child's education (Hamel et al. 2013).

Children's picture book artefacts mediated important home-school connections in the study. Children's excitement for taking their books home each day was a reflection of their value as tokens of literate accomplishment. Children's literate identities were strengthened by the pleasure they obviously experienced in sharing their writing with family members. This was especially true for the preschool age children, who frequently verbalised their excitement to 'read' their books to siblings and parents. Children's narratives were often inspired by their home experiences, e.g. with family members as lead characters and story events clearly based on their lived experience. This supported conversations between educators and family members, thereby helping to build community, involve parents in their child's literacy learning, and strengthen children's literate identity. While not an explicit goal of the study,

these connections suggest fruitful possibilities for the use of WPS to foster more 'familial and culturally competent' family involvement models (Auerbach 1995; Dail & Payne 2010).

9.6 Practical classroom challenges

Implementing the WPS process within preschool and school age classrooms is not without its challenges. The 'messiness' of story dramatisation can sometimes lead to teacher anxiety regarding the managerial component of facilitating children's spontaneous and physical enactment of stories. For the most part, however, these can be readily predicted and addressed when establishing the routines and expectations for story enactment (see, for example: Lee 2016; and Meier 2009). For example, it is helpful to establish: rules for limiting physical contact and voice levels; restrictions on how many children can serve as actors at a given time; and systems for ensuring children receive equitable chances to have their stories enacted and help enact other children's stories.

Finding the time needed for story dictation and joint construction can also present a practical challenge. There are a number of ways that teachers could address this:

(a) reduce the frequency with which children are invited to engage in book-making and instead implement the intervention over a longer period;
(b) use the WPS process to 'hook' children into writing early in the year, then (for those working with school age children) increase the expectation that children will assume responsibility for transcribing;
(c) use the WPS process strategically with multilingual learners and others who might benefit from a more intensive language learning intervention; and,
(d) enlist (when possible) the help of teacher assistants, older students, and/or parents to engage in this work with children.

Generating curricular 'buy in' from administrators and parents might also require teachers to explain and demonstrate the benefits of the WPS process. The research reviewed in the study and the new evidence it provides, can help with this advocacy. In particular, teachers can argue that the WPS process enhances children's meaning based skills, which are essential if literate competency is to move beyond the constrained skills of print conventions. Also, teachers can highlight the role that motivation plays in learning. Students who *want* to write persist for longer periods of time and are more willing to welcome feedback in support their

development. Cambourne (2015, p.39) explains the child's and teachers' roles in creating the motivational conditions for writing development

> teachers need to use classroom language practices which convince students that not only are they capable of learning to write, but that it is also an exciting, interesting, satisfying and worthwhile enterprise which gives them both enjoyment and access to power, equity, justice.

The study demonstrated that using early writing as play-scripts can create these conditions, even with children whose language skills make written composing challenging. Given the long-term implications of failing or succeeding to engage children in meaningful literate experiences from their earliest stages of development, this pedagogical advocacy ought to be considered a professional and ethical responsibility.

9.7 Limitations

The study had a number of limitations that likely impacted its findings:

(a) The twelve-week timeframe presented the most obvious limitation on drawing conclusions about the effectiveness of the WPS process, which would typically span the entire school year if implemented outside an intervention study. This likely resulted in reduced effects, given that previous research demonstrates that language learning and writing development are cumulative long-term processes.

(b) As teacher-researcher working alongside multilingual learners, I was handicapped by my monolingual English skills. Demographic data in the United States and Australia show that approximately 90% of teachers in both countries are monolingual English speaking females of European descent (Brock, C et al. 2009). This is problematic given that monolingual teachers often misjudge multilingual children's linguistic skills because they are unable to access what they know across languages (Limbos & Geva 2001). Despite seeking to promote multimodal semiosis and be as responsive and supportive as possible, this factor likely limited my ability to further promote multilingual participants' language skills.

(c) In terms of the study design, it may not be entirely valid to extrapolate the effects obtained in the study with those which could be obtained by classroom teachers. My presence as teacher-researcher provided additional support for children's early literacy learning, which might not be available in all classrooms. Even where teachers have additional support, it may not to come in the form of an experienced educator with advanced degrees in education. Nonetheless, studies have shown that reduced teacher to child ratios (or class size) is not necessarily an impediment to running small groups or obtaining strong learning outcomes

(Neuman & Kaefer 2013), so the current study still offers valuable insights into how classroom teachers might use the WPS process to obtain similar results.

(d) Another limitation is that no follow-up measurements were taken, so any lasting effects of the treatment will remain unknown.

When research is conducted in the context of the naturalistic classroom, then it is not feasible to advance definitive propositions in describing the impact of a planned variation or intervention. There is always a complex array of variables which can be said to 'confound' treatment results (Gravetter & Forzano 2006). For example, in the present study confounding effects may exist due to: differing classroom supports for narrative development; underlying differences in children's learning dispositions; the quality of relationships between teacher/s and students, and students themselves; and family narrative practices (e.g. book reading and personal storytelling styles). Each of these factors have known impacts on children's narrative development. However, given that the study was confined to a relatively short time period, it can be inferred that the clear developmental effects found were associated with the goals and nature of the planned WPS intervention.

The ability to extrapolate findings from any given treatment group to the general population of age matched peers, is also always limited. That is, the WPS intervention was effective in the current study, but may not prove as effective for all students or in all contexts. For example, students with specific language impairments might benefit from more structured language interventions, and children with certain social-emotional needs might not find writing for sociodramatic play as motivating. Also, children who have had rich opportunities for play and narrative learning might benefit from an approach that emphasizes the inclusion of more explicit reading and writing strategy instruction as a more prominent part of the WPS approach (as appeared to be true for Elise, Case #8). The current study also involved a high percentage of multilingual learners, so it might be that different results would be obtained with predominantly monolingual groups. Therefore, any conclusions drawn from the current study need to be carefully qualified with reference to the study participants and contexts, i.e. the actual children, classes, schools and communities involved in the study.

9.8 Summary

The chapter highlighted differences in how the intervention impacted preschool and school age children, and diverse learners. It was found that the study's emphasis on scaffolding

narrative development through multimodal and collaborative dialogue, coupled with linking early writing with the motivating and integrating process of play, supported its positive effects. Unique opportunities and challenges were identified for various groups of learners.

For preschool age children, it was shown that the WPS intervention created new opportunities to engage in text level composition. It also created a context for intensive involvement in literate discourse. This increased children's literate language use, with improvements in linguistic skills associated with written competency, including: the use of metacognitive and metalinguistic verbs, elaborated noun phrases, and cohesive devices. Overall, it was found that linking writing with play proved enticing for the preschool age children; and that multimodal and collaborative dialogue supported their composing efforts to afford them successful experience in being a 'writer'. These factors were found to increase children's motivation to write and support their literate identity development.

For school age children, it was shown that the WPS intervention also created unique opportunities to engage in extended text level composition and literate discourse. This provided a space where dialogue was encouraged in support of writing development, which was limited at other times. The school cohort embraced the process of writing for peers, seeming to relish the new opportunities for social interaction and play it facilitated. They composed longer and more complex stories, and were willing recipients of linguistic scaffolds.

For diverse learners, often described as 'at risk' of lower levels of academic achievement, the intervention was shown to accommodate their differing needs. For multilingual learners, using their multimodal resources and receiving individually tailored linguistic scaffolds at the point of need, enabled them to successfully engage in written text composition. For children with lower oral language proficiency (monolingual or multilingual), similar results were found; with intensive language supports, such as recasting to expand children's actual utterances to more closely align with their intended meaning, offered an unobtrusive and effective way to scaffold more sophisticated language use. For gender, positive results were obtained for boys and girls, with the intervention's accommodation of differing levels of self-regulation being highlighted as a possible explanation. That is, as with other sub-groups, the intervention's encouragement of multimodal semiosis, authentic purpose and audience for writing, removal of the burden of transcription, and provision of individualised supports for

written composing, seemed to cultivate children's self-efficacy as writers. The importance of this, especially for boys, was highlighted.

CONCLUSION

Chapter 10. In summary

10.1 Key findings

The current chapter presents an overview of the study's key findings as they relate to its three main areas of investigation: narrative development, collaborative dialogue and literate identity. The study's contributions to the field of early literacy and play research are discussion, as well as recommendations for future research given the study's limitations.

10.1.1 Narrative development

The WPS intervention sought to explore the efficacy of combining emergent writing with narrative play on preschool and early school age children's narrative development. Research question one asked: In what ways does using children's early writing as play-scripts influence preschool and early school age children's narrative development? It was hypothesised that repeated opportunities for text level composition, enactment and discussion would support improvements in children's narrative production and comprehension skills. The results of pre- and post-treatment measurements indicated that growth occurred across a number of key variables.

In relation to narrative production, it was found that children's microstructural quality improved in: vocabulary (lexical diversity), syntactic complexity, and accuracy. These linguistic improvements suggested that children became more attuned to and adept at using the literate language characteristic of written expression. These results were supported by changes in the type and volume of scaffolding provided to children during book-making sessions. Discourse analysis showed that teacher-talk aimed at supporting story elaboration and coherence decreased, and that child-talk increased as a proportion of composing dialogue and in average utterance length. These combined changes in collaborative dialogue suggested that the observed increase in children's narrative production skills occurred, at least in part, through a transfer of responsibility from teacher to child within small group writing sessions.

At the macrostructural level, children's story grammar and text cohesion scores were found to increase. Scores for linguistic development of character mental states increased, suggesting that the strategy of encouraging children to add speech/thought bubbles to their illustrations as a visual device to help materialise the consciousness landscape was effective in supporting

this particular skill increase. The case study discussion highlighted the co-occurrence of the introduction of speech/thought bubbles in Week 4 with an increase in children's inclusion of dialogue in their subsequent narratives. Multimodal exploration of character perspectives within narrative play also likely contributed to this increase in consciousness landscape development, as children sought to create interesting characters and infuse humour and suspense into their narratives.

In relation to narrative comprehension, improvements were found in children's literal and inferential scores. On direct questioning, both age cohorts demonstrated increased scores, but the school age children were found to show relatively stronger gains in inferential comprehension. This discrepancy in effect size strengths was discussed in relation to age maturation. Older children have more advanced social-cognitive skills, particularly theory of mind. The relatively stronger increases for the school cohort were shown to be consistent with existing research. Story retell dual landscape codings indicated increased inferential comprehension for both age cohorts, suggesting that this measurement might provide a more sensitive measure of understanding of the consciousness landscape within narratives.

Overall, the study found that the WPS intervention was supportive of numerous mandated preschool and school outcomes related to narrative listening and speaking, and went beyond these to engage children in extended written narrative composition, comprehension and critiquing activities. The results suggest that using WPS is an effective way to promote children's narrative development within preschool and school settings. This was also found to be true for diverse learners when results were explored by: gender, initial oral language proficiency, and language learner type (monolingual and multilingual).

10.1.2 Collaborative dialogue

Collaborative dialogue was promoted within small group writing sessions to support children's composing and literate identity development; and within whole class narrative play sessions to provide valuable feedback to children on their composing efforts in support of narrative and literate identity development. Close analysis of this discourse sought to address the study's second research question: In what ways does collaborative dialogue change in response to using early writing as play-scripts? It was hypothesised that changes would occur in the type and volume of child-talk and teacher-talk, indicating increased: narrative

competency (through a transfer of responsibility for narrative composing from teacher to children), motivation to write, and literate identity development.

It was found that collaborative dialogue provided specific types of cognitive-linguistic supports based on children's individual multimodal semiotic approach, skills and communicative goals. Both peers and teacher served distinct supports, which were coded separately and grouped into discourse categories according to which stage of the composing process they were provided, e.g. 'Getting started & generating ideas' and 'Story dictation & composition'; and the type and level of cognitive-linguistic scaffolding, e.g. repetition of child utterance to affirm/validate composing language (less explicit) versus a coherence suggestion (more explicit).

As discussed in relation to children's narrative development (Section 10.1.1), increases were found in the volume and complexity of child-talk, suggesting an increase in children's narrative competency and ownership over the composing process. That is, a transfer of responsibility was evidenced through an increase in child speaking turns and increased elaborated language (increased MLU).

The case studies highlighted the role of multimodal semiosis within collaborative dialogue, particularly as a supportive resource for establishing intersubjectivity throughout the book-making process. Children across both age cohorts readily integrated multiple linguistic and non-linguistic modes, including drawing (non-representational and representational), gesture, facial expression, prosody, and bodily enactment. Children who were less proficient oral language users, whether monolingual or multilingual, were found to rely on multimodal and collaborative semiosis more heavily.

Close observation of children's multimodal semiosis was shown to be an essential formative assessment strategy to determine appropriate cognitive-linguistic scaffolds within collaborative dialogue. The case studies highlighted the importance of cultivating the necessary cognitive and affective 'conditions of literacy learning' (Cambourne 1995) needed to support children's learning within the intervention. These included the teacher-researcher being attentive to and responding with enthusiasm to children's multimodal communicative efforts across the entire book-making process, and reciprocating with multimodal scaffolds to

support each child's narrative thinking. These were discussed as being essential to creating an enjoyable and equitable context for literate discourse and narrative development.

10.1.3 Literate identity

It was expected that combining emergent writing and narrative play would increase children's motivation to write and, thereby, their literate identity development. This potential was explored through discourse analysis and case study methods, and sought to answer the study's third research question: Does using early writing as play-scripts increase preschool and early school age children's motivation to write and literate identity?

Repeated opportunities to create books used as play-scripts, was shown to support preschool and early school age children's motivation to write and literate identity. Firstly, writing for the purpose of directing narrative play with peers seemed to serve as a powerful social motivator for both cohorts. Children's talk related to the use of their writing as play-scripts increased across the study and was discussed in the case studies. Linking writing to narrative play transformed it into a markedly more social activity. Children's excitement for having their books used as play-scripts, and helping to enact their own and others' written narratives, seemed to reflect children's desire to explore social themes of power and belonging. That is, all children seemed to use writing to experience valued social roles. The satisfaction they seemed to derive from these experiences and the feedback they received on their writing within book-making and play episodes seemed to strengthen their literate identity, i.e. their view of themselves as 'writers' with a voice, capable of using language to share ideas, craft their identity, and influence others.

It was shown that the WPS process provided the cognitive-linguistic supports needed for diverse children to experience success as writers. When treatment effects were explored by diverse learner characteristics (Section 9.3) it was found that the intervention created the necessary cognitive and affective 'conditions of literacy learning' (Cambourne 1995, 2015) through: immersion in narrative texts; having peers and teacher demonstrate how texts are constructed and used; having high expectations that all children would/could engage in text construction; promoting child agency within book-making and play-script enactment; supporting multimodal semiosis and approximation of dual landscape narratives; creating an authentic and motivating purpose for writing through the use of writing as play-scripts; writing for a real audience; scaffolding language use at the point of need, i.e. relevant, appropriate, timely, readily available, and nonthreatening with no strings attached; giving

feedback on writing performance and areas for improvement; and promoting positive affect and relationships as central to motivation and learning.

10.2 Contributions to the field

The WPS intervention demonstrated that using children's early writing as play-scripts can create a space for complex written text composition in the earliest stages of children's educational journeys. This is critical given the role of writing in becoming literate and learning across the curriculum (Berninger 2009). Writing supports reading, assists knowledge building, and enables personal expression (De Smedt & Van Keer 2014). Equally important, the WPS process carved out space for play to enrich children's social and emotional lives. This is especially critical in school settings, where play has been 'pushed out' by increased attention to the learning of discrete sub-skills; and given play's potential to increase motivation for writing, which supports writing achievement.

Vivian Paley, reflecting on her life's work in correspondence with Lindfors (2004, p. 149), expressed her belief in the enduring relevance of her narrative play work

> storytelling and story acting will be, I am certain, my most widespread and long lasting influence upon the early childhood education classroom. This simple interpretation of theater for children of all ages, but particularly well suited to the young, is able to withstand the onslaught of any new curriculum or set of standards. It is but one step away from play itself and encompasses nearly all the fantasy and imaginative power we find in play. Yet, as in theater, the dramatic images take on a structure that is (that must be) logical and empathetic. We see and feel the meaning of character and action, a process that, even for a two-year-old (as much perhaps as for a 12-year-old) is deeply satisfying and stimulating.

However, educators are operating in a politicised climate where 'hard evidence' (i.e. numerical data) related to discrete sub-skills counts more than 'subjective' views, no matter how well informed by classroom practice. The current study adds to the evidence base showing that respect for children's right to play and agency, supported through responsive relationships, does not compromise learning but is central to it. Learners often deemed the most 'at risk' of lower levels of academic attainment were supported through the intervention's multimodal and collaborative approach to text construction. The study adds to the existing evidence base that diverse learners benefit from opportunities to engage in multimodal semiosis within playful and authentic contexts (i.e. those meaningful to the child).

To date, few studies have attempted to investigate children's narrative development in classroom contexts using a comprehensive approach to multimodal semiosis. Many have

explored how narrative competency develops through 'talk' (Gardner-Neblett & Iruka 2015; Lever & Senechal 2011), however, these have largely approached dialogue as a single (i.e. verbal/referential) mode, when in practice 'talk' consists of multiple linguistic and non-linguistic modes to express and interpret intent (as discussed above). Other studies have looked at how children's drawings can be used to assess and support narrative development (Cherney et al. 2006; Deguara & Nutbrown 2017; MacKenzie & Veresov 2013; Papandreou 2014). Again, drawing is often treated as a single (i.e. visual/pictorially representative) mode, despite findings that young children's drawing is often accompanied by rich verbal narrating, gestures, bodily enactment, and non-linguistic sound making (Coates & Coates 2015).

Other studies have explored narrative development through specific combinations of modes, for example: drawing/writing (Alvarez 2017; Christianakis 2011; Einarsdottir, Dockett & Perry 2009; Kendrick & McKay 2004; MacKenzie & Veresov 2013), talk/dictation (Pinto, Tarchi & Bigozzi 2015), talk/writing (Bernstein 2016; Galda & Pellegrini 1990; Roskos, Tabors & Lenhart 2009), gesture/talk (Demir, Levine & Goldin-Meadow 2015), and drama/writing (Anderson 2012; Barab et al. 2010; Ewing 2015). While these studies contribute important understandings regarding interaction between specific modes, they represent an incomplete analysis.

To the researcher's knowledge, the current study is the first to explore how children use all of their semiotic resources to engage in written narrative composing and comprehension within a naturalistic play-based intervention. It is also the first to investigate the intentional observation of multimodal semiosis as a formative assessment strategy to guide teacher scaffolding within collaborative writing. And, it is the first to combine Paley's storytelling/storyacting approach with the emergent writing practices of picture book-making and joint construction of texts.

The study therefore adds to the literature related to play-based approaches to early literacy development and the role of collaborative dialogue in facilitating children's language and literacy learning. In particular, it presents a detailed account of how narrative development can be supported by linking early writing and narrative play, and by facilitating collaborative dialogue between children and educators within preschool and school settings.

10.3 Implications for future research

Given the potential for using the WPS approach to support a strong entry into literacy for diverse learners, and the limitations of the study outlined above (Section 9.7), further research is warranted. The most urgent need is for research into how the WPS process might further support multilingual learners if facilitated by teachers fluent in children's first languages. As others have highlighted, we are 'in need of a more expansive understanding of the "dynamics of transfer across different language systems"'(Gutierrez, Zepeda & Castro 2010, p.335). Investigating how multilingual teachers, by promoting this 'translanguaging' (Axelrod & Cole 2018), could perhaps better scaffold this transfer of skills using the WPS component activities holds promising potential.

In an era of increased accountability for schools and educators, it is hoped that the current study can spur further research into the benefits of multimodal, collaborative and play-based approaches to early literacy. There continues to be a pressing need for more 'theory testing' and 'evidence building' research to support effective early years pedagogy. It must be proven that children's right to play, agency and meaningful literate practice is not simply a 'nice' option for the privileged, but a necessity for all. As Worthy et al. (2012) explain, even highly researched and proven meaning-based activities such as read-alouds are under threat

> teaching time is being displaced with testing and clerical duties, and practices such as read-aloud, especially the dialogue that surrounds it, are in danger of becoming seen as enrichment rather than essential.

It is important that researchers continue to demonstrate that young children are capable of complex text and meaning level work, and that postponing this until children have mastered the 'basics' of decoding and transcription is detrimental to their development. As Cambourne (2015, p. 33-35) argues, if schools adopt 'carefully sequenced, teacher-directed learning of a hierarchy of basic concepts and sub-skills...there is simply not enough time for learners to acquire this specialised [i.e. complex literate] knowledge'. Authentic meaning-based literacy experiences are needed to build the skill and dispositional foundation needed to foster children's lifelong participation in robust literate and democratic communities. As Paley (cited in: Lindfors 2004, p.149) noted

> in doing stories we build community. We do this out of the natural elements of play and democracy: the free expression of ideas, the individual voices receiving equal attention from all, and the active participation of every member of a group in creating the culture and mythology of the classroom society...the process leads to a literary community that begins with and integrates all the literature, social action, and philosophy to follow, in full view of all its members.

The current study demonstrated that even very young children are motivated to establish such democratic literary communities. As discussed in the opening literature review, literacy as a social practice, one that needs to recognise the role of literacy in forming a more just and equitable future. This starts with intentionally lifting up children's voices and community within their early literacy experiences. Researchers must continue to investigate pedagogical approaches guided by this critical sociocultural understanding of literacy within modern democracies.

Future studies should also explore the impact of the WPS approach on older children, who are perhaps even more ready to take on the roles of text composer, interpreter, enactor and critic. Rather than using a 'reader's chair' as the sole platform for sharing writing with peers, it would be interesting to see how older children respond to the opportunity to have peers enact and critique their work; and how multimodal semiosis shifts within joint construction as children become older. Wells' (2001) work with older children showed that multimodal semiosis continues to be critical to learning despite advances in verbal skills. In particular, he found that much of the semiosis that occurs in joint construction through dialogic interaction is non-verbal, below the level of conscious awareness, and is influenced by affective factors such as mutual gaze, facial expressions and body language. In reflecting on the mistakes he made prior to realising the centrality of multimodal semiosis to learning, Wells (2001, p.94) wrote

> I have learned how my "logocentrism" has blinded me to other modes of meaning making that, when attended to, can make a difference in how I view students' interests and abilities and enable me to be more effective in coconstructing meaning with them in our zones of proximal development.

More research is needed to strengthen understandings of how to support children whose preferred approach to learning lies outside the 'verbal/linguistic' mode privileged in many school settings. This has the potential to make schools more inclusive, equitable and effective.

Lastly, further research is need to investigate the effects of implementing the WPS approach in partnership with children's caregivers. Similar to partnerships promoting dialogic reading and elaborative conversations, a program which involves parents in collaborative writing has the potential to harness the universal cultural practice of storytelling in support of children's literacy learning. This would address calls for more familial and culturally competent home literacy programs, where families are positioned as already equipped with valued knowledge and skills to enhance their child's educational outcomes and community.

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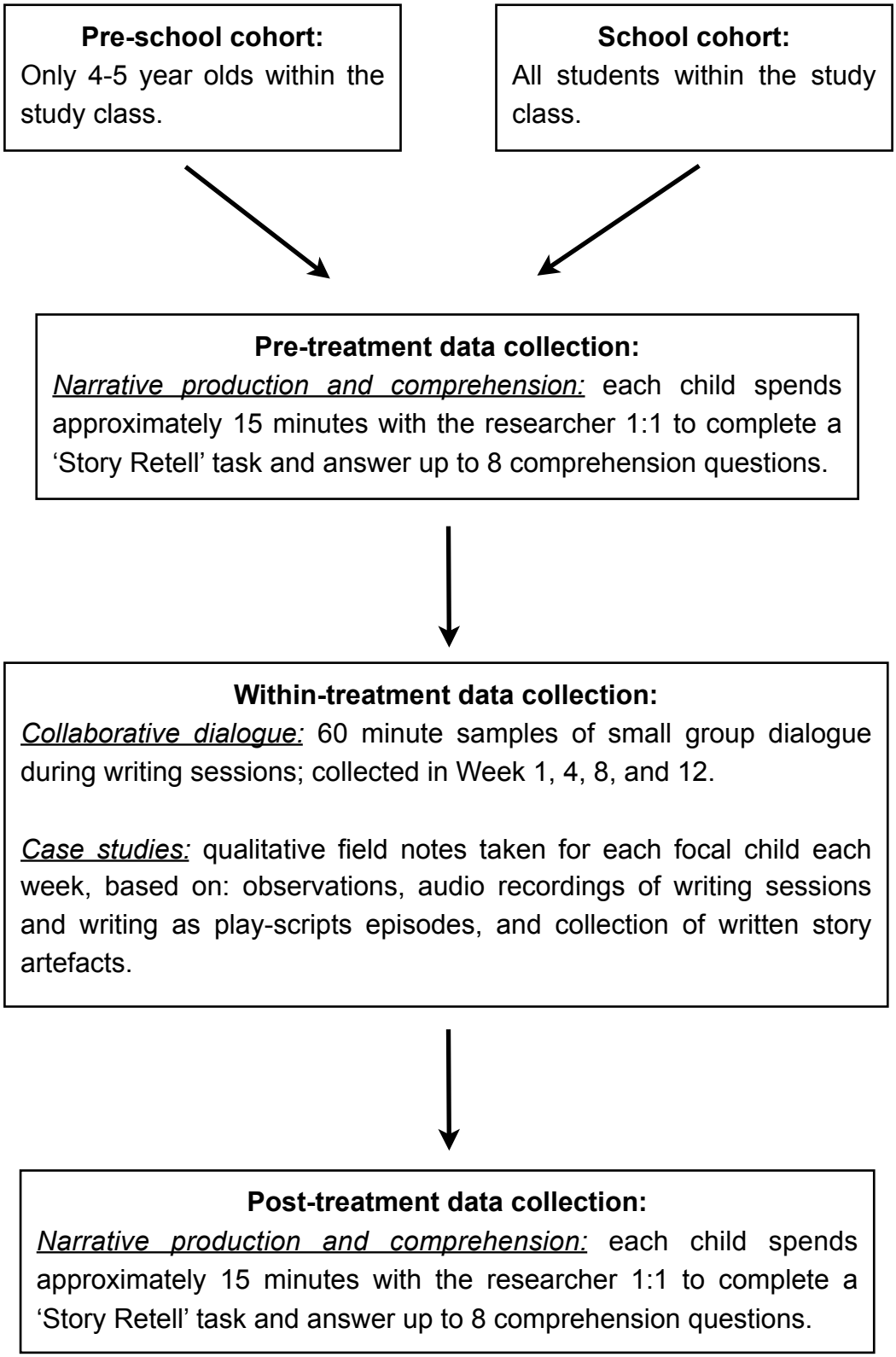
Appendix 1: Treatment Protocol

<table>
<tr><th></th><th colspan="2">Instructional Focus</th></tr>
<tr><th>Week</th><th>Writing sessions</th><th>Writing as play-scripts</th></tr>
<tr><td>1</td><td rowspan="2">Orientation to the book-making process</td><td rowspan="2">Orientation to the writing as play-scripts process</td></tr>
<tr><td>2</td></tr>
<tr><td>3</td><td rowspan="2">Development of the action-landscape</td><td rowspan="2">Development of the action-landscape within play</td></tr>
<tr><td>4</td></tr>
<tr><td>5</td><td rowspan="6">Development of the consciousness-landscape</td><td rowspan="6">Development of the consciousness-landscape within play</td></tr>
<tr><td>6</td></tr>
<tr><td>7</td></tr>
<tr><td>8</td></tr>
<tr><td>9</td></tr>
<tr><td>10</td></tr>
<tr><td>11</td><td rowspan="2">Building Literate identity</td><td rowspan="2">Building Literate Community</td></tr>
<tr><td>12</td></tr>
</table>

Appendix 2: Data Collection Protocol



Appendix 3: Data Collection Table of Indices

Variable	Measurement description	Type	Who	When
Narrative production	Story retell, used to assess: •Macrostructural quality: total NSS score •Vocabulary: number of new words (from SALT standard measures report)	Quantitative	Whole treatment group	Pre- and post-treatment
Narrative comprehension	Tally of action/consciousness landscape utterances in story retell; 0-8 score for literal/ inferential questioning post story recall	Quantitative	Whole treatment group	Pre- and post-treatment
Collaborative dialogue	One hour audio recording of small group writing dialogue, to be transcribed and coded for: •Collaborative strategies •Literate discourse	Mixed: Quantitative & Qualitative	Random small groups	Week 1, 4, 8 and 12
Motivation to write & literate Identity	Case studies based on: •Measures outlined above •Field notes •Additional audio/audiovisual recordings •Written story artifacts	Mixed: Quantitative & Qualitative	Four children selected from each treatment group	Across twelve-week treatment

Appendix 4: '*Frog, where are you?'* (Mayer 1969) story script

(Miller, Andriacchi & Nockerts 2011, pp.220-221)

Page	Script
1	There once was a boy who had a dog and a pet frog. He kept the frog in a large jar in his bedroom.
2	One night while he and his dog were sleeping, the frog climbed out of the jar. He jumped out of an open window.
3	When the boy and the dog woke up the next morning, they saw that the jar was empty.
4	The boy looked everywhere for the frog. The dog looked for the frog too. When the dog tried to look in the jar, he got his head stuck.
5	The boy called out the open window, "Frog, where are you?" The dog leaned out the window with the jar still stuck on his head.
6	The jar was so heavy that the dog fell out of the window headfirst!
7	The boy picked up the dog to make sure he was ok. The dog wasn't hurt but the jar was smashed.
8 - 9	The boy and the dog looked outside for the frog. The boy called for the frog.
10	He called down a hole in the ground while the dog barked at some bees in a beehive.
11	A gopher popped out of the hole and bit the boy right on his nose. Meanwhile, the dog was still bothering the bees, jumping up on the tree and barking at them.
12	The beehive fell down and all of the bees flew out. The bees were angry at the dog for ruining their home.
13	The boy wasn't paying any attention to the dog. He had noticed a large hole in a tree. So he climbed up the tree and called down the hole.
14	All of a sudden an owl swooped out of the hole and knocked the boy to the ground.
15	The dog ran past the boy as fast as he could because the bees were chasing him.
16	The owl chased the boy all the way to a large rock.
17	The boy climbed up on the rock and called again for his frog. He held onto some branches so he wouldn't fall.
18	But the branches weren't really branches! They were deer antlers. The deer picked up the boy on his head.
19	The deer started running with the boy still on his head. The dog ran along too. They were getting close to a cliff.
20 - 21	The deer stopped suddenly and the boy and the dog fell over the edge of the cliff.
22	There was a pond below the cliff. They landed with a splash right on top of one another.
23	They heard a familiar sound.
24	The boy told the dog to be very quiet.
25	They crept up and looked behind a big log.
26	There they found the boy's pet frog. He had a mother frog with him.
27	They had some baby frogs and one of them jumped toward the boy.
28-29	The baby frog liked the boy and wanted to be his new pet. The boy and the dog were happy to have a new pet frog to take home. As they walked away the boy waved and said "goodbye" to his old frog and his family.

Appendix 5: SALT transcription & NSS Scoring Rubric

Summary of SALT Transcription Conventions

1. Transcript Format. Each entry begins with one of the following symbols. If an entry is longer than one line, continue it on the next line.

- $ Identifies the speakers in the transcript; generally the first line of the transcript. Example: $ Child, Examiner
- C Child/Client utterance. The actual character used depends on the $ speaker line.
- E Examiner utterance. The actual character used depends on the $ speaker line.
- \+ Typically used for identifying information such as name, age, and context. Example of current age: + CA: 5;7
- \- Time marker. Example of two-minute marker: - 2:00
- : Pause between utterances of different speakers. Example of five-second pause: : :05
- ; Pause between utterances of same speaker. Example of three-second pause: ; :03
- = Comment line. This information is not analyzed in any way, but is used for transcriber comments.

2. End of Utterance Punctuation. Every utterance must end with one of these six punctuation symbols.

- . Statement, comment. Do not use a period for abbreviations.
- ! Surprise, exclamation.
- ? Question.
- ~ Intonation prompt. Example: E And then you have to~
- ^ Interrupted utterance. The speaker is interrupted and does not complete his/her thought/utterance.
- > Abandoned utterance. The speaker does not complete his/her thought/utterance but has not been interrupted.

3. { } Comments within an utterance. Example: C Lookit {C points to box}.
Nonverbal utterances of communicative intent are placed in braces. Example: C {nods}.

4. Unintelligible Segments. X is used to mark unintelligible sections of an utterance. Use X for an unintelligible word, XX for an unintelligible segment of unspecified length, and XXX for an unintelligible utterance.
Example 1: C Give me the X. Example 2: C He XX today. Example 3: C XXX.

5. Bound Morphemes. Words which contain a slash "/" indicate that the word is contracted, conjugated, inflected, or pluralized in a regular manner. The root word is entered in its conventional spelling followed by a slash "/" and then the bound morpheme.

English

- /S Plural. Examples: KITTEN/S, BABY/S
  Words that end in "s" but represent one entity are not slashed. Example: PANTS
- /Z Possessive inflection. Examples: DAD/Z, MARY/Z.
  Do not mark possessive pronouns. Examples: HIS, HERS, OURS, YOURS
- /S/Z Plural and Possessive. Example: BABY/S/Z
- /ED Past tense. Examples: LOVE/ED, DIE/ED
  Predicate adjectives are not slashed. Examples: WAS TIRED, IS BORED
- /3S 3rd Person Singular verb form. Examples: GO/3S, TELL/3S
  Irregular forms are not slashed. Example: DOES
- /ING Verb inflection. Examples: GO/ING, RUN/ING
  The gerund use of the verb form is not slashed. Example: WENT SWIMMING
- /N'T, /'T Negative contractions. Examples: CAN/'T, DOES/N'T
  Irregular forms are not slashed. Examples: DON'T, WON'T. Do not slash AIN'T.
- /'S, /'RE, /'M, /'LL, /'D, /'VE Contractible verb forms IS, ARE, AM, WILL, WOULD, and HAVE.
  Examples: HE/'S, WE/'RE, I/'M, I/'LL, I/'D, WE/'VE

Non-standard contracted verb forms (*not used in the SALT database samples*)

- /H'S, /D'S, /D'D, /'US Non-standard contractions HAS, DOES, DID, and US.
  Examples: HE/H'S been sick. WHAT/D'S he do for a living? Why/D'D the boy look for the frog? LET/'US go. For the SALT database samples, LET'S was not slashed and the other non-standard contractions were transcribed as two words, e.g., HE HAS, WHAT DOES

Spanish

- /S Plural. Examples: RANA/S, FELIZ/S, FLOR/S

6. Bound Pronominal Clitics (Spanish). Pronominal clitics may be either bound or unbound. When bound, they are preceded by a plus sign. Examples: gritándo+le, déja+lo, dá+me+lo

7. Mazes. Filled pauses, false starts, repetitions, reformulations, and interjections.

- ( ) Surrounds the words/part-words that fall into these categories. Example: C And (then um) then (h*) he left.

8. Omissions. Partial words, omitted words, omitted bound morphemes, and omitted pronominal clitics are denoted by an asterisk (*).

- * Following one or more letters this indicates that a word was started but left unfinished. Example: C I (w* w*) want it.
- * Preceding a word indicates that an obligatory word was omitted. Example: C Give it *to me.
- /* Following a slash the * is then followed by the bound morpheme which was omitted, indicating the omission of an obligatory bound morpheme. Example: C The car go/*3s fast.
- +* Following a plus sign the * is then followed by the Spanish clitic which was omitted, indicating the omission of an obligatory pronominal clitic. Example: C Él está gritándo+*le a la rana.

9. Overlapping Speech. When both speakers are speaking at the same time, the words or silences that occur at the same time are surrounded by angle brackets < >.

Example 1: C I want you to do it < > for me.
E <Ok>.

Example 2: C Can I have that <one>?
E <Uhhuh>.

10. Linked words. The underscore "_" is used to link multiple words so they are treated as a single word. Examples include titles of movies and books, compound words, proper names, and words or phrases repeated multiple times.

11. Root identification. The vertical bar "|" is used to identify the root word.

English uses: The root words of irregular verb forms such as "went" or "flew" are not identified.

	Examples:
Linked words repeated for emphasis.	C The boy ran very very_very|very fast.
Non-words used in error.	C He goed|go[EO:went] by hisself|himself[EW:himself].
Shortened words.	C He was sad cuz|because they left.

Spanish uses:

	Examples:
Inflected word forms.	C Había|haber una vez un niño que tenía|tener una rana.
Diminutives.	C El perrito|perro tumbó|tumbar las abeja/s.
Linked words repeated for emphasis.	C Dijeron rana rana_rana|rana dónde estás.
Non-words used in error.	

12. Sound Effects and Idiosyncratic Forms %. The percent sign is used to identify sound effects which are essential to the meaning or structure of the utterance. Non-essential sound effects are entered as comments. Strings of the same sound are linked together.

Example 1: C The dog went %woof_woof. Example 2: C The dog barked {woof woof}.

The percent sign is also used to identify idiosyncratic forms: not adult-like production of very young children which are consistent in reference to an object, person, or situation.

Example 1: C See %vroom {car}. Example 2: C My %coopa {cookie}.

13. Spelling Conventions.

- Filled pause words: AH, EH, ER, HM, UH, UM, and any word with the code [FP]
- Yes words: OK, AHA, MHM, UHHUH (*English & Spanish*)
  YEAH, YEP, YES (*English only*)
  SÍ (*Spanish only*)
- No words: NO, AHAH, MHMH, UHUH (*English & Spanish*)
  NAH, NOPE (*English only*)
- I don't know (*intoned*): IDK
- Concatenatives: BETCHA, GONNA, GOTTA, HAFTA, LIKETA, OUGHTA, SPOSTA, TRYNTA, USETA, WANNA, WHATCHA
- Numbers (*examples*): 21 or TWENTYONE, 17 or DIECISIETE
- Reflexive vs Non-reflexive pronouns (Spanish only)
  The following pronouns can be used both reflexively and non-reflexively: ME, TE, SE, OS, NOS. Attach the code [X] when used reflexively. Examples:
  C El niño se[X] fue con el perro.
  C El perro me ayudó a conseguir la rana.
- Other English spellings:

AIN'T	HMM	NOONE	OH, OOH
ALOT	HUH	NOPE	UHOH
ATTA	LOOKIT	OOP, OOPS, OOPSY	LET'S (*see part 5*)

14. [ ] Codes. Codes are used to mark words or utterances. Codes are placed in brackets [ ] and cannot contain blank spaces. Codes used to mark words are inserted at the end of a word with no intervening spaces between the code and the word.

a) Codes used to mark errors in the reference database samples:

[EO:__] used to mark overgeneralization errors.	C He falled|fall[EO:fell].
[EW:__] used to mark other word-level errors.	C He were[EW:was] look/ing.
[EW] used to mark extraneous words.	C And then the boy is a[EW] sleep/ing.
[EU] used to mark utterance-level errors.	C And they came to stop/ed [EU].

b) Other codes used in the reference database samples:

[F] used to mark fragments due to utterance segmentation based on modified communication units.	C The gopher look/ed out of the hole. C and bit the boy [F].
[CS] used to mark code-switched words.	C The dog fell from la[CS] ventana[CS].
[WO] used to mark utterances with non-standard word order.	C And then fell down the dog and the boy [WO].
[I] used to mark vocabulary provided by the examiner.	C And then the :05 <> owl[I] scare/ed him. E <Owl>.
[FP] used to mark non-standard filled pause words.	C The dog (um like[FP]) fell down.
[X] used to mark Spanish reflexive pronouns.	C El niño se[X] fue con el perro.

NSS SCORING RUBRIC

Characteristic	Proficient	Emerging	Minimal/Immature
Introduction	**1) Setting**: - States general place and provides some detail about the setting (e.g., reference to the time of the setting, daytime, bedtime, season). - Setting elements are stated at appropriate place in story. **2) Characters:** - Main characters are introduced with some description or detail provided.	**1) Setting:** - States general setting but provides no detail. - Description or elements of setting are given intermittently through story. - May provide description of specific element of setting (e.g., the frog is in the jar). **2) Characters:** - Characters of story are mentioned with no detail or description.	- Launches into story with no attempt to provide the setting.
Character Development	- Main character(s) and <u>all</u> supporting character(s) are mentioned. - Throughout story it is clear child can discriminate between main and supporting characters (e.g., more description of, emphasis upon main character(s)). - Child narrates in first person using character voice (e.g., "You get out of my tree", said the owl.).	- Both main and active supporting characters are mentioned. - Main characters are not clearly distinguished from supporting characters.	- Inconsistent mention of involved or active characters. - Character(s) necessary for advancing the plot are not present.
Mental States	- Mental states of main and supporting characters are expressed when necessary for plot development and advancement. - A variety of mental state words are used.	- Some use of evident mental state words to develop character(s).	- No use of mental state words to develop character(s).
Referencing	- Provides necessary antecedents to pronouns. - References are clear throughout story.	- Inconsistent use of referents/antecedents.	- Excessive use of pronouns. - No verbal clarifiers used. - Child is unaware listener is confused.
Conflict Resolution	- Clearly states all conflicts and resolutions critical to advancing the plot of the story.	- Under developed description of conflicts and resolutions critical to advancing the plot of the story. **OR** - Not all conflicts and resolutions critical to advancing the plot are present	- Random resolution(s) stated with no mention of cause or conflict. **OR** - Conflict mentioned without resolution. **OR** - Many conflicts and resolutions critical to advancing the plot are not present.
Cohesion	- Events follow a logical order. - Critical events are included while less emphasis is placed on minor events. - Smooth transitions are provided between events.	- Events follow a logical order. - Excessive detail or emphasis provided on minor events leading the listener astray. **OR** - Transitions to next event unclear. **OR** - Minimal detail given for critical events. **OR** - Equal emphasis on all events.	- No use of smooth transitions.
Conclusion	- Story is clearly wrapped up using general concluding statements such as "and they were together again happy as could be".	- Specific event is concluded, but no general statement made as to the conclusion of the whole story.	- Stops narrating and listener may need to ask if that is the end.

Scoring: Each characteristic receives a scaled score 0-5. Proficient characteristics=5, Emerging=3, Minimal/ Immature=1. Scores in between (e.g., 2, 4) are undefined, use judgement. Scores of 0, NA are defined below. A composite is scored by adding the total of the characteristic scores. Highest score=35.
A score of 0 is given for Child Errors (i.e., telling the wrong story, conversing with examiner, not completing/refusing task, using wrong language creating inability of scorer to comprehend story in target language, abandoned utterances, unintelligibility, poor performance, components of rubric are in imitation-only).
A score of NA (non-applicable) is given for Mechanical/Examiner/Operator Errors (i.e., interference from background noise, issues with recording (cut-offs, interruptions), examiner quitting before child does, examiner not following protocol, examiner asking overly specific or leading questions rather than open-ended questions or prompts).

NSS SCORING EXAMPLES

Characteristic	HIGH (Proficient Score 4-5)	MEDIUM (Emerging Score 2-3)	LOW (Minimal/Immature Score 0-1)
Introduction	**FWAY Introduction** "A little boy went out one day and caught a frog. He put the frog in a jar and stared at him when he got to his room again. The dog looked in the jar and saw the frog too. While the boy was sleeping the frog jumped down and ran out the window." **Note**: All three characters are mentioned. There is mention of the setting (boy's bedroom, the frog is in the jar). Events are ordered correctly. **PGHW Introduction** "In this story a little girl named Pookins, she always gets her own way. And she's used to it because probably her mom and dad don't really care."	**FWAY Introduction** "One morning Tom woke up. Tom was looking at his frog. At night the frog went out." **Note**: Minimal detail of characters and not all characters are mentioned. Setting is not mentioned **PGHW Introduction** "Pookins is a nice lady. But she always made faces."	**FWAY Introduction** "First the boy was looking at the frog." **Note**: Overall poor performance that lacks detail or specificity in set-up. **PGHW Introduction** "She was eating her x. And then she made faces." Note: Poor referencing, launches into story without set up.
Mental States*	**DDS Mental States** "On his way home he thought about if he should eat the mouse or not…The next day the fox came in looking very happy and in no pain at all… I would be honored said the fox… I forgot to mention, said Dr. DeSoto…"	**PGHW Mental States** "And she is crying. So she wants to get out." "She liked it." **APNF Mental States** (Score of three) " Then he met an angry rhinoceros… And then Fluffy started feeling bad"	No use of mental states words.
	***The mental states characteristic encompasses mental states such as feelings (sad, angry, mad) but also "cognitive states" (thoughts of characters, emotional responses, etc.)		
Referencing	**DDS Referencing** "Dr. DeSoto said, hold on just a minute. He pulled his head back into the window and talked with his wife…" **Note:** Contains antecedent and uses adequate referencing for multiple characters	**DDS Referencing** "He looked out the window and saw a fox. He said, I can't help you. And then he was thinking, but my tooth aches." **Note:** Inconsistent use of referents. Unfamiliar listener would be confused.	**APNF Referencing** "And then he put on more shaving cream. Then he ate marshmallows. He stuck whip cream in feathers. Then he said I'm not fluffy. **Note:** Lack of antecedents to pronouns and diversity of referents

Appendix 6: Sample story retell transcript with NSS score

akira.slt	
	$ Child, Examiner
	+ Language: English
	+ Name: Akira
	+ Gender: F
	+ DOB: 2/4/2009
	+ DOE: 10/2/2014
	+ CA: 5;8
	+ Grade: K
	+ Ethnicity: African American
	+ Context: Nar
	+ Subgroup: FWAY
	+ Location: Pershing
	+ Collect: 1
	+ Examiner: Heidi
	+ Transcriber: Heidi
	+ Database: Narrative Story Retell
	- 0:00
	C Froggie where are you?
	C once upon a time there was a boy and a dog that had a frog in a jar hm[FP]>
	::05
	E yep you can turn the page whenever you are ready.
	C when they were sleep/ing the frog quietly got out of the jar.
	C in the morning when they woke up the jar was hm[FP]>
	::20
	E yep when they got up the jar was~
	C empty.
	C the boy and the dog look/ed everywhere!
	C the boy even look/ed in his shoe.
	C the (the) dog look/ed in the jar and his head got stuck.
	C They (the) boy look/ed out the window.
	C the dog did too.
	E good job.
	C the dog accidentally fell out the window.
	C the boy catched|catch[EO:caught] him to see if he was okay.
	C He was okay but the jar was crack/ed.
	C the (the) boy um[FP]>
	E uhhuh~
	C the boy called the frog.
	C The dog was look/ing at the bees and he was follow/ing them.
	C then the dog was bother/ing the bees and the boy was look/ing at [EW:for] the frog with hm[FP] hm[FP]>
	C the dog was still bother/ing the bees hm [FP].
	E keep going you/'re do/ing a great job.
	C a creature pop/ed out and said %ow my nose!
	C the beehive (the beehive) fell off the tree.
	C the boy found a hole in the tree and he look/ed in the hole.
	C an owl pop/ed out.
	C then the dog ran away cause the bees were chase/ing him.
	C the little boy was climbing a big rock that was the (that had) branch/s to hold on to so he does/n't fall.
	C it was/n't really branch/s it was (it was) hm[FP]>

	;:05 can you help me?
	E what word could you use?
	E it was/n't really branch/s it was~
	C deer a deer/s/z ear/s/z.
	E uhhuh~
	C the deer was running and they stop/ed at a big cliff.
	C the fell off.
	C the boy and the dog fell off the cliff because the deer stop/ed.
	C they fell in [EW:off] the cliff.
	C they head a familiar sound.
	C hm[FP]>
	E keep going you/'re doing great.
	C hm[FP] a familiar sound.
	C it was the frog behind a big log.
	C the boy said %sh to the dog.
	C they look/ed over the log.
	C they saw the frog and the frog/s/z mom.
	C the frog/s/z mom had baby/s.
	C the little frog liked the boy.
	C so the little boy took the frog as his new own pet.
	+ Introduction: 3
	+ CharacterDev: 2
	+ MentalStates: 2
	+ Referencing: 3
	+ ConflictRes: 2
	+ Cohesion: 3
	+ Conclusion: 3

Appendix 7: Sample 'standard measures' (SALT) report

akira		
STANDARD MEASURES		
	Child	**Examiner**
TRANSCRIPT LENGTH		
Total Utterances	40	9
# Analysis Set (C&I Verbal Utts)	34	9
Total Completed Words	330	45
Elapsed Time (6:07)	6.12	6.12
SYNTAX/MORPHOLOGY		
# MLU in Words	7.71	5.00
# MLU in Morphemes	8.50	5.56
SEMANTICS		
# Number Different Words	103	31
# Number Total Words	262	45
# Type Token Ratio	0.39	0.69
INTELLIGIBILITY		
% Intelligible Utterances	100%	100%
MAZES AND ABANDONED UTTERANCES		
# Utterances with Mazes	4	0
# Number of Mazes	4	0
# Number of Maze Words	6	0
# Maze Words as % of Total Words	2%	0%
Abandoned Utterances	6	0
VERBAL FACILITY AND RATE		
Words/Minute	53.95	7.36
Within-Utterance Pauses	0	0
Within-Utterance Pause Time	0.00	0.00
Between-Utterance Pauses	3	3
Between-Utterance Pause Time	0.50	0.50
OMISSIONS AND ERROR CODES		
# Omitted Words	0	0
# Omitted Bound Morphemes	0	0
Word-level Error Codes	1	0
Utterance-level Error Codes	2	0
# Calculations based on C&I Verbal Utts		

Appendix 8: Parent information and consent letters

University of South Australia

STUDY INFORMATION SHEET

'Using early writing as play-scripts: effects on narrative development, collaborative dialogue and peer feedback'

Researcher's name: Heidi Byrnes-Cloet

Study description and goals: Becoming a successful 'reader' and 'writer' involves more than simply being able to read or write words on a page. It involves being able to understand those words, relate them to existing knowledge, and share/create understanding with others. You are invited to allow your child to participate in a research project that will investigate ways to improve children's skills in these areas through a twelve-week unit linking 'story writing' with 'story play' (dramatically enacting stories).

I am a doctoral candidate, working under the supervision of experienced researchers in the School of Education at University of South Australia. I am an experienced early years (0-8) teacher and would very much enjoy working with your child to support their early literacy development, if you consent to their participation.

What will my child be asked to do? Your child will be invited to join in regular story writing and dramatisation activities. They will also be supported to discuss their own and others' writing.

Will my child be assessed? Yes, this will involve spending approximately fifteen minutes with the researcher to complete two story activities, one at the start of the study and one at the end. These will involve listening to a children's story, retelling the story using their own words, and answering questions about the story. These tasks will be conducted 1:1 in an open, easily observable location within school boundaries. The tasks will be audio recorded and transcribed.

The researcher will also collect periodic audio and audio-visual recordings of story writing and story play activities, and make copies of children's written/drawn stories. This data will support analysis and presentation of the learning outcomes achieved through the study.

Will you ask my child's permission? Yes, I will explain the project and assessment task to your child in simple terms. They will know that I am a researcher/teacher interested in helping children to become better readers and writers. For the assessment task, your child will be asked whether or not they would like to listen to a story. If your child declines, they will be cheerfully told this is fine and remain in the classroom. If your child agrees, they will complete the task; with the option to return to the classroom at any point if they wish, cheerfully accompanied by the researcher.

What if I refuse or change my mind? Your consent is voluntary. If you prefer not to allow your child's participation, or even to withdraw consent once the project has started, there will be no negative impact on your child; your child will simply not participate in the story writing activities and an alternative activity will be made available during story dramatization sessions.

Can I have my child's results? We will not be reporting children's individual results to parents. However, if you would like to receive a summary of the project's findings, we will inform the school's principal regarding how this can be accessed.

Will my child's identity be revealed? Participants' responses will be kept confidentiality and no information which could lead to them being identifiable will be released.

Will my child's work, or images of my child, be published? You are invited to indicate (on the attached parent consent form) whether or not to consent to publication of your child's work and/or photographs of your child; which will only be used with your permission to present the findings of the study.

How long will copies of my child's work, and images of my child, be kept? Where and how will they be stored? All materials will be kept in a locked filing cabinet and/or password protected computer server by the researcher and University. After publication of the outcomes of the study, all copies of children's work and audio/visual recordings will be destroyed; after a period not exceeding five years.

Further official information This project has been approved by the University of South Australia's Human Research Ethics Committee. If you have any ethical concerns about the project or questions about your rights as a participant guardian please contact the Executive Officer of this Committee, tel: +61 8 8302 3118; email: vicki.allen@unisa.edu.au

Please do not hesitate to contact myself, or my research supervisors, if you would like further information. Thank you for considering this invitation.

Heidi Byrnes-Cloet

Doctoral Candidate, School of Education, University of South Australia

Email: heidi.byrnes-cloet@mymail.unisa.edu.au, phone: +1 773-396-0963

Research Supervisors:

Associate Professor Susan Hill, email: susan.hill@unisa.edu.au, phone: +61 8 83024612

Dr Gregory Yates, email: gregory.yates@unisa.edu.au, phone: +61 8 3024225

University of South Australia

Parent Consent Form

This project has been approved by the University of South Australia's Human Research Ethics Committee. If you have any ethical concerns about the project or questions about your rights as a participant please contact the Executive Officer of this Committee, Tel: +61 8 8302 3118; Email: Vicki.Allen@unisa.edu.au

SECTION 1: CONTACT AND PROJECT DETAILS	
Researcher's Full Name:	Heidi Byrnes-Cloet
Contact Details:	773-396-0963 or heidi.byrnes-cloet@mymail.unisa.edu.au
Supervisor's Full Name:	Associate Professor Susan Hill
Contact Details:	susan.hill@unisa.edu.au
Protocol Number:	
Project Title:	Using children's early writing as play-scripts: effects on narrative development, collaborative dialogue, and literate identity

SECTION 2: CERTIFICATION

Child Parent/Guardian

In signing this form, I confirm thaTeacher:

- I have read the Study Information Sheet, and the nature and the purpose of the research project has been explained to me. I understand and agree for my child to take part.
- I understand that my child may not directly benefit from taking part in the project.
- I understand that I can withdraw my child from the study at any stage and that this will not affect my child's status now or in the future.
- I confirm that I am over 18 years of age.
- I understand that my child may be audiotaped, videotaped and/or photographed during the study, and that copies of my child's writing/drawing may also be made.
- I give / do not give ***(please indicate your preference)*** the researcher permission to publish my child's work in the publication of the outcomes of this study.
- I understand that the tapes/photographs will be kept in a secure location accessible only by the researcher, used only for the purposes of presenting the findings of the study, and destroyed after a period of no more than 5 years.

Parent/Guardian Signature	*Printed Name*	*Date*

University of South Australia

Child verbal consent for assessment protocol

(to be used if parent consents to child's involvement)

'Hi _____ (child's name),

'Today I'm going to play a story on my computer that goes with this book (show child the accompanying book). Then you get to tell the story in your own words. Would you like to do that with me?'

If 'yes':

'Ok, great. Now, when we get started, if you want to stop, that's ok. You can just tell me, 'I'd like to stop now' and we can go back to class right away, ok?' (make sure the child understands by asking them to say what they will say if they want to return to class)

If 'no':

'That's ok. I'm looking forward to writing stories and doing story play with you soon. Ok, let's go back to class now.'

Appendix 9: Case study composing dialogue, extended transcripts

9a Caminda's composing dialogue in Week Six.

1. Child: Ok, ready for words!
2. Teacher: Alright, how's it going to start?
3. Child: 'One day' first.
4. Teacher: Alright, can you open it up to the first page? [child is writing on front of book]
5. Child: Wait, we gotta do my name here.
6. Teacher: Let's do the story first, and then if we have time, we can write your name [session is almost over, running out of time].
7. Teacher: Alright, what's it going to say?
8. Teacher: <u>One day</u>~
9. Child: There was a kitty.
10. Teacher: <u>There was a kitty</u>.
11. Child: Her name was Hello Kitty.
12. Teacher: <u>Her name was Hello Kitty</u>.
13. Child: She was smaller than a baby.
14. Child: She was smaller than a baby [repeats due to silence while teacher writes, as if to prompt teacher to verbally repeat her words].
15. Teacher: <u>She was smaller than a baby</u>.
16. Child: Because her mom, she was working.
17. Child: She went inside the house, she didn't know what to eat.
18. Teacher: <u>Her mom was working, she went inside the house</u>, she wanted something to eat?
19. Child: Mhm.
20. Teacher: But didn't know what to eat?
21. Child: Uhhuh.
22. Child: She eat pancakes.
23. Teacher: <u>She wanted something to eat</u> [repeating line just written], did she make them, some pancakes?
24. Child: Mhm.
25. Teacher: <u>She made some pancakes</u>.
26. Child: Mhm.
27. Teacher: Then what happened?
28. Child: There was a house and it had pancakes in baskets.
29. Teacher: Well, is this her house [confused, pointing to house illustrated on first page]?
30. Child: No, that's someone's house, her house is with her mom.
31. Child: See, her house is right there [pointing to illustration on next page].
32. Teacher: So, where did she make the pancakes?
33. Child: In somebody's house.
34. Teacher: Ah, in someone *else's* house [emphasising ownership], ok, she made some pancakes <> <u>she went to someone else's house</u>.
35. Child: <she went to someone's house> [interjecting to clarify].
36. Teacher: She had her pancakes in baskets, yeah? [confirming detail from earlier]
37. Child: Uhhuh, she took the baskets.
38. Teacher: <u>She took the baskets</u>.
39. Child: Then she ate all the pancakes.
40. Teacher: <u>Then she ate all the pancakes</u>.
41. Child: When the children went in.
42. Teacher: <u>When the children went in</u>.
43. Child: They saw their pancakes were gone! [shocked voice]
44. Teacher: Oh, <u>when the children went in they saw their pancakes were gone</u>! [imitating child's intonation, smiling]
45. Child: And they know who was that, it was their friend Hello Kitty [animated storytelling, showing characters' suspicion of Hello Kitty].
46. Teacher: And they knew who had eaten them, it was their friend Hello Kitty? [recasting, mimicking child's disbelief/suspicious intonation]
47. Child: Mhm [nodding and smiling].
48. Teacher: <u>They knew who had eaten them, it was their friend Hello Kitty</u>.
49. Teacher: Then what happened?

50. Child: She brought them to her mom.
51. Teacher: She brought them to *her* mom or *their* mom?
52. Child: Uh [thinking], her mom.
53. Teacher: To her mom, uhhuh~
54. Child: Then she said, 'wow, you got pancakes'!
55. Teacher: Her mom said, oh [realising contradiction with earlier scene, where Hello Kitty ate ALL the pancakes], I thought she had eaten all the pancakes, then the kids came and said^
56. Child: No, she only ate one!
57. Child: Not all the pancakes.
58. Teacher: Well, we said 'she ate all the pancakes, when the children went in they saw all the pancakes were gone, they knew who had eaten them, it was their friend Hello Kitty'.
59. Child: No, she only ate one [hesitant, not sure how to repair contradiction].
60. Teacher: Well, could we say she made some more pancakes and then she brought them to her mom?
61. Child: Yeah!
62. Teacher: She made some more pancakes.
63. Child: Then she gave them to her mom and she said, 'wow, you brought lots and lots of pancakes!' [surprised/pleased voice]
64. Teacher: She brought them to her mom and she said, 'wow, you brought lots and lots of pancakes!' [imitating child's intonation]
65. Child: I'm so happy my girl! [excited voice]
66. Teacher: I'm so happy my girl!
67. Child: And then she show them to her father and he say, 'wow, you bringed a lot of pancake my daughter'.
68. Teacher: She showed them to her father and he said, 'wow, you did bring a lot of pancakes'.
69. Teacher: Is that the end?
70. Child: Uhhuh.
71. Child: Yes, the end! [confused as to why teacher is still writing]
72. Teacher: I'm just finishing writing what you just said, 'you did bring a lot of pancakes'.
73. Child: Oops, we forgot her talk [pointing to speech bubbles].
74. Teacher: Ok, what's she going to say in this speech bubble [pointing]?
75. Child: Um [thinking], she's gonna say, um she's gonna go with her mom right now.
76. Teacher: Well, this is the page where she is saying that she wants something to eat.
77. Child: No, no, no, she's gonna say 'I want to go with my mom'.
78. Teacher: I want to go with my mom?
79. Child: Yeah.
80. Teacher: I want to go with my mom.
81. Child: Because, she didn't know she was working.
82. Teacher: Ah, could you say 'Where is she?' [modelling a confused character voice]
83. Child: Where is she? [imitating suggested phrase and intonation]
84. Child: And she was wondering, she didn't know she went to work [expanding suggestion].
85. Teacher: And then, on the back, what does she say?
86. Child: 'I'm over here, darling!'
87. Child: And it's her mom and her mom couldn't hear her.
88. Teacher: Is this her mom or Hello Kitty? [pointing to illustration with speech bubble]
89. Child: Her mom.
90. Teacher: Ah, ok, I'm over here, darling!
91. Child: Yeah.
92. Teacher: Ok, is it finished?
93. Child: Mhm [proud voice].
94. Teacher: What do you want to call your story, Caminda?
95. Child: Um[FP], The Hello Kitty [pleased voice].
96. Teacher: The Hello Kitty.
97. Teacher: Ok, and then we need Hello Kitty, mom, dad and two friends [writing characters on front of child's book].
98. Child: All done! [satisfied voice]

9b. Daniel's composing dialogue in Week One (unintelligible words are marked 'X' and unintelligible phrases are marked 'XX').

1. Teacher: Now, what's your story going to be about today, Daniel?
2. Child: Power Ranger [difficult to hear/understand].
3. Teacher: What?
4. Child: Mario [changing character name].
5. Teacher: Can you draw Mario up the top [directing children to illustrate above the text box instead of inside]?
6. Child: He got a nose, a X [code switch, Spanish word] and a hat.
7. Teacher: Ah, he's got a nose and a hat.
   [teacher engages in conversation with another child about his story plan]
8. Teacher: What are you going to do your's about Daniel?
9. Child: Mario could run [gesturing with arms in running motion].
10. Child: And Mario (could and) he could walk with Luigi [slowing down arm gestures, smiling].
11. Child: And XX and he could run [some words unintelligible, rapid gesturing and action sound effects].
12. Child: And X could run faster.
13. Child: And X Luigi.
14. Child: And X I had this one [utterances told in rapid sequence, gesturing more movements and then pointing to imaginary object in the air in front of him].
15. Teacher: Uhhuh, so this one could be him jumping [pointing to first page], this one could be him running really fast [pointing to second page], and then on the back you could draw Mario with his friend, Luigi?
16. Child: Yeah [excited voice]!
    [teacher engages in story conversation with another child]
17. Child: Look there [meaning 'here', showing peer and teacher his illustration].
18. Teacher: Is this him jumping?
19. Child: Yeah.
20. Teacher: You're doing a great job, Daniel.
21. Teacher: And then you were going to draw him running, over here [reminding child of earlier plan].
22. Child: I need to do a nose [adding more scribble to page].
    [teacher engages in story conversation with another child, then returns to Daniel]
23. Teacher: Who's this [pointing to illustration]?
24. Child: That's Luigi, bouncing, bouncing [gesturing movement with whole body].
25. Teacher: Now, do you want me to write the story for you now?
26. Child: Yeah.
27. Teacher: Ok, the first page, what do you want it to say?
28. Child: Mario.
29. Teacher: <u>This is Mario</u>?
30. Child: Yeah.
31. Teacher: And then you said~
32. Child: Luigi.
33. Teacher: 'Mario can jump up high', remember?
34. Child: Yeah [excited voice, jumping up and down].
35. Teacher: <u>Mario can jump up high</u>.
36. Teacher: Then you were going to say, Mario can~
37. Child: Luigi.
38. Teacher: Luigi's on the back page, this picture [pointing to second page], remember, is Mario running really fast.
39. Teacher: Can you say that [encouraging child to verbalise story idea]?
40. Child: Mario can run really fast because he could run, he could jump [gesturing and sound effects].
41. Teacher: <u>Mario could run really fast</u>.
42. Child: And he could walk slow and he could X [unintelligible] because he had fire [changing gestures to show fast and slow].
43. Teacher: Ok, Mario could run really fast <u>and he could walk slow</u>.
44. Teacher: What did he do with the fire?

45. Child: No, he got one thousand and he got fire and could do higher [pointing above his head to show where the fire was, then jumping up high; referring to bonus points in video game that can make Mario jump higher].
46. Teacher: Ah, he got the fire [understanding what child was referring to]^
[child and teacher engage in conversation with another child about his story]
47. Teacher: Then you were going to tell people about Mario's friend.
48. Child: Luigi and X and the bowser [teacher unsure what this word was referring to].
49. Teacher: Alright, so 'This is Luigi, he is Mario's friend'?
50. Teacher: Is he his friend [clarifying child's intended meaning]?
51. Child: Yeah.
52. Teacher: He is Mario's friend.
53. Teacher: Do we want to say something that Luigi does?
54. Child: Yeah.
55. Teacher: He can~
56. Teacher: What can he do?
57. Child: He can fight because X and he need to fight bowser, poow [using hand gestures to show Luigi's movements].
58. Teacher: Can he jump, can he jump *really* high [suggesting language to match child's gestures and body movements]?
59. Child: Yes.
60. Teacher: He can jump really high.
61. Child: Coz, look [showing with hands how high Luigi can jump].
62. Teacher: He can jump that high?
63. Child: Yes.
64. Teacher: Wow.
[teacher enters side conversation with another child]
65. Teacher: Now, Daniel, we need a name for your story.
66. Teacher: It could be 'Mario and Luigi'?
67. Child: Yeah and Bowser.
68. Teacher: Bowser, who's Bowser?
[child confused by how to explain character]
69. Teacher: Is he another person with Mario and Luigi?
70. Child: Yeah.
71. Teacher: What does he look like?
72. Child: Mad [showing angry facial expression].
73. Teacher: Mad?
74. Teacher: He's a bad guy, is he?
75. Child: Yeah.
76. Teacher: Ah, ok, Bowser.

9c. Daniel's composing dialogue in Week Eight.

1. C1: You gonna read it, you the best, man [child excited that his story will be read aloud after today's writing session].
2. Teacher: Ok, let's write the story [Daniel ready to dictate].
3. C2: You gonna read story in the classroom [seeking reassurance that his story will also be read]?
4. Teacher: Yes.
5. Teacher: Ok, what's it going to say?
6. Teacher: I can see a monster and a boy and a girl [discussed earlier in the session as child illustrated].
7. C2: And this a animal [pointing].
8. Teacher: You tell me the story that goes with the picture.
9. Teacher: What's happening?
10. C2: X and the boy go and the mommy XX [pointing to picture, code-switching to Spanish].
11. Teacher: Snake [trying to decipher Spanish word from illustration]?
12. C2: Train.
13. Teacher: Oh, a train.

14. C2: And a monster and a X [pointing to individual characters; last character word unintelligible].
15. Teacher: Now, you've just told me the people in the story, but what happens, what are these people doing [building concept of story needing events]?
16. C2: Roar [holding up hands like claws next to his face and roaring]!
17. Teacher: Were the boy and the girl having fun together and then the monster came?
18. C2: Yeah!
19. Teacher: What were they doing together, the boy and the girl?
20. C2: Playing.
21. Teacher: Can we say, 'One day a boy and a girl were playing'?
22. C2: Yeah.
23. Teacher: What were they playing?
24. C2: Mario and Sonic.
25. Teacher: Sonic, video games?
26. C2: Yeah.
27. C1: How did the monster get here so fast [interjecting, trying to make sense of Daniel's story]?
28. Teacher: Yeah, how did the monster come, what happened?
29. C2: He say 'roar', like that [more gesturing and sound effects].
30. Teacher: And a monster came.
31. Teacher: Were they in their house?
32. C2: Yeah.
33. Teacher: Can we say, 'Then a monster came into their house and roared at them, roar!'?
34. C2: Yeah [excited approval]!
35. Teacher: Then a monster~
36. C1: He not going to eat them [alarmed voice, listening in on Daniel's story]?!
37. C2: Yeah, he do [nodding and excited his story has provoked peer interest].
38. Teacher: Maybe he could *try* to eat them, but they got away?
39. Teacher: Then a monster came inside their house and roared at them.
40. C2: He eat them and kill.
41. Teacher: Remember, we're not having people getting hurt on purpose, so he could try to eat them, but maybe they run away?
42. C2: Yeah.
43. Teacher: He tried to eat them but they ran away [child responds with understanding, making fast running gesturing with whole body].
44. Teacher: Did they run really fast [responding to gesturing]?
45. C2: Yeah.
46. Teacher: But they ran really fast and~
47. C2: And the back door and outside.
48. Teacher: And they ran really fast and went outside?
49. C2: In back yar [yard].
50. Teacher: In the back yard?
51. C2: Yeah.
52. Teacher: Into their back yard.
53. C3: And they kill the monster and die [suggesting dramatic ending to Daniel's story].
54. Teacher: Could they lock the monster inside the house?
55. C2: Um, yeah [not really satisfied, but accepting need for a non-violent ending].
56. Teacher: And then, so the monster can't get out?
57. C2: Yeah.
58. Teacher: They locked the monster inside^
59. C1: How, is the mother going to get mad [wanting to hear from Daniel about the mother's reaction]?
60. C2: Huh [not understanding]?
61. C1: Is the mother mad?
62. C2: The mommy?
63. C1: Yeah.
64. C2: No.
65. C1: But, it going to rain in the story [reminding Daniel of story detail he had shared earlier, as he was illustrating].
66. Teacher: Ah, yeah, remember you said it was going to rain at the end?
67. C2: Yeah [remembering].

68. C1: And, you gotta get a house [prompting Daniel to fix the problem to get his characters out of the rain].
[C2 thinking, not able to generate a solution]
69. Teacher: Maybe, could they call their mom on the phone and say ‘mom, there’s a monster inside the house’ [suggesting a way to solve problem]^
70. C2: Yeah [satisfied approval].
71. Teacher: And she could maybe call the police and the police could get the monster [expanding solution suggestion]?
72. C2: Yeah [jumping up and down]!
73. Teacher: Yeah, so~
74. C1: Cool, ‘poow’ [making sound effects suggesting approval for Daniel’s story]!
75. Teacher: So, they locked the monster inside, then they called their mom and she got the police.
76. Teacher: ‘They came and got the monster’~
77. Teacher: Or, did they come and take the monster away [encouraging child to make a choice]?
78. C2: Yeah [gesturing to last option, pointing in the air and to the right, choosing second suggestion].
79. Teacher: They came and took the monster away.
80. C2: And he take it jail.
81. Teacher: And he took it to jail.
82. C1: He took it to jail?
83. C1: I can’t believe it [smiling and laughing]!
84. Teacher: Now, how does your story end?
85. Teacher: Now, the Gingerbread Man [referring to Daniel’s illustration], how does the Gingerbread Man come into the story?
86. C2: He there and it rain.
87. Teacher: Could it start raining and the mom comes to take the kids to get a Gingerbread Man?
88. C2: No.
89. Teacher: No, ok.
90. C2: Yeah, yeah [deciding that would work].
91. C2: Because it rain and he was here [pointing to the house].
92. Teacher: It started raining, so their mom took them inside>
93. Teacher: Hey, Daniel [he had walked across room to look at something], do they eat the Gingerbread Man?
94. C2: Yeah.
95. C3: Come on, come on [child redirects C2, who returns to his seat].
96. Teacher: Now, Daniel, what do you want to call your story?
97. C2: XX [unintelligible].
98. Teacher: What do you want to call it?
99. C2: Gingerbed [can’t say the ‘r’ sound].
100. Teacher: Gingerbread Man?
101. C2: Yeah.
102. Teacher: Gingerbread Man.
103. C3: And the monster too, and the boy and the monster [reminding Daniel of his other characters].
104. Teacher: How about we call it Gingerbread Man and the Monster?
105. C2: Yeah [enthusiastic agreement].
106. Teacher: Gingerbread Man and the Monster.
107. Teacher: Come over here, Daniel, and we’re going to put your story onto the computer [digitally scan book].
108. C2: You read it in the classroom?
109. Teacher: Yes, we will.
110. C2: I want to see [story being scanned and appearing on laptop screen].
111. Teacher: Then we’re gonna write Jesse’s story, because he’s been waiting very patiently.
112. Teacher: Ok, hang on, we need to write the characters [not yet all written down].
113. Teacher: We need a ‘boy and a girl and a monster and a mom’.
114. Teacher: Now, Daniel, you’re all finished.
115. C2: I wanna see it [on the computer].
116. Teacher: There’s one side, see, there’s your picture, and there’s the other side [showing child his book on the computer].

117. C2: Yay [very excited at seeing his book]!
118. C2: Here [giving teacher his book].
119. Teacher: Here, leave it here for now [pointing to stack of completed books].
120. C2: You can take it and read the story [pointing to his book and then in direction of classroom]?
121. Teacher: Yes, I will.
122. C2: In the classroom [pointing again]?
123. Teacher: Yep.
124. C2: And the boy come and be [pointing to his book and gesturing peers enacting his story].
125. Teacher: Yes [nodding and smiling].
126. C2: Yay [smiling and jumping up and down with excitement].

9d Transcript of dialogue of Summer's composing in Week Eight.

1. Child: I done.
2. Teacher: Summer, sounds like you might be ready for words?
3. Child: [child nods]
4. Teacher: Let's write 'Summer' here and today's date [starting with front cover].
5. Teacher: And then, what do you want it to say?
6. Child: There a boy coming up.
7. Child: They mean [pointing to character in illustration].
8. Teacher: <u>One day a boy came</u> <he was a butterfly> <u>he was a butterfly</u>.
9. Child: <he was a butterfly> [interjecting extra description].
10. Teacher: What did the boy butterfly do?
11. Child: He go down.
12. Child: And he fall asleep.
13. Teacher: <u>He flew down and fell asleep</u>.
14. Child: And the fairy girl, she put some magic.
15. Child: Go up again.
16. Teacher: <u>The fairy girl put some magic on him and he woke up</u>.
17. Child: Flow up again [child's speech hard to decipher].
18. Teacher: He fell asleep again?
19. Child: No, he fly again [gesturing with hands].
20. Teacher: He flew, did he fly away?
21. Child: [nods to confirm]
22. Teacher: <u>He flew away</u>.
23. Teacher: Then what happened?
24. Child: Then the girl she got some X and XX [very slurred speech].
25. Teacher: Who's this [pointing to illustration]?
26. Child: The girl.
27. Teacher: The fairy girl?
28. Child: Yeah.
29. Teacher: And that's the butterfly, and who's this [pointing to each character, attempting to understand story]?
30. Child: It's the magic boy.
31. Teacher: Ah, so then does the magic boy come [not yet discussed in story]?
32. Child: Yeah.
33. Teacher: <u>Then a magic boy came</u>, and what did he do?
34. Child: And he haded [had] a mustache.
35. Teacher: He had what [didn't understand child's intended noun]?
36. Child: Matches [another child at the table interjects].
37. Child: No, mustache!
38. Teacher: Ah, mustache, the hair like this [gesturing hair above the lip], on your face?
39. Child: Uhhuh.
40. Teacher: <u>He had a mustache</u>.
41. Teacher: What happens at the end, does the magic boy do anything?
42. Child: No.
43. Teacher: No, ok.

44. Child: He went in the house.
45. Child: He go to sleep.
46. Teacher: Alright, He went in the house and went to sleep.
47. Teacher: And, Summer, do you want any words on the back here?
48. Child: A girl.
49. Teacher: A girl, what about her?
50. Teacher: A girl came, what did she do?
51. Child: She fall asleep.
52. Teacher: Ok, A girl came~
53. Child: She put the magic on herself [deciding to change story event].
54. Teacher: She put magic on herself.
55. Child: She went up, up, higher [gesturing with hands].
56. Teacher: She went up high.
57. Child: Yeah [still gesturing flying with hands].
58. Teacher: Then does she come down and go to sleep? [suggesting connecting with earlier story idea]
59. Child: No.
60. Teacher: No, what happens?
61. Child: She flew her house and she sleep.
62. Teacher: She flew to her house and went to sleep.
63. Child: Look, they both got them [noticing 'her' and 'home' start with the same letter].
64. Teacher: They both have 'h' and 'h', they start with the same letter, you're right [pointing to letters].
65. Teacher: Alright, Miss Summer, great story.
66. Teacher: I look forward to reading it to everyone.

9d Jesse's composing dialogue, Week 2 (Jesse is speaker 'C2').

1. C2: A mine is Spiderman story.
2. C1: Me too.
3. Teacher: You did a spiderman story last time [talking to C2].
4. Teacher: Remember, you did spiderman shooting webs out of his hands, and climbing up up up, and then~
5. C2: And up up up up (gesturing up high with hands and smiling)!
6. Teacher: And then you had one more thing that he did, do you remember (not able to recall last action in his previous story)?
7. Teacher: What did he do, do you remember?
8. Teacher: Um, I can't remember, let me see if I can find your book and we can have a look at it.
9. C1: Me too (also wanting to see his book from earlier in the week)?
10. Teacher: Uhhuh.
11. Teacher: Let me see (locating C2's story from previous writing session), there's Jesse's, it's called 'The Spiderman'.
12. Teacher: It says "This is (rereading whole story)", that's what it says.
13. Teacher: Alright, in today's story, if you are going to do Spiderman again, let's try to think of some different things he can do, ok?
14. C2: Yeah (excited to begin).
    [teacher enters conversation with C1 about his story]
15. C2: Bennup [holding up illustration].
16. Teacher: What is it?
17. C2: Bennup.
18. T Ok, what is he doing?

19. C2: He shoot the spider webs (sound effects, gesturing web shooting from his hands).
20. Teacher: He shoots them out of his hands?
21. C2: Yeah.
22. Teacher: Ok, what do they land on?
23. Teacher: Or is he trying to catch something?
24. C2: Yeah.
25. Teacher: What's he trying to catch?
26. C2: Peter Parker.
27. Teacher: Peter Parker, ah, ok.
28. Teacher: Can you draw that, so we can finish the story?
29. C1: And you need to draw him as well [meaning Peter Parker].
30. C2: That Peter Parker [telling child that he has already drawn Peter Parker].
    [teacher enters side conversation with C1 about his story]
31. C2: That Peter Parker [pointing to illustration, wanting acknowledgement that he has already included the character].
32. Teacher: Ok, great.
33. Teacher: Are you going to show the web, catching him?
34. C2: Uhhuh [begins drawing again].
35. C1: I need to do a nose.
36. C2: Look, I catch him [showing new details he has just added to his illustration]!
37. Teacher: Great.
38. Teacher: What does he do next, what does he do with Peter Parker?
39. Teacher: Or does Peter Parker get away, he escapes?
40. C2: Escapes.
41. Teacher: Ah, he escapes, he gets away, so you could maybe draw Spiderman over here and Peter Parker running away over here [pointing to pages in child's book]?
42. C2: Yeah [starts drawing].
    [side conversation with C1]
43. C2: That's the fire.
44. C2: And Peter Parker [commenting on his illustrations].
    [side conversation with C1, who has started his story dictation]
45. C2: Spiderman got the fire and he got the witch.
46. Teacher: Ah, ok.
47. C2: He went 'psht' [water spraying sound effects and gesturing like he is holding a hose].
48. Teacher: Ah, making it wet?
49. C2: Yeah.
50. Teacher: Putting out the fire, are they?
51. C2: Yeah, and he got it water, and he not got to go get it coz the water [gesturing holding hose again].
52. Teacher: Ah, ok, and what happens at the end of the story?
53. Teacher: Does everyone get saved?
    [C2 nods and teacher enters side conversation with C1 who is finishing his story dictation]
54. C2: Look it [pointing to his finished illustration].
55. Teacher: What's happening on the back here?
56. Teacher: What happen's at the end of the story?

57. C2: That Peter Parker and that Benna, and that Peter Parker [pointing to second and third pages, last page shows Peter Parker running away].

9e Dialogue excerpt showing Diego's composing in Week One.

1. Teacher: What do you want this page to say [first page]?
2. Child: Me and my brother get ready.
3. Teacher: To go to the airport [using idea child had told during illustration creation]?
4. Child: Yeah.
5. Teacher: Me and my brother got ready to go to the airport.
6. Teacher: Then what does this page say [second page]?
7. Child: We went the airplane.
8. Teacher: We went *inside* the airplane?
9. Child: Yeah.
10. Teacher: We went inside the airplane.
11. Teacher: And what happens after you get in the airplane?
12. Child: I fly to Mexico [pointing to self and gesturing hands gripping a steering wheel].
13. Teacher: Ooh, *you* fly the plane, to Mexico [smiling and pointing to child]?
14. Child: Yeah [smiling].
15. Teacher: I flew the plane to Mexico.
16. Teacher: Did it take a short time or a *long* time [exaggerating/stretching out the word 'long']?
17. Child: It was a *long* ride [using storytelling voice, stretching out word 'long'].
18. Teacher: It was a long ride [imitating child's intonation].
19. Teacher: Ooh, and what happens on this page [last page]? Is this after you get to Mexico?
20. Child: Uhhuh.
21. Child: I tell a story and the people love it.
22. Teacher: *You* told a story, to the people in Mexico, and they loved it [smiling]?
23. Child: Uhhuh [smiling, a little shy].
24. Teacher: Oh, I love this story.
25. Teacher: You *are* a great storyteller, I can tell.
26. Teacher: When we got there I told a story to the people who live in Mexico. They loved my story.
27. Teacher: The end?
28. Child: The end [satisfied voice].
29. Teacher: The end.
30. Teacher: Great. So, what do you want to call your book, its title [pointing to the word 'title' in the title box]?
31. Child: Um, Diego goes to Mexico.
32. Teacher: Yeah, good title [enthusiastic voice].
33. Teacher: Diego goes to Mexico.
34. Teacher: And who are the characters, the people, in your story [pointing to character box]?
35. Child: Me and my brother.
36. Teacher: Diego and, what's your brother's name?
37. Child: Danny.
38. Teacher: Danny (Diego's brother).

9f Transcript of Diego's composing dialogue in Week Two.

1. Child: Ok, I'm done [indicating readiness to have his story written].
2. Teacher: Ok, so you can tell me the words to your story and I'll write them.
3. Teacher: So, how do you want your story to start?
4. Child: I went to America.

5. Teacher: Now, this is the start, so we could start it, ‘Once upon a story’ or ‘One day’ [suggesting a standard story opener to build Introduction]?
6. Child: One day.
7. Teacher: Ok, <u>One day</u>, what should it say next?
8. Child: I‘m getting ready.
9. Teacher: <u>I‘m getting ready</u>.
10. Teacher: For what?
11. Child: For Mexico.
12. Teacher: To go to, where?
13. Child: Mexico.
14. Teacher: <u>To go to Mexico</u>.
15. Teacher: What did you do to get ready?
16. Child: Um, I get my backpack.
17. Teacher: <u>I got my backpack</u>.
18. Child: My lunch.
19. Child: My drink [adding to list as he thinks of additional items].
20. Teacher: <u>My lunch, my drink</u>.
21. Teacher: (Rereading page) One day I’m getting ready to go to Mexico, I got my backpack, my lunch, my drink...
22. Child: and my stuff.
23. Teacher: Did you take some clothes [suggesting a specific elaboration]?
24. Child: Uhhuh.
25. Teacher: <u>And my clothes</u>.
26. Teacher: Then, what are you going to say over here (pointing to next page)?
27. Child: Get in my motorcycle.
28. Teacher: <u>I got on my motorcycle</u>.
29. Teacher: And what happened?
30. Child: It broke down.
31. Teacher: ‘I got on my motorcycle’ [rereading], did you start riding and then it broke down, or did it not start?
32. Child: It start, it started and then it [gesturing to first/previous option].
33. Teacher: Ok, it started, did you get to leave home or did it break down when you were still at home?
34. Child: Um [confused].
35. Teacher: So you said, ‘I got on my motorcycle, it started’, did you drive a little way and then it broke down, or did it just break down straight away?
36. Child: Straight away.
37. Teacher: Ok, <u>I got on my motorcycle, it started, but then it broke down</u> [providing expansion to keep story moving].
38. Teacher: Anything else you want to say [indicating to second page]?
39. Child: No.
40. Teacher: Ok, so then what happened at the end [pointing to last page]?
41. Child: Um.
42. Teacher: So you told me you were still at your house, so when your motorbike broke down, what did you do?
43. Child: I walked.
44. Teacher: Where did you walk?
45. Child: To Mexico.
46. Teacher: <u>So I walked to Mexico</u>.

[story dictation interrupted due to fire evacuation drill; returned to the classroom and recommenced, rereading child’s story to reorient him to where he had left off]

47. Teacher: And what happened when you got there?
48. Child: I walked my motorcycle, I dragged it to the people who fix the motorcycle.

49. Teacher: Ok, I walked my motorcycle to the people who fix it, then what happened?
    Child: I went back home and then we had a toys.
50. Teacher: Who had toys?
51. Child: The store.
52. Teacher: Now, I'm a little confused because it says... [rereading story so far] so did they fix it?
53. Child: Yeah.
54. Teacher: Can we tell people that?
55. Child: Yeah.
56. Teacher: So I walked my motorcycle to the people who fix it and it got fixed.
57. Teacher: Then what happened?
58. Child: Dressed up, flower [pointing to his illustration].
59. Teacher: Is this your sister [referring to child's illustration, which we had discussed earlier]?
60. Teacher: Should we say, 'then I went home and saw my sister dressed up like a flower'?
61. Child: Yeah [excited voice].
62. Teacher: My motorcycle got fixed and I went home and saw my sister dressed like a flower.
63. Teacher: And, I think that will have to be the end [due to lack of writing space on page].
64. C The end [satisfied voice].
65. Teacher: Great, Diego.
66. Teacher: Now, the title of your book, what should we call your story?
67. Child: The American Diego [happy voice].
68. Teacher: Ooh, The American Diego.
69. Teacher: And the characters in your story, they're the people, who are the people in your story?
70. Child: People who live in Mexico.
71. Teacher: Now, who are these people here [pointing to first illustration]?
72. Child: Me and this is my cousin, my mom and dad.
73. Teacher: Ok, so Diego is a character in this story, cousin, mom, dad, and what about the person who fixes your motorcycle, they're called a mechanic [child nods in agreement], a mechanic.
74. Child: That's a long word [referring to 'mechanic'].
75. Teacher: Yeah, it is.

9g Maya's composing dialogue in Week Six.

1. Teacher: Alright, Maya, are you ready to write your story?
2. Child: Yeah.
3. Teacher: How does your story start?
4. Child: I went upstairs.
5. Teacher: I went upstairs.
6. Child: In my house.
7. Teacher: In my house.
8. Child: I count to one hundred.
9. Teacher: I counted to one hundred.
10. Child: I wish you could draw one hundred in there [child pointing to speech bubble].
11. Teacher: One hundred - one, zero, zero?
12. Child: Yeah.
13. Teacher: Ok [writing requested number into the speech bubble].
14. Child: It was Christmas morning.
15. Teacher: Over here, do you want me to write that [indicating to page with Christmas tree illustration]?

16. Child: No, here [current page].
17. Teacher: It was Christmas morning.
18. Child: Miss Bracco came to my house [smiling at insertion of her teacher into her story].
19. Teacher: Miss Bracco came to my house [interested voice].
20. Child: She forgot my present [shocked and disappointed tone]!
21. Teacher: She forgot my present [imitating and exaggerating child's intonation].
22. Child: But I said, "that's alright, we can have a pillow fight" [mischievous voice].
23. Teacher: She forgot my present, so I said "that's alright, we can have a pillow fight" [amused repetition]?
24. Child: Yeah [smiling].
25. Teacher: So, you said to Miss Bracco we can have a pillow fight, did you have a pillow fight?
26. Child: Yeah [smiling].
27. Child: Then when she left my mom yelled at me.
28. Teacher: We had a pillow fight [amused voice].
29. Child: That was my idea [proud voice].
30. Teacher: It's a pretty fun idea [enthusiastic voice]!
31. Teacher: When Miss Bracco left my mom yelled at me, is that what you want it to say
32. Child: Yeah.
33. Teacher: Why did she yell at you?
34. Child: Because it was Christmas and she didn't know that we were having a pillow fight.
35. Teacher: Uh, ok, because she didn't want you to have a pillow fight?
36. Child: Uhhuh.
37. Teacher: Ok, my mom yelled at me because she doesn't like pillow fights?
38. Child: Yeah.
39. Teacher: Then what happens?
40. Child: I went to the store and got a Christmas tree.
41. Teacher: I went to the store and bought a Christmas tree.
42. Child: I got a Christmas tree, it's so awesome [sharing personal story].
43. Teacher: Yeah?
44. Child: And I got a white Christmas tree.
45. Child: It's really cute, but now it's in the garage.
46. Teacher: Mhm, you'll get it out when it's Christmas time?
47. Child: Mhm.
48. Teacher: So, I went to the store and I bought a Christmas tree~
49. Child: But my mom didn't know because I sneak [snuck], I got her car keys like this [gesturing carefully lifting car keys].
50. Teacher: So, I went to the store and bought a Christmas tree, I snuck it inside.
51. Teacher: Then what happened?
52. Child: [unsure how to proceed]
53. Teacher: Did you surprise your mom with the Christmas tree?
54. Child: Yeah [smiling].
55. Teacher: Did you decorate it?
56. Child: Yeah, my mom got proud of me.
57. Teacher: I decorated it and I surprised my mom.
58. Teacher: She was proud of me.
59. ***
60. [teacher engages in side talk with other students at table]
61. ***
62. Teacher: So [turning back to Maya] you surprised your mom with the Christmas tree, she's proud of you, then what happens?
63. Child: We went to rock school [smiling].
64. Teacher: We went to rock school [confused about connection to existing story]?
65. Child: Mhm.
66. Teacher: What's rock school?
67. Child: Rock in school where it's fun.
68. Teacher: What happens there [still unsure what child means]?
69. Child: Rock school fun, fun.
70. Teacher: What do you do there?
71. Child: What we was just doing right now [pointing to story books].

72. Teacher: And you call it ‘rock school’?
73. Child: Yeah [smiling].
74. Teacher: Right, we went to rock school and it was fun?
75. Child: Yeah.
76. Teacher: How does your story end, Maya?
77. Child: “Let’s open the presents” [excited voice].
78. Teacher: Who said that?
79. Child: Me!
80. Teacher: Ah, *I* went home and I said “let’s open the presents”?
81. ***
82. [interrupted by another child who wants his story written, becoming impatient]
83. ***
84. Teacher: [turning back to Maya] Oh, I said “Let’s go home and open the presents”?
85. Child: Yeah [smiling].
86. Teacher: Ok, done?
87. Child: Yep.
88. Teacher: What do you want to call your story?
89. Child: Christmas is the best.
90. Teacher: Christmas is the best!
91. Teacher: And your characters?
92. Child: I said ‘Christmas is the best school’ [revising her title].
93. Teacher: Christmas is the best school [confused]?
94. Child: Yes, here [pointing to where she wants her title revised].
95. Teacher: Well, Christmas is a *time*, so ‘Christmas time is the best *at* school’?
96. Child: Yeah [enthusiastic voice].
97. Teacher: Ok, Christmas time is the best at school.
98. Teacher: Alright, Maya, you’re all done, so you can go find your writing folder and get started [on independent writing, which the rest of the class was working on].
99. Child: But can you read these right now?
100. Teacher: What do you mean?
101. Child: Um [looking and pointing at front of the room, where stories are typically performed].
102. Teacher: To the class?
103. Child: Yeah.
104. Teacher: We’ll see if Miss Bracco says we have time.
105. Teacher: Maybe tomorrow, because today, I think you’re doing math next.
106. Child: Can you read it and then me say who they want to be [referring to choosing peers as characters]?
107. Teacher: If you’re on the list [referring to list of children waiting for story performance].
108. Child: Aw [disappointed voice].

9h Dialogue during composing with Mauricio, Week Two.

1. Teacher: Alright, are we ready?
2. Child: Can I start on this page?
3. Teacher: We have to start on the first page, because that’s the begining of the story.
4. Teacher: Now, I’m gonna bring my chair around here so we can both look at the word/s while they’re being written.
5. Child: Ok.
6. Teacher: So, you’re just going to concentrate on telling the story .
7. Child: I’ll read the words, right [meaning he will dictate]?
8. Teacher: Uhhuh.
9. Child: Tyrannosaurus Rex.
10. Teacher: Can we call him T-Rex for short?
11. Child: Uh, no.
12. Child: Tyrannosaurus Rex he wanted to get the T-Rex, um>
13. Teacher: Tyrannosaurus Rex wanted to~
14. Child: To get the T-Rex out of his territory.

15. Teacher: Great, to get the T-Rex out of his territory.
16. Teacher: Ok.
17. Child: Alright, one day a little tiny creature named Allykosaurus.
18. Teacher: One day a little tiny creature^
19. Child: A dinosaur, a little tiny dinosaur.
20. Teacher: A little tiny dinosaur~
21. Child: Called Lyktosaurus.
22. Teacher: Called Lyktosaurus.
23. Child: But they're really small.
24. Teacher: Ok, a little tiny dinosaur called Lyktosaurus~
25. Child: Passed through there, slow [exaggerating slowness with voice].
26. Teacher: Passed through where?
27. Child: The Tyrannosaurus Rex, slowly.
28. Teacher: Passed through the Tyrannosaurus Rex's territory?
29. Child: No, he walked next to him slowly.
30. Teacher: Oh, A tiny little dinosaur called Lyktosaurus walked next to^
31. Child: The Tyrannosaurus slowly.
32. Teacher: Ok, walked next to the Tyrannosaurus Rex slowly.
33. Child: He passed through them slowly [exaggerated slow voice].
34. Teacher: Very slowly [imitating child's slow voice].
35. Child: And there's a guy who's looking for a dinosaur with his binoculars, right here [pointing to his illustration].
36. Teacher: Oh, there was^
37. Child: A guy named Jimmy John.
38. Teacher: A guy named Jimmy John.
39. Child: He wanted to see some dinosaurs.
40. Teacher: There was a guy named Jimmy John, he was looking at the dinosaurs through his binoculars?
41. Child: Yes, and he wanted to see them fight [animated voice, emphasising fight]!
42. Teacher: Uhhuh, he was looking [still writing, trying to keep up with pace of child's composing]^
43. Child: For the, at them^
44. Teacher: Hang on, hang on [prompting child to slow down a little].
45. Teacher: He was looking at them through his^
46. Child: Binoculars! [child becoming impatient at having to wait for words to be written]
47. Child: To see (him) them fight.
48. Teacher: To see them fight.
49. Child: That's it [indicating end of page dictation].
50. Teacher: Ok.
51. Child: Now, this one [pointing to next page].
52. Teacher: Mhm [indicating understanding].
53. Child: (The) the T-Rex they want to kill him, wanted to turn him into a giant meatloaf!
54. Teacher: The T-Rex wanted who to turn into a giant meatloaf?
55. Child: No, no, no, the guy, um [confused where he was up to].
56. Teacher: This is what it says so far, 'the T-Rex wanted to', what comes next?
57. Child: They wanted to kill him.
58. Teacher: The man?
59. Child: No, the Tyrannosaurus T-Rex.
60. Teacher: *Kill the Tyrannosaurus* Rex.
61. Child: No, the Tyrannosaurus T-Rex, just write it.
62. Teacher: The Tyrannosaurus *T-Rex*.
63. Child: They want him out of his territory.
64. Child: Then him roareded [roared] so loud [animated voice]!
65. Teacher: *He wanted him out of his territory*.
66. Child: He roareded [roared] so bad [child then made roaring sound effects]!
67. Teacher: *He roared*^
68. Child: So bad.
69. Teacher: *So bad*.
70. Child: Oh wait, I need to do something [adding to illustrations].
71. [teacher waits for child to add extra detail to his illustration]

72. Teacher: Do you want me to read what it says [to reorient to story]?
73. Child: Yes.
74. Teacher: The T-Rex tried to kill the Tyrannosaurus.
75. Child: Oh wait.
76. Teacher: He wanted him out of his territory, he roared so bad.
77. Child: And called the other T-Rexs.
78. Teacher: *He called the other T-Rexs*.
79. Child: One day there was a big Tyrannosaurus Rex, with a long tail.
80. Teacher: *One day there was*^
81. Child: A big Tyrannosaurus Rex with a long tail.
82. Teacher: *A big Tyrannosaurus Rex with a long tail*.
83. Child: Uh [stalling to think of next event], the other T-Rexs wanted to fight him.
84. Teacher: *The other T-Rexs wanted to fight the other T-Rex*.
85. Child: They jumpeded [jumped] and the other Tyrannosaurus Rex swinged [swung] his tail and growled.
86. Teacher: They jumped and swung their tail and knocked the Tyrannosaurus Rex over?
87. Child: No! [becoming frustrated]
88. Teacher: You tell me.
89. Child: The T-Rexs jumped.
90. Teacher: Hang on, it needs to make sense, I'm trying to understand your story, so that everyone understands when I read your story [aloud during story performance].
91. Teacher: So, *he jumped, swung his tail and knocked the* Tyrannosaurus Rex over?
92. Child: No, the T-Rex.
93. Teacher: And knocked the *T-Rex* over.
94. Child: Down in the ground.
95. Teacher: *Down on the ground*.
96. Child: They were hurted [hurt] so bad [pained voice].
97. Teacher: *They were* <hurted> *hurt so bad*.
98. Child: No, hurt!
99. Teacher: That's what I said, 'hurt' [pointing to word written].
100. Child: You got 'hurt'?
101. Teacher: Uhhuh, that's what it says, 'they were hurt so bad'.
102. Child: Now another one's turn [referring to the next page].
103. Child: A Tyrannodon.
104. Teacher: *A tyrannodon*^
105. Child: A little tiny creature with wings who eats crabs.
106. Teacher: *A little tiny creature with wing/s*^
107. Child: Who eats crabs [becoming impatient again]!
108. Teacher: Hang on, I can't write that fast.
109. Teacher: A tyrannodon, a little fly/ing creature with wings, *who eats crabs*.
110. Child: And they smell, with their nose.
111. Teacher: *Who smells with his nose*.
112. Child: Mhm.
113. Child: Alright, you're done [indicating page dictation is complete].
114. Teacher: Now, what does this have to do with the story?
115. Child: Oh wait, I'm gonna pretend this is the beach and this is the sea [pointing to illustration].
116. Teacher: Mhm [child gets up to leave the writing table, thinking he's done].
117. Teacher: Hang on, because this doesn't make sense right now.
118. Teacher: Did the Tyrannosaurus Rex get his territory?
119. Teacher: Did the T-Rexs go away?
120. Child: Mhm.
121. Teacher: So let's say, *the T-Rexs went away*.
122. Child: Mhm, they are two, they fight [pointing to page already written].
123. Teacher: Uhhuh, that's done.
124. Teacher: But how does the Tyrannodon come into the story [referring to new character child introduced on the final page]?
125. Child: He had to fly and the Tyrannosaurus Rex is his friend.
126. Teacher: Oh, right, so^
127. Child: he^

128. Teacher: Hang on, this says ‘a tyrannodon, a little tiny creature with wings who eats crabs, ‘came to visit his friend’ [suggesting coherent connection]?
129. Child: And then [starting to dictate next event without responding to coherence prompt]^
130. Teacher: Hang on, listen, did he come to visit his friend, the tyrannosaurus?
131. Child: Yes.
132. Teacher: Ok, we need to say that, so people understand.
133. Teacher: Came to visit his friend the tyrannosaurus.
134. Child: And he said ‘uhoh’ and he said something else, he said ‘uh oh my friend is fighting over the T-Rex, I better tell somebody’ [animated character voice].
135. Teacher: Now, it sounds like you’re starting to tell a whole new story, but the book’s almost finished, so we need to think of a way to finish with the words.
136. Child: But, you’re not gonna say the words, he says [repeating his previous character dialogue]?
137. Teacher: Ok, but tell me first what happens [listening without transcribing, to gauge if story will be coherent and able to fit on final page].
138. Child: He flewed [flew] and telled [told] a little crab but he didn’t ate [eat] him.
139. Teacher: Ok, then what happened?
140. Child: He just eats [ate] a big crab.
141. Child: Maybe he eats fish [quickly changing his idea to make it more logical]>
142. Teacher: Now, we could write a whole other story about the Tyrannodon, but we need to finish this story [pointing to book].
143. Child: It is finished, now I want you to read it [to the class, becoming impatient].
144. Teacher: Mauricio, it needs to make sense, so people understand.
145. Teacher: So, when he came to visit his friend^
146. Child: Oh, wait, that doesn’t make sense either.
147. Teacher: So, [turning back to first page] the T-Rexs went away and the Tyrannodon came to visit his friend.
148. Teacher: Could we just say they had a good time, the end?
149. Child: No, and he said ‘uh oh my friend is battling over a T-Rex, I better tell somebody’.
150. Teacher: But the T-Rex, you’ve already said that he’s won [reminding child of earlier conclusion]^
151. Child: Just read it [meaning, just write the words he just said].
152. Teacher: Listen, you’ve said he’s already won, the T-Rexs have gone away and the Tyrannosaurus is happy because he’s got his territory back [trying to point out that his story makes sense as is].
153. Child: Maybe you should write that word [gesturing to indicate what I said earlier].
154. Teacher: Ok, can we just say, they were happy^
155. Child: He said ‘yippee, yippee, yippee, yippee’ [suggestion new dialogue, indicating agreement].
156. Teacher: *They were happy and said ‘yippee’*!
157. Teacher: That’s going to be the end [child's book was full and session time was over].
158. Teacher: So, what do you want to call your story?
159. Child: Ah, it’s gonna be called (uh, territory T-Rex, ah, T-Rex, ah,) Tyrannosaurus and T-Rex battling over territories [unsure voice].
160. Teacher: How about we call it ‘Territory Battle’?
161. Child: Uhhuh, that’s gonna work [excited by suggested rewording]!
162. Teacher: Ok, *Territory Battle*.
163. Child: What about the guy words [referring to character names box]?
164. Teacher: And the characters in your story are *Tyrannosaurus, two T-Rexs*^
165. Child: And what about the guy’s name, Jimmy John?
166. Teacher: *Jimmy John*.
167. Teacher: And what about the last character?
168. Child: And *Tyrannodon*.
169. Teacher: Ok, now I’m go/ing to keep this and you can go and join everyone on the rug.
170. Child: Oh [disappointed], but I want you to read it, let’s read it [to the class, now].

171. Teacher: I'll keep it and when Ms Bracco says it's story performance time, your's can go first.
172. Child: Can you put mine on top [meaning top of the pile of child-authored books; pleading voice]?
173. Teacher: Mhm [placing child's book on top of pile].

9i Transcript of Elisa's composing dialogue in Week Nine.

1. Teacher: Ok, how should we start it?
2. Child: Um, One day.
3. Teacher: <u>One day</u>.
4. Child: I was walking to school.
5. Child: I saw a pumpkin.
6. Child: A friendly pumpkin.
7. Teacher: [previous sentences written as dictated without verbal repeat] <u>A friendly pumpkin</u>.
8. Teacher: Mhm.
9. Child: I wanted to catch it.
10. Teacher: Mhm [scribing].
11. Child: But I couldn't reach that far!
12. Teacher: <u>But I couldn't reach that far</u>.
13. Teacher: Should we tell people where the pumpkin was, why you couldn't reach it?
14. Child: Yeah, it was way up in the sky [voice stretching out 'way' to emphasise height].
15. Teacher: Alright, <u>It was way up in the sky</u>.
16. Teacher: Ok, so, 'I couldn't reach that far, it was way up in the sky' [rereading and imitating child's intonation].
17. Child: Hmh, let me think [pausing to think of next sentence].

    ***

    [teacher engages in story conversation with other children, then Elisa indicates readiness to recommence]

    ***
18. Teacher: Over here [turning back to Elisa, indicating to next page; child nods]?
19. Child: My mom came.
20. Teacher: <u>My mom came</u>.
21. Teacher: My mom came to~

    [another child interrupts, teacher pauses to assist, Elisa waits]
22. Child: She said 'there's a pumpkin in the sky' [surprised/alarmed voice]!
23. Teacher: Sure, <u>She said, there's a pumpkin in the sky!</u>
24. Teacher: Mhm.

    ***
25. Teacher: [turning to include rest of group] Who remembers what this thing is called [pointing to exclamation point just written in Elisa's story, discussed with group in a previous session]?
26. Child: Um, I do [Elisa raising her hand to explain].
27. T Mhm, what is it?
28. Child: It's like you gotta say it dramatically.
29. Teacher: Uhhuh, it's called an exclamation point, when you're saying something with emotion or drama, uhhuh.

    ***
30. Teacher: Ok, 'there's a pumpkin in the sky!' [rereading last sentence]
31. T What happens next?
32. Child: Next page [indicating words need to go with next page].
33. Child: My mom.
34. T <u>My mom</u>.
35. Child: My mom was scared! [alarmed voice]

    ***

    [teacher recruited into story conversation again with another child]

    ***
36. Teacher: Ok, *My mom~*
37. Child: Was scared.

38. Teacher: was scared.
39. Child: She couldn't stand the pumpkin in the sky! [dramatic disgust voice]
40. Teacher: She couldn't stand the pumpkin in the sky! [imitating child's intonation]
41. Teacher: Uhhuh.
42. Child: She freaked out [alarmed voice]!
43. Teacher: She freaked out [imitating child again]!
44. Teacher: Do you want an exclamation point behind 'she freaked out'?
45. Child: Um, yeah.
46. Teacher: 'She freaked out', we'll put it at the end of the sentence, coz that's where it needs to go [explicitly stating how to use punctuation].
47. T Uhhuh~
48. Child: I was not scared [brave voice].
49. Teacher: I was not scared.
50. T Mhm.
51. Child: It seemed like a friendly pumpkin [switching to interested voice].
52. Teacher: It seemed like a friendly pumpkin.
53. Child: Next page.
54. Teacher: Uhhuh.
55. Child: I told my mom to stop freaking out.
56. Teacher: I told my mom to stop freaking out.
57. Child: She screamed her head off [exaggerated reaction voice]!
58. Teacher: She screamed her head off [laughing, then imitating child's intonation and words]!
59. Child: Next page.
60. Teacher: Mhm.
61. Child: We caught the pumpkin.
62. Teacher: We caught the pumpkin.
63. T Uhhuh~
64. Child: Mom did not freak out anymore.
65. Teacher: Mom did not freak out anymore.
66. T Uhhuh~
67. Child: Um, when we put the pumpkin on the table.
    [interrupted by another student}
68. Teacher: When we put the pumpkin on the table~
69. Child: Mom walked away for a minute.
70. Teacher: Mom walked away for a minute.
71. Child: The pumpkin knocked the table down! [shocked/alarmed voice]
72. Teacher: Goodness [laughing, showing surprise], The pumpkin knocked the table down!
73. Child: Um, hmh [thinking about what to say next].
74. Teacher: Why did it do that?
75. Child: Because it was scared.
76. T Ah, should we say that?
77. Child: Can we make the sound of the table falling?
78. T Sure.
79. Teacher: 'The pumpkin knocked the table down' [rereading to help prime next addition]~
80. Child: Um [filled pause, not sure how to proceed].
81. Teacher: You could say 'crash' or 'bang'?
82. Child: Boom [exaggerated voice]!
83. Teacher: Boom!
84. Teacher: Uhhuh~
85. Child: All the plates knocked down [feigned outrage].
86. T Oh no [laughing], all the plates knocked down.
87. T Uhhuh~
88. Child: And were broken.
89. Teacher: And were broken, uhhuh~
90. Child: Um, but he was a friendly pumpkin [tender voice].
91. Teacher: But he was a friendly pumpkin.
92. Teacher: We can make this page longer, if you want more words [showing child extra pages]?
93. Child: More words.
94. Child: Now I've got to draw more pictures [stating next step].
95. Teacher: Well, you don't have to draw more pictures.

96. Child: More pictures [excited voice].
    ***
    [teacher enters into story conversation with other children; Elisa illustrates extra pages]
    ***
97. Teacher: Ok, ready for the last page?
98. Child: There's two pages [showing an extra one she added while teacher was working with other children].
99. Teacher: Oh, there's two more, ok.
100. Teacher: Should we just reread this, so we know where we're up to? [child indicates yes, so story is reread from the beginning]
101. Teacher: Then what is it going to say, 'he was a friendly pumpkin' and~
102. Child: He helped us shop.
103. Teacher: He helped us shop, uhhuh.
104. Child: For groceries.
105. Teacher: Uhhuh.
106. Teacher: Ok, he helped you get groceries.
107. Child: Yep, um.
108. Teacher: Were you going shopping for a special occasion or were you doing regular shopping?
109. Child: Yeah, for a special occasion.
110. Teacher: Ok, 'he helped us shop' *for groceries* <> for a special occasion, sorry.
111. Child: <for a special occasion> [correcting teacher].
112. Teacher: Mhm, what was the special occasion?
113. Child: To get some clothes.
114. Teacher: For what?
115. Child: To wear.
116. Teacher: Ok.
117. Teacher: Ok, so 'he helped us shop for groceries for a special occasion', we also got clothes?
118. Child: Yeah.
119. Child: We went home.
120. Teacher: We went home.
121. Child: Next page.
122. Teacher: Uhhuh.
123. Child: We were happy.
124. Teacher: We were happy.
125. Child: We hugged the pumpkin [happy voice].
126. Teacher: We hugged the pumpkin.
127. Child: Hmh [tender voice, gesturing hugging].
128. Teacher: Did he live with you?
129. Child: He lived with us for (a little, no) a long time.
130. Teacher: He lived with us for a long time.
131. Teacher: Mhm~
132. Child: We were happy.
133. T Mhm.
134. Child: Because the pumpkin was there
135. Child: We loved him so much.
136. Teacher: Mhm [scribing words without verbally repeating].
137. Child: The end.
138. Teacher: Great, alright, title?
139. Child: The pumpkin stays with us forever [using 'happily ever after' ending tone].
140. Teacher: The pumpkin stays with us forever [imitating child's tone].
141. Teacher: Characters [prompting list for front cover]?
142. Child: My mom, me, um and someone to be the pumpkin.
143. Child:That's three characters.
144. Teacher: Now, when we perform your story [writing a sticky note to share with audience], I'm going to tell people how you used some really great words to show what your characters were thinking and feeling, and how you used exclamation points for~
145. Teacher: Do you remember what you used them for?
146. Child: To show mom was screaming and really scared of the pumpkin [smiling].
147. Teacher: To show someone being scared, yeah [adding child's words to sticky note].

148. Teacher: Ok, great story [smiling].
149. Child: I've got five pages [surprised/proud voice]!
150. Teacher: You do!

Appendix 10: Case study SALT database comparisons

10a Caminda's retell scores compared with same-age monolingual peers.

PRECaminda & POSTCaminda					
	Time1 Sample Date: 9/8/2014 Current Age: 4;11 Context: Narration (FWAY) Database: Narrative Story Retell 29 Database Participants Entire transcript			Time2 Sample Date: 11/24/2014 Current Age: 5;1 Context: Narration (FGTD) Database: Narrative Story Retell 43 Database Participants Entire transcript	
STANDARD MEASURES					
LANGUAGE MEASURE	**Time1**			**Time2**	
	Score	**+/-SD**		**Score**	**+/-SD**
Current Age	4.92	-0.85		5.08	-0.58
TRANSCRIPT LENGTH					
Total Utterances	49 *	1.10		51 *	1.38
# C&I Verbal Utts	47 *	1.79		43 *	1.22
Total Completed Words	406 **	2.20		434 **	2.35
Elapsed Time (minutes)	4.88 *	1.34		5.92 **	2.62
SYNTAX/MORPHOLOGY					
# MLU in Words	7.32 *	1.05		7.72 *	1.33
SEMANTICS					
# Number Different Words	96 *	1.20		86	0.17
# Number Total Words	344 **	2.44		332 *	1.94
# Type Token Ratio	0.28 *	-1.99		0.26 **	-2.35
INTELLIGIBILITY					
% Intelligible Utterances	100% *	1.01		100%	0.82
MAZES AND ABANDONED UTTERANCES					
# Utterances with Mazes	17 *	1.55		22 *	1.86
# Number of Mazes	23 *	1.78		24	0.97
# Number of Maze Words	52 *	1.72		63 *	1.75
# Maze Words as % of Total Words	13%	0.56		16% *	1.00
Abandoned Utterances	2	0.80		2	0.98
VERBAL FACILITY AND RATE					
Words/Minute	83.14	0.44		73.35	-0.18
Within-Utterance Pauses	0	-0.97		0	-0.92
Within-Utterance Pause Time	0.00	-0.86		0.00	-0.64
Between-Utterance Pauses	0 *	-1.57		0 *	-1.52
Between-Utterance Pause Time	0.00 *	-1.09		0.00 *	-1.11
OMISSIONS AND ERROR CODES					
# Omitted Words	0	-0.99		2	0.33
# Omitted Bound Morphemes	3	0.90		3 *	1.18
Word-level Error Codes	16 **	2.91		13 **	2.35
Utterance-level Error Codes	3 *	1.31		2	0.68

 # Calculations based on C&I Verbal Utts
** At least 1 SD (** 2 SD) from the database mean*

Time1: Database selection criteria: age +/- 6 months
Time2: Database selection criteria: age +/- 6 months

10b Caminda's retell scores compared with same-age multilingual peers.

PRECaminda & POSTCaminda					
	Time1 Sample Date: 9/8/2014 Current Age: 4;11 Context: Narration (FWAY) Database: Bilingual English Story Re 155 Database Participants Entire transcript			Time2 Sample Date: 11/24/2014 Current Age: 5;1 Context: Narration (FGTD) Database: Bilingual English Story Re 26 Database Participants Entire transcript	
STANDARD MEASURES					
LANGUAGE MEASURE	**Time1**			**Time2**	
	Score	**+/-SD**		**Score**	**+/-SD**
Current Age	4.92 **	-3.99		5.08 **	-8.51
TRANSCRIPT LENGTH					
Total Utterances	49 *	1.27		51 **	2.18
# C&I Verbal Utts	47 **	2.04		43 **	2.05
Total Completed Words	406 **	2.01		434 **	2.40
Elapsed Time (minutes)	4.88 *	1.48		5.92 *	1.83
SYNTAX/MORPHOLOGY					
# MLU in Words	7.32 *	1.80		7.72 *	1.20
SEMANTICS					
# Number Different Words	96 **	2.14		86 *	1.29
# Number Total Words	344 **	2.74		332 **	2.28
# Type Token Ratio	0.28 *	-1.08		0.26 *	-1.31
INTELLIGIBILITY					
% Intelligible Utterances	100%	0.89		100% *	1.24
MAZES AND ABANDONED UTTERANCES					
# Utterances with Mazes	17 *	1.03		22 *	1.92
# Number of Mazes	23	0.98		24 *	1.15
# Number of Maze Words	52 *	1.04		63 *	1.46
# Maze Words as % of Total Words	13%	-0.10		16%	0.25
Abandoned Utterances	2	0.00		2	-0.13
VERBAL FACILITY AND RATE					
Words/Minute	83.14	0.56		73.35	0.50
Within-Utterance Pauses	0	-0.82		0 *	-1.02
Within-Utterance Pause Time	0.00	-0.67		0.00 *	-1.01
Between-Utterance Pauses	0 *	-1.42		0 **	-2.12
Between-Utterance Pause Time	0.00 *	-1.06		0.00 *	-1.36
OMISSIONS AND ERROR CODES					
# Omitted Words	0 *	-1.19		2	-0.56
# Omitted Bound Morphemes	3	-0.20		3	-0.41
Word-level Error Codes	16	0.81		13	0.61
Utterance-level Error Codes	3	0.64		2	0.07

 # Calculations based on C&I Verbal Utts
** At least 1 SD (** 2 SD) from the database mean*

Time1: Database selection criteria: age +/- 6 months
Time2: Database selection criteria: age +/- 6 months

10c Daniel's retell scores compared with SALT database monolingual peers.

PreDaniel & POSTDaniel					
	Time1 Sample Date: 9/8/2014 Current Age: 4;8 Context: Narration (FWAY) Database: Narrative Story Retell 19 Database Participants Entire transcript			Time2 Sample Date: 11/20/2014 Current Age: 4;10 Context: Narration (FGTD) Database: Narrative Story Retell 27 Database Participants Entire transcript	
STANDARD MEASURES					
LANGUAGE MEASURE	**Time1**			**Time2**	
	Score	**+/-SD**		**Score**	**+/-SD**
Current Age	4.67 *	-1.28		4.83	-0.85
TRANSCRIPT LENGTH					
Total Utterances	31	-0.63		48	0.95
# C&I Verbal Utts	22 *	-1.13		29	-0.39
Total Completed Words	153 *	-1.27		237	-0.16
Elapsed Time (minutes)	2.72	-0.86		3.55	-0.02
SYNTAX/MORPHOLOGY					
# MLU in Words	4.91 *	-1.68		5.93	-0.41
SEMANTICS					
# Number Different Words	45 **	-2.52		64 *	-1.01
# Number Total Words	108 *	-1.59		172	-0.53
# Type Token Ratio	0.42	0.15		0.37	-0.38
INTELLIGIBILITY					
% Intelligible Utterances	85%	-0.73		91%	-0.15
MAZES AND ABANDONED UTTERANCES					
# Utterances with Mazes	3 *	-1.33		6	-0.59
# Number of Mazes	3 *	-1.37		6	-0.72
# Number of Maze Words	8 *	-1.05		13	-0.60
# Maze Words as % of Total Words	7%	-0.69		7%	-0.51
Abandoned Utterances	0	-0.89		1	-0.06
VERBAL FACILITY AND RATE					
Words/Minute	56.32	-0.61		66.76	-0.26
Within-Utterance Pauses	0	-0.83		0	-0.93
Within-Utterance Pause Time	0.00	-0.73		0.00	-0.81
Between-Utterance Pauses	0 *	-1.63		0 *	-1.52
Between-Utterance Pause Time	0.00 *	-1.04		0.00 *	-1.06
OMISSIONS AND ERROR CODES					
# Omitted Words	1	-0.38		2	0.31
# Omitted Bound Morphemes	1	-0.48		7 **	3.02
Word-level Error Codes	8	0.52		8	0.66
Utterance-level Error Codes	7 **	3.55		4 **	2.04

 # Calculations based on C&I Verbal Utts
** At least 1 SD (** 2 SD) from the database mean*

Time1: Database selection criteria: age +/- 6 months
Time2: Database selection criteria: age +/- 6 months

10d Daniel's retell scores compared with same-age NSS database multilingual peers.

PreDaniel & POSTDaniel					
	Time1 Sample Date: 9/8/2014 Current Age: 4;8 Context: Narration (FWAY) Database: Bilingual English Story Re 30 Database Participants Entire transcript			Time2 Sample Date: 11/20/2014 Current Age: 4;10 Context: Narration (FGTD) Database: Bilingual English Story Re 106 Database Participants Entire transcript	
STANDARD MEASURES					
LANGUAGE MEASURE	**Time1**			**Time2**	
	Score	**+/-SD**		**Score**	**+/-SD**
Current Age	4.67 **	-12.63		4.83 **	-5.49
TRANSCRIPT LENGTH					
Total Utterances	31	-0.44		48 *	1.54
# C&I Verbal Utts	22	-0.59		29	0.29
Total Completed Words	153	-0.81		237	0.35
Elapsed Time (minutes)	2.72	-0.38		3.55	0.39
SYNTAX/MORPHOLOGY					
# MLU in Words	4.91	-0.55		5.93	0.41
SEMANTICS					
# Number Different Words	45	-0.69		64	0.54
# Number Total Words	108	-0.70		172	0.34
# Type Token Ratio	0.42	0.18		0.37	-0.20
INTELLIGIBILITY					
% Intelligible Utterances	85%	-0.07		91%	0.13
MAZES AND ABANDONED UTTERANCES					
# Utterances with Mazes	3 *	-1.17		6	-0.67
# Number of Mazes	3 *	-1.11		6	-0.73
# Number of Maze Words	8	-0.85		13	-0.60
# Maze Words as % of Total Words	7% *	-1.00		7%	-0.86
Abandoned Utterances	0 *	-1.30		1	-0.54
VERBAL FACILITY AND RATE					
Words/Minute	56.32	-0.71		66.76	-0.13
Within-Utterance Pauses	0	-0.68		0	-0.76
Within-Utterance Pause Time	0.00	-0.58		0.00	-0.61
Between-Utterance Pauses	0 *	-1.31		0 *	-1.40
Between-Utterance Pause Time	0.00 *	-1.02		0.00 *	-1.04
OMISSIONS AND ERROR CODES					
# Omitted Words	1	-0.94		2	-0.44
# Omitted Bound Morphemes	1	-0.75		7	0.93
Word-level Error Codes	8	-0.33		8	-0.31
Utterance-level Error Codes	7 **	2.52		4 *	1.24

 # Calculations based on C&I Verbal Utts
** At least 1 SD (** 2 SD) from the database mean*

Time1: Database selection criteria: age +/- 6 months
Time2: Database selection criteria: age +/- 6 months

10e Summer's narrative scores compared to SALT database same-age monolingual peers.

PRESummer & POSTSummer					
	Time1 Sample Date: 9/8/2014 Current Age: 4;11 Context: Narration (FWAY) Database: Narrative Story Retell 29 Database Participants Entire transcript			Time2 Sample Date: 11/27/2014 Current Age: 5;2 Context: Narration (FGTD) Database: Narrative Story Retell 49 Database Participants Entire transcript	
STANDARD MEASURES					
LANGUAGE MEASURE	**Time1**			**Time2**	
	Score	**+/-SD**		**Score**	**+/-SD**
Current Age	4.92	-0.85		5.17	-0.54
TRANSCRIPT LENGTH					
Total Utterances	42	0.45		36	-0.14
# C&I Verbal Utts	38	0.71		28	-0.68
Total Completed Words	250	-0.02		193 *	-1.00
Elapsed Time (minutes)	3.47	-0.10		3.97	0.48
SYNTAX/MORPHOLOGY					
# MLU in Words	5.39 *	-1.10		5.68	-0.99
# MLU in Morphemes	5.63 *	-1.28		5.82 *	-1.38
SEMANTICS					
# Number Different Words	77	-0.16		66 *	-1.14
# Number Total Words	205	0.02		159 *	-1.02
# Type Token Ratio	0.38	-0.43		0.42	0.40
INTELLIGIBILITY					
% Intelligible Utterances	97%	0.70		93%	-0.13
MAZES AND ABANDONED UTTERANCES					
# Utterances with Mazes	6	-0.63		6	-0.76
# Number of Mazes	7	-0.61		6	-0.70
# Number of Maze Words	22	-0.13		14	-0.66
# Maze Words as % of Total Words	10%	-0.09		8%	-0.43
Abandoned Utterances	3 *	1.62		0	-0.79
VERBAL FACILITY AND RATE					
Words/Minute	72.12	-0.06		48.66 *	-1.37
Within-Utterance Pauses	0	-0.97		0	-0.94
Within-Utterance Pause Time	0.00	-0.86		0.00	-0.67
Between-Utterance Pauses	0 *	-1.57		0 *	-1.55
Between-Utterance Pause Time	0.00 *	-1.09		0.00 *	-1.13
OMISSIONS AND ERROR CODES					
# Omitted Words	11 **	6.01		7 **	4.13
# Omitted Bound Morphemes	6 **	2.57		7 **	4.21
Word-level Error Codes	20 **	3.97		15 **	3.09
Utterance-level Error Codes	2	0.62		3 *	1.56

 # Calculations based on C&I Verbal Utts
** At least 1 SD (** 2 SD) from the database mean*

Time1: Database selection criteria: age +/- 6 months
Time2: Database selection criteria: age +/- 6 months

10f Jesse's microstructural production quality scores compared to same-age SALT database multilingual peers.

PREJesse & POSTJesse					
	Time1 Sample Date: 9/8/2014 Current Age: 4;6 Context: Narration (FWAY) Database: Bilingual English Story Re 30 Database Participants Entire transcript			Time2 Sample Date: 11/21/2014 Current Age: 4;8 Context: Narration (FGTD) Database: Bilingual English Story Re 30 Database Participants Entire transcript	
STANDARD MEASURES					
LANGUAGE MEASURE	**Time1**			**Time2**	
	Score	**+/-SD**		**Score**	**+/-SD**
Current Age	4.50 **	-16.97		4.67 **	-12.63
TRANSCRIPT LENGTH					
Total Utterances	45 *	1.06		36	0.10
# C&I Verbal Utts	44 **	2.23		25	-0.20
Total Completed Words	275	0.73		336 *	1.50
Elapsed Time (minutes)	5.35 *	1.69		7.22 **	3.16
SYNTAX/MORPHOLOGY					
# MLU in Words	5.36	-0.11		8.56 **	2.98
SEMANTICS					
# Number Different Words	64	0.66		70 *	1.09
# Number Total Words	236 *	1.52		214 *	1.14
# Type Token Ratio	0.27 *	-1.26		0.33	-0.71
INTELLIGIBILITY					
% Intelligible Utterances	98%	0.97		96%	0.84
MAZES AND ABANDONED UTTERANCES					
# Utterances with Mazes	15	0.93		17 *	1.28
# Number of Mazes	17	0.64		25 *	1.63
# Number of Maze Words	32	0.37		63 *	1.93
# Maze Words as % of Total Words	12%	-0.25		23% *	1.38
Abandoned Utterances	0 *	-1.30		2	-0.22
VERBAL FACILITY AND RATE					
Words/Minute	51.40	-0.93		46.56 *	-1.14
Within-Utterance Pauses	0	-0.68		0	-0.68
Within-Utterance Pause Time	0.00	-0.58		0.00	-0.58
Between-Utterance Pauses	0 *	-1.31		0 *	-1.31
Between-Utterance Pause Time	0.00 *	-1.02		0.00 *	-1.02
OMISSIONS AND ERROR CODES					
# Omitted Words	9 **	2.58		5	0.82
# Omitted Bound Morphemes	1	-0.75		5	0.27
Word-level Error Codes	15	0.64		16	0.78
Utterance-level Error Codes	9 **	3.47		5 *	1.57

 # Calculations based on C&I Verbal Utts
** At least 1 SD (** 2 SD) from the database mean*

Time1: Database selection criteria: age +/- 8 months
Time2: Database selection criteria: age +/- 6 months

10g Jesse's microstructural production quality scores compared to same-age SALT database monolingual peers.

PREJesse & POSTJesse					
	Time1 Sample Date: 9/8/2014 Current Age: 4;6 Context: Narration (FWAY) Database: Narrative Story Retell 19 Database Participants Entire transcript			Time2 Sample Date: 11/21/2014 Current Age: 4;8 Context: Narration (FGTD) Database: Narrative Story Retell 27 Database Participants Entire transcript	
STANDARD MEASURES					
LANGUAGE MEASURE	**Time1**			**Time2**	
	Score	**+/-SD**		**Score**	**+/-SD**
Current Age	4.50 **	-2.08		4.67 *	-1.56
TRANSCRIPT LENGTH					
Total Utterances	45	0.51		36	-0.15
# C&I Verbal Utts	44 *	1.17		25	-0.86
Total Completed Words	275	0.43		336 *	1.23
Elapsed Time (minutes)	5.35 *	1.46		7.22 **	3.57
SYNTAX/MORPHOLOGY					
# MLU in Words	5.36 *	-1.01		8.56 **	2.85
SEMANTICS					
# Number Different Words	64 *	-1.03		70	-0.56
# Number Total Words	236	0.69		214	0.21
# Type Token Ratio	0.27 *	-1.95		0.33 *	-1.09
INTELLIGIBILITY					
% Intelligible Utterances	98%	0.70		96%	0.51
MAZES AND ABANDONED UTTERANCES					
# Utterances with Mazes	15 *	1.29		17 *	1.61
# Number of Mazes	17 *	1.06		25 **	2.23
# Number of Maze Words	32	0.58		63 **	2.55
# Maze Words as % of Total Words	12%	0.35		23% **	2.57
Abandoned Utterances	0	-0.89		2	0.75
VERBAL FACILITY AND RATE					
Words/Minute	51.40	-0.83		46.56 *	-1.17
Within-Utterance Pauses	0	-0.83		0	-0.93
Within-Utterance Pause Time	0.00	-0.73		0.00	-0.81
Between-Utterance Pauses	0 *	-1.63		0 *	-1.52
Between-Utterance Pause Time	0.00 *	-1.04		0.00 *	-1.06
OMISSIONS AND ERROR CODES					
# Omitted Words	9 **	4.40		5 **	2.21
# Omitted Bound Morphemes	1	-0.48		5 *	1.93
Word-level Error Codes	15 **	2.29		16 **	2.87
Utterance-level Error Codes	9 **	4.80		5 **	2.73

 # Calculations based on C&I Verbal Utts
** At least 1 SD (** 2 SD) from the database mean*

Time1: Database selection criteria: age +/- 8 months
Time2: Database selection criteria: age +/- 8 months

10h Diego's narrative retell results compared to SALT database same-age multilingual peers.

PREDiego & POSTDiego				
	Time1 Sample Date: 9/8/2014 Current Age: 5;1 Context: Narration (FWAY) Database: Bilingual English Story Re 244 Database Participants Entire transcript		Time2 Sample Date: 11/20/2014 Current Age: 5;3 Context: Narration (FGTD) Database: Bilingual English Story Re 111 Database Participants Entire transcript	
STANDARD MEASURES				
LANGUAGE MEASURE	**Time1**		**Time2**	
	Score	**+/-SD**	**Score**	**+/-SD**
Current Age	5.08 **	-2.23	5.25 **	-4.92
TRANSCRIPT LENGTH				
Total Utterances	35	0.18	25	-0.78
# C&I Verbal Utts	31	0.46	21	-0.53
Total Completed Words	233	0.30	146	-0.84
Elapsed Time (minutes)	3.52	0.30	3.07	-0.48
SYNTAX/MORPHOLOGY				
# MLU in Words	6.52 *	1.02	5.90	-0.19
# MLU in Morphemes	7.13 *	1.22	6.67	0.17
SEMANTICS				
# Number Different Words	72	0.94	60	-0.07
# Number Total Words	202	0.74	124	-0.54
# Type Token Ratio	0.36	-0.37	0.48 *	1.01
INTELLIGIBILITY				
% Intelligible Utterances	97%	0.66	91%	0.26
MAZES AND ABANDONED UTTERANCES				
# Utterances with Mazes	6	-0.60	3 *	-1.17
# Number of Mazes	6	-0.70	3 *	-1.10
# Number of Maze Words	16	-0.45	4 *	-1.06
# Maze Words as % of Total Words	7%	-0.84	3% *	-1.57
Abandoned Utterances	3	0.39	2	-0.05
VERBAL FACILITY AND RATE				
Words/Minute	66.26	-0.04	47.61	-0.68
Within-Utterance Pauses	0	-0.85	0	-0.84
Within-Utterance Pause Time	0.00	-0.71	0.00	-0.74
Between-Utterance Pauses	0 *	-1.52	0 *	-1.66
Between-Utterance Pause Time	0.00 *	-1.14	0.00 *	-1.01
OMISSIONS AND ERROR CODES				
# Omitted Words	6	0.96	2	-0.30
# Omitted Bound Morphemes	4	0.14	1 *	-1.02
Word-level Error Codes	8	-0.24	4	-0.98
Utterance-level Error Codes	0	-0.78	1	-0.38

 # Calculations based on C&I Verbal Utts
** At least 1 SD (** 2 SD) from the database mean*

Time1: Database selection criteria: age +/- 6 months
Time2: Database selection criteria: age +/- 6 months

10i Diego's pre-/post-study narrative results compared to SALT database same-age monolingual peers.

PREDiego & POSTDiego					
	Time1 Sample Date: 9/8/2014 Current Age: 5;1 Context: Narration (FWAY) Database: Narrative Story Retell 43 Database Participants Entire transcript			Time2 Sample Date: 11/20/2014 Current Age: 5;3 Context: Narration (FGTD) Database: Narrative Story Retell 58 Database Participants Entire transcript	
STANDARD MEASURES					
LANGUAGE MEASURE	**Time1**			**Time2**	
	Score	**+/-SD**		**Score**	**+/-SD**
Current Age	5.08	-0.58		5.25	-0.45
TRANSCRIPT LENGTH					
Total Utterances	35	-0.29		25 *	-1.31
# C&I Verbal Utts	31	-0.33		21 *	-1.61
Total Completed Words	233	-0.44		146 *	-1.66
Elapsed Time (minutes)	3.52	-0.04		3.07	-0.50
SYNTAX/MORPHOLOGY					
# MLU in Words	6.52	-0.01		5.90	-0.81
# MLU in Morphemes	7.13	-0.06		6.67	-0.63
SEMANTICS					
# Number Different Words	72	-0.76		60 *	-1.53
# Number Total Words	202	-0.29		124 *	-1.66
# Type Token Ratio	0.36	-0.63		0.48 *	1.73
INTELLIGIBILITY					
% Intelligible Utterances	97%	0.41		91%	-0.52
MAZES AND ABANDONED UTTERANCES					
# Utterances with Mazes	6	-0.73		3 *	-1.24
# Number of Mazes	6	-0.67		3 *	-1.00
# Number of Maze Words	16	-0.53		4 *	-1.14
# Maze Words as % of Total Words	7%	-0.53		3% *	-1.27
Abandoned Utterances	3 *	1.86		2 *	1.03
VERBAL FACILITY AND RATE					
Words/Minute	66.26	-0.50		47.61 *	-1.43
Within-Utterance Pauses	0	-0.92		0	-0.95
Within-Utterance Pause Time	0.00	-0.64		0.00	-0.68
Between-Utterance Pauses	0 *	-1.52		0 *	-1.52
Between-Utterance Pause Time	0.00 *	-1.11		0.00 *	-1.14
OMISSIONS AND ERROR CODES					
# Omitted Words	6 **	3.05		2	0.61
# Omitted Bound Morphemes	4 *	1.82		1	-0.01
Word-level Error Codes	8	0.93		4	-0.10
Utterance-level Error Codes	0	-0.81		1	0.07

 # Calculations based on C&I Verbal Utts
** At least 1 SD (** 2 SD) from the database mean*

Time1: Database selection criteria: age +/- 6 months
Time2: Database selection criteria: age +/- 6 months

10j Maya's retell scores compared to same-age multilingual peers in SALT database.

PREMaya & POSTMaya					
	Time1 Sample Date: 9/8/2014 Current Age: 5;11 Context: Narration (FWAY) Database: Bilingual English Story Re 243 Database Participants Entire transcript			Time2 Sample Date: 11/20/2014 Current Age: 6;1 Context: Narration (FGTD) Database: Bilingual English Story Re 303 Database Participants Entire transcript	
STANDARD MEASURES					
LANGUAGE MEASURE	**Time1**			**Time2**	
	Score	**+/-SD**		**Score**	**+/-SD**
Current Age	5.92	0.02		6.08	0.11
TRANSCRIPT LENGTH					
Total Utterances	53 *	1.60		34	-0.04
# C&I Verbal Utts	41 *	1.05		31	0.33
Total Completed Words	370 *	1.25		254	-0.01
Elapsed Time (minutes)	4.22	0.42		3.60	-0.19
SYNTAX/MORPHOLOGY					
# MLU in Words	6.24	0.19		6.71	0.17
# MLU in Morphemes	6.76	0.29		7.16	0.25
SEMANTICS					
# Number Different Words	75	0.53		73	0.36
# Number Total Words	256	0.88		208	0.30
# Type Token Ratio	0.29	-0.81		0.35	-0.34
INTELLIGIBILITY					
% Intelligible Utterances	98%	0.67		97%	0.64
MAZES AND ABANDONED UTTERANCES					
# Utterances with Mazes	16	0.52		12	-0.02
# Number of Mazes	20	0.36		13	-0.30
# Number of Maze Words	42	0.31		28	-0.24
# Maze Words as % of Total Words	14%	-0.09		12%	-0.35
Abandoned Utterances	11 **	3.94		2	-0.01
VERBAL FACILITY AND RATE					
Words/Minute	87.75	0.68		70.56	0.07
Within-Utterance Pauses	0	-0.87		0	-0.77
Within-Utterance Pause Time	0.00	-0.77		0.00	-0.62
Between-Utterance Pauses	0 *	-1.36		0 *	-1.55
Between-Utterance Pause Time	0.00	-0.88		0.00 *	-1.08
OMISSIONS AND ERROR CODES					
# Omitted Words	3	-0.01		2	-0.30
# Omitted Bound Morphemes	1	-0.81		2	-0.78
Word-level Error Codes	23 *	1.76		5	-0.88
Utterance-level Error Codes	6 **	2.10		0	-0.93

 # Calculations based on C&I Verbal Utts
** At least 1 SD (** 2 SD) from the database mean*

Time1: Database selection criteria: age +/- 2 months, grade K
Time2: Database selection criteria: age +/- 2 months, grade K

10k Maya's retell scores compared to same-age monolingual peers in NSS database.

PREMaya & POSTMaya					
	Time1 Sample Date: 9/8/2014 Current Age: 5;11 Context: Narration (FWAY) Database: Narrative Story Retell 72 Database Participants Entire transcript			Time2 Sample Date: 11/20/2014 Current Age: 6;1 Context: Narration (FGTD) Database: Narrative Story Retell 71 Database Participants Entire transcript	
STANDARD MEASURES					
LANGUAGE MEASURE	**Time1**			**Time2**	
	Score	**+/-SD**		**Score**	**+/-SD**
Current Age	5.92	0.11		6.08	0.24
TRANSCRIPT LENGTH					
Total Utterances	53 *	1.58		34	-0.52
# C&I Verbal Utts	41	0.69		31	-0.60
Total Completed Words	370 *	1.02		254	-0.52
Elapsed Time (minutes)	4.22	0.66		3.60	-0.03
SYNTAX/MORPHOLOGY					
# MLU in Words	6.24	-0.95		6.71	-0.43
# MLU in Morphemes	6.76 *	-1.13		7.16	-0.72
SEMANTICS					
# Number Different Words	75 *	-1.09		73 *	-1.20
# Number Total Words	256	0.12		208	-0.72
# Type Token Ratio	0.29 *	-1.93		0.35	-0.63
INTELLIGIBILITY					
% Intelligible Utterances	98%	0.22		97%	0.06
MAZES AND ABANDONED UTTERANCES					
# Utterances with Mazes	16	0.63		12	0.08
# Number of Mazes	20	0.43		13	-0.14
# Number of Maze Words	42	0.49		28	-0.06
# Maze Words as % of Total Words	14%	0.66		12%	0.37
Abandoned Utterances	11 **	9.34		2 *	1.13
VERBAL FACILITY AND RATE					
Words/Minute	87.75	0.16		70.56	-0.63
Within-Utterance Pauses	0	-0.87		0	-0.84
Within-Utterance Pause Time	0.00	-0.64		0.00	-0.65
Between-Utterance Pauses	0 *	-1.48		0 *	-1.46
Between-Utterance Pause Time	0.00 *	-1.24		0.00 *	-1.20
OMISSIONS AND ERROR CODES					
# Omitted Words	3 *	1.71		2	0.91
# Omitted Bound Morphemes	1	0.38		2 *	1.63
Word-level Error Codes	23 **	8.15		5	0.56
Utterance-level Error Codes	6 **	4.73		0	-0.65

 # Calculations based on C&I Verbal Utts
** At least 1 SD (** 2 SD) from the database mean*

Time1: Database selection criteria: age +/- 6 months
Time2: Database selection criteria: age +/- 6 months

10l Mauricio's pre-study and post-study retell scores compared to same-age NSS database monolingual peers.

PREMauricio & POSTMauricio					
	Time1 Sample Date: 9/8/2014 Current Age: 5;4 Context: Narration (FWAY) Database: Narrative Story Retell 63 Database Participants Entire transcript			Time2 Sample Date: 11/20/2014 Current Age: 5;7 Context: Narration (FGTD) Database: Narrative Story Retell 63 Database Participants Entire transcript	
STANDARD MEASURES					
LANGUAGE MEASURE	**Time1**			**Time2**	
	Score	**+/-SD**		**Score**	**+/-SD**
Current Age	5.33	-0.41		5.58	-0.19
TRANSCRIPT LENGTH					
Total Utterances	48 *	1.10		23 *	-1.61
# C&I Verbal Utts	39	0.65		21 *	-1.68
Total Completed Words	369 *	1.36		212	-0.88
Elapsed Time (minutes)	4.18	0.77		3.00	-0.53
SYNTAX/MORPHOLOGY					
# MLU in Words	6.64	0.00		8.86 **	2.45
# MLU in Morphemes	7.38	0.05		9.76 **	2.31
SEMANTICS					
# Number Different Words	115 *	1.71		84	-0.25
# Number Total Words	259	0.57		186	-0.81
# Type Token Ratio	0.44	0.98		0.45 *	1.33
INTELLIGIBILITY					
% Intelligible Utterances	98%	0.40		100%	0.79
MAZES AND ABANDONED UTTERANCES					
# Utterances with Mazes	18 *	1.24		6	-0.77
# Number of Mazes	25 *	1.16		8	-0.54
# Number of Maze Words	55 *	1.41		23	-0.20
# Maze Words as % of Total Words	18% *	1.36		11%	0.21
Abandoned Utterances	6 **	4.97		0	-0.75
VERBAL FACILITY AND RATE					
Words/Minute	88.21	0.35		70.67	-0.54
Within-Utterance Pauses	0	-0.92		0	-0.94
Within-Utterance Pause Time	0.00	-0.66		0.00	-0.66
Between-Utterance Pauses	0 *	-1.46		0 *	-1.44
Between-Utterance Pause Time	0.00 *	-1.10		0.00 *	-1.10
OMISSIONS AND ERROR CODES					
# Omitted Words	2	0.58		4 **	2.51
# Omitted Bound Morphemes	1	-0.01		1	0.38
Word-level Error Codes	16 **	3.74		10 **	2.52
Utterance-level Error Codes	2	0.88		0	-0.67

 # Calculations based on C&I Verbal Utts
** At least 1 SD (** 2 SD) from the database mean*

Time1: Database selection criteria: age +/- 6 months
Time2: Database selection criteria: age +/- 6 months

10m Elisa's retell scores compared with same-age NSS database monolingual peers.

PREElisa & POSTElisa					
	Time1 Sample Date: 9/8/2014 Current Age: 5;9 Context: Narration (FWAY) Database: Narrative Story Retell 73 Database Participants Entire transcript			Time2 Sample Date: 11/20/2014 Current Age: 5;11 Context: Narration (FGTD) Database: Narrative Story Retell 72 Database Participants Entire transcript	
STANDARD MEASURES					
LANGUAGE MEASURE	**Time1**			**Time2**	
	Score	**+/-SD**		**Score**	**+/-SD**
Current Age	5.75	-0.06		5.92	0.11
TRANSCRIPT LENGTH					
Total Utterances	47	0.98		28 *	-1.17
# C&I Verbal Utts	41	0.77		26 *	-1.21
Total Completed Words	356	0.91		248	-0.59
Elapsed Time (minutes)	5.03 *	1.64		3.53	-0.06
SYNTAX/MORPHOLOGY					
# MLU in Words	7.54	0.75		8.77 **	2.16
# MLU in Morphemes	8.51	0.90		9.88 **	2.31
SEMANTICS					
# Number Different Words	106	0.93		93	-0.03
# Number Total Words	309 *	1.12		228	-0.36
# Type Token Ratio	0.34	-0.81		0.41	0.55
INTELLIGIBILITY					
% Intelligible Utterances	100%	0.72		96%	-0.02
MAZES AND ABANDONED UTTERANCES					
# Utterances with Mazes	8	-0.50		6	-0.86
# Number of Mazes	8	-0.58		6	-0.81
# Number of Maze Words	20	-0.38		12	-0.78
# Maze Words as % of Total Words	6%	-0.63		5%	-0.86
Abandoned Utterances	4 **	3.99		0	-0.68
VERBAL FACILITY AND RATE					
Words/Minute	70.73	-0.62		70.19	-0.68
Within-Utterance Pauses	0	-0.91		0	-0.87
Within-Utterance Pause Time	0.00	-0.66		0.00	-0.64
Between-Utterance Pauses	0 *	-1.49		0 *	-1.48
Between-Utterance Pause Time	0.00 *	-1.25		0.00 *	-1.24
OMISSIONS AND ERROR CODES					
# Omitted Words	1	-0.10		0	-0.98
# Omitted Bound Morphemes	0	-0.77		0	-0.81
Word-level Error Codes	2	-0.66		2	-0.61
Utterance-level Error Codes	0	-0.65		0	-0.68

 # Calculations based on C&I Verbal Utts
** At least 1 SD (** 2 SD) from the database mean*

Time1: Database selection criteria: age +/- 6 months
Time2: Database selection criteria: age +/- 6 months

Appendix 11 Case study child pre-/post-study retell transcripts

11a. Caminda's pre-study narrative retell of *Frog, where are you?* (Mayer 1969).

The frog um, the frog stay inside that thing [pointing to jar, not able to provide specific noun].
And then the boy watch it.
And then the dog went see a little while on the frog [look at the frog].
So (when) when the boy fell asleep.
And when [then] the frog jump out that thing [jar].
The frog was gone.
And then the boy woke up this morning and the dog too.
And they saw (the) the frog was gone.
So they look everywhere [animated concerned voice].
And then they look on [in] his boot.
Then they look on the thingy [jar].
Then that thing [jar] was stuck (on on) on the dog.
(Then then) then (the the the um) the boy call for his frog.
Then (the) the thing was so heavy.
Then (um and um) he stay in the window and he>
So that thing was so heavy [exaggerating weight through voice].
And they throw [fell] out all the way down.
And (then) then he was mad [mad voice].
(And) and then (he w-) he was thinking that (he w-) the doggie was ok.
(So) so they call again (for th- for) for the frog.
(So) so where they yell in the hole.
Um and they say 'are you in there?'
So there was nothing, there was just an animal.
So they looked.
So (so so with with the honey um with) the honey bees um went down [referring to beehive being knocked off the tree].
All of the bees went out and find another honey [hive].
So (with with the dog um um try, I mean) the bees were trying to chase the dog.
So the boy fell down.
And the owl was trying to chase it [the boy].
So the owl try to chase it.
And (he he) he go again (to) to the fall [rocks].
So there was a another animal.
And then it [the boy] was on the head [the reindeer's head].
And then (the the) the animal was running and the dog too.
And they were heading (to) to a big rock [cliff].
And (they) they were gonna fell [fall] down [surprised/concerned voice].
So the boy and (the) the dog fell down [into] the water.
So then after their head went down the water.
And they didn't close their eyes after they went to the water [extra detail, not in original story].
And then they were ok.
(So so so) so the boy (um um) say 'sh' because (th_) the dog was trying to be sh [quiet].
Then they watch [looked] inside.
Then there was a frogs [family of frogs].
Then they have babies [baby] frogs.
Then that was>
Then the frog loved the boy.
And then they say 'good bye' to their frogs and to their family.
And they took the little frog [pointing to small frog in illustration].

11b Caminda's post-study narrative retell of *Frog goes to dinner* (Mayer 1974).

The boy (is put he) was getting ready.
He was putting his clothes on.
And (and he put) he put (his his) his jacket on.
(And then and then and then) and then the frog pop [jumped] in his jacket.
(And then) and then the boy he didn't saw [see] it [the frog] was in there.
And then the frog said 'good bye'.
(And) and the boy said 'good bye' to his pets.
Then (their family went and) their family went to a restaurant.
(And the b_) and the frog um um saw a man.
(Then then) then the frog pop out (the the) the boy's pocket.
And (then) then he went to [into] the instrument [saxophone].
(And then) and then the man he blow his>
***
C His what? [whispering to examiner, appealing for noun 'saxophone' to be given]
E What do you want to call it?
C I think a trump [trumpet].
E Uhhuh.
C It's ok, we can call it trump.
E Yeah.
C Look he blow his trump [pointing to saxophone].
***
And then he look in his trump.
(And then and then he) and then he [the frog] fall [fell].
And then he did fall [referring to another musician].
And then (the man say um) the man was mad.
And another man was happy.
Then (he) he get in [the woman's] salad.
And then the man [waiter] didn't saw [see] the frog going to the salad.
Then (then what) what the man got her salad.
Then he look in her salad.
He [she, pronoun error] said [saw] it was a frog.
And (then) then he [she] scream.
(And then sh_) and then she fall down [off] her chair.
[child becoming tired, sighing]
Then he went to a man's cup.
And then the girl didn't look in and they didn't saw [see] it.
Then the man she [he] got mad.
And (then then) then he [she] said 'you put a frog on my salad'!
(Then she) and then she went out the restaurant.
(And then) and then the girl he [she] saw>
And then the frog kissed (the the) the boy on the nose, 'ew'!
(And then) and the girl was too mad a little bit.
(And then) and then the man he catched [caught] the frog.
And the frog say 'good bye' to the man and girls.
Then the boy said 'That's my frog' [alarmed expression]!
'My pet, I didn't saw him, he was going on my pocket' [pleading/apologetic voice].
And then the mother's boy said 'be quiet, it needs to be quiet in the restaurant'.
Then he said 'I'm gonna take my frog home'.
And (then) then the girl and the mom and the dad they were mad.
Then the family's boy, her mom and her dad and her sister were mad [pronoun errors].
Then his father said 'go to your room' [angry voice].
(Then and then the and then the) and then the pets laugh what happen in the restaurant.
The end.

11c Daniel's pre-study narrative retell of *Frog, where are you?* (Mayer 1969).

And he look at him.
And he said 'go to sleep'.
They look at [for] him in the bedroom.
(and and) and in him [his] shoe.
And (the frog got him a) he no find him again.
Um there's a boy on the tree.
And he can't go to him again.
The X [unintelligible] come.
He can't find him.
And they go.
And the X [unintelligible] come but they can't find him.
XX [code switch] and the take it to him go down [the bee hive fell down].
And the doggie ran around [bees were chasing the dog].
And the owl come [came out of the tree].
(And) and he going down [boy fell].
And he fall [fell].
And him fall and down.
And he goed [fell into] the water.
And the frog go somewhere here.
And the frog X [unintelligible] the branch.
The frog over here [pointing to log].
And he say "whatcha" [annoyed, reprimanding voice], to that [boy telling dog to be quiet].
The froggie said bye bye.

11d. Daniel's post-study narrative retell of *Frog goes to dinner* (Mayer 1974).

He dress up.
And he to go a [filled pause] X [code switch, possibly 'restaurant'].
(And) and he need to check in the froggie his pocket the boy [gesturing to imaginary pocket in his t-shirt, warning voice].
And he [boy] saying [said] 'good bye'.
And when it was time to go he was in his pocket [forewarning again].
And this [frog, pointing to illustration and gesturing jumping with hands] he went jump (in a a he got) in there [pointing to saxophone].
And he didn't see it [shaking his head].
And the froggie went inside [gesturing with hands the frog falling into the saxophone].
And he get [got] mad [mad voice].
And (he was) he put in his head [the frog fell on the man's head; gesturing hand falling on face from above].
"fuew" [imitating awful saxophone noise and pained facial expression], like that.
And the drum he [pointing to drummer/drums being knocked over, sweeping hand across illustration to gesture action as he narrates].
And he went in the food [on] the plate.
And (he get mad) she get [got] mad [mad voice].
He go down in the XX [code switch].
And he go in there [pointing to the woman's salad].
The grandma got her hand and eat [gesturing putting fork up to his mouth and face showing disgust].
(And) and he said the water in there [frog in the man's glass].
And he X [unintelligible] him and fall down.
And he kissed him [pointing to his own nose to show where].
A [filled pause] frog kiss him.
And he [frog] make him mad [pointing to waiter].
And he do like that [showing kissing gesture].
And he picking his frog coz he needed to carry [waiter wanted to throw frog out of the restaurant].
And he was gonna throw it away [surprised/alarmed voice].

And the boy want him [concerned voice].
‘He's mine, that’ [pleading voice].
(And) and ‘that my froggie’ [continued pleading voice].
And he want it.
He need to go home.
And he [pointing to boy's mom, pronoun error] was gonna drive him because he didn't listen [mad voice, showing parent anger at having to leave the restaurant].
And he never go [back; sad voice].
His mommy said he need go in his room and play.
And he played.
And that’s it.

11e Summer’s pre-study retell of *Frog, where are you?* (Mayer 1969)

A froggie.
The froggie jump up into a big X [unintelligible].
And open the window.
And out.
And (he wake up) the boy wake up.
And wake up dog too.
And he look everywhere, even in those [pointing to boots in the illustration].
And (he can w-) the doggie (get he) went in the jar.
His head was really stuck.
And head was really stuck jar.
And him fall out.
And the doggie fall out.
He not ok.
And he say him>
The boy was being mad.
And (they w-) they call the froggie, ‘froggie where are you’.
And he look up tree.
It was bees.
They call the froggie.
He say ‘froggie’!
(He saw) there was somebody [referring to gopher] in the little hole.
And they were going in the home [hive].
And the bees were so angry.
The doggie runned.
And the little boy went in the hole.
He saw some owl in there.
And he was h>
And the owl push him.
And (go and the do*) the bees was so angry that they got him run faster.
And (this was owl, this was ears) this was a reindeer [difficulty generating noun ‘antler’].
And the reindeer get him in the head [picked the boy up with its antlers].
Then he go right there [stopped at the cliff].
He go ‘boink’ in the water.
And he fall.
And (he it was a hole it was somebody) it was>
He saying ‘really quiet’ [boy was telling dog to be quiet].
It was froggies.
Little frog, it's the baby frog from the mommy frog.
And they got baby frogs.
And they get a new pet frog.
They say ‘goodbye’ to the family.
And they walk away.

11f Summer's post-study retell of *Frog goes to dinner* (Mayer 1974).

The frog w- X [unintelligible word].
The boy was put his new cloths on.
The boy was say bye to his pets.
And he go to restaurant.
And (he leave) he went to go [say] 'good bye'.
And he leave with the frog.
(He was left) he left.
They went the restaurant and the frog.
And the little boy's sister say 'this is so beautiful' [added, not in original story, astonished voice].
The frog was putting in the trumpet [jumped in the saxophone].
And he [the saxophone player] look down there [pointing to book illustration].
And then they (w-) were gonna be mad.
Coz it was a bad way [saxophone made an awful sound].
And it was a [the] frog.
And it jumping on (head) face.
And he was so (uh m- uh) sad.
He was so sad.
The frog was jumping [in] the lettuce.
The lady was XX [unintelligible phrase].
XXX [unintelligible utterance].
And then 'scream' [alarmed voice]!
It was a frog jump out her food! [animated surprised/alarmed voice]
The frog he in cup of glass.
He was in cup of water.
Frog, he kiss his nose [laughing].
He [waiter] grab it [angry voice].
He take it out.
He say 'hey, that's my frog' [voice showing character upset].
And they [family in car] were so mad.
He [pointing to father] say 'go to your room' [mad voice].
Then they were laugh.
They laugh, ha ha.
The end the story.

11g Jesse's pre-study narrative retell of *Frog, where are you?* (Mayer 1969).

(Um [filled pause] the frog get t- the) the frog (he) um [filled pause] he heareded [heard] the here [pointing to frog in illustration].
And the boy X [code switch].
Him he jumped the frog.
The frog that catches the boy.
(And) and the boy he calleded [called] the there [pointing to boy calling for his frog].
And not here the frog.
And he finded [looking] and calling 'frog, frog where are you?'
And the dog jumped [out] the window.
And the boy he [was] mad.
(And) and where are he?
And the dog he jumping over to the bees.
And (he) he finded [found] a mouse [gopher].
And (he saw ah [filled pause]) he gotted [saw] a tree.
And he finded [looked] for the froggie.
And the bees [beehive], he broke it.
And the dog he finded [found] the bees.
And he jump.
And he fall little bees.
(And) and the frog needs a doggie [meant dog needs to find the frog].
The bees go to [chase] the dog.

And the boy he fell for the owl [the owl scared the boy and he fell off the tree].
And um [filled pause] he X over to the blocks [rocks].
And [called] ‘where are you frog?’
And he jumping on there [reindeer’s antlers].
And run (the the) that one [pointing to reindeer].
And he [boy] fell [into] the water.
And he fell (the) the water.
And the dog the happy.
And that's [they were] ok.
And he fell to the water.
He [said to the dog] ‘frog, sh’.
And the boy be quiet (the) the dog [told the dog to be quiet].
And he jump over to the log.
And he finded [found] (the) the froggie.
(He boy) he saw (froggie) froggie X [code switch] mother.
And he heard the story.
And (he heard) he happy the doggie.
And (the a [filled pause] the) the mommie and the dad.
And he heard the story.
And he sit down.
Read the story.
And um [filled pause] happy the dog.
(He he) he finded the froggies.
And heared [heard] the story.
And um[FP] he jumped [into] the water the dog [referring to boy and dog leaving with the baby frog].
And he swam.

11h Jesse’s post-study narrative retell of *Frog goes to dinner* (Mayer 1974).

Um [filled pause] (the boy changing the the the) the boy was changing the [his] clothes.
(And and) and (the) the boy and the dog be going um [filled pause] another um [filled pause, then abandons utterance]>
The boy a [filled pause] say [said] ‘Good bye’ to the turtle and the dog.
(And and um [filled pause] and he [was] happy too.
He was come (in the) and eat [ate] in the castle [restaurant].
(And the frog um [filled pause] jump in in in) and the frog jump and he got in (the in his) his there [pointing to saxophone].
He er [filled pause] this one [pointing to saxophone] (he he) he>
(He um [filled pause] he he) he over there in the oil [saxophone].
(And) and he drop (in the) in the this one [pointing to saxophone].
C And he [got] stuck.
(And) and he told him to ‘get out of here!’ [annoyed voice].
And (he he m [filled pause] he he started to to he um [filled pause]) he fell (in the) in the like that one [pointing to the salad].
(He) he was so angry because he fell the frog (into) into in that [the salad].
And the frog jumped over here [pointing to glass].
(In) in the water said the water, ‘it's good’ [child seems to referring to what he imagines the frog is thinking/saying].
And (the this one) the frog and the um [filled pause] he started (to to) to that [pointing to frog in man’s glass].
And (he) he started to jump, the frog.
(Get in) he fell in the water.
And (he) he so angry because (the) the frog um [filled pause] he not nice.
And he kiss her [him] to [on] the nose.
And he started [wanted] to catch the frog.
And the boy said ‘that my frog’ [upset/concerned voice].
And he not throw in the garbage coz the boy said ‘my frog’ [explaining that waiter didn’t throw the frog outside due to boy’s protestation].
(And) and the boy said ‘give me that (thing) frog because that mine’ [protective voice].

And he (the this one) [waiter] said ‘X can (he no) he no come back the frog’, because he mad for the frog [explaining waiter’s anger about the frog being in his restaurant].
And (he started to to go) he started to go (because) because he mad the mom and the dad and the girl.
And ‘go in the room’ (because) because um [filled pause] he mad with the frog.
And the frog be happy and the boy.

11i Diego’s pre-study narrative retell of *Frog, where are you?* (Mayer 1969).

Um [filled pause] the boy had a frog.
The frog escaped from the ball [jar].
And when he [the] ball got on, got stuck.
(And and) that dog stuck in the ball [jar].
And the ball got stuck in [on] his head.
And the ball>
And the dog got>
The boy scream[ed] out [to] the frog.
And then the ball was so heavy.
The dog fell down and broke the glass.
And he was mad at him broke [for breaking the] glass.
He screamed [called].
He went outside and screamed.
And he [the dog] barked at the bees.
And then the dog was barking at the bees.
The X [unintelligible] went.
And then they were um [filled pause]>
A chipmonk bite [bit] (the kid) the boy.
And then um [filled pause] the boy climb[ed] on the tree.
And then um [filled pause] [bees] started chasing the dog.
Then an owl came out.
And the boy slid [fell].
Bees started chasing the dog.
Then the owl was following [chasing] the boy.
And then he was holding some branches.
And then he fell down.
And it was actually a branches.
(And then) and then it [the branches] weren't branch[es], it was a reindeer.
And he dropped him (in the pond) in the water.
And they hear [heard] a noise behind the um [filled pause] tree [log].
(He and then they were) and then he [said] "sh" [reprimanding voice].
And the um [filled pause] boy checked behind it [the log].
And he saw a mom and pappa frog (and baby) and babies.
And then he said "goodbye".
And then he [frog] said "ribbit ribbit".

11j Diego’s post-study narrative retell of *Frog goes to dinner* (Mayer 1974).

Um [filled pause] he [a boy] had the [a] dog [and] pet turtle.
And he said goodbye to the X [unintelligible].
He was looking at the people.
And the frog almost looks like he's smiling.
He looked inside [child point’s to saxophone].
And a [the] frog popped out.
He almost look[s] like he's kissing.
He jumped in (the) the water.
He jumped out of the salad.
And he jumped in the water.

And the lady fall [fell] down [off] the chair.
And he kissed him on nose.
Um [filled pause] there were um [filled pause]>
A frog waved bye.
And he said "sh" [reprimanding voice].
(The ma-) the boy saw the frog.
He said "hey that's my frog" [upset/concerned voice].
And (the) the man said "you go" [gruff/angry voice].
Is [I'll] give you your frog back [angry/reprimanding voice].
And the boy was happy [to] see his frog.
And all [his] the parents were mad at him.
That they was so um [filled pause]>
And they said "go back to your room" [angry/reprimanding voice].
And they were laughing [happy voice].
The dog laughed.

11k Maya's post-study narrative retell of *Frog goes to dinner* (Mayer 1969).

(A a) a dog [boy] had (a) a frog.
And he keeped [kept] him in [a jar]>
He got [had] a pet dog.
And then frog jumped out of the jar.
And then (when) when they woke up (they just) they don't [didn't] see nothing [anything] from [in] the jar.
And (the) they looked everywhere (from the) from [for] the pet frog.
(The) the dog went to the jar.
And the dog (he got head and) he got [his] head and stuck.
And the dog pulled the [its] head out and still got stuck from [in] the jar.
And the jar was heavy.
And then it got falled [fell].
The dog falls [fell] down.
Then it (and then it was) he was not hurt.
The dog>
It [the jar] got broken.
The dog>
They were calling the frog, the pet frog.
And then the dog was calling him too.
The>
Everywhere they looked from the bees, from the hole, they>
(Someone) someone hit [bite] him from [on] the nose.
(They) they looked from [at] the bee [bees].
And it go [fell] down.
And the bee to try>
They got mad .
They was [were] following him.
And then that [the] boy climbed up.
And then (they saw) he saw a hole.
And then he climbed up.
And then (one owl) one owl come let [made] him fall down.
And then he was chasing (the the dog was) the dog was running from the bees (because um) because they went fall down [their hive was knocked down].
They was [were] following him.
(And the they) and then him jump up.
And there were calling a>
He was calling him.
And then it was not a tree, it was a deer.
And then it went to the X [unintelligible].
And then the dog was (looking) calling him.
And then was it was going to the very end (of the) from the [pointing to cliff, unable to provide noun]>

And then (he made he made fall he fall) he falls [fell] down.
The deer made him fall down.
And the dog falls down.
(He) he falls down [fell into the] water.
And then he heard some "ribbit, ribbit, ribbit".
And then he was like [said] "be quiet (I'm a I/'m a" [annoyed voice]>
He just went down [over] the hole [log].
And then he saw (some) some frogs.
And he had a mother and a father.
Then he got babies so h->
And then he got one of the pet frogs.

11l Maya's post-study narrative retell of *Frog goes to dinner* (Mayer 1974).

When the boy wanted to wear his new X [unintelligible] shirt.
And (a the frog got) the frog got jump [ed] on this one [pointing to the boy's pocket].
And the frog was sad coz he missed the boy.
And then they wanted to go to the restaurant.
They went to the restaurant.
And then a boy let him close the door.
They went to see the>
And then the frog jump on the [couldn't retrieve noun: saxophone]>
***
C What this called?
E You use whatever word you think.
C A trumpet.
***
And then the frog jumped on the trumpet.
(And then it) and then it [he] heard like a noise like said "squeak squeak" [imitating awful instrument sound].
And then (he checked th-) they checked on there.
Trumpet.
And they don't see it.
And then a [the] frog came.
And he jumped out of his thing.
And then this man he fall with the trumpet.
He said (go) "go get the frog" [angry voice].
And they went to a other [another] customer.
And then there was a [the] frog there.
And they were starting to eat it [alarmed voice].
A frog popped out [surprised voice].
(And then th-) and then the frog pop out.
And he go to a juice [jumped into the man's glass].
(And then i-) and then the frog kissed a boy's [man's] nose.
Then it [the waiter] (got) almost got the frog [concerned voice].
And then (and then) he [the boy] said "hey that's my frog!" [worried voice]
And then (he said) he [the waiter] said (don't p-) "don't bring your frog again" [angry voice].
And (got) his family got so mad [angry voice].
And his father said "go to his [your] room!" [reprimanding voice]
Then [he] went to his room.
And the (boy) boy got mad at his frog.
They were (all laughing) all laughing [about] what went [happened] in the restaurant [amused voice].

11m. Mauricio's pre-study narrative retell of *Frog, where are you?* (Mayer 1969).

(The frog uh [filled pause]) the boy didn't had (a a) a opening top.

(The uh [filled pause]) actually the frog>
I'm gonna pretend, I'm frog [getting out of his chair to act out story].
The frog sneaked [snuck] out while the boy and the dog were sleeping [whispering voice, while enacting frog sneaking out of the jar].
I'm going to pretend I'm the frog.
"Ribbit".
[examiner prompts child to return to his seat to tell the rest of the story]
(A) a (the the the boy h-) the boy looked everywhere.
First he had ah [filled pause] to make a frog noise like this "argh" [calling voice].
Like that.
Then he>
The jar was too heavy.
And (a a) the dog trippeded [tripped] over.
And he flippeded [flipped] over, all all all, all around.
So then a smash!
One day (a) the bees come (to a) to collect (honey) the nectar.
Ah [filled pause] the bees came down and went to their beehive.
That's called a cone XX [unintelligible].
One day (a a [filled pause]) the bees and a hi->
(The dog) the dog was barking to there [at the bees/hive].
And the bees come [came] out.
A (the the) the honey cone was starting to shake.
(The) then it fall [fell] down.
The bees were really mad! [angry voice]
(The the) the boy didn't knowed [know].
It was being>
(He was calling) he was calling for the (a a a [filled pause]) owl, like>
And they had to make a “hoot hoot" [imitating owl noises].
(The then they fall) he fall [fell] down.
The bees were bery [very] angry at the dog when they um>
One little bee (just) just stinged [added for dramatic effect, not in original story]!
One day a [filled pause] (the owl) the owl was chasing the boy off [to] a big rock.
A [filled pause] (he was holding on) he was holding on (a reindeer) a reindeer antlers.
Not really branches.
One day (a the) the deer picked him up on his butt.
And he runned [ran] fast as he can.
The dog was trying to bark (so he can) so he (can can) can arrange the reindeer.
One day he fall [fell] down in a pond.
One day they heard "oak" [frog sound effects].
One day (a a [filled pause] the) the dog said "I am a dog, I'm not a floating, pooping dog" [silly dog voice]!
(And the) and the boy falled [fell] down.
(On the baby’s) he fall [fell] down on the baby’s^
[examiner prompts child to recommence telling what happened in the story, child becoming distracted and silly]
(A a [filled pause]) (the the frog) one frog just layed a [an] egg.
Uh [filled pause] one day one frog jumpeded [jumped] on his hand.
He got a new friend, name [named] Jumpy [added, not in original story].
Ah [filled pause] there was>
He saided [said] "bye".

11n Mauricio’s post-study narrative retell of *Frog goes to dinner* (Mayer 1974).

One day the boy was getting dressed.
Ah [filled pause] the boy didn't know ah the frog ah [filled pause] was in his pocket .
One day they comed [went] in [to] a smooth [fancy] restaurant [animated storytelling voice].
A doorman helped them open the door.
The frog jumped out the boy’s pocket and jumped in the saxophone [surprised voice].

Saxophone [child's voice trailing off, distracted by audio recorder, prompted to keep telling the story].
One day (ah [filled pause] his the) the guy falled [fell] back, back, back [into the] drum [exaggerated falling voice].
And the guy said 'what did you done to my drum!', he said [angry expression].
When the order man [waiter] came (the the lady ah [filled pause]) the lady was trying to get a bite (on the) on the [of her] salad.
Then the frog popped out of the salad [alarmed voice]!
One day he jumped in [to] the next table.
He fell into a man's drink.
Then the guy was getting a drink (and) and [the frog] kissed [him] on his nose [disgusted voice].
(The guy and the fr- I mean) the frog saying [said] good bye to the woman [man] (and the life) and his life [wife].
(Then) then the boy said "hey that's my frog" [alarmed voice].
And then the mother said "sh"! [annoyed voice].
And he said "here's your frog and don't ever come back again" [angry voice].
(Ah [filled pause] her) his family were so mad [angry voice].
Ah [filled pause] and the father said "go get in your room" [angry voice].
And they laugheded [laughed] more what happened at the restaurant [amused voice].
The more they laughed, the more they laugheded [laughed], ha, ha, ha [imitating much laughter].

11o Elisa's pre-study narrative retell of *Frog, where are you?* (Mayer 1969).

There was a boy and a frog.
And one night the boy was sleeping with>
And the dog was sleeping.
When the frog climbed out and jumped out the window.
The next morning the boy and the dog woke up.
And they saw the jar was empty [alarmed voice].
The boy looked for the frog.
He even looked in his own boots.
The dog looked too.
The boy called out to the frog.
But the jar was too heavy for the dog, that the dog fell out.
The boy went out to check if his dog was ok [concerned voice].
The dog was fine.
But the jar was smashed.
The boy called out to the frog again.
He even looked in a deep hole.
While the dog barked (at a) at a beehive.
And then suddenly a um>
***
C What's that called (asking examiner)?
E You can use whatever word you like.
C Looks like a chip monk to me.
E Ok.
***
Then finally a chip monk popped out of the hole.
And the dog was still barking at the bees (on a piece of tr-) on the tree.
The boy looked and he>
The boy saw (a tr-) a hole in the tree.
He climbed inside and a>
While the dog was still barking.
And the beehive fell down.
The owl popped out.
And the boy fell to the ground.
While the dog ran past him because the bees were chasing him.
The owl chased him all the way to a rock.

He hanged on to some branches and called to the frog again.
But the branches were not branches.
(The) the branches were antlers of deers.
The deer carried him.
The boy was still on top of the head.
The dog chased.
And they were almost at a cliff.
Suddenly (the the) the deer stopped! [alarmed voice]
And the boy and the dog fell off the cliff.
The boy splashed into the water.
(He he s-) he suddenly heared a familiar sound.
The boy told the dog to be very quiet.
Then they looked (ov- under, um) on the other side of the log.
And they saw (a f-) the new frog and the babies too.
One leaped to him.
And he decided he wanted this frog to be his new pet.

11p Elisa's post-study narrative retell of *Frog goes to dinner* (Mayer 1974).

Um, one day a boy was putting on some clothes.
He was petting his dog.
And then he^
He was petting his dog.
And the frog jumped into his pocket.
And the boy said 'goodbye' with his family.
And the frog said 'goodbye'.
The waiter helped them out of the car.
The frog jumped out of the boy's pocket and by the music players.
The frog landed right (in th-) in the music player's trumpet.
The music player looked in to see (what might have) what was making that awful noise [disgusted voice].
And the frog popped out and landed right on the music player's face! [surprised voice]
The music player landed right in the other music player's drum.
'What did you do? My drum!', he screamed [alarmed/angry voice].
The frog hopped away in his [waiter's] salad.
The waiter served it to a lady.
Right as she was gonna take a bite the frog popped out [surprised voice].
The frog looked out of the salad and landed on (a) a person's drink.
The lady complained to the waitress [waiter] 'Why there was a frog (in my) in a salad?' [upset/angry voice].
The waitress [waiter] was about to grab the frog.
He grabbed the frog but the little boy said 'Hey, that's my frog!' [concerned voice]
But the mother said to be quiet [reprimanding voice].
Then the boy said to 'give him [me] back my frog!' [upset/concerned voice].
(And the m-) and then they left.
His family was (up-) really upset with him.
The father told him to go to X (unintelligible).
Then they were so happy what had happened.

Appendix 12 Narrative comprehension task: direct questioning

12a *Frog, where are you?* (Mayer 1969)

Page Ref.	Question	Question Type	Correct response
10	When Robert first looked in the hole, who did he think might be there, his frog or a mole?	Inferential	Frog
10	Who was really there, his frog or a mole?	Literal	Mole
12	When Robert first looked inside the hole in the tree, who did he think might be there, an owl or his frog?	Inferential	Frog
12	Who was really there, an owl or his frog?	Literal	Owl
17	When Robert climbed up the rock, what did he think he was holding on to, antlers or tree branches?	Inferential	Branches
17	What were they really, antlers or tree branches?	Literal	Antlers
23	When Robert fell into the pond, what did he think he heard behind the log, an owl or a frog?	Inferential	Frog
23	What was really there, an owl or a frog?	Literal	Frog

12b *Frog goes to dinner* (Mayer 1974)

Page Ref.	Question	Question Type	Correct response
1	When Robert got ready to go to the restaurant, did he think his frog was coming with him or staying home?	Inferential	Staying home
1	What really happened, did his frog come with him or stay home?	Literal	He came
13	When the waiter brought the woman her food, what did he think he had given her, just a salad or a salad with a frog in it?	Inferential	Just a salad
13	What did he really bring her, just a salad or a salad with a frog in it?	Literal	Salad with a frog in it
14	When the woman got her salad, what did she think she would get, a salad with a frog in it or just a salad?	Inferential	Just a salad
14	What did she get really, a salad with a frog in it or just a salad?	Literal	Salad with a frog in it
15	When the man went to drink his wine, what did he think would be in his glass, just wine or wine with a frog in it?	Inferential	Just wine
15	What was in it really, wine or wine with a frog in it?	Literal	Wine with a frog in it