Dental Variation In Malaysian Populations With Application To Human Identification

Volume 2
APPENDICES

Mohd Fadhli Bin Khamis
BDS, Grad. Dip. Foren. Odont.

Forensic Odontology Unit
Dental School
The University of Adelaide

A thesis submitted for the Degree of Doctor of Philosophy

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VOLUME 2 : APPENDICES

Volume 2 contains appendices from volume 1.

SECTION 1 MATERIALS AND METHODS

SECTION 2 ODONTOMETRIC VARIATION IN MALAYSIAN POPULATIONS

Several types of dental notation were used in this volume other than Federation Dentaire Internatinonale (FDI) notation system. The abbreviations are as follows:

BL	Buccolingual diameter
MD	Mesiodistal diameter
U	Upper
L	Lower
SMEAN	Replace missing values with mean group
RL	Tooth size was measured on the right side (left tooth measurement will be taken if the right tooth had to be excluded)
U1	upper central incisor
U2	upper lateral incisor
U3	upper canine
U4	upper first premolar
U5	upper second premolar
U6	upper first molar
U7	upper second molar
L1	lower central incisor
L2	lower second incisor
L3	lower canine
L4	lower first premolar
L5	lower second premolar
L6	lower first molar
L7	lower second molar

Examples:

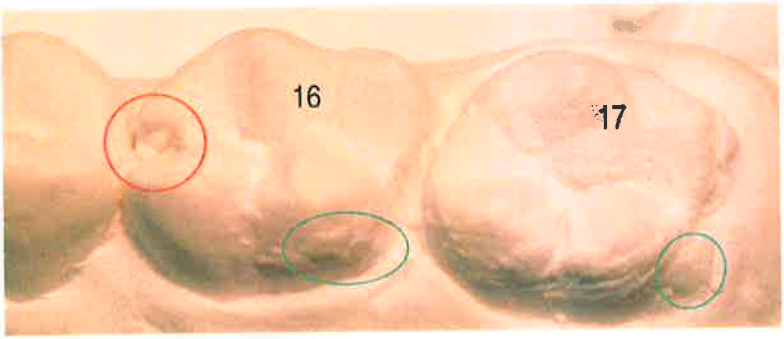
SMEAN(RL_U1_MD)	Tooth size measured on the right side in mesiodistal diameter of upper central incisor replace missing values with group mean
SMEAN(RL_U1_BL)	Tooth size measured on the right side in buccolingual diameter of upper central incisor replace missing values with group mean
SMEAN(RL_ L1_MD)	Tooth size measured on the right side in mesiodistal diameter of lower central incisor replace missing values with group mean

UI1	upper central incisor
UI2	upper lateral incisor
UC	upper canine
UP1	upper first premolar
UP2	upper second premolar
UM1	upper first molar
UM2	upper second molar
LI1	lower central incisor
LI2	lower lateral incisor
LC	lower canine
LP1	lower first premolar
LP2	lower second premolar
LC	lower canine
LM1	lower first molar
LM2	lower second molar
WW	winging
SZ	shovelling
C5Z	metaconule
CARA	Carabelli trait
HYP	hypocone
DAR	distal accessory ridge
1-LP2	one lingual cusp of the lower second premolar
PZ	protostylid
C7	metaconulid
C6	entoconulid
DW	deflecting wrinkle
CN	4-cusped lower second molar
Y-GP	Y-groove pattern of the lower second molar

SECTION 1 MATERIALS AND METHODS

Appendix 3.1 Examples where teeth were excluded

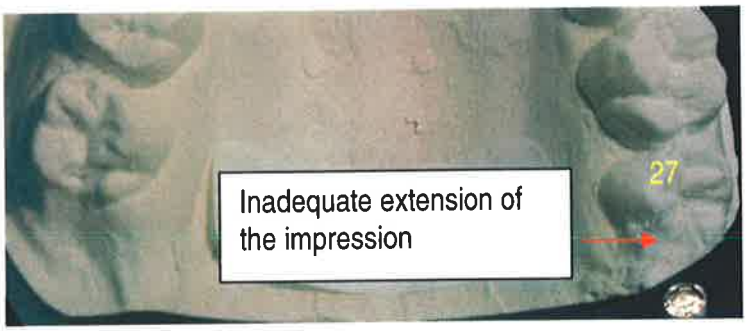
1. Dental model showing mesial caries on the 16 and calculus accumulation on the distal of the 17. 16 and 17 were excluded from mesiodistal measurement.

mesial 

distal

buccal

2. Dental model showing flaws due to inadequate extension of the impression around the upper left second molar. This tooth was excluded for hypocone observation and tooth measurements.



Appendix 3.2 A copy of ethical clearance 2002

COPY

ADELAIDE UNIVERSITY
AUSTRALIA

DIVISION OF THE UNIVERSITY SECRETARY

HELEN MALBY
SECRETARY
HUMAN RESEARCH ETHICS COMMITTEE
THE UNIVERSITY OF ADELAIDE
SA 5005
AUSTRALIA
TELEPHONE +61 8 8303 4014
FACSIMILE +61 8 8303 3417
email: helen.malby@adelaide.edu.au
CRICOS Provider Number 00123M

11 APR 2002

Dr JA Taylor
Dentistry

Dear Dr Taylor

PROJECT NO: *Dental variation in Malaysian populations with application to human identification*
H-09-2002

I write to advise you that the Human Research Ethics Committee has approved the above project. A copy of the endorsed application is enclosed for your records. Please note that this may include conditions applying to this approval.

Approval is current for one year. The expiry date for this project is: 31 July 2003

Where possible, subjects taking part in the study should be given a copy of the Information Sheet and the signed Consent Form to retain.

Please note that any changes to the project which might affect its continued ethical acceptability will invalidate the project's approval. In such cases an amended protocol must be submitted to the Committee for further approval.

A standard renewal/status report form is available from the committee's web-site. Please submit this prior to the above expiry date and send to the Committee's Secretary. Applications for renewal must include a brief report on the project's progress and on any ethical issues which may have arisen. It is a condition of approval that you inform the Committee, giving reasons, if the project is discontinued before the expected date of completion.

Yours sincerely

CE MORTENSEN
Convenor
Human Research Ethics Committee

Appendix 3.3 A copy of ethical clearance 2003

THE UNIVERSITY OF ADELAIDE
AUSTRALIA

OFFICE OF THE DEPUTY VICE-CHANCELLOR (RESEARCH)

SABINE SCHREIBER
SECRETARY
HUMAN RESEARCH ETHICS COMMITTEE
THE UNIVERSITY OF ADELAIDE
SA 5005
AUSTRALIA
TELEPHONE +61 8 8303 6028
FACSIMILE +61 8 8303 3417
email: sabine.schreiber@adelaide.edu.au
CRICOS Provider Number 00123M

4 December 2003

Dr JA Taylor
Dentistry

Dear Dr Taylor

PROJECT NO: *Dental variation in Malaysian populations with application to human identification*
H-09-2002

Thank you for your report on the above project. I write to advise you that I have endorsed renewal of ethical approval for the study on behalf of the Human Research Ethics Committee.

The expiry date for this project is: 31 July 2004

Where possible, subjects taking part in the study should be given a copy of the Information Sheet and the signed Consent Form to retain.

Please note that any changes to the project which might affect its continued ethical acceptability will invalidate the project's approval. In such cases an amended protocol must be submitted to the Committee for further approval. It is a condition of approval that you immediately report anything which might warrant review of ethical approval including (a) serious or unexpected adverse effects on participants (b) proposed changes in the protocol; and (c) unforeseen events that might affect continued ethical acceptabiiity of the project. It is also a condition of approval that you inform the Committee, giving reasons, if the project is discontinued before the expected date of completion.

A reporting form is available from the Committee's website. This may be used to renew ethical approval or report on project status including completion.

Yours sincerely

pp CE MORTENSEN
Convenor
Human Research Ethics Committee

Appendix 3.4 A copy of Universiti Sains Malaysia ethical clearance

Universiti Sains Malaysia
Pusat Pengajian Sains Perubatan
School of Medical Sciences

Our. Ref. : USM/PPSP®/Ethics Com./2002(91.2[6])

Date : 21 October 2002

Dr. Mohd. Fadhli Khamis
School of Dental Sciences
Health Campus
Universiti Sains Malaysia
16150 Kubang Kerian
KELANTAN

Dear Dr.,

APPLICATION FOR ETHICAL APPROVAL

Protocol Title : **Dental Variation in Malaysia Populations with Application to Human Identification.**

I refer to your application of **23 September 2002.**

I am pleased to inform you that the Research & Ethics Committee, School of Medical Sciences, Universiti Sains Malaysia has met on **16 October 2002** and has approved in principle the protocol study of the above title.

Title	: Dental Variation in Malaysia Populations with Application to Human Identification.
Research Centre	: Kelantan, Perak & Selangor
Date Start	: October 2002
Duration	: 12 months
Number of Subjects	: 1300 subjects
Name of Principal Researcher	: Dr. Mohd. Fadhli Khamis
Co-Investigator	: Mr. S. Panneerchelvam Mr. Abdul Hakim Abdul Basir
Master Students	: -
Financial Support	: -

The following item (✓) have been received and reviewed and in connection with the above study to be conducted by the above investigator.

(✓)	Clinical Study Protocol	(Dated : 24 Sept. 2002)
(✓)	Patient Information Sheet	(Dated : 24 Sept. 2002)
( )	English Version	(Dated :)

Appendix 3.5 A copy of approval letter from the Department of Education Kelantan

جبائن فنديديقكن كلنتن .
JABATAN PENDIDIKAN KELANTAN
JALAN DOKTOR,
15000 KOTA BHARU,
KELANTAN DARUL NAIM.
TELEFON PENGARAH 7482554

PEJABAT AM: 7481133, 7481201, 7481649, 7481651, PEPERIKSAAN 7441411. KAWAT: "SEKOLAH KELANTAN"

Ruj. Tuan:

Ruj. Kami: PPKn(UPP)5048/15/Jld.19 (53)

Tarikh: 8 Ogos, 2002

Kepada:
Dr. Mohd Fadhli Khamis
Forensic Odontology Unit
PPSK, Universiti Sains Malaysia,
16150 Kubang Kerian, Kelantan.

Tuan/Puan,

KEBENARAN BAGI MENJALANKAN KAJIAN/PENYELIDIKAN KE SEKOLAH-SEKOLAH DI NEGERI KELANTAN

Surat permohonan tuan/puan bertarikh 1 Ogos, 2002 adalah dirujuk.

2. Surat kebenaran dari Pengarah Bahagian Perancangan & Penyelidikan Pendidikan Kementerian Pendidikan Malaysia Rujukan _____ bertarikh _____ ada kaitan.

3. Adalah saya diarah untuk memaklumkan bahawa Jabatan Pendidikan Kelantan tiada apa-apa halangan bagi tuan/puan menjalankan kajian/penyelidikan seperti tajuk berikut :

"Dental Variation In Malaysia Population With Application to Human Identification".

4. Kelulusan ini adalah dihadkan berdasarkan kepada tajuk kajian/penyelidikan yang dikemukakan ke Jabatan ini bagi tempoh Ogos, 2002 hingga 31 Ogos, 2003

5. Sekolah-sekolah yang terlibat adalah seperti di Lampiran ' A '.

6. Tuan/Puan dinasihatkan supaya terlebih dahulu menemui dan berbincang dengan Pengetua / Guru Besar sekolah-sekolah berkenaan sebelum kajian /penyelidikan.

Sekian, terima kasih.

" BERKHIDMAT UNTUK NEGARA"

(MOHD. ADNAN BIN HASSAN NORDIN)
b.p. Pendaftar Sekolah-Sekolah Kelantan.

Salinan:
i) Pengarah, Bahagian Perancangan & Penyelidikan Pendidikan, Kementerian Perdidikan Malaysia.

ii) Pegawai Pendidikan Daerah

iii) Pengetua/Guru Besar:

MAHMAlaza(Kajian(UPP).doc)

(Sila catatkan rujukan Jabatan ini apabila berbalas)

Appendix 3.6 A copy of an approval letter from the Ministry of Education Malaysia to conduct research on school children

KEMENTERIAN PENDIDIKAN MALAYSIA
BAHAGIAN PERANCANGAN DAN PENYELIDIKAN DASAR PENDIDIKAN
PARAS 2, 3 DAN 5, BLOK J
PUSAT BANDAR DAMANSARA
50604 KUALA LUMPUR
MALAYSIA

Telefon : 03-20986900
Faks : 03-20954960
Laman Web : http://161.142.144.5

Ruj. Kami : KP(BPPDP)603/5 Jld.11(51)
Tarikh : 26 November 2002

Dr. Mohd Fadhli bin Khamis,
Pusat Pengajian Sains Pergigian (PPSG),
Universiti Sains Malaysia,
Kampus Cawangan Kelantan,
16150 Kota Bharu,
KELANTAN.

Tuan,

Kebenaran Untuk Menjalankan Kajian Di Sekolah-Sekolah, Maktab-Maktab Perguruan, Jabatan-Jabatan Pendidikan Dan Bahagian-Bahagian Di Bawah Kementerian Pendidikan Malaysia

Adalah saya dengan hormatnya diarah memaklumkan bahawa permohonan tuan untuk menjalankan kajian bertajuk:

"Dental Variation In Malaysian Populations With Appilcation To Human Identification"

diluluskan dengan syarat mendapat kebenaran daripada ibubapa/penjaga pelajar sebelum melibatkan pelajar.

2. Kelulusan ini adalah berdasarkan kepada apa yang terkandung di dalam cadangan penyelidikan yang tuan kemukakan ke Bahagian ini. **Kebenaran bagi menggunakan sampel kajian perlu diperolehi daripada Ketua Bahagian/Pengarah Pendidikan Negeri Yang Berkenaan.** Sila kemukakan ke Bahagian ini senaskah laporan kajian tuan setelah ia selesai kelak.

Sekian untuk makluman dan tindakan tuan selanjutnya. Terima kasih.

"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,

(Dr. SALLEH HASSAN)
b.p. Pengarah,
Bahagian Perancangan dan Penyelidikan Dasar Pendidikan,
Kementerian Pendidikan Malaysia.

Appendix 3.7 A copy of approval letter from the Department of Education Perak

JABATAN PENDIDIKAN PERAK DARUL RIDZUAN,
JALAN TUN ABDUL RAZAK,
30640 IPOH,
PERAK DARUL RIDZUAN.

Telefon : 05-5274355
Fax : 05-5277273

J.Pen.Pk.Pend.S4757 / Jld.17 (38)

Tarikh : 2 Januari 2003

Dr. Mohd Fadhli bin Khamis
Pusat Pengajian Sains Pergigian,
Universiti Sains Malaysia,
Kampus Cawangan Kelantan,
16150 Kota Bharu,
Kelantan.

Tuan,

Kebenaran Menjalankan Kajian / Soal Selidik
Di Sekolah-Sekolah Dalam Negeri Perak

Saya diarah merujuk surat permohonan tuan yang ada kaitannya dengan surat Kementerian Pendidikan Malaysia, KP(BPPDP) 603/5 Jld. 11 (51) bertarikh 26 November 2002 mengenai perkara di atas.

2. Sukacita dinyatakan bahawa kebenaran adalah diberi untuk tuan menjalankan kajian dan soal selidik yang bertajuk **" Dental Variation In Malaysian Populations With Application To Human Identification "** di Sekolah – Sekolah Menengah dan Rendah dalam negeri Perak.

3. Bagi mengenalpasti sekolah-sekolah yang sesuai untuk tuan menjalankan kajian adalah disarankan pihak tuan menghubungi pegawai yang berikut ;

3.1. Sekolah Rendah :

Ketua Unit Sekolah Rendah
Jabatan Pendidikan Perak
Jalan Tun Abdul Razak
30640 IPOH.

Telefon No. : 05 – 5274355 sambungan 2138

Appendix 3.8 Information sheets for the parents of school children participants

BORANG MAKLUMAT KAJISELIDIK KEPADA IBUBAPA

Pihak Universiti Sains Malaysia dan Universiti of Adelaide akan bergabung untuk menjalankan projek kajiselidik yang bertajuk **"Variasi pergigian dikalangan penduduk Malaysia untuk tujuan mengenalpasti identiti manusia."**

Semua manusia mempunyai gigi yang berbeza tetapi terdapat juga beberapa bentuk dan cirri-ciri gigi yang khusus untuk setiap kaum. Kami ingin melihat ciri-ciri yang ada pada gigi dan muka penduduk berketurunan Melayu, Cina, India dan Orang Asli dan mengkaji samada terdapatnya ciri-ciri khusus untuk sesatu kaum ini.

Sehingga kini tiada sebarang maklumat tentang ciri-ciri gigi dan muka penduduk Malaysia yang boleh digunakan untuk merancang rawatan pergigian, rawatan membaikpulih kecacatan muka, memahami asal-usul keturunan dan kerja forensik.

Kami akan mengumpul rekod-rekod gigi dan muka dari 1300 murid sekolah berumur dari 13 hingga 18 tahun. Penglibatan anak-anak tuan/puan didalam projek ini adalah secara sukarela. Sekiranya tuan/puan telah bersetuju untuk mengizinkan anak tuan/puan menyertai projek ini, tuan/puan masih boleh menarik balik keizinan tersebut tanpa perlu memberikan sebarang alasan.

Kami akan menjalankan pemeriksaan mulut, mengambil cetakan mulut, mengambil gambar muka dan gigi, mengukur ketinggian dan berat anak-anak **tanpa mengakibatkan sebarang kesakitan, atau risiko bahaya kepada anak tuan/puan. Prosedur hanya mengambil masa 10-15 minit dan tiada rawatan pergigian akan dijalankan.**

Kami juga memerlukan maklumat tentang latarbelakang keturunan tuan/puan. Anak tuan/puan tidak akan dapat dikenali hanya melalui rekod pergigian yang kami simpan. Semua rekod yang dikumpul akan disimpan secara sulit.

Sekiranya tuan/puan mempunyai sebarang persoalan berhubung projek ini, tuan/puan boleh menghubungi:

Dr Mohd Fadhli Khamis
Pusat Pengajian Sains Pergigian
USM, 16150 Kota Bharu, Kelantan
Tel: 09-7663000 ext 3740
013-9614662

Appendix 3.9 Consent form

Borang keizinan menyertai projek kajiselidik bertajuk "Variasi pergigian dikalangan penduduk Malaysia dengan tujuan mengenalpasti identiti manusia".

1. Saya.....***mengizinkan/tidak mengizinkan** anak saya .....untuk mengambil bahagian didalam projek kajiselidik bertajuk "Variasi pergigian dikalangan penduduk Malaysia dengan tujuan mengenalpasti identiti manusia"
2. Saya mengesahkan yang saya telah meneliti borang maklumat kajiselidik "Variasi pergigian dikalangan penduduk Malaysia dengan tujuan mengenalpasti identiti manusia"
3. Pemberian keizinan ini adalah secara sukarela.
4. Saya telah dimaklumkan bahawa maklumat yang diperolehi dari projek ini akan diterbitkan namun identiti anak saya.....tidak akan didedahkan.
5. Saya telah diberi peluang untuk berbincang tentang projek ini dengan rakan atau ahli keluarga.
6. Saya faham yang saya boleh menarik balik keizinan ini pada bila-bila masa tanpa menjejaskan peluang anak saya menerima rawatan pergigian pada waktu sekarang atau dimasa depan.
7. Saya disini mengizinkan maklumat yang diperolehi dari model gigi dan gambar digunakan untuk kajian saintifik dan juga untuk penerbitan.
8. Saya difahamkan yang borang keizinan ini akan difotokopi untuk simpanan projek dan satu salinan akan dikembalikan kepada saya.

Tandatangan ibu/bapa/penjaga: ..... tarikh:.....

Saksi: .....

Tandatangan:.....

Saya ..... telah menerangkan kepada ..... tentang prosedur projek ini dalam bahasa/dialek..... dan pada pendapat saya mereka faham penerangan saya ini.

Tandatangan:..... tarikh:.....

Status dalam projek:.....

Perhatian: *Sila bulatkan pilihan anda

Appendix 3.10 Reply form from parents

Borang maklumbalas ibu/bapa/penjaga

Butiran perihal anak

1. Nama anak : _____
2. Tarikh lahir : _____
3. Alamat rumah : _____
4. Bangsa : _____
5. Jantina : _____
6. Kelas : _____
7. Sekolah Menengah : _____

Riwayat perubatan anak

1. Pernah menjalani sebarang rawatan pembedahan dimuka atau/dan kepala

YA	TIDAK	* Bulatkan pilihan anda

2. Pernah mengalami sebarang kecederaan teruk dimuka dan/atau kepala

YA	TIDAK	* Bulatkan pilihan anda

3. Berat anak ketika dilahirkan :..... kg

4. Adakah terdapat masalah kesihatan ibu atau anak ketika proses mengandung, kelahiran: .....

Riwayat pergigian anak

1. Pernah menjalani rawatan orthodontik
   Ya/ Tidak
   Jika Ya : Sila berikan nama dan alamat doktor yang merawat
   .....

2. Pernah anak anda mengambil gambar X-ray di klinik gigi sebelum ini
   Ya/ Tidak
   Jika Ya: sila berikan nama dan alamat doktor yang merawat
   .....

Butiran ibubapa dan datuk/nenek

1.Keturunan bapa:
2.Keturunan ibu :
3.Pekerjaan bapa :
4.Pekerjaan ibu :
5.Nombor telefon:

6. Keturunan datuk dan nenek kedua-dua belah ibubapa:
   i) Melayu ii) Cina iii) India iv) Orang Asli
   v)Campur vi) Lain-lain
   ***bulatkan pilihan anda**

Appendix 3.11 A copy of approval letter from the Department of Malaysian Aborigines Affairs

JABATAN HAL EHWAL ORANG ASLI MALAYSIA,
KEM. PERPADUAN NEGARA & PEMBANGUNAN MASYARAKAT
TINGKAT 20 & 20M WEST BLOCK,
WISMA SELANGOR DREDGING,
142-C, JALAN AMPANG,
50548 KUALA LUMPUR

Telefon: 2610577
2610994-8 (5 talian)
Gombak
6892669

Rujukan Tuan:

Rujukan Kami: JHEOA/A1.322-(58)

Tarikh: 20 November, 2000
23 Syaaban, 1421

UNIVERSITI SAINS MALAYSIA
DITERIMA
30 NOV 2000
Pejabat Dekan
PUSAT PENGAJIAN SAINS PERGIGIAN

Prof. Madya Dr. Ab. Rani Samsudin,
Dekan/Pakar Runding (Bedah) Maxillofacial,
Pusat Pengajian Sains Pergigian,
Universiti Sains Malaysia,
Kampus Cawangan Kelantan,
16150 Kota Bharu,
Kelantan.

Tuan,

PENYELIDIKAN PERGIGIAN DIKALANGAN MASYARAKAT ORANG ASLI DI MALAYSIA.

Dengan hormatnya saya di arah merujuk kepada surat tuan Bil. PPSG/06/020 bertarikh 7 November, 2000 berhubung perkara di atas.

2. Jabatan ini tiada halangan di atas hasrat tuan tersebut dan mengalu-alukan kajian yang berkaitan khususnya untuk kepentingan bersama.

Sekian, terima kasih.

" BERKHIDMAT UNTUK NEGARA "

Saya yang menurut perintah,

Dr. Rashid / Dr. Nizam / Dr. Norhan
Pengarah

Tuan/puan boleh ikut serta ke Taklimat ini pada s/n
T Kanak.

(JAMAL ABD. NASIR BIN YAACOB),
Timbalan Ketua Pengarah III,
b.p. Ketua Pengarah Hal Ehwal Orang Asli,
Malaysia.

S.k. - Pengarah Bahagian Kesihatan dan Perubatan, JHEOA Gombak

2/12

JANY/norsiah h

(Sila catatkan rujukan Pejabat ini apabila berhubung)

Appendix 3.12 Information sheets for adult participants

BORANG MAKLUMAT KAJISELIDIK

Pihak Universiti Sains Malaysia dan Universiti of Adelaide akan bergabung untuk menjalankan projek kajiselidik yang bertajuk "Variasi pergigian dikalangan penduduk Malaysia untuk tujuan mengenalpasti identiti manusia"

Semua manusia mempunyai gigi yang berbeza tetapi terdapat juga beberapa bentuk dan ciri-ciri gigi yang khusus untuk setiap kaum. Kami ingin melihat ciri-ciri yang ada pada gigi dan muka penduduk berketurunan Melayu, Cina, India dan Orang Asli dan mengkaji samada terdapatnya ciri-ciri khusus untuk sesatu kaum ini.

Sehingga kini tiada sebarang maklumat tentang ciri-ciri gigi dan muka penduduk Malaysia yang boleh digunakan untuk merancang rawatan pergigian, rawatan membaikpulih kecacatan muka, memahami asal-usul keturunan dan kerja forensik.

Kami akan mengumpul rekod-rekod gigi dan muka dari keempat-empat kaum ini. Penglibatan tuan/puan di dalam projek ini adalah secara sukarela. Sekiranya tuan/puan telah bersetuju untuk memberikan keizinan menyertai projek ini, tuan/puan masih boleh menarik balik keizinan tersebut tanpa perlu memberikan sebarang alasan.

Kami akan menjalankan pemeriksaan mulut, mengambil cetakan mulut, mengambil gambar muka dan gigi, mengambil X-ray, mengambil darah, mengukur ketinggian dan berat tanpa mengakibatkan sebarang kesakitan atau risiko bahaya. Prosedur hanya mengambil masa 15 minit dan tiada rawatan pergigian akan dijalankan.

Kami juga memerlukan maklumat tentang latarbelakang keturunan tuan/puan. Semua rekod yang dikumpul akan disimpan secara sulit.

Sekiranya tuan/puan mempunyai sebarang persoalan berhubung projek ini, tuan/puan boleh menghubungi kakitangan yang bertugas.

Appendix 3.13 Consent form for adult participants

Borang keizinan menyertai projek kajiselidik bertajuk "Variasi pergigian dikalangan penduduk Malaysia dengan tujuan mengenalpasti identiti manusia".

1. Saya.....***mengizinkan/tidak mengizinkan** untuk mengambil bahagian didalam projek kajiselidik bertajuk "Variasi pergigian dikalangan penduduk Malaysia dengan tujuan mengenalpasti identiti manusia"
2. Saya mengesahkan yang saya telah meneliti borang maklumat kajiselidik "Variasi pergigian dikalangan penduduk Malaysia dengan tujuan mengenalpasti identiti manusia"
3. Pemberian keizinan ini adalah secara sukarela.
4. Saya telah dimaklumkan bahawa maklumat yang diperolehi dari projek ini akan diterbitkan namun identiti saya tidak akan didedahkan.
5. Saya telah diberi peluang untuk berbincang tentang projek ini dengan rakan atau ahli keluarga.
6. Saya faham yang saya boleh menarik balik keizinan ini pada bila-bila masa tanpa menjejaskan peluang saya menerima rawatan pergigian pada waktu sekarang atau dimasa depan.
7. Saya disini mengizinkan maklumat yang diperolehi dari model gigi, X-ray, darah dan gambar digunakan untuk kajian saintifik dan juga untuk penerbitan.
8. Saya difahamkan yang borang keizinan ini akan difotokopi untuk simpanan projek dan satu salinan akan dikembalikan kepada saya.

Tandatangan:.....tarikh:.....

Saksi: .....

Tandatangan:.....

Saya ..... telah menerangkan kepada ..... tentang prosedur projek ini dalam bahasa/dialek..... dan pada pendapat saya mereka faham penerangan saya ini.

Tandatangan:..... tarikh:.....

Status dalam projek:.....

Perhatian: *Sila bulatkan pilihan anda

Appendix 3.14 Worksheet used in this research program

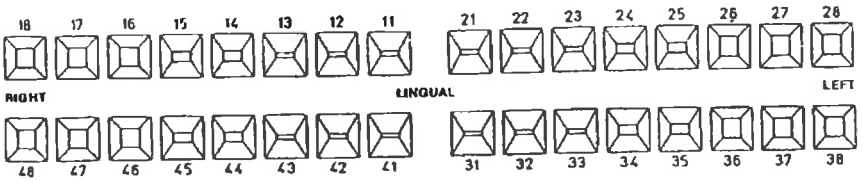
Borang A

No Label:
Tarikh kajian:
Jantina:
Tarikh Lahir dan umur:

1.	Intraoral examination	
2.	Cap bibir	
3.	Impression	
4.	Bite records	
5.	I/O fotograf	
6.	Fotograf muka	
7.	Fotograf muka tepi	
8.	weight: ..... kg	
9.	height: .....cm	
10.	x-rays- loan copied returned	
11.	honorarium komen – kajian selesai/belum	

no siri:.....

Examination chart:



Soft tissue:

Hard tissue:

Occlusion: Molar angle R-
L-

Unique features:

Calculus:

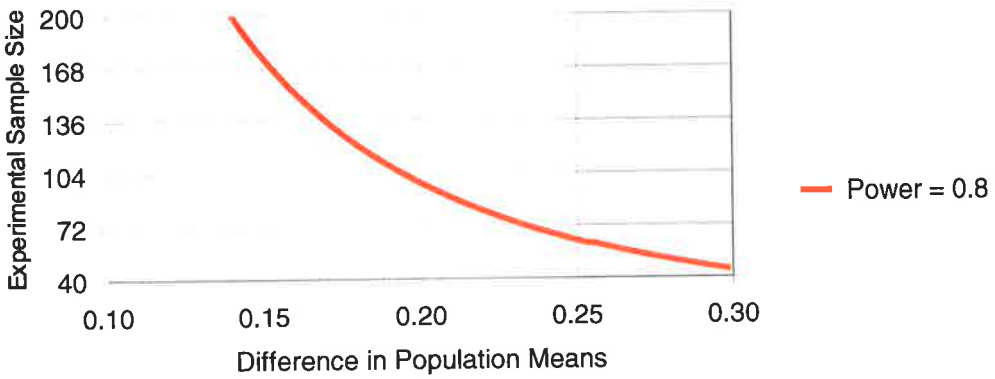
Score= 16B
11L
26B
36B
31L
46B
Total score
Oral hygiene

DMFX=

Gingivitis:

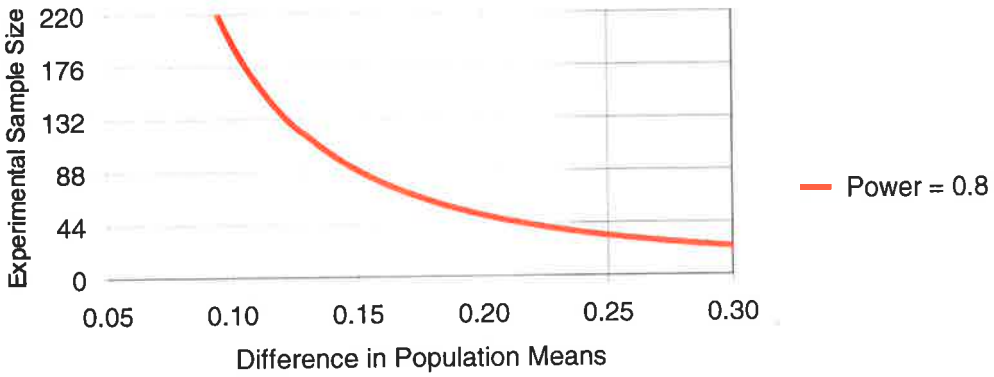
SECTION 2 ODONTOMETRIC VARIATION IN MALAYSIAN POPULATIONS

Appendix 4.1 Sample size estimations for comparison of dental crown measurements between males and females based on independent t-tests



alpha=0.05 sigma=0.5 M=1 design is Independent

Appendix 4.2 Sample size estimations for comparison of dental crown measurements between right and left sides based on paired t-tests



alpha=0.05 sigma=0.5 design is Paired

Appendix 4.3 Tests of normality for right tooth size measurements in Malays

Variables	Sex	Kolmogorov Smirnov				Shapiro Wilks				Variables	Sex	Kolmogorov Smirnov				Shapiro Wilks			
		Statistic	df	P		Statistic	df	P				Statistic	df	P		Statistic	df	P	
		Maxilla										Mandible							
Mesiodistal										Mesiodistal									
I1	Females	0.060	79	0.20	*	0.987	79	0.63		I1	Females	0.059	81	0.20	*	0.988	81	0.64	
	Males	0.066	73	0.20	*	0.988	73	0.74			Males	0.069	71	0.20	*	0.991	71	0.91	
I2	Females	0.064	80	0.20	*	0.988	80	0.64		I2	Females	0.054	81	0.20	*	0.991	81	0.86	
	Males	0.076	73	0.20	*	0.978	73	0.22			Males	0.064	73	0.20	*	0.981	73	0.34	
C	Females	0.083	81	0.20	*	0.989	81	0.74		C	Females	0.067	80	0.20	*	0.984	80	0.42	
	Males	0.053	72	0.20	*	0.993	72	0.97			Males	0.055	73	0.20	*	0.989	73	0.77	
P1	Females	0.071	83	0.20	*	0.981	83	0.24		P1	Females	0.056	80	0.20	*	0.989	80	0.71	
	Males	0.070	73	0.20	*	0.982	73	0.40			Males	0.067	75	0.20	*	0.987	75	0.62	
P2	Females	0.077	83	0.20	*	0.989	83	0.69		P2	Females	0.082	79	0.20	*	0.961	79	0.02	**
	Males	0.103	73	0.05		0.976	73	0.17			Males	0.053	72	0.20	*	0.981	72	0.35	
M1	Females	0.048	77	0.20	*	0.992	77	0.91		M1	Females	0.073	78	0.20	*	0.976	78	0.14	
	Males	0.060	72	0.20	*	0.982	72	0.39			Males	0.071	72	0.20	*	0.982	72	0.41	
M2	Females	0.078	70	0.20	*	0.979	70	0.29		M2	Females	0.082	56	0.20	*	0.983	56	0.62	
	Males	0.080	67	0.20	*	0.983	67	0.49			Males	0.092	60	0.20	*	0.972	60	0.18	

Appendix 4.3 (continued)

Variables	Sex	Kolmogorov Smirnov				Shapiro Wilks				Variables	Sex	Kolmogorov Smirnov				Shapiro Wilks			
		Statistic	df	P		Statistic	df	P				Statistic	df	P		Statistic	df	P	
Buccolingual										Buccolingual									
I1	Females	0.078	80	0.20	*	0.979	80	0.22		I1	Females	0.089	68	0.20	*	0.987	68	0.72	
	Males	0.067	69	0.20	*	0.968	69	0.08			Males	0.079	60	0.20	*	0.977	60	0.32	
I2	Females	0.058	77	0.20	*	0.989	77	0.74		I2	Females	0.076	70	0.20	*	0.975	70	0.17	
	Males	0.049	70	0.20	*	0.985	70	0.59			Males	0.054	67	0.20	*	0.986	67	0.63	
C	Females	0.046	78	0.20	*	0.991	78	0.84		C	Females	0.065	73	0.20	*	0.988	73	0.74	
	Males	0.062	69	0.20	*	0.988	69	0.75			Males	0.101	67	0.09		0.961	67	0.03	**
P1	Females	0.051	81	0.20	*	0.992	81	0.88		P1	Females	0.065	75	0.20	*	0.978	75	0.22	
	Males	0.071	73	0.20	*	0.977	73	0.19			Males	0.063	73	0.20	*	0.985	73	0.55	
P2	Females	0.077	81	0.20	*	0.991	81	0.85		P2	Females	0.089	70	0.20	*	0.984	70	0.51	
	Males	0.101	72	0.06		0.969	72	0.07			Males	0.092	68	0.20	*	0.969	68	0.09	
M1	Females	0.049	79	0.20	*	0.985	79	0.48		M1	Females	0.087	76	0.20	*	0.973	76	0.11	
	Males	0.090	69	0.20	*	0.979	69	0.29			Males	0.064	72	0.20	*	0.993	72	0.96	
M2	Females	0.049	76	0.20	*	0.985	76	0.49		M2	Females	0.070	72	0.20	*	0.991	72	0.90	
	Males	0.090	72	0.20	*	0.976	72	0.19			Males	0.070	70	0.20	*	0.982	70	0.44	

left tooth was measured when right tooth was unmeasurable; *, this is a lower bound of the true significance; a, Lilliefors Significance Correction;**, $p<0.05$

Appendix 4.4 Tests of normality for right tooth size measurements in Chinese

Tooth	Sex	Kolmogorov Smirnov				Shapiro Wilks				Tooth	Sex	Kolmogorov Smirnov				Shapiro Wilks			
		Statistic	df	Sig.		Statistic	df	Sig.				Statistic	df	Sig.		Statistic	df	Sig.	
		Maxilla										Mandible							
Mesiodistal										Mesiodistal									
I1	Females	0.051	68	0.20	*	0.985	68	0.61		I1	Females	0.075	65	0.20	*	0.991	65	0.92	
	Males	0.066	74	0.20	*	0.979	74	0.26			Males	0.070	74	0.20	*	0.980	74	0.30	
I2	Females	0.085	67	0.20	*	0.985	67	0.62		I2	Females	0.069	67	0.20	*	0.983	67	0.50	
	Males	0.046	71	0.20	*	0.993	71	0.96			Males	0.065	74	0.20	*	0.988	74	0.69	
C	Females	0.049	66	0.20	*	0.991	66	0.90		C	Females	0.064	68	0.20	*	0.976	68	0.21	
	Males	0.066	74	0.20	*	0.991	74	0.86			Males	0.090	74	0.20	*	0.986	74	0.62	
P1	Females	0.087	68	0.20	*	0.984	68	0.51		P1	Females	0.062	68	0.20	*	0.992	68	0.93	
	Males	0.072	73	0.20	*	0.986	73	0.58			Males	0.045	72	0.20	*	0.993	72	0.97	
P2	Females	0.080	66	0.20	*	0.986	66	0.65		P2	Females	0.101	64	0.18		0.985	64	0.64	
	Males	0.073	71	0.20	*	0.981	71	0.34			Males	0.067	72	0.20	*	0.987	72	0.64	
M1	Females	0.066	68	0.20	*	0.990	68	0.85		M1	Females	0.064	68	0.20	*	0.989	68	0.84	
	Males	0.113	70	0.03	**	0.956	70	0.02	**		Males	0.116	72	0.02	**	0.976	72	0.19	
M2	Females	0.102	53	0.20	*	0.982	53	0.61		M2	Females	0.066	43	0.20	*	0.991	43	0.98	
	Males	0.126	56	0.03	**	0.953	56	0.03	**		Males	0.089	45	0.20	*	0.943	45	0.03	**

Appendix 4.4 (continued)

Tooth	Sex	Kolmogorov Smirnov				Shapiro Wilks			Tooth	Sex	Kolmogorov Smirnov				Shapiro Wilks		
		Statistic	df	Sig.		Statistic	df	Sig.			Statistic	df	Sig.		Statistic	df	Sig.
Buccolingual									Buccolingual								
I1	Females	0.076	66	0.20	*	0.987	66	0.72	I1	Females	0.102	62	0.18		0.963	62	0.06
	Males	0.052	66	0.20	*	0.985	66	0.59		Males	0.105	59	0.17		0.968	59	0.12
I2	Females	0.102	62	0.18		0.981	62	0.47	I2	Females	0.056	61	0.20	*	0.985	61	0.65
	Males	0.067	65	0.20	*	0.991	65	0.93		Males	0.111	64	0.05		0.979	64	0.34
C	Females	0.105	63	0.08		0.979	63	0.37	C	Females	0.054	64	0.20	*	0.989	64	0.86
	Males	0.093	65	0.20	*	0.977	65	0.28		Males	0.088	69	0.20	*	0.983	69	0.46
P1	Females	0.097	66	0.20	*	0.964	66	0.05	P1	Females	0.060	66	0.20	*	0.985	66	0.63
	Males	0.056	72	0.20	*	0.989	72	0.80		Males	0.045	70	0.20	*	0.995	70	1.00
P2	Females	0.069	67	0.20	*	0.983	67	0.50	P2	Females	0.073	60	0.20	*	0.986	60	0.71
	Males	0.079	72	0.20	*	0.987	72	0.67		Males	0.057	71	0.20	*	0.993	71	0.95
M1	Females	0.081	67	0.20	*	0.983	67	0.51	M1	Females	0.063	68	0.20	*	0.983	68	0.49
	Males	0.076	73	0.20	*	0.981	73	0.34		Males	0.060	71	0.20	*	0.982	71	0.42
M2	Females	0.087	56	0.20	*	0.98	56	0.46	M2	Females	0.075	60	0.20	*	0.987	60	0.79
	Males	0.076	62	0.20	*	0.967	62	0.10		Males	0.074	63	0.20	*	0.988	63	0.78

left tooth was measured when the right tooth unmeasurable; *, this is a lower bound of the true significance; a, Lilliefors Significance Correction; **, $p<0.05$.

Appendix 4.5 Tests of normality for right tooth size measurements in Indians

Tooth	Sex	Kolmogorov Smirnov				Shapiro Wilks				Tooth	Sex	Kolmogorov Smirnov				Shapiro Wilks			
		Statistic	df	Sig.		Statistic	df	Sig.				Statistic	df	Sig.		Statistic	df	Sig.	
		Maxilla										Mandible							
Mesiodistal										Mesiodistal									
I1	Females	0.046	77	0.20	*	0.986	77	0.56		I1	Females	0.082	76	0.20	*	0.988	76	0.71	
	Males	0.055	71	0.20	*	0.989	71	0.79			Males	0.080	73	0.20	*	0.991	73	0.87	
I2	Females	0.114	75	0.02	**	0.958	75	0.01	**	I2	Females	0.061	76	0.20	*	0.986	76	0.60	
	Males	0.098	70	0.09		0.984	70	0.54			Males	0.093	72	0.20	*	0.970	72	0.09	
C	Females	0.056	73	0.20	*	0.988	73	0.75		C	Females	0.055	74	0.20	*	0.984	74	0.48	
	Males	0.094	68	0.20	*	0.984	68	0.52			Males	0.061	72	0.20	*	0.989	72	0.78	
P1	Females	0.063	76	0.20	*	0.985	76	0.51		P1	Females	0.076	76	0.20	*	0.981	76	0.33	
	Males	0.083	71	0.20	*	0.984	71	0.50			Males	0.089	72	0.20	*	0.977	72	0.21	
P2	Females	0.073	70	0.20	*	0.989	70	0.79		P2	Females	0.062	72	0.20	*	0.995	72	0.99	
	Males	0.055	69	0.20	*	0.990	69	0.84			Males	0.071	68	0.20	*	0.986	68	0.67	
M1	Females	0.094	74	0.17		0.981	74	0.34		M1	Females	0.074	75	0.20	*	0.977	75	0.18	
	Males	0.064	69	0.20	*	0.987	69	0.70			Males	0.087	69	0.20	*	0.975	69	0.18	
M2	Females	0.066	59	0.20	*	0.982	59	0.52		M2	Females	0.089	47	0.20	*	0.964	47	0.16	
	Males	0.067	58	0.20	*	0.981	58	0.51			Males	0.086	42	0.20	*	0.971	42	0.36	

Appendix 4.5 (continued)

Tooth	Sex	Kolmogorov-Smirnov(a)				Shapiro-Wilk			
		Statistic	df	Sig.		Statistic	df	Sig.	
Buccolingual									
I1	Females	0.045	73	0.20	*	0.994	73	0.99	
	Males	0.066	67	0.20	*	0.991	67	0.92	
I2	Females	0.053	67	0.20	*	0.989	67	0.81	
	Males	0.068	65	0.20	*	0.986	65	0.68	
C	Females	0.073	71	0.20	*	0.985	71	0.55	
	Males	0.092	62	0.20	*	0.976	62	0.28	
P1	Females	0.059	75	0.20	*	0.981	75	0.31	
	Males	0.081	72	0.20	*	0.982	72	0.37	
P2	Females	0.087	75	0.20	*	0.985	75	0.50	
	Males	0.099	68	0.10		0.975	68	0.20	
M1	Females	0.089	77	0.20	*	0.973	77	0.10	
	Males	0.053	70	0.20	*	0.988	70	0.76	
M2	Females	0.069	71	0.20	*	0.983	71	0.46	
	Males	0.085	65	0.20	*	0.975	65	0.21	

Tooth	Sex	Kolmogorov-Smirnov(a)				Shapiro-Wilk			
		Statistic	df	Sig.		Statistic	df	Sig.	
Buccolingual									
I1	Females	0.095	69	0.20	*	0.982	69	0.40	
	Males	0.093	67	0.20	*	0.974	67	0.17	
I2	Females	0.079	72	0.20	*	0.985	72	0.53	
	Males	0.064	68	0.20	*	0.988	68	0.76	
C	Females	0.092	65	0.20	*	0.988	65	0.76	
	Males	0.143	52	0.01	**	0.954	52	0.04	**
P1	Females	0.106	74	0.04	**	0.981	74	0.32	
	Males	0.097	69	0.18		0.979	69	0.29	
P2	Females	0.067	75	0.20	*	0.988	75	0.70	
	Males	0.056	72	0.20	*	0.985	72	0.55	
M1	Females	0.067	74	0.20	*	0.985	74	0.51	
	Males	0.078	71	0.20	*	0.985	71	0.58	
M2	Females	0.066	68	0.20	*	0.988	68	0.74	
	Males	0.068	62	0.20	*	0.989	62	0.85	

left tooth was measured when right tooth was unmeasurable; *, this is a lower bound of the true significance; a, Lilliefors Significance Correction; **, p<0.05

Appendix 4.6 Tests of normality for right tooth size measurements in Jahai

Tooth	Sex	Kolmogorov Smirnov				Shapiro Wilks			Tooth	Sex	Kolmogorov Smirnov				Shapiro Wilks		
		Statistic	df	Sig.		Statistic	df	Sig.			Statistic	df	Sig.		Statistic	df	Sig.
		Maxilla									Mandible						
Mesiodistal									Mesiodistal								
I1	Females	0.075	25	0.20	*	0.979	25	0.87	I1	Females	0.108	25	0.20	*	0.958	25	0.38
	Males	0.192	21	0.04	**	0.925	21	0.11		Males	0.233	21	0.00	**	0.911	21	0.06
I2	Females	0.143	25	0.20	*	0.956	25	0.34	I2	Females	0.098	29	0.20	*	0.981	29	0.86
	Males	0.153	24	0.15		0.937	24	0.14		Males	0.096	23	0.20	*	0.973	23	0.76
C	Females	0.178	27	0.03	**	0.954	27	0.26	C	Females	0.086	28	0.20	*	0.953	28	0.24
	Males	0.129	25	0.20	*	0.974	25	0.74		Males	0.124	23	0.20	*	0.974	23	0.78
P1	Females	0.110	28	0.20	*	0.966	28	0.47	P1	Females	0.143	28	0.15		0.955	28	0.26
	Males	0.117	26	0.20	*	0.965	26	0.50		Males	0.117	22	0.20	*	0.954	22	0.38
P2	Females	0.085	26	0.20	*	0.988	26	0.98	P2	Females	0.142	27	0.18		0.945	27	0.16
	Males	0.173	21	0.10		0.919	21	0.08		Males	0.110	22	0.20	*	0.973	22	0.77
M1	Females	0.111	25	0.20	*	0.953	25	0.29	M1	Females	0.116	22	0.20	*	0.956	22	0.42
	Males	0.168	22	0.11		0.936	22	0.16		Males	0.161	20	0.18		0.905	20	0.05
M2	Females	0.069	27	0.20	*	0.982	27	0.91	M2	Females	0.134	24	0.20	*	0.984	24	0.96
	Males	0.157	24	0.13		0.927	24	0.08		Males	0.089	19	0.20	*	0.973	19	0.83

Appendix 4.6 (continued)

Tooth	Sex	Kolmogorov Smirnov				Shapiro Wilks			Tooth	Sex	Kolmogorov Smirnov				Shapiro Wilks		
		Statistic	df	Sig.		Statistic	df	Sig.			Statistic	df	Sig.		Statistic	df	Sig.
Buccolingual									Buccolingual								
I1	Females	0.197	21	0.03	**	0.943	21	0.24	I1								
	Males	0.148	12	0.20	*	0.974	12	0.94									
I2	Females	0.109	18	0.20	*	0.953	18	0.47	I2								
	Males	0.146	13	0.20	*	0.948	13	0.57									
C	Females	0.138	24	0.20	*	0.954	24	0.33	C								
	Males																
P1	Females	0.103	22	0.20	*	0.966	22	0.61	P1	Females	0.145	18	0.20	*	0.949	18	0.40
	Males	0.098	16	0.20	*	0.976	16	0.93		Males	0.097	15	0.20	*	0.979	15	0.96
P2	Females	0.104	24	0.20	*	0.970	24	0.67	P2	Females	0.149	16	0.20	*	0.963	16	0.72
	Males	0.140	16	0.20	*	0.935	16	0.29		Males	0.116	16	0.20	*	0.976	16	0.92
M1	Females	0.156	18	0.20	*	0.933	18	0.22	M1	Females	0.153	15	0.20	*	0.972	15	0.89
	Males	0.170	11	0.20	*	0.952	11	0.67		Males	0.128	16	0.20	*	0.961	16	0.69
M2	Females	0.155	21	0.20	*	0.961	21	0.53	M2	Females	0.193	18	0.07		0.935	18	0.23
	Males	0.155	13	0.20	*	0.951	13	0.61		Males	0.164	17	0.20	*	0.916	17	0.12

left tooth was measured when right tooth was unmeasurable; *, this is a lower bound of the true significance; a, Lilliefors Significance Correction; **, $p<0.05$

Appendix 4.7 Descriptive statistics for mesiodistal crown diameters of maxillary right and left teeth in Malays

Tooth*	Sex	N	Mean	SD	Tooth*	Sex	N	Mean	SD
MD11	Females	78	8.49	0.56	MD21	Females	78	8.50	0.57
	Males	72	8.71	0.45		Males	72	8.73	0.44
	Total	150	8.60	0.52		Total	150	8.61	0.53
MD12	Females	77	6.98	0.64	MD22	Females	77	7.00	0.64
	Males	71	7.07	0.58		Males	71	7.10	0.59
	Total	148	7.02	0.61		Total	148	7.05	0.62
MD13	Females	78	7.79	0.48	MD23	Females	76	7.85	0.45
	Males	71	8.26	0.41		Males	69	8.23	0.42
	Total	149	8.01	0.51		Total	145	8.03	0.48
MD14	Females	82	7.43	0.41	MD24	Females	81	7.46	0.37
	Males	71	7.52	0.43		Males	67	7.58	0.43
	Total	153	7.47	0.42		Total	148	7.51	0.40
MD15	Females	80	7.00	0.43	MD25	Females	77	6.97	0.45
	Males	68	7.03	0.41		Males	67	7.00	0.42
	Total	148	7.01	0.42		Total	144	6.98	0.44
MD16	Females	67	10.53	0.50	MD26	Females	74	10.53	0.49
	Males	63	10.66	0.52		Males	64	10.71	0.50
	Total	130	10.60	0.51		Total	138	10.61	0.50
MD17	Females	59	9.91	0.58	MD27	Females	53	9.86	0.57
	Males	57	10.18	0.44		Males	60	10.07	0.50
	Total	116	10.04	0.53		Total	113	9.97	0.54

*, FDI notation

Appendix 4.8 Descriptive statistics for buccolingual crown diameters of maxillary right and left teeth in Malays

Tooth*	Sex	N	Mean	SD	Tooth*	Sex	N	Mean	SD
BL11	Females	77	7.14	0.48	BL21	Females	74	7.09	0.47
	Males	64	7.42	0.49		Males	64	7.40	0.45
	Total	141	7.26	0.50		Total	138	7.23	0.48
BL12	Females	74	6.48	0.43	BL22	Females	71	6.45	0.46
	Males	66	6.75	0.45		Males	62	6.72	0.46
	Total	140	6.61	0.46		Total	133	6.58	0.48
BL13	Females	71	7.93	0.49	BL23	Females	73	7.93	0.55
	Males	64	8.27	0.51		Males	66	8.34	0.57
	Total	135	8.09	0.53		Total	139	8.12	0.59
BL14	Females	78	9.48	0.47	BL24	Females	78	9.43	0.45
	Males	72	9.77	0.50		Males	68	9.73	0.49
	Total	150	9.62	0.50		Total	146	9.57	0.49
BL15	Females	80	9.41	0.54	BL25	Females	79	9.37	0.52
	Males	70	9.60	0.54		Males	68	9.51	0.55
	Total	150	9.50	0.55		Total	147	9.43	0.53
BL16	Females	75	11.18	0.49	BL26	Females	75	11.22	0.45
	Males	67	11.61	0.58		Males	64	11.65	0.53
	Total	142	11.38	0.57		Total	139	11.42	0.53
BL17	Females	69	11.05	0.63	BL27	Females	67	11.05	0.65
	Males	61	11.43	0.71		Males	65	11.37	0.66
	Total	130	11.23	0.69		Total	132	11.21	0.68

*, FDI notation

Appendix 4.9 Descriptive statistics for mesiodistal crown diameters of mandibular right and left teeth in Malays

Tooth*	Sex	N	Mean	SD	Tooth*	Sex	N	Mean	SD
MD41	Females	78	5.44	0.32	MD31	Females	78	5.42	0.33
	Males	70	5.55	0.37		Males	71	5.56	0.34
	Total	148	5.50	0.34		Total	149	5.49	0.34
MD42	Females	79	6.07	0.38	MD32	Females	81	6.09	0.37
	Males	71	6.15	0.33		Males	71	6.15	0.36
	Total	150	6.11	0.36		Total	152	6.12	0.36
MD43	Females	77	6.79	0.37	MD33	Females	80	6.79	0.40
	Males	72	7.21	0.41		Males	73	7.26	0.41
	Total	149	6.99	0.44		Total	153	7.01	0.47
MD44	Females	80	7.28	0.42	MD34	Females	78	7.32	0.39
	Males	75	7.43	0.45		Males	74	7.43	0.45
	Total	155	7.36	0.44		Total	152	7.37	0.42
MD45	Females	70	7.30	0.46	MD35	Females	72	7.34	0.45
	Males	66	7.38	0.45		Males	68	7.39	0.45
	Total	136	7.34	0.45		Total	140	7.37	0.45
MD46	Females	69	11.36	0.46	MD36	Females	75	11.37	0.46
	Males	67	11.68	0.49		Males	66	11.69	0.48
	Total	136	11.52	0.50		Total	141	11.52	0.50
MD47	Females	39	10.36	0.67	MD37	Females	45	10.21	0.62
	Males	45	10.62	0.67		Males	51	10.57	0.62
	Total	84	10.50	0.68		Total	96	10.40	0.64

*, FDI notation

Appendix 4.10 Descriptive statistics for buccolingual crown diameters of mandibular right and left teeth in Malays

Tooth*	Sex	N	Mean	SD	Tooth*	Sex	N	Mean	SD
BL41	Females	60	5.80	0.35	BL31	Females	64	5.75	0.37
	Males	51	5.99	0.37		Males	58	5.93	0.37
	Total	111	5.88	0.37		Total	122	5.83	0.38
BL42	Females	64	6.15	0.36	BL32	Females	70	6.09	0.39
	Males	55	6.31	0.42		Males	65	6.26	0.46
	Total	119	6.23	0.39		Total	135	6.17	0.43
BL43	Females	68	7.12	0.50	BL33	Females	68	7.11	0.43
	Males	63	7.48	0.59		Males	57	7.54	0.56
	Total	131	7.29	0.57		Total	125	7.31	0.54
BL44	Females	71	7.99	0.44	BL34	Females	71	7.94	0.43
	Males	69	8.31	0.52		Males	70	8.22	0.50
	Total	140	8.15	0.51		Total	141	8.08	0.48
BL45	Females	61	8.55	0.47	BL35	Females	65	8.58	0.46
	Males	58	8.79	0.39		Males	57	8.81	0.38
	Total	119	8.67	0.45		Total	122	8.69	0.44
BL46	Females	70	10.79	0.45	BL36	Females	69	10.82	0.46
	Males	63	10.99	0.50		Males	62	10.97	0.44
	Total	133	10.88	0.48		Total	131	10.89	0.46
BL47	Females	64	10.42	0.42	BL37	Females	69	10.49	0.47
	Males	64	10.82	0.59		Males	66	10.76	0.60
	Total	128	10.62	0.55		Total	135	10.62	0.55

*, FDI notation

Appendix 4.11 Descriptive statistics for mesiodistal crown diameters of maxillary right and left teeth in Chinese

Tooth*	Sex	N	Mean	SD	Tooth*	Sex	N	Mean	SD
MD11	Females	62	8.59	0.44	MD21	Females	61	8.62	0.47
	Males	66	8.91	0.48		Males	69	8.92	0.49
	Total	128	8.75	0.49		Total	130	8.78	0.50
MD12	Females	60	7.13	0.51	MD22	Females	59	7.09	0.52
	Males	65	7.38	0.56		Males	65	7.44	0.54
	Total	125	7.26	0.55		Total	124	7.27	0.56
MD13	Females	61	8.05	0.41	MD23	Females	58	8.03	0.35
	Males	65	8.40	0.46		Males	64	8.34	0.48
	Total	126	8.23	0.47		Total	122	8.19	0.45
MD14	Females	60	7.49	0.42	MD24	Females	62	7.50	0.41
	Males	65	7.75	0.38		Males	66	7.80	0.42
	Total	125	7.63	0.42		Total	128	7.65	0.44
MD15	Females	60	7.07	0.40	MD25	Females	61	7.05	0.42
	Males	63	7.30	0.44		Males	62	7.29	0.44
	Total	123	7.19	0.43		Total	123	7.17	0.44
MD16	Females	59	10.34	0.52	MD26	Females	56	10.35	0.52
	Males	61	10.69	0.50		Males	57	10.68	0.47
	Total	120	10.52	0.53		Total	113	10.51	0.52
MD17	Females	42	9.84	0.59	MD27	Females	41	9.90	0.48
	Males	48	10.29	0.49		Males	46	10.31	0.50
	Total	90	10.08	0.58		Total	87	10.12	0.53

*, FDI notation

Appendix 4.12 Descriptive statistics for buccolingual crown diameters of maxillary right and left teeth in Chinese

Tooth*	Sex	N	Mean	SD	Tooth*	Sex	N	Mean	SD
BL11	Females	59	7.09	0.39	BL21	Females	56	7.13	0.37
	Males	55	7.38	0.46		Males	59	7.44	0.47
	Total	114	7.23	0.45		Total	115	7.29	0.45
BL12	Females	49	6.52	0.47	BL22	Females	58	6.56	0.42
	Males	53	6.83	0.51		Males	52	6.88	0.51
	Total	102	6.68	0.51		Total	110	6.71	0.49
BL13	Females	51	8.14	0.44	BL23	Females	56	8.09	0.44
	Males	53	8.39	0.59		Males	54	8.40	0.57
	Total	104	8.27	0.54		Total	110	8.24	0.53
BL14	Females	61	9.55	0.45	BL24	Females	60	9.56	0.45
	Males	63	10.01	0.52		Males	67	9.99	0.52
	Total	124	9.78	0.54		Total	127	9.78	0.53
BL15	Females	60	9.31	0.57	BL25	Females	62	9.33	0.54
	Males	64	9.75	0.58		Males	66	9.78	0.64
	Total	124	9.53	0.61		Total	128	9.56	0.63
BL16	Females	61	11.18	0.46	BL26	Females	58	11.21	0.51
	Males	64	11.73	0.49		Males	65	11.80	0.48
	Total	125	11.46	0.55		Total	123	11.52	0.58
BL17	Females	46	11.07	0.59	BL27	Females	48	11.02	0.55
	Males	51	11.55	0.78		Males	48	11.68	0.69
	Total	97	11.32	0.73		Total	96	11.35	0.70

*, FDI notation

Appendix 4.13 Descriptive statistics for mesiodistal crown diameters of mandibular right and left teeth in Chinese

Tooth*	Sex	N	Mean	SD	Tooth*	Sex	N	Mean	SD
MD41	Females	57	5.46	0.32	MD31	Females	59	5.46	0.33
	Males	68	5.61	0.32		Males	66	5.65	0.34
	Total	125	5.55	0.33		Total	125	5.56	0.35
MD42	Females	61	6.09	0.30	MD32	Females	61	6.10	0.33
	Males	68	6.18	0.35		Males	67	6.22	0.35
	Total	129	6.14	0.33		Total	128	6.16	0.35
MD43	Females	62	6.89	0.39	MD33	Females	63	6.89	0.45
	Males	66	7.31	0.41		Males	67	7.32	0.38
	Total	128	7.11	0.45		Total	130	7.11	0.47
MD44	Females	63	7.33	0.37	MD34	Females	61	7.29	0.35
	Males	65	7.59	0.36		Males	67	7.54	0.35
	Total	128	7.46	0.39		Total	128	7.42	0.37
MD45	Females	59	7.23	0.44	MD35	Females	53	7.24	0.43
	Males	58	7.58	0.42		Males	57	7.65	0.42
	Total	117	7.41	0.46		Total	110	7.45	0.47
MD46	Females	60	11.21	0.54	MD36	Females	58	11.26	0.49
	Males	65	11.65	0.44		Males	61	11.70	0.43
	Total	125	11.44	0.53		Total	119	11.48	0.51
MD47	Females	25	10.15	0.57	MD37	Females	38	10.15	0.59
	Males	23	10.69	0.50		Males	33	10.88	0.69
	Total	48	10.41	0.60		Total	71	10.49	0.73

*, FDI notation

Appendix 4.14 Descriptive statistics for buccolingual crown diameters of mandibular right and left teeth in Chinese

Tooth*	Sex	N	Mean	SD	Tooth*	Sex	N	Mean	SD
BL41	Females	51	5.72	0.32	BL31	Females	56	5.76	0.32
	Males	51	6.02	0.37		Males	56	5.99	0.35
	Total	102	5.87	0.38		Total	112	5.88	0.35
BL42	Females	51	6.19	0.32	BL32	Females	58	6.17	0.36
	Males	58	6.29	0.33		Males	55	6.28	0.37
	Total	109	6.24	0.33		Total	113	6.22	0.37
BL43	Females	57	7.23	0.48	BL33	Females	51	7.19	0.48
	Males	51	7.50	0.55		Males	60	7.49	0.60
	Total	108	7.36	0.53		Total	111	7.35	0.57
BL44	Females	59	8.07	0.36	BL34	Females	61	8.01	0.38
	Males	64	8.48	0.46		Males	65	8.46	0.48
	Total	123	8.28	0.46		Total	126	8.24	0.49
BL45	Females	57	8.57	0.40	BL35	Females	51	8.51	0.39
	Males	61	8.94	0.54		Males	59	8.96	0.51
	Total	118	8.76	0.51		Total	110	8.75	0.51
BL46	Females	62	10.73	0.44	BL36	Females	61	10.66	0.44
	Males	61	11.14	0.45		Males	63	11.13	0.42
	Total	123	10.93	0.49		Total	124	10.90	0.49
BL47	Females	43	10.41	0.49	BL37	Females	52	10.36	0.56
	Males	49	10.90	0.50		Males	56	10.90	0.53
	Total	92	10.67	0.55		Total	108	10.64	0.60

*, FDI notation

Appendix 4.15 Descriptive statistics for mesiodistal crown diameters of maxillary right and left teeth in Indians

Tooth*	Sex	N	Mean	SD	Tooth*	Sex	N	Mean	SD
MD11	Females	74	8.55	0.46	MD21	Females	74	8.56	0.45
	Males	65	8.78	0.31		Males	69	8.79	0.33
	Total	139	8.66	0.42		Total	143	8.68	0.41
MD12	Females	72	6.90	0.54	MD22	Females	72	6.88	0.56
	Males	67	6.99	0.44		Males	70	7.06	0.42
	Total	139	6.94	0.50		Total	142	6.97	0.50
MD13	Females	71	7.65	0.42	MD23	Females	72	7.63	0.38
	Males	63	7.94	0.40		Males	66	7.93	0.37
	Total	134	7.79	0.43		Total	138	7.77	0.40
MD14	Females	74	7.15	0.35	MD24	Females	75	7.16	0.36
	Males	67	7.26	0.32		Males	65	7.31	0.36
	Total	141	7.20	0.34		Total	140	7.23	0.36
MD15	Females	67	6.78	0.29	MD25	Females	63	6.78	0.33
	Males	67	6.94	0.38		Males	66	6.89	0.38
	Total	134	6.86	0.35		Total	129	6.83	0.36
MD16	Females	66	10.35	0.54	MD26	Females	69	10.32	0.52
	Males	69	10.57	0.55		Males	62	10.57	0.55
	Total	135	10.46	0.55		Total	131	10.44	0.54
MD17	Females	53	10.04	0.65	MD27	Females	51	10.01	0.61
	Males	50	10.34	0.64		Males	42	10.27	0.63
	Total	103	10.19	0.66		Total	93	10.13	0.63

*, FDI notation

Appendix 4.16 Descriptive statistics for buccolingual crown diameters of maxillary right and left teeth in Indians

Tooth*	Sex	N	Mean	SD	Tooth*	Sex	N	Mean	SD
BL11	Females	66	7.06	0.51	BL21	Females	71	7.09	0.55
	Males	62	7.37	0.46		Males	65	7.34	0.47
	Total	128	7.21	0.51		Total	136	7.21	0.53
BL12	Females	61	6.49	0.54	BL22	Females	65	6.48	0.55
	Males	61	6.61	0.44		Males	62	6.56	0.42
	Total	122	6.55	0.49		Total	127	6.52	0.49
BL13	Females	65	7.82	0.52	BL23	Females	67	7.72	0.54
	Males	55	8.13	0.55		Males	58	8.08	0.56
	Total	120	7.96	0.56		Total	125	7.89	0.58
BL14	Females	72	9.33	0.45	BL24	Females	74	9.26	0.45
	Males	69	9.72	0.44		Males	70	9.66	0.48
	Total	141	9.52	0.48		Total	144	9.46	0.51
BL15	Females	72	9.20	0.49	BL25	Females	68	9.21	0.49
	Males	62	9.64	0.44		Males	65	9.57	0.47
	Total	134	9.40	0.52		Total	133	9.38	0.51
BL16	Females	74	11.17	0.60	BL26	Females	75	11.18	0.56
	Males	68	11.56	0.44		Males	68	11.55	0.47
	Total	142	11.36	0.56		Total	143	11.35	0.55
BL17	Females	66	10.73	0.65	BL27	Females	68	10.75	0.63
	Males	61	11.20	0.61		Males	62	11.15	0.64
	Total	127	10.95	0.67		Total	130	10.94	0.66

*, FDI notation

Appendix 4.17 Descriptive statistics for mesiodistal crown diameters of mandibular right and left teeth in Indians

Tooth*	Sex	N	Mean	SD	Tooth*	Sex	N	Mean	SD
MD41	Females	75	5.43	0.34	MD31	Females	74	5.42	0.33
	Males	71	5.51	0.27		Males	71	5.52	0.33
	Total	146	5.47	0.31		Total	145	5.47	0.33
MD42	Females	76	5.91	0.36	MD32	Females	75	5.90	0.36
	Males	67	6.06	0.35		Males	69	6.08	0.33
	Total	143	5.98	0.36		Total	144	5.99	0.36
MD43	Females	73	6.62	0.31	MD33	Females	71	6.62	0.34
	Males	70	7.00	0.37		Males	69	7.00	0.37
	Total	143	6.81	0.39		Total	140	6.81	0.40
MD44	Females	73	7.19	0.42	MD34	Females	75	7.23	0.42
	Males	71	7.30	0.32		Males	67	7.29	0.35
	Total	144	7.25	0.38		Total	142	7.26	0.39
MD45	Females	69	7.19	0.44	MD35	Females	62	7.25	0.45
	Males	62	7.38	0.38		Males	64	7.37	0.46
	Total	131	7.28	0.42		Total	126	7.31	0.45
MD46	Females	70	11.06	0.54	MD36	Females	70	11.10	0.50
	Males	62	11.34	0.56		Males	65	11.32	0.56
	Total	132	11.19	0.56		Total	135	11.21	0.54
MD47	Females	33	10.22	0.61	MD37	Females	37	10.35	0.65
	Males	27	10.55	0.49		Males	36	10.53	0.49
	Total	60	10.37	0.58		Total	73	10.44	0.58

*, FDI notation

Appendix 4.18 Descriptive statistics for buccolingual crown diameters of mandibular right and left teeth in Indians

Tooth*	Sex	N	Mean	SD	Tooth*	Sex	N	Mean	SD
BL41	Females	62	5.86	0.49	BL31	Females	68	5.91	0.45
	Males	59	6.02	0.38		Males	61	6.03	0.36
	Total	121	5.94	0.45		Total	129	5.97	0.41
BL42	Females	65	6.20	0.42	BL32	Females	68	6.16	0.43
	Males	56	6.28	0.40		Males	67	6.18	0.37
	Total	121	6.24	0.41		Total	135	6.17	0.40
BL43	Females	57	7.04	0.56	BL33	Females	55	7.07	0.44
	Males	44	7.21	0.49		Males	46	7.20	0.49
	Total	101	7.11	0.53		Total	101	7.13	0.46
BL44	Females	69	8.07	0.48	BL34	Females	70	7.99	0.45
	Males	67	8.18	0.43		Males	67	8.12	0.47
	Total	136	8.12	0.46		Total	137	8.06	0.46
BL45	Females	71	8.63	0.50	BL35	Females	71	8.61	0.51
	Males	69	8.84	0.46		Males	68	8.84	0.54
	Total	140	8.73	0.49		Total	139	8.72	0.53
BL46	Females	71	10.68	0.48	BL36	Females	71	10.69	0.49
	Males	66	10.97	0.47		Males	67	10.95	0.46
	Total	137	10.82	0.49		Total	138	10.82	0.49
BL47	Females	60	10.38	0.53	BL37	Females	61	10.33	0.58
	Males	57	10.69	0.49		Males	59	10.65	0.54
	Total	117	10.53	0.53		Total	120	10.48	0.58

*, FDI notation

Appendix 4.19 Descriptive statistics for mesiodistal crown diameters of maxillary right and left teeth in Jahai

Tooth*	Sex	N	Mean	SD	Tooth*	Sex	N	Mean	SD
MD11	Females	24	8.28	0.55	MD21	Females	20	8.23	0.58
	Males	21	8.60	0.48		Males	20	8.64	0.42
	Total	45	8.43	0.54		Total	40	8.44	0.54
MD12	Females	21	6.70	0.44	MD22	Females	24	6.72	0.57
	Males	20	7.04	0.51		Males	23	6.92	0.44
	Total	41	6.87	0.50		Total	47	6.82	0.51
MD13	Females	26	7.65	0.41	MD23	Females	24	7.71	0.42
	Males	23	7.92	0.44		Males	22	7.96	0.44
	Total	49	7.78	0.44		Total	46	7.83	0.44
MD14	Females	27	7.23	0.39	MD24	Females	27	7.26	0.42
	Males	25	7.15	0.37		Males	21	7.20	0.39
	Total	52	7.19	0.38		Total	48	7.23	0.41
MD15	Females	26	6.86	0.35	MD25	Females	22	6.83	0.36
	Males	18	6.82	0.29		Males	18	6.81	0.23
	Total	44	6.84	0.32		Total	40	6.82	0.30
MD16	Females	20	10.27	0.42	MD26	Females	22	10.27	0.44
	Males	19	10.56	0.59		Males	19	10.66	0.54
	Total	39	10.41	0.52		Total	41	10.45	0.52
MD17	Females	19	9.81	0.52	MD27	Females	23	9.66	0.42
	Males	21	9.95	0.55		Males	19	9.96	0.57
	Total	40	9.88	0.54		Total	42	9.80	0.51

*, FDI notation

Appendix 4.20 Descriptive statistics for buccolingual crown diameters of maxillary right and left teeth in Jahai

Tooth*	Sex	N	Mean	SD	Tooth*	Sex	N	Mean	SD
BL11	Females	19	7.09	0.59	BL21	Females	18	7.14	0.49
	Males	12	7.47	0.42		Males	10	7.66	0.45
	Total	31	7.23	0.55		Total	28	7.33	0.54
BL12	Females	18	6.40	0.35	BL22	Females	16	6.45	0.35
	Males	10	6.56	0.51		Males	12	6.75	0.57
	Total	28	6.46	0.41		Total	28	6.58	0.47
BL13	Females	24	8.30	0.35	BL23	Females	19	8.30	0.32
	Males					Males			
	Total					Total			
BL14	Females	21	9.34	0.42	BL24	Females	20	9.39	0.47
	Males	15	9.38	0.55		Males	13	9.49	0.62
	Total	36	9.36	0.47		Total	33	9.43	0.52
BL15	Females	20	9.48	0.40	BL25	Females	23	9.38	0.43
	Males	15	9.47	0.53		Males	14	9.40	0.35
	Total	35	9.48	0.45		Total	37	9.39	0.40
BL16	Females	15	11.29	0.37	BL26	Females	14	11.40	0.36
	Males	10	11.96	0.53		Males	9	11.92	0.58
	Total	25	11.56	0.55		Total	23	11.61	0.52
BL17	Females	18	11.07	0.60	BL27	Females	15	11.05	0.58
	Males	13	11.35	0.68		Males	9	11.04	0.39
	Total	31	11.19	0.64		Total	24	11.05	0.51

*, FDI notation

Appendix 4.21 Descriptive statistics for mesiodistal crown diameters of mandibular right and left teeth in Jahai

Tooth*	Sex	N	Mean	SD	Tooth*	Sex	N	Mean	SD
MD41	Females	24	5.28	0.26	MD31	Females	24	5.26	0.33
	Males	20	5.43	0.27		Males	21	5.48	0.37
	Total	44	5.35	0.27		Total	45	5.36	0.36
MD42	Females	29	6.05	0.47	MD32	Females	27	6.09	0.47
	Males	22	6.18	0.43		Males	23	6.24	0.43
	Total	51	6.11	0.45		Total	50	6.16	0.46
MD43	Females	27	6.83	0.35	MD33	Females	26	6.85	0.37
	Males	19	7.26	0.40		Males	21	7.35	0.47
	Total	46	7.01	0.43		Total	47	7.07	0.48
MD44	Females	28	7.16	0.51	MD34	Females	27	7.20	0.45
	Males	20	7.17	0.33		Males	19	7.12	0.45
	Total	48	7.16	0.44		Total	46	7.17	0.44
MD45	Females	23	7.18	0.37	MD35	Females	24	7.11	0.39
	Males	20	7.02	0.34		Males	21	7.06	0.31
	Total	43	7.11	0.36		Total	45	7.09	0.35
MD46	Females	14	10.89	0.50	MD36	Females	20	11.04	0.55
	Males	16	11.34	0.44		Males	18	11.41	0.54
	Total	30	11.13	0.52		Total	38	11.21	0.57
MD47	Females	23	10.00	0.51	MD37	Females	21	10.12	0.45
	Males	17	9.87	0.65		Males	17	9.99	0.58
	Total	40	9.95	0.57		Total	38	10.06	0.51

*, FDI notation

Appendix 4.22 Descriptive statistics for buccolingual crown diameters of mandibular right and left teeth in Jahai

Tooth*	Sex	N	Mean	SD	Tooth*	Sex	N	Mean	SD
BL41	Females				BL31	Females			
	Males					Males			
	Total					Total			
BL42	Females				BL32	Females			
	Males					Males			
	Total					Total			
BL43	Females				BL33	Females			
	Males					Males			
	Total					Total			
BL44	Females	18	7.95	0.60	BL34	Females	16	7.95	0.62
	Males	12	8.06	0.41		Males	14	7.87	0.37
	Total	30	8.00	0.53		Total	30	7.91	0.51
BL45	Females	14	8.32	0.54	BL35	Females	13	8.38	0.33
	Males	14	8.51	0.53		Males	12	8.40	0.47
	Total	28	8.42	0.53		Total	25	8.39	0.40
BL46	Females	10	10.42	0.35	BL36	Females	13	10.57	0.51
	Males	12	10.77	0.65		Males	13	10.80	0.55
	Total	22	10.61	0.55		Total	26	10.68	0.54
BL47	Females	14	10.35	0.54	BL37	Females	14	10.58	0.58
	Males	12	10.73	0.64		Males	15	10.38	0.46
	Total	26	10.53	0.61		Total	29	10.48	0.52

*, FDI notation

SECTION 3 SEXUAL DIMORPHISM IN TOOTH SIZE IN MALAYSIAN POPULATIONS

Appendix 5.1 Tests of normality for dental crown dimensions in male Malays

	N	Skewness			Kurtosis		
	Statistic	Statistic	SE	Z	Statistic	SE	Z
SMEAN(RL_U1_MD)	75	-0.117	0.277	0.42	-0.027	0.548	0.05
SMEAN(RL_U2_MD)	75	-0.266	0.277	0.96	-0.064	0.548	0.12
SMEAN(RL_U3_MD)	75	-0.129	0.277	0.47	0.019	0.548	0.03
SMEAN(RL_U4_MD)	75	-0.262	0.277	0.94	0.034	0.548	0.06
SMEAN(RL_U5_MD)	75	0.128	0.277	0.46	0.086	0.548	0.16
SMEAN(RL_U6_MD)	75	0.375	0.277	1.35	-0.227	0.548	0.41
SMEAN(RL_U7_MD)	75	0.164	0.277	0.59	0.434	0.548	0.79
SMEAN(RL_U1_BL)	75	-0.275	0.277	0.99	-0.531	0.548	0.97
SMEAN(RL_U2_BL)	75	0.172	0.277	0.62	-0.171	0.548	0.31
SMEAN(RL_U3_BL)	75	0.272	0.277	0.98	0.277	0.548	0.50
SMEAN(RL_U4_BL)	75	0.360	0.277	1.30	-0.261	0.548	0.48
SMEAN(RL_U5_BL)	75	0.524	0.277	1.89	-0.055	0.548	0.10
SMEAN(RL_U6_BL)	75	0.035	0.277	0.13	-0.543	0.548	0.99
SMEAN(RL_U7_BL)	75	-0.043	0.277	0.15	-0.768	0.548	1.40
SMEAN(RL_L1_MD)	75	-0.087	0.277	0.32	-0.206	0.548	0.38
SMEAN(RL_L2_MD)	75	-0.348	0.277	1.25	-0.024	0.548	0.04
SMEAN(RL_L3_MD)	75	-0.098	0.277	0.35	0.246	0.548	0.45
SMEAN(RL_L4_MD)	75	0.033	0.277	0.12	-0.527	0.548	0.96
SMEAN(RL_L5_MD)	75	-0.254	0.277	0.92	-0.431	0.548	0.79
SMEAN(RL_L6_MD)	75	0.177	0.277	0.64	0.388	0.548	0.71
SMEAN(RL_L7_MD)	75	0.516	0.277	1.86	0.252	0.548	0.46
SMEAN(RL_L1_BL)	75	-0.223	0.277	0.80	0.110	0.548	0.20
SMEAN(RL_L2_BL)	75	-0.175	0.277	0.63	-0.175	0.548	0.32
SMEAN(RL_L3_BL)	75	-0.221	0.277	0.80	-0.667	0.548	1.22
SMEAN(RL_L4_BL)	75	0.248	0.277	0.89	-0.223	0.548	0.41
SMEAN(RL_L5_BL)	75	0.513	0.277	1.85	-0.080	0.548	0.15
SMEAN(RL_L6_BL)	75	-0.077	0.277	0.28	0.143	0.548	0.26
SMEAN(RL_L7_BL)	75	0.037	0.277	0.13	-0.348	0.548	0.64
Valid N (listwise)	75						

SE, standard error

Z, statistic/SE

Appendix 5.2 Tests of normality for dental crown dimensions in female Malays

	N	Skewness			Kurtosis		
	Statistic	Statistic	SE	Z	Statistic	SE	Z
SMEAN(RL_U1_MD)	83	0.151	0.264	0.57	-0.179	0.523	0.34
SMEAN(RL_U2_MD)	83	0.127	0.264	0.48	-0.350	0.523	0.67
SMEAN(RL_U3_MD)	83	-0.173	0.264	0.66	-0.170	0.523	0.32
SMEAN(RL_U4_MD)	83	-0.293	0.264	1.11	-0.505	0.523	0.97
SMEAN(RL_U5_MD)	83	-0.014	0.264	0.05	-0.609	0.523	1.17
SMEAN(RL_U6_MD)	83	0.165	0.264	0.62	-0.139	0.523	0.27
SMEAN(RL_U7_MD)	83	0.033	0.264	0.12	-0.474	0.523	0.91
SMEAN(RL_U1_BL)	83	0.087	0.264	0.33	-0.743	0.523	1.42
SMEAN(RL_U2_BL)	83	-0.162	0.264	0.61	-0.124	0.523	0.24
SMEAN(RL_U3_BL)	83	0.088	0.264	0.33	-0.014	0.523	0.03
SMEAN(RL_U4_BL)	83	-0.092	0.264	0.35	-0.366	0.523	0.70
SMEAN(RL_U5_BL)	83	-0.134	0.264	0.51	-0.088	0.523	0.17
SMEAN(RL_U6_BL)	83	-0.077	0.264	0.29	-0.152	0.523	0.29
SMEAN(RL_U7_BL)	83	0.100	0.264	0.38	-0.354	0.523	0.68
SMEAN(RL_L1_MD)	83	-0.141	0.264	0.53	0.201	0.523	0.38
SMEAN(RL_L2_MD)	83	0.091	0.264	0.34	-0.508	0.523	0.97
SMEAN(RL_L3_MD)	83	-0.165	0.264	0.62	0.087	0.523	0.17
SMEAN(RL_L4_MD)	83	-0.078	0.264	0.30	-0.445	0.523	0.85
SMEAN(RL_L5_MD)	83	-0.296	0.264	1.12	-0.840	0.523	1.61
SMEAN(RL_L6_MD)	83	0.228	0.264	0.86	-0.653	0.523	1.25
SMEAN(RL_L7_MD)	83	0.083	0.264	0.32	0.903	0.523	1.73
SMEAN(RL_L1_BL)	83	-0.221	0.264	0.84	1.051	0.523	2.01
SMEAN(RL_L2_BL)	83	0.394	0.264	1.49	-0.002	0.523	0.00
SMEAN(RL_L3_BL)	83	0.195	0.264	0.74	0.391	0.523	0.75
SMEAN(RL_L4_BL)	83	-0.449	0.264	1.70	0.604	0.523	1.16
SMEAN(RL_L5_BL)	83	-0.184	0.264	0.70	0.302	0.523	0.58
SMEAN(RL_L6_BL)	83	0.157	0.264	0.60	0.410	0.523	0.79
SMEAN(RL_L7_BL)	83	0.160	0.264	0.61	0.098	0.523	0.19
Valid N (listwise)	83						

SE, standard error

Z, statistic/SE

Appendix 5.3 Tests of normality for dental crown dimensions in male Chinese

	N	Skewness			Kurtosis		
	Statistic	Statistic	SE	Z	Statistic	SE	Z
SMEAN(RL_U1_MD)	75	0.171	0.277	0.62	-0.650	0.548	1.19
SMEAN(RL_U2_MD)	75	-0.068	0.277	0.25	-0.301	0.548	0.55
SMEAN(RL_U3_MD)	75	0.038	0.277	0.14	-0.420	0.548	0.77
SMEAN(RL_U4_MD)	75	0.350	0.277	1.26	-0.083	0.548	0.15
SMEAN(RL_U5_MD)	75	0.060	0.277	0.22	0.133	0.548	0.24
SMEAN(RL_U6_MD)	75	0.516	0.277	1.86	-0.393	0.548	0.72
SMEAN(RL_U7_MD)	75	0.587	0.277	2.12	0.392	0.548	0.72
SMEAN(RL_U1_BL)	75	0.164	0.277	0.59	0.233	0.548	0.42
SMEAN(RL_U2_BL)	75	-0.206	0.277	0.74	0.309	0.548	0.56
SMEAN(RL_U3_BL)	75	0.041	0.277	0.15	1.118	0.548	2.04
SMEAN(RL_U4_BL)	75	0.050	0.277	0.18	-0.351	0.548	0.64
SMEAN(RL_U5_BL)	75	0.085	0.277	0.31	-0.280	0.548	0.51
SMEAN(RL_U6_BL)	75	0.269	0.277	0.97	-0.203	0.548	0.37
SMEAN(RL_U7_BL)	75	-0.410	0.277	1.48	-0.127	0.548	0.23
SMEAN(RL_L1_MD)	75	0.002	0.277	0.01	-0.657	0.548	1.20
SMEAN(RL_L2_MD)	75	0.060	0.277	0.22	-0.299	0.548	0.54
SMEAN(RL_L3_MD)	75	0.016	0.277	0.06	-0.302	0.548	0.55
SMEAN(RL_L4_MD)	75	0.037	0.277	0.13	0.041	0.548	0.07
SMEAN(RL_L5_MD)	75	0.287	0.277	1.04	0.230	0.548	0.42
SMEAN(RL_L6_MD)	75	0.528	0.277	1.90	0.385	0.548	0.70
SMEAN(RL_L7_MD)	75	0.925	0.277	3.33	2.866	0.548	5.23
SMEAN(RL_L1_BL)	75	0.214	0.277	0.77	-0.328	0.548	0.60
SMEAN(RL_L2_BL)	75	0.070	0.277	0.25	-0.266	0.548	0.49
SMEAN(RL_L3_BL)	75	0.099	0.277	0.36	-0.393	0.548	0.72
SMEAN(RL_L4_BL)	75	-0.046	0.277	0.17	0.251	0.548	0.46
SMEAN(RL_L5_BL)	75	0.007	0.277	0.02	-0.104	0.548	0.19
SMEAN(RL_L6_BL)	75	0.372	0.277	1.34	0.248	0.548	0.45
SMEAN(RL_L7_BL)	75	0.046	0.277	0.16	0.550	0.548	1.00
Valid N (listwise)	75						

SE, standard error

Z, statistic/SE

Appendix 5.4 Tests of normality for dental crown dimensions in female Chinese

	N	Skewness			Kurtosis		
	Statistic	Statistic	SE	Z	Statistic	SE	Z
SMEAN(RL_U1_MD)	69	-0.254	0.289	0.88	-0.052	0.570	0.09
SMEAN(RL_U2_MD)	69	0.107	0.289	0.37	-0.187	0.570	0.33
SMEAN(RL_U3_MD)	69	0.108	0.289	0.37	-0.318	0.570	0.56
SMEAN(RL_U4_MD)	69	0.391	0.289	1.35	0.301	0.570	0.53
SMEAN(RL_U5_MD)	69	-0.049	0.289	0.17	-0.548	0.570	0.96
SMEAN(RL_U6_MD)	69	0.090	0.289	0.31	-0.179	0.570	0.31
SMEAN(RL_U7_MD)	69	0.228	0.289	0.79	1.351	0.570	2.37
SMEAN(RL_U1_BL)	69	0.067	0.289	0.23	-0.416	0.570	0.73
SMEAN(RL_U2_BL)	69	-0.352	0.289	1.22	1.241	0.570	2.18
SMEAN(RL_U3_BL)	69	0.357	0.289	1.24	0.068	0.570	0.12
SMEAN(RL_U4_BL)	69	0.716	0.289	2.48	0.697	0.570	1.22
SMEAN(RL_U5_BL)	69	0.006	0.289	0.02	0.094	0.570	0.16
SMEAN(RL_U6_BL)	69	-0.197	0.289	0.68	0.148	0.570	0.26
SMEAN(RL_U7_BL)	69	0.006	0.289	0.02	1.467	0.570	2.57
SMEAN(RL_L1_MD)	69	0.016	0.289	0.06	-0.206	0.570	0.36
SMEAN(RL_L2_MD)	69	0.105	0.289	0.37	-0.459	0.570	0.80
SMEAN(RL_L3_MD)	69	0.532	0.289	1.84	0.792	0.570	1.39
SMEAN(RL_L4_MD)	69	0.025	0.289	0.09	0.028	0.570	0.05
SMEAN(RL_L5_MD)	69	0.051	0.289	0.18	0.147	0.570	0.26
SMEAN(RL_L6_MD)	69	-0.014	0.289	0.05	-0.209	0.570	0.37
SMEAN(RL_L7_MD)	69	-0.381	0.289	1.32	2.007	0.570	3.52
SMEAN(RL_L1_BL)	69	0.443	0.289	1.53	-0.087	0.570	0.15
SMEAN(RL_L2_BL)	69	-0.003	0.289	0.01	-0.046	0.570	0.08
SMEAN(RL_L3_BL)	69	0.190	0.289	0.66	0.294	0.570	0.52
SMEAN(RL_L4_BL)	69	0.105	0.289	0.36	-0.472	0.570	0.83
SMEAN(RL_L5_BL)	69	-0.081	0.289	0.28	1.143	0.570	2.00
SMEAN(RL_L6_BL)	69	-0.157	0.289	0.54	-0.346	0.570	0.61
SMEAN(RL_L7_BL)	69	0.021	0.289	0.07	0.429	0.570	0.75
Valid N (listwise)	69						

SE, standard error

Z, statistic/SE

Appendix 5.5 Tests of normality for dental crown dimensions in male Indians

	N	Skewness			Kurtosis		
	Statistic	Statistic	SE	Z	Statistic	SE	Z
SMEAN(RL_U1_MD)	73	-0.061	0.281	0.22	-0.406	0.555	0.73
SMEAN(RL_U2_MD)	73	0.067	0.281	0.24	0.524	0.555	0.94
SMEAN(RL_U3_MD)	73	0.131	0.281	0.47	0.554	0.555	1.00
SMEAN(RL_U4_MD)	73	0.131	0.281	0.47	0.362	0.555	0.65
SMEAN(RL_U5_MD)	73	0.163	0.281	0.58	-0.267	0.555	0.48
SMEAN(RL_U6_MD)	73	-0.031	0.281	0.11	-0.351	0.555	0.63
SMEAN(RL_U7_MD)	73	0.218	0.281	0.77	0.448	0.555	0.81
SMEAN(RL_U1_BL)	73	0.189	0.281	0.67	-0.029	0.555	0.05
SMEAN(RL_U2_BL)	73	-0.026	0.281	0.09	-0.278	0.555	0.50
SMEAN(RL_U3_BL)	73	0.195	0.281	0.70	-0.386	0.555	0.70
SMEAN(RL_U4_BL)	73	-0.165	0.281	0.59	-0.392	0.555	0.71
SMEAN(RL_U5_BL)	73	-0.044	0.281	0.16	-0.512	0.555	0.92
SMEAN(RL_U6_BL)	73	0.071	0.281	0.25	-0.245	0.555	0.44
SMEAN(RL_U7_BL)	73	-0.386	0.281	1.37	-0.317	0.555	0.57
SMEAN(RL_L1_MD)	73	-0.071	0.281	0.25	-0.289	0.555	0.52
SMEAN(RL_L2_MD)	73	-0.196	0.281	0.70	-0.762	0.555	1.37
SMEAN(RL_L3_MD)	73	0.066	0.281	0.23	-0.126	0.555	0.23
SMEAN(RL_L4_MD)	73	0.503	0.281	1.79	-0.078	0.555	0.14
SMEAN(RL_L5_MD)	73	-0.026	0.281	0.09	-0.234	0.555	0.42
SMEAN(RL_L6_MD)	73	-0.443	0.281	1.58	-0.176	0.555	0.32
SMEAN(RL_L7_MD)	73	-0.900	0.281	3.20	3.706	0.555	6.67
SMEAN(RL_L1_BL)	73	0.027	0.281	0.09	0.984	0.555	1.77
SMEAN(RL_L2_BL)	73	-0.023	0.281	0.08	0.317	0.555	0.57
SMEAN(RL_L3_BL)	73	0.321	0.281	1.14	1.134	0.555	2.04
SMEAN(RL_L4_BL)	73	0.188	0.281	0.67	-0.241	0.555	0.43
SMEAN(RL_L5_BL)	73	-0.003	0.281	0.01	-0.316	0.555	0.57
SMEAN(RL_L6_BL)	73	0.210	0.281	0.75	-0.279	0.555	0.50
SMEAN(RL_L7_BL)	73	0.028	0.281	0.10	0.276	0.555	0.50
Valid N (listwise)	73						

SE, standard error

Z, statistic/SE

Appendix 5.6 Tests of normality for dental crown dimensions in female Indians

	N	Skewness			Kurtosis		
	Statistic	Statistic	SE	Z	Statistic	SE	Z
SMEAN(RL_U1_MD)	78	0.128	0.272	0.47	-0.429	0.538	0.80
SMEAN(RL_U2_MD)	78	0.351	0.272	1.29	-0.847	0.538	1.57
SMEAN(RL_U3_MD)	78	-0.058	0.272	0.21	-0.199	0.538	0.37
SMEAN(RL_U4_MD)	78	0.133	0.272	0.49	-0.505	0.538	0.94
SMEAN(RL_U5_MD)	78	0.028	0.272	0.10	-0.118	0.538	0.22
SMEAN(RL_U6_MD)	78	-0.047	0.272	0.17	-0.264	0.538	0.49
SMEAN(RL_U7_MD)	78	0.353	0.272	1.30	0.546	0.538	1.01
SMEAN(RL_U1_BL)	78	0.001	0.272	0.01	0.084	0.538	0.16
SMEAN(RL_U2_BL)	78	0.197	0.272	0.72	0.079	0.538	0.15
SMEAN(RL_U3_BL)	78	-0.042	0.272	0.15	0.148	0.538	0.28
SMEAN(RL_U4_BL)	78	-0.181	0.272	0.66	-0.433	0.538	0.80
SMEAN(RL_U5_BL)	78	-0.154	0.272	0.56	-0.088	0.538	0.16
SMEAN(RL_U6_BL)	78	0.390	0.272	1.43	0.055	0.538	0.10
SMEAN(RL_U7_BL)	78	0.283	0.272	1.04	-0.216	0.538	0.40
SMEAN(RL_L1_MD)	78	0.099	0.272	0.36	-0.423	0.538	0.79
SMEAN(RL_L2_MD)	78	0.217	0.272	0.80	-0.461	0.538	0.86
SMEAN(RL_L3_MD)	78	0.019	0.272	0.07	-0.223	0.538	0.41
SMEAN(RL_L4_MD)	78	0.079	0.272	0.29	0.652	0.538	1.21
SMEAN(RL_L5_MD)	78	0.006	0.272	0.02	0.515	0.538	0.96
SMEAN(RL_L6_MD)	78	0.114	0.272	0.42	0.045	0.538	0.08
SMEAN(RL_L7_MD)	78	0.319	0.272	1.17	3.250	0.538	6.04
SMEAN(RL_L1_BL)	78	0.362	0.272	1.33	0.096	0.538	0.18
SMEAN(RL_L2_BL)	78	0.166	0.272	0.61	0.228	0.538	0.42
SMEAN(RL_L3_BL)	78	-0.031	0.272	0.11	0.810	0.538	1.50
SMEAN(RL_L4_BL)	78	0.365	0.272	1.34	0.479	0.538	0.89
SMEAN(RL_L5_BL)	78	0.040	0.272	0.15	-0.404	0.538	0.75
SMEAN(RL_L6_BL)	78	0.161	0.272	0.59	-0.449	0.538	0.84
SMEAN(RL_L7_BL)	78	-0.060	0.272	0.22	0.160	0.538	0.30
Valid N (listwise)	78						

SE, standard error

Z, statistic/SE

Appendix 5.7 Tests of normality for dental crown dimensions in male Jahai

	N	Skewness			Kurtosis		
	Statistic	Statistic	SE	Z	Statistic	SE	Z
SMEAN(RL_U1_MD)	26	0.861	0.456	1.89	0.718	0.887	0.81
SMEAN(RL_U2_MD)	26	0.666	0.456	1.46	-0.230	0.887	0.26
SMEAN(RL_U3_MD)	26	-0.113	0.456	0.25	0.264	0.887	0.30
SMEAN(RL_U4_MD)	26	-0.114	0.456	0.25	-0.850	0.887	0.96
SMEAN(RL_U5_MD)	26	0.494	0.456	1.08	-0.641	0.887	0.72
SMEAN(RL_U6_MD)	26	0.723	0.456	1.59	0.484	0.887	0.55
SMEAN(RL_U7_MD)	26	0.648	0.456	1.42	1.616	0.887	1.82
SMEAN(RL_L1_MD)	26	0.514	0.456	1.13	-0.444	0.887	0.50
SMEAN(RL_L2_MD)	26	0.330	0.456	0.72	0.452	0.887	0.51
SMEAN(RL_L3_MD)	26	0.534	0.456	1.17	0.590	0.887	0.67
SMEAN(RL_L4_MD)	26	-0.274	0.456	0.60	-0.229	0.887	0.26
SMEAN(RL_L5_MD)	26	-0.088	0.456	0.19	-0.002	0.887	0.00
SMEAN(RL_L6_MD)	26	0.944	0.456	2.07	0.732	0.887	0.83
SMEAN(RL_L7_MD)	26	0.113	0.456	0.25	0.093	0.887	0.10
Valid N (listwise)	26						

SE, standard error

Z, statistic/SE

Appendix 5.8 Tests of normality for dental crown dimensions in female Jahai

	N	Skewness			Kurtosis		
	Statistic	Statistic	SE	Z	Statistic	SE	Z
SMEAN(RL_U1_MD)	29	-0.172	0.434	0.40	-0.081	0.845	0.10
SMEAN(RL_U2_MD)	29	-0.467	0.434	1.08	0.215	0.845	0.25
SMEAN(RL_U3_MD)	29	-0.314	0.434	0.72	-0.778	0.845	0.92
SMEAN(RL_U4_MD)	29	-0.394	0.434	0.91	-0.437	0.845	0.52
SMEAN(RL_U5_MD)	29	0.173	0.434	0.40	0.233	0.845	0.28
SMEAN(RL_U6_MD)	29	-0.501	0.434	1.16	-0.256	0.845	0.30
SMEAN(RL_U7_MD)	29	0.015	0.434	0.03	0.661	0.845	0.78
SMEAN(RL_L1_MD)	29	0.275	0.434	0.64	-0.325	0.845	0.38
SMEAN(RL_L2_MD)	29	-0.016	0.434	0.04	-0.366	0.845	0.43
SMEAN(RL_L3_MD)	29	-0.738	0.434	1.70	0.482	0.845	0.57
SMEAN(RL_L4_MD)	29	0.501	0.434	1.16	-0.521	0.845	0.62
SMEAN(RL_L5_MD)	29	0.681	0.434	1.57	-0.011	0.845	0.01
SMEAN(RL_L6_MD)	29	-0.001	0.434	0.00	-0.312	0.845	0.37
SMEAN(RL_L7_MD)	29	-0.090	0.434	0.21	0.781	0.845	0.92
Valid N (listwise)	29						

SE, standard error

Z, statistic/SE

Appendix 5.9 Tests of normality for dental crown dimensions in males for pooled three ethnic groups

	N	Skewness			Kurtosis		
	Statistic	Statistic	SE	Z	Statistic	SE	Z
SMEAN(RL_U1_MD)	223	0.059	0.163	0.36	0.024	0.324	0.07
SMEAN(RL_U2_MD)	223	-0.008	0.163	0.05	-0.004	0.324	0.01
SMEAN(RL_U3_MD)	223	0.157	0.163	0.96	-0.150	0.324	0.46
SMEAN(RL_U4_MD)	223	0.154	0.163	0.95	0.071	0.324	0.22
SMEAN(RL_U5_MD)	223	0.208	0.163	1.28	-0.024	0.324	0.07
SMEAN(RL_U6_MD)	223	0.220	0.163	1.35	-0.224	0.324	0.69
SMEAN(RL_U7_MD)	223	0.311	0.163	1.91	0.605	0.324	1.86
SMEAN(RL_U1_BL)	223	0.019	0.163	0.11	-0.189	0.324	0.58
SMEAN(RL_U2_BL)	223	0.033	0.163	0.20	-0.038	0.324	0.12
SMEAN(RL_U3_BL)	223	0.180	0.163	1.11	0.311	0.324	0.96
SMEAN(RL_U4_BL)	223	0.181	0.163	1.11	-0.249	0.324	0.77
SMEAN(RL_U5_BL)	223	0.285	0.163	1.75	-0.123	0.324	0.38
SMEAN(RL_U6_BL)	223	0.148	0.163	0.91	-0.260	0.324	0.80
SMEAN(RL_U7_BL)	223	-0.149	0.163	0.92	-0.432	0.324	1.33
SMEAN(RL_L1_MD)	223	-0.027	0.163	0.17	-0.300	0.324	0.93
SMEAN(RL_L2_MD)	223	-0.148	0.163	0.91	-0.339	0.324	1.05
SMEAN(RL_L3_MD)	223	0.044	0.163	0.27	-0.140	0.324	0.43
SMEAN(RL_L4_MD)	223	0.171	0.163	1.05	-0.316	0.324	0.97
SMEAN(RL_L5_MD)	223	0.001	0.163	0.01	0.020	0.324	0.06
SMEAN(RL_L6_MD)	223	-0.184	0.163	1.13	0.639	0.324	1.97
SMEAN(RL_L7_MD)	223	0.472	0.163	2.90	1.875	0.324	5.78
SMEAN(RL_L1_BL)	223	0.010	0.163	0.06	0.325	0.324	1.00
SMEAN(RL_L2_BL)	223	-0.067	0.163	0.41	0.110	0.324	0.34
SMEAN(RL_L3_BL)	223	0.187	0.163	1.15	-0.323	0.324	0.99
SMEAN(RL_L4_BL)	223	0.162	0.163	0.99	-0.152	0.324	0.47
SMEAN(RL_L5_BL)	223	0.166	0.163	1.02	-0.073	0.324	0.23
SMEAN(RL_L6_BL)	223	0.098	0.163	0.60	0.072	0.324	0.22
SMEAN(RL_L7_BL)	223	0.075	0.163	0.46	0.064	0.324	0.20
Valid N (listwise)	223						

SE, standard error

Z, statistic/SE

Appendix 5.10 Tests of normality for dental crown dimensions in females for pooled three ethnic groups

	N	Skewness			Kurtosis		
	Statistic	Statistic	SE	Z	Statistic	SE	Z
SMEAN(RL_U1_MD)	230	0.004	0.160	0.03	-0.220	0.320	0.69
SMEAN(RL_U2_MD)	230	0.188	0.160	1.17	-0.438	0.320	1.37
SMEAN(RL_U3_MD)	230	-0.028	0.160	0.18	-0.146	0.320	0.46
SMEAN(RL_U4_MD)	230	0.168	0.160	1.05	-0.170	0.320	0.53
SMEAN(RL_U5_MD)	230	0.207	0.160	1.29	-0.379	0.320	1.19
SMEAN(RL_U6_MD)	230	0.035	0.160	0.22	-0.188	0.320	0.59
SMEAN(RL_U7_MD)	230	0.210	0.160	1.31	0.357	0.320	1.12
SMEAN(RL_U1_BL)	230	0.045	0.160	0.28	-0.264	0.320	0.83
SMEAN(RL_U2_BL)	230	-0.066	0.160	0.41	0.303	0.320	0.95
SMEAN(RL_U3_BL)	230	0.054	0.160	0.34	0.135	0.320	0.42
SMEAN(RL_U4_BL)	230	0.156	0.160	0.97	0.173	0.320	0.54
SMEAN(RL_U5_BL)	230	-0.063	0.160	0.39	-0.057	0.320	0.18
SMEAN(RL_U6_BL)	230	0.109	0.160	0.68	0.060	0.320	0.19
SMEAN(RL_U7_BL)	230	0.063	0.160	0.39	-0.035	0.320	0.11
SMEAN(RL_L1_MD)	230	-0.012	0.160	0.07	-0.189	0.320	0.59
SMEAN(RL_L2_MD)	230	0.108	0.160	0.68	-0.461	0.320	1.44
SMEAN(RL_L3_MD)	230	0.245	0.160	1.53	0.489	0.320	1.53
SMEAN(RL_L4_MD)	230	-0.023	0.160	0.14	0.013	0.320	0.04
SMEAN(RL_L5_MD)	230	-0.084	0.160	0.52	-0.213	0.320	0.67
SMEAN(RL_L6_MD)	230	0.018	0.160	0.11	-0.189	0.320	0.59
SMEAN(RL_L7_MD)	230	0.133	0.160	0.83	1.925	0.320	6.02
SMEAN(RL_L1_BL)	230	0.378	0.160	2.36	0.684	0.320	2.14
SMEAN(RL_L2_BL)	230	0.211	0.160	1.32	0.106	0.320	0.33
SMEAN(RL_L3_BL)	230	0.083	0.160	0.52	0.506	0.320	1.58
SMEAN(RL_L4_BL)	230	0.011	0.160	0.07	0.551	0.320	1.72
SMEAN(RL_L5_BL)	230	-0.033	0.160	0.20	0.176	0.320	0.55
SMEAN(RL_L6_BL)	230	0.053	0.160	0.33	-0.166	0.320	0.52
SMEAN(RL_L7_BL)	230	-0.035	0.160	0.22	0.301	0.320	0.94
Valid N (listwise)	230						

SE, standard error

Z, statistic/SE

Appendix 5.11 Correlation coefficient values between dental crown dimensions in Malays

Tooth		U1MD	U2MD	U3MD	U4MD	U5MD	U6MD	U7MD
U1MD	r	1	0.67	0.47	0.55	0.51	0.48	0.38
	p	.	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U2MD	r	0.67	1	0.53	0.57	0.53	0.41	0.35
	p	0.00	.	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U3MD	r	0.47	0.53	1	0.55	0.48	0.43	0.41
	p	0.00	0.00	.	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U4MD	r	0.55	0.57	0.55	1	0.66	0.52	0.53
	p	0.00	0.00	0.00	.	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U5MD	r	0.51	0.53	0.48	0.66	1	0.45	0.5
	p	0.00	0.00	0.00	0.00	.	0.00	0.00
	N	158	158	158	158	158	158	158
U6MD	r	0.48	0.41	0.43	0.52	0.45	1	0.5
	p	0.00	0.00	0.00	0.00	0.00	.	0.00
	N	158	158	158	158	158	158	158
U7MD	r	0.38	0.35	0.41	0.53	0.5	0.5	1
	p	0.00	0.00	0.00	0.00	0.00	0.00	.
	N	158	158	158	158	158	158	158
U1BL	r	0.51	0.33	0.44	0.35	0.31	0.38	0.32
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U2BL	r	0.39	0.39	0.49	0.29	0.27	0.28	0.29
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U3BL	r	0.38	0.37	0.6	0.4	0.3	0.32	0.24
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U4BL	r	0.4	0.49	0.52	0.58	0.46	0.42	0.42
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U5BL	r	0.4	0.44	0.41	0.55	0.6	0.44	0.46
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U6BL	r	0.46	0.36	0.51	0.48	0.38	0.51	0.46
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U7BL	r	0.42	0.35	0.46	0.49	0.43	0.46	0.47
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L1MD	r	0.7	0.63	0.44	0.51	0.47	0.35	0.32
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L2MD	r	0.64	0.60	0.50	0.60	0.58	0.37	0.39
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix 5.11 (continued)

	N	158	158	158	158	158	158	158
L3MD	r	0.59	0.53	0.71	0.57	0.47	0.48	0.37
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L4MD	r	0.55	0.55	0.56	0.72	0.63	0.54	0.48
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L5MD	r	0.48	0.54	0.46	0.69	0.68	0.52	0.53
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L6MD	r	0.57	0.46	0.53	0.52	0.52	0.64	0.49
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L7MD	r	0.41	0.35	0.40	0.42	0.41	0.39	0.57
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L1BL	r	0.36	0.33	0.40	0.32	0.33	0.33	0.26
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L2BL	r	0.32	0.32	0.40	0.33	0.29	0.34	0.20
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	N	158	158	158	158	158	158	158
L3BL	r	0.37	0.28	0.47	0.32	0.26	0.26	0.15
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.06
	N	158	158	158	158	158	158	158
L4BL	r	0.38	0.36	0.42	0.46	0.36	0.38	0.37
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L5BL	r	0.41	0.36	0.47	0.53	0.47	0.36	0.42
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L6BL	r	0.41	0.38	0.39	0.45	0.44	0.51	0.47
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L7BL	r	0.37	0.32	0.46	0.39	0.37	0.50	0.58
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158

Appendix 5.11 (continued)

Tooth		U1BL	U2BL	U3BL	U4BL	U5BL	U6BL	U7BL
U1MD	r	0.51	0.39	0.38	0.40	0.40	0.46	0.42
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U2MD	r	0.33	0.39	0.37	0.49	0.44	0.36	0.35
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U3MD	r	0.44	0.49	0.60	0.52	0.41	0.51	0.46
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U4MD	r	0.35	0.29	0.40	0.58	0.55	0.48	0.49
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U5MD	r	0.31	0.27	0.30	0.46	0.60	0.38	0.43
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U6MD	r	0.38	0.28	0.32	0.42	0.44	0.51	0.46
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U7MD	r	0.32	0.29	0.24	0.42	0.46	0.46	0.47
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U1BL	r	1	0.61	0.56	0.53	0.54	0.59	0.44
	p	.	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U2BL	r	0.61	1	0.55	0.54	0.50	0.49	0.47
	p	0.00	.	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U3BL	r	0.56	0.55	1	0.57	0.49	0.48	0.37
	p	0.00	0.00	.	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U4BL	r	0.53	0.54	0.57	1	0.79	0.63	0.54
	p	0.00	0.00	0.00	.	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U5BL	r	0.54	0.50	0.49	0.79	1	0.58	0.56
	p	0.00	0.00	0.00	0.00	.	0.00	0.00
	N	158	158	158	158	158	158	158
U6BL	r	0.59	0.49	0.48	0.63	0.58	1	0.70
	p	0.00	0.00	0.00	0.00	0.00	.	0.00
	N	158	158	158	158	158	158	158
U7BL	r	0.44	0.47	0.37	0.54	0.56	0.70	1
	p	0.00	0.00	0.00	0.00	0.00	0.00	.
	N	158	158	158	158	158	158	158
L1MD	r	0.34	0.38	0.38	0.43	0.37	0.38	0.28
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L2MD	r	0.35	0.26	0.32	0.43	0.41	0.35	0.29
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158

Appendix 5.11 (continued)

L3MD	r	0.53	0.50	0.58	0.55	0.46	0.58	0.46
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L4MD	r	0.45	0.39	0.43	0.50	0.47	0.43	0.39
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L5MD	r	0.38	0.33	0.37	0.44	0.50	0.44	0.44
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L6MD	r	0.43	0.42	0.40	0.50	0.47	0.59	0.51
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L7MD	r	0.32	0.26	0.27	0.35	0.36	0.44	0.49
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L1BL	r	0.63	0.52	0.55	0.51	0.46	0.49	0.35
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L2BL	r	0.58	0.55	0.57	0.48	0.45	0.45	0.35
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L3BL	r	0.57	0.50	0.68	0.45	0.43	0.49	0.36
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L4BL	r	0.53	0.50	0.55	0.67	0.54	0.54	0.35
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L5BL	r	0.53	0.48	0.51	0.63	0.63	0.56	0.41
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L6BL	r	0.44	0.38	0.43	0.54	0.50	0.64	0.47
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L7BL	r	0.47	0.44	0.41	0.50	0.54	0.66	0.66
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158

Appendix 5.11 (continued)

Tooth		L1MD	L2MD	L3MD	L4MD	L5MD	L6MD	L7MD
U1MD	r	0.70	0.64	0.59	0.55	0.48	0.57	0.41
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U2MD	r	0.63	0.60	0.53	0.55	0.54	0.46	0.35
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U3MD	r	0.44	0.50	0.71	0.56	0.46	0.53	0.40
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U4MD	r	0.51	0.60	0.57	0.72	0.69	0.52	0.42
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U5MD	r	0.47	0.58	0.47	0.63	0.68	0.52	0.41
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U6MD	r	0.35	0.37	0.48	0.54	0.52	0.64	0.39
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U7MD	r	0.32	0.39	0.37	0.48	0.53	0.49	0.57
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U1BL	r	0.34	0.35	0.53	0.45	0.38	0.43	0.32
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U2BL	r	0.38	0.26	0.50	0.39	0.33	0.42	0.26
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U3BL	r	0.38	0.32	0.58	0.43	0.37	0.40	0.27
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U4BL	r	0.43	0.43	0.55	0.50	0.44	0.50	0.35
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U5BL	r	0.37	0.41	0.46	0.47	0.50	0.47	0.36
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U6BL	r	0.38	0.35	0.58	0.43	0.44	0.59	0.44
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U7BL	r	0.28	0.29	0.46	0.39	0.44	0.51	0.49
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L1MD	r	1.00	0.69	0.50	0.60	0.50	0.54	0.40
	p	.	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L2MD	r	0.69	1.00	0.58	0.67	0.55	0.49	0.36
	p	0.00	.	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L3MD	r	0.50	0.58	1.00	0.60	0.45	0.62	0.40
	p	0.00	0.00	.	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158

Appendix 5.11 (continued)

L4MD	r	0.60	0.67	0.60	1.00	0.74	0.64	0.48
	p	0.00	0.00	0.00	.	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L5MD	r	0.50	0.55	0.45	0.74	1.00	0.57	0.53
	p	0.00	0.00	0.00	0.00	.	0.00	0.00
	N	158	158	158	158	158	158	158
L6MD	r	0.54	0.49	0.62	0.64	0.57	1.00	0.57
	p	0.00	0.00	0.00	0.00	0.00	.	0.00
	N	158	158	158	158	158	158	158
L7MD	r	0.40	0.36	0.40	0.48	0.53	0.57	1.00
	p	0.00	0.00	0.00	0.00	0.00	0.00	.
	N	158	158	158	158	158	158	158
L1BL	r	0.39	0.35	0.51	0.46	0.40	0.40	0.25
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L2BL	r	0.40	0.34	0.49	0.48	0.37	0.43	0.31
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L3BL	r	0.28	0.30	0.61	0.32	0.26	0.38	0.25
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L4BL	r	0.37	0.32	0.54	0.47	0.39	0.53	0.25
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L5BL	r	0.44	0.37	0.53	0.50	0.53	0.50	0.34
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L6BL	r	0.38	0.33	0.45	0.48	0.47	0.61	0.42
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L7BL	r	0.30	0.31	0.52	0.45	0.50	0.59	0.64
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158

Appendix 5.11 (continued)

Tooth		L1BL	L2BL	L3BL	L4BL	L5BL	L6BL	L7BL
U1MD	r	0.36	0.32	0.37	0.38	0.41	0.41	0.37
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U2MD	r	0.33	0.32	0.28	0.36	0.36	0.38	0.32
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U3MD	r	0.40	0.40	0.47	0.42	0.47	0.39	0.46
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U4MD	r	0.32	0.33	0.32	0.46	0.53	0.45	0.39
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U5MD	r	0.33	0.29	0.26	0.36	0.47	0.44	0.37
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U6MD	r	0.33	0.34	0.26	0.38	0.36	0.51	0.50
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U7MD	r	0.26	0.20	0.15	0.37	0.42	0.47	0.58
	p	0.00	0.01	0.06	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U1BL	r	0.63	0.58	0.57	0.53	0.53	0.44	0.47
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U2BL	r	0.52	0.55	0.50	0.50	0.48	0.38	0.44
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U3BL	r	0.55	0.57	0.68	0.55	0.51	0.43	0.41
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U4BL	r	0.51	0.48	0.45	0.67	0.63	0.54	0.50
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U5BL	r	0.46	0.45	0.43	0.54	0.63	0.50	0.54
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U6BL	r	0.49	0.45	0.49	0.54	0.56	0.64	0.66
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
U7BL	r	0.35	0.35	0.36	0.35	0.41	0.47	0.66
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L1MD	r	0.39	0.40	0.28	0.37	0.44	0.38	0.30
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L2MD	r	0.35	0.34	0.30	0.32	0.37	0.33	0.31
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L3MD	r	0.51	0.49	0.61	0.54	0.53	0.45	0.52
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158

Appendix 5.11 (continued)

L4MD	r	0.46	0.48	0.32	0.47	0.50	0.48	0.45
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L5MD	r	0.40	0.37	0.26	0.39	0.53	0.47	0.50
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L6MD	r	0.40	0.43	0.38	0.53	0.50	0.61	0.59
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L7MD	r	0.25	0.31	0.25	0.25	0.34	0.42	0.64
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L1BL	r	1.00	0.69	0.57	0.54	0.51	0.41	0.43
	p	.	0.00	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L2BL	r	0.69	1.00	0.58	0.47	0.43	0.37	0.42
	p	0.00	.	0.00	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L3BL	r	0.57	0.58	1.00	0.51	0.48	0.41	0.39
	p	0.00	0.00	.	0.00	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L4BL	r	0.54	0.47	0.51	1.00	0.68	0.57	0.48
	p	0.00	0.00	0.00	.	0.00	0.00	0.00
	N	158	158	158	158	158	158	158
L5BL	r	0.51	0.43	0.48	0.68	1.00	0.57	0.48
	p	0.00	0.00	0.00	0.00	.	0.00	0.00
	N	158	158	158	158	158	158	158
L6BL	r	0.41	0.37	0.41	0.57	0.57	1.00	0.60
	p	0.00	0.00	0.00	0.00	0.00	.	0.00
	N	158	158	158	158	158	158	158
L7BL	r	0.43	0.42	0.39	0.48	0.48	0.60	1.00
	p	0.00	0.00	0.00	0.00	0.00	0.00	.
	N	158	158	158	158	158	158	158

Appendix 5.12 Correlation coefficient values between dental crown dimensions in Chinese

Tooth		U1MD	U2MD	U3MD	U4MD	U5MD	U6MD	U7MD
U1MD	r	1	0.61	0.62	0.58	0.48	0.64	0.51
	p	.	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U2MD	r	0.61	1	0.55	0.54	0.46	0.41	0.31
	p	0.00	.	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U3MD	r	0.62	0.55	1	0.64	0.59	0.49	0.49
	p	0.00	0.00	.	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U4MD	r	0.58	0.54	0.64	1	0.68	0.63	0.54
	p	0.00	0.00	0.00	.	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U5MD	r	0.48	0.46	0.59	0.68	1	0.62	0.59
	p	0.00	0.00	0.00	0.00	.	0.00	0.00
	N	177	177	177	177	177	177	177
U6MD	r	0.64	0.41	0.49	0.63	0.62	1	0.57
	p	0.00	0.00	0.00	0.00	0.00	.	0.00
	N	177	177	177	177	177	177	177
U7MD	r	0.51	0.31	0.49	0.54	0.59	0.57	1
	p	0.00	0.00	0.00	0.00	0.00	0.00	.
	N	177	177	177	177	177	177	177
U1BL	r	0.55	0.44	0.52	0.43	0.51	0.45	0.50
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U2BL	r	0.46	0.53	0.50	0.48	0.40	0.39	0.46
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U3BL	r	0.44	0.46	0.61	0.47	0.45	0.35	0.34
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U4BL	r	0.49	0.45	0.55	0.71	0.53	0.46	0.47
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U5BL	r	0.51	0.45	0.51	0.64	0.65	0.52	0.47
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U6BL	r	0.57	0.36	0.55	0.56	0.57	0.58	0.51
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U7BL	r	0.52	0.40	0.60	0.58	0.63	0.58	0.62
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L1MD	r	0.70	0.50	0.42	0.44	0.41	0.54	0.42
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L2MD	r	0.68	0.51	0.55	0.49	0.42	0.46	0.43
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L3MD	r	0.64	0.50	0.76	0.66	0.60	0.51	0.52
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177

Appendix 5.12 (continued)

L4MD	r	0.59	0.53	0.58	0.72	0.61	0.62	0.55
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L5MD	r	0.58	0.48	0.55	0.69	0.63	0.59	0.60
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L6MD	r	0.60	0.41	0.51	0.59	0.53	0.76	0.59
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L7MD	r	0.43	0.30	0.40	0.46	0.47	0.45	0.49
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L1BL	r	0.49	0.43	0.47	0.40	0.38	0.34	0.41
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L2BL	r	0.38	0.29	0.44	0.33	0.35	0.26	0.41
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L3BL	r	0.37	0.31	0.52	0.44	0.45	0.28	0.41
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L4BL	r	0.53	0.39	0.55	0.54	0.48	0.45	0.45
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L5BL	r	0.47	0.36	0.47	0.49	0.54	0.51	0.46
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L6BL	r	0.55	0.32	0.51	0.51	0.48	0.66	0.52
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L7BL	r	0.46	0.41	0.48	0.53	0.59	0.58	0.54
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177

Appendix 5.12 (continued)

Tooth		U1BL	U2BL	U3BL	U4BL	U5BL	U6BL	U7BL
U1MD	r	0.55	0.46	0.44	0.49	0.51	0.57	0.52
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U2MD	r	0.44	0.53	0.46	0.45	0.45	0.36	0.40
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U3MD	r	0.52	0.50	0.61	0.55	0.51	0.55	0.60
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U4MD	r	0.43	0.48	0.47	0.71	0.64	0.56	0.58
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U5MD	r	0.51	0.40	0.45	0.53	0.65	0.57	0.63
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U6MD	r	0.45	0.39	0.35	0.46	0.52	0.58	0.58
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U7MD	r	0.50	0.46	0.34	0.47	0.47	0.51	0.62
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U1BL	r	1	0.55	0.59	0.46	0.49	0.48	0.53
	p	.	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U2BL	r	0.55	1	0.53	0.43	0.41	0.29	0.44
	p	0.00	.	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U3BL	r	0.59	0.53	1	0.56	0.54	0.46	0.47
	p	0.00	0.00	.	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U4BL	r	0.46	0.43	0.56	1	0.81	0.63	0.51
	p	0.00	0.00	0.00	.	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U5BL	r	0.49	0.41	0.54	0.81	1	0.71	0.55
	p	0.00	0.00	0.00	0.00	.	0.00	0.00
	N	177	177	177	177	177	177	177
U6BL	r	0.48	0.29	0.46	0.63	0.71	1	0.61
	p	0.00	0.00	0.00	0.00	0.00	.	0.00
	N	177	177	177	177	177	177	177
U7BL	r	0.53	0.44	0.47	0.51	0.55	0.61	1
	p	0.00	0.00	0.00	0.00	0.00	0.00	.
	N	177	177	177	177	177	177	177
L1MD	r	0.28	0.25	0.27	0.31	0.34	0.39	0.40
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L2MD	r	0.36	0.33	0.33	0.38	0.40	0.43	0.42
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L3MD	r	0.55	0.42	0.53	0.62	0.60	0.64	0.57
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix 5.12 (continued)

	N	177	177	177	177	177	177	177
L4MD	r	0.50	0.40	0.46	0.57	0.57	0.58	0.51
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L5MD	r	0.52	0.43	0.42	0.56	0.56	0.53	0.59
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L6MD	r	0.44	0.34	0.31	0.43	0.45	0.56	0.54
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L7MD	r	0.41	0.29	0.29	0.39	0.44	0.55	0.47
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L1BL	r	0.60	0.51	0.49	0.46	0.44	0.46	0.47
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L2BL	r	0.55	0.43	0.47	0.44	0.43	0.40	0.43
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L3BL	r	0.52	0.46	0.63	0.47	0.49	0.42	0.55
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L4BL	r	0.44	0.41	0.51	0.66	0.63	0.57	0.55
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L5BL	r	0.45	0.39	0.45	0.58	0.66	0.57	0.53
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L6BL	r	0.43	0.28	0.35	0.52	0.54	0.70	0.58
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L7BL	r	0.50	0.44	0.39	0.49	0.54	0.62	0.70
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177

Appendix 5.12 (continued)

Tooth		L1MD	L2MD	L3MD	L4MD	L5MD	L6MD	L7MD
U1MD	r	0.70	0.68	0.64	0.59	0.58	0.60	0.43
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U2MD	r	0.50	0.51	0.50	0.53	0.48	0.41	0.30
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U3MD	r	0.42	0.55	0.76	0.58	0.55	0.51	0.40
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U4MD	r	0.44	0.49	0.66	0.72	0.69	0.59	0.46
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U5MD	r	0.41	0.42	0.60	0.61	0.63	0.53	0.47
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U6MD	r	0.54	0.46	0.51	0.62	0.59	0.76	0.45
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U7MD	r	0.42	0.43	0.52	0.55	0.60	0.59	0.49
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U1BL	r	0.28	0.36	0.55	0.50	0.52	0.44	0.41
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U2BL	r	0.25	0.33	0.42	0.40	0.43	0.34	0.29
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U3BL	r	0.27	0.33	0.53	0.46	0.42	0.31	0.29
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U4BL	r	0.31	0.38	0.62	0.57	0.56	0.43	0.39
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U5BL	r	0.34	0.40	0.60	0.57	0.56	0.45	0.44
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U6BL	r	0.39	0.43	0.64	0.58	0.53	0.56	0.55
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U7BL	r	0.40	0.42	0.57	0.51	0.59	0.54	0.47
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L1MD	r	1	0.71	0.49	0.54	0.49	0.56	0.34
	p	.	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L2MD	r	0.71	1	0.64	0.57	0.53	0.50	0.31
	p	0.00	.	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L3MD	r	0.49	0.64	1	0.68	0.62	0.56	0.45
	p	0.00	0.00	.	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177

Appendix 5.12 (continued)

L4MD	r	0.54	0.57	0.68	1	0.73	0.67	0.43
	p	0.00	0.00	0.00	.	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L5MD	r	0.49	0.53	0.62	0.73	1	0.61	0.55
	p	0.00	0.00	0.00	0.00	.	0.00	0.00
	N	177	177	177	177	177	177	177
L6MD	r	0.56	0.50	0.56	0.67	0.61	1	0.53
	p	0.00	0.00	0.00	0.00	0.00	.	0.00
	N	177	177	177	177	177	177	177
L7MD	r	0.34	0.31	0.45	0.43	0.55	0.53	1
	p	0.00	0.00	0.00	0.00	0.00	0.00	.
	N	177	177	177	177	177	177	177
L1BL	r	0.34	0.38	0.53	0.48	0.43	0.40	0.35
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L2BL	r	0.20	0.40	0.47	0.36	0.36	0.29	0.27
	p	0.01	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L3BL	r	0.22	0.33	0.55	0.45	0.48	0.26	0.30
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L4BL	r	0.40	0.43	0.60	0.56	0.55	0.45	0.42
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L5BL	r	0.40	0.36	0.52	0.49	0.54	0.47	0.42
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L6BL	r	0.45	0.44	0.57	0.60	0.61	0.67	0.50
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L7BL	r	0.40	0.33	0.51	0.53	0.57	0.59	0.64
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177

Appendix 5.12 (continued)

Tooth		L1BL	L2BL	L3BL	L4BL	L5BL	L6BL	L7BL
U1MD	r	0.49	0.38	0.37	0.53	0.47	0.55	0.46
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U2MD	r	0.43	0.29	0.31	0.39	0.36	0.32	0.41
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U3MD	r	0.47	0.44	0.52	0.55	0.47	0.51	0.48
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U4MD	r	0.40	0.33	0.44	0.54	0.49	0.51	0.53
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U5MD	r	0.38	0.35	0.45	0.48	0.54	0.48	0.59
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U6MD	r	0.34	0.26	0.28	0.45	0.51	0.66	0.58
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U7MD	r	0.41	0.41	0.41	0.45	0.46	0.52	0.54
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U1BL	r	0.60	0.55	0.52	0.44	0.45	0.43	0.50
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U2BL	r	0.51	0.43	0.46	0.41	0.39	0.28	0.44
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U3BL	r	0.49	0.47	0.63	0.51	0.45	0.35	0.39
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U4BL	r	0.46	0.44	0.47	0.66	0.58	0.52	0.49
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U5BL	r	0.44	0.43	0.49	0.63	0.66	0.54	0.54
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U6BL	r	0.46	0.40	0.42	0.57	0.57	0.70	0.62
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
U7BL	r	0.47	0.43	0.55	0.55	0.53	0.58	0.70
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L1MD	r	0.34	0.20	0.22	0.40	0.40	0.45	0.40
	p	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L2MD	r	0.38	0.40	0.33	0.43	0.36	0.44	0.33
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L3MD	r	0.53	0.47	0.55	0.60	0.52	0.57	0.51
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177

Appendix 5.12 (continued)

L4MD	r	0.48	0.36	0.45	0.56	0.49	0.60	0.53
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L5MD	r	0.43	0.36	0.48	0.55	0.54	0.61	0.57
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L6MD	r	0.40	0.29	0.26	0.45	0.47	0.67	0.59
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L7MD	r	0.35	0.27	0.30	0.42	0.42	0.50	0.64
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L1BL	r	1	0.67	0.54	0.53	0.45	0.46	0.48
	p	.	0.00	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L2BL	r	0.67	1	0.62	0.47	0.44	0.36	0.42
	p	0.00	.	0.00	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L3BL	r	0.54	0.62	1	0.50	0.45	0.38	0.49
	p	0.00	0.00	.	0.00	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L4BL	r	0.53	0.47	0.50	1	0.67	0.57	0.58
	p	0.00	0.00	0.00	.	0.00	0.00	0.00
	N	177	177	177	177	177	177	177
L5BL	r	0.45	0.44	0.45	0.67	1	0.61	0.62
	p	0.00	0.00	0.00	0.00	.	0.00	0.00
	N	177	177	177	177	177	177	177
L6BL	r	0.46	0.36	0.38	0.57	0.61	1	0.64
	p	0.00	0.00	0.00	0.00	0.00	.	0.00
	N	177	177	177	177	177	177	177
L7BL	r	0.48	0.42	0.49	0.58	0.62	0.64	1
	p	0.00	0.00	0.00	0.00	0.00	0.00	.
	N	177	177	177	177	177	177	177

Appendix 5.13 Correlation coefficient values between dental crown dimensions in Indians

Tooth		U1MD	U2MD	U3MD	U4MD	U5MD	U6MD	U7MD
U1MD	r	1	0.63	0.45	0.45	0.42	0.40	0.31
	p	.	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U2MD	r	0.63	1	0.41	0.41	0.36	0.25	0.22
	p	0.00	.	0.00	0.00	0.00	0.00	0.01
	N	151	151	151	151	151	151	151
U3MD	r	0.45	0.41	1	0.47	0.46	0.43	0.37
	p	0.00	0.00	.	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U4MD	r	0.45	0.41	0.47	1	0.58	0.45	0.37
	p	0.00	0.00	0.00	.	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U5MD	r	0.42	0.36	0.46	0.58	1	0.46	0.47
	p	0.00	0.00	0.00	0.00	.	0.00	0.00
	N	151	151	151	151	151	151	151
U6MD	r	0.40	0.25	0.43	0.45	0.46	1	0.54
	p	0.00	0.00	0.00	0.00	0.00	.	0.00
	N	151	151	151	151	151	151	151
U7MD	r	0.31	0.22	0.37	0.37	0.47	0.54	1
	p	0.00	0.01	0.00	0.00	0.00	0.00	.
	N	151	151	151	151	151	151	151
U1BL	r	0.35	0.29	0.32	0.18	0.18	0.27	0.22
	p	0.00	0.00	0.00	0.03	0.03	0.00	0.01
	N	151	151	151	151	151	151	151
U2BL	r	0.31	0.35	0.37	0.30	0.30	0.26	0.27
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U3BL	r	0.31	0.29	0.45	0.22	0.24	0.30	0.37
	p	0.00	0.00	0.00	0.01	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U4BL	r	0.39	0.32	0.33	0.53	0.35	0.29	0.28
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U5BL	r	0.40	0.38	0.34	0.41	0.40	0.29	0.36
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U6BL	r	0.45	0.34	0.43	0.42	0.35	0.50	0.38
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U7BL	r	0.30	0.21	0.33	0.41	0.37	0.46	0.48
	p	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L1MD	r	0.66	0.54	0.38	0.37	0.36	0.39	0.28
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L2MD	r	0.63	0.55	0.50	0.41	0.43	0.35	0.31
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151

Appendix 5.13 (continued)

L3MD	r	0.58	0.51	0.68	0.5	0.52	0.33	0.34
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L4MD	r	0.47	0.42	0.44	0.7	0.51	0.44	0.48
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L5MD	r	0.44	0.37	0.42	0.54	0.53	0.44	0.48
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L6MD	r	0.50	0.32	0.40	0.42	0.46	0.66	0.46
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L7MD	r	0.39	0.21	0.38	0.31	0.38	0.49	0.60
	p	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L1BL	r	0.45	0.42	0.27	0.25	0.23	0.34	0.27
	p	0.00	0.00	0.00	0.00	0.01	0.00	0.00
	N	151	151	151	151	151	151	151
L2BL	r	0.30	0.30	0.23	0.18	0.15	0.33	0.32
	p	0.00	0.00	0.00	0.02	0.06	0.00	0.00
	N	151	151	151	151	151	151	151
L3BL	r	0.19	0.26	0.31	0.25	0.25	0.25	0.28
	p	0.02	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L4BL	r	0.33	0.28	0.28	0.41	0.26	0.26	0.25
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L5BL	r	0.37	0.34	0.34	0.51	0.44	0.42	0.44
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L6BL	r	0.41	0.28	0.46	0.39	0.41	0.61	0.50
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L7BL	r	0.40	0.23	0.37	0.34	0.40	0.57	0.67
	p	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151

Appendix 5.13 (continued)

Tooth		U1BL	U2BL	U3BL	U4BL	U5BL	U6BL	U7BL
U1MD	r	0.35	0.31	0.31	0.39	0.40	0.45	0.30
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U2MD	r	0.29	0.35	0.29	0.32	0.38	0.34	0.21
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	N	151	151	151	151	151	151	151
U3MD	r	0.32	0.37	0.45	0.33	0.34	0.43	0.33
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U4MD	r	0.18	0.30	0.22	0.53	0.41	0.42	0.41
	p	0.03	0.00	0.01	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U5MD	r	0.18	0.30	0.24	0.35	0.40	0.35	0.37
	p	0.03	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U6MD	r	0.27	0.26	0.30	0.29	0.29	0.50	0.46
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U7MD	r	0.22	0.27	0.37	0.28	0.36	0.38	0.48
	p	0.01	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U1BL	r	1	0.58	0.54	0.43	0.43	0.42	0.28
	p	.	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U2BL	r	0.58	1	0.52	0.41	0.36	0.43	0.30
	p	0.00	.	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U3BL	r	0.54	0.52	1	0.48	0.52	0.48	0.43
	p	0.00	0.00	.	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U4BL	r	0.43	0.41	0.48	1	0.75	0.57	0.51
	p	0.00	0.00	0.00	.	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U5BL	r	0.43	0.36	0.52	0.75	1	0.58	0.58
	p	0.00	0.00	0.00	0.00	.	0.00	0.00
	N	151	151	151	151	151	151	151
U6BL	r	0.42	0.43	0.48	0.57	0.58	1	0.57
	p	0.00	0.00	0.00	0.00	0.00	.	0.00
	N	151	151	151	151	151	151	151
U7BL	r	0.28	0.30	0.43	0.51	0.58	0.57	1
	p	0.00	0.00	0.00	0.00	0.00	0.00	.
	N	151	151	151	151	151	151	151
L1MD	r	0.15	0.23	0.20	0.28	0.36	0.34	0.33
	p	0.07	0.00	0.01	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L2MD	r	0.28	0.32	0.25	0.33	0.40	0.35	0.29
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151

Appendix 5.13 (continued)

L3MD	r	0.38	0.42	0.48	0.50	0.50	0.44	0.36
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L4MD	r	0.31	0.35	0.29	0.47	0.43	0.36	0.31
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L5MD	r	0.25	0.31	0.22	0.30	0.39	0.33	0.33
	p	0.00	0.00	0.01	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L6MD	r	0.21	0.22	0.23	0.29	0.35	0.39	0.37
	p	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L7MD	r	0.14	0.28	0.32	0.25	0.29	0.35	0.52
	p	0.10	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L1BL	r	0.52	0.46	0.46	0.39	0.36	0.45	0.27
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L2BL	r	0.45	0.48	0.46	0.42	0.31	0.38	0.24
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L3BL	r	0.42	0.52	0.59	0.40	0.38	0.50	0.45
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L4BL	r	0.42	0.49	0.50	0.58	0.49	0.42	0.40
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L5BL	r	0.42	0.48	0.46	0.66	0.66	0.55	0.49
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L6BL	r	0.39	0.42	0.51	0.45	0.55	0.67	0.52
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L7BL	r	0.39	0.43	0.53	0.42	0.50	0.60	0.62
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151

Appendix 5.13 (continued)

Tooth		L1MD	L2MD	L3MD	L4MD	L5MD	L6MD	L7MD
U1MD	r	0.66	0.63	0.58	0.47	0.44	0.50	0.39
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U2MD	r	0.54	0.55	0.51	0.42	0.37	0.32	0.21
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	N	151	151	151	151	151	151	151
U3MD	r	0.38	0.50	0.68	0.44	0.42	0.40	0.38
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U4MD	r	0.37	0.41	0.50	0.70	0.54	0.42	0.31
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U5MD	r	0.36	0.43	0.52	0.51	0.53	0.46	0.38
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U6MD	r	0.39	0.35	0.33	0.44	0.44	0.66	0.49
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U7MD	r	0.28	0.31	0.34	0.48	0.48	0.46	0.60
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U1BL	r	0.15	0.28	0.38	0.31	0.25	0.21	0.14
	p	0.07	0.00	0.00	0.00	0.00	0.01	0.10
	N	151	151	151	151	151	151	151
U2BL	r	0.23	0.32	0.42	0.35	0.31	0.22	0.28
	p	0.00	0.00	0.00	0.00	0.00	0.01	0.00
	N	151	151	151	151	151	151	151
U3BL	r	0.20	0.25	0.48	0.29	0.22	0.23	0.32
	p	0.01	0.00	0.00	0.00	0.01	0.00	0.00
	N	151	151	151	151	151	151	151
U4BL	r	0.28	0.33	0.50	0.47	0.30	0.29	0.25
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U5BL	r	0.36	0.40	0.50	0.43	0.39	0.35	0.29
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U6BL	r	0.34	0.35	0.44	0.36	0.33	0.39	0.35
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U7BL	r	0.33	0.29	0.36	0.31	0.33	0.37	0.52
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L1MD	r	1	0.79	0.49	0.45	0.48	0.53	0.33
	p	.	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L2MD	r	0.79	1	0.60	0.50	0.44	0.45	0.30
	p	0.00	.	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151

Appendix 5.13 (continued)

Tooth		L1MD	L2MD	L3MD	L4MD	L5MD	L6MD	L7MD
L3MD	r	0.49	0.60	1	0.50	0.41	0.39	0.31
	p	0.00	0.00	.	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L4MD	r	0.45	0.50	0.50	1	0.67	0.40	0.40
	p	0.00	0.00	0.00	.	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L5MD	r	0.48	0.44	0.41	0.67	1	0.45	0.51
	p	0.00	0.00	0.00	0.00	.	0.00	0.00
	N	151	151	151	151	151	151	151
L6MD	r	0.53	0.45	0.39	0.40	0.45	1	0.44
	p	0.00	0.00	0.00	0.00	0.00	.	0.00
	N	151	151	151	151	151	151	151
L7MD	r	0.33	0.30	0.31	0.40	0.51	0.44	1
	p	0.00	0.00	0.00	0.00	0.00	0.00	.
	N	151	151	151	151	151	151	151
L1BL	r	0.35	0.39	0.41	0.33	0.20	0.33	0.24
	p	0.00	0.00	0.00	0.00	0.01	0.00	0.00
	N	151	151	151	151	151	151	151
L2BL	r	0.22	0.24	0.36	0.37	0.20	0.23	0.26
	p	0.01	0.00	0.00	0.00	0.01	0.00	0.00
	N	151	151	151	151	151	151	151
L3BL	r	0.16	0.23	0.39	0.25	0.21	0.24	0.26
	p	0.05	0.01	0.00	0.00	0.01	0.00	0.00
	N	151	151	151	151	151	151	151
L4BL	r	0.27	0.28	0.40	0.45	0.33	0.30	0.21
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	N	151	151	151	151	151	151	151
L5BL	r	0.34	0.31	0.44	0.62	0.51	0.44	0.38
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L6BL	r	0.39	0.39	0.46	0.43	0.44	0.55	0.40
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L7BL	r	0.36	0.34	0.41	0.47	0.51	0.52	0.61
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151

Appendix 5.13 (continued)

Tooth		L1BL	L2BL	L3BL	L4BL	L5BL	L6BL	L7BL
U1MD	r	0.45	0.30	0.19	0.33	0.37	0.41	0.40
	p	0.00	0.00	0.02	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U2MD	r	0.42	0.30	0.26	0.28	0.34	0.28	0.23
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	N	151	151	151	151	151	151	151
U3MD	r	0.27	0.23	0.31	0.28	0.34	0.46	0.37
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U4MD	r	0.25	0.18	0.25	0.41	0.51	0.39	0.34
	p	0.00	0.02	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U5MD	r	0.23	0.15	0.25	0.26	0.44	0.41	0.40
	p	0.01	0.06	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U6MD	r	0.34	0.33	0.25	0.26	0.42	0.61	0.57
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U7MD	r	0.27	0.32	0.28	0.25	0.44	0.50	0.67
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U1BL	r	0.52	0.45	0.42	0.42	0.42	0.39	0.39
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U2BL	r	0.46	0.48	0.52	0.49	0.48	0.42	0.43
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U3BL	r	0.46	0.46	0.59	0.50	0.46	0.51	0.53
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U4BL	r	0.39	0.42	0.40	0.58	0.66	0.45	0.42
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U5BL	r	0.36	0.31	0.38	0.49	0.66	0.55	0.50
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U6BL	r	0.45	0.38	0.50	0.42	0.55	0.67	0.60
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
U7BL	r	0.27	0.24	0.45	0.40	0.49	0.52	0.62
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L1MD	r	0.35	0.22	0.16	0.27	0.34	0.39	0.36
	p	0.00	0.01	0.05	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L2MD	r	0.39	0.24	0.23	0.28	0.31	0.39	0.34
	p	0.00	0.00	0.01	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L3MD	r	0.41	0.36	0.39	0.40	0.44	0.46	0.41
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L4MD	r	0.33	0.37	0.25	0.45	0.62	0.43	0.47
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix 5.13 (continued)

	N	151	151	151	151	151	151	151
L5MD	r	0.20	0.20	0.21	0.33	0.51	0.44	0.51
	p	0.01	0.01	0.01	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L6MD	r	0.33	0.23	0.24	0.30	0.44	0.55	0.52
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L7MD	r	0.24	0.26	0.26	0.21	0.38	0.40	0.61
	p	0.00	0.00	0.00	0.01	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L1BL	r	1.00	0.74	0.46	0.45	0.43	0.45	0.41
	p	.	0.00	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L2BL	r	0.74	1.00	0.52	0.53	0.51	0.42	0.43
	p	0.00	.	0.00	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L3BL	r	0.46	0.52	1.00	0.49	0.44	0.45	0.46
	p	0.00	0.00	.	0.00	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L4BL	r	0.45	0.53	0.49	1.00	0.67	0.47	0.40
	p	0.00	0.00	0.00	.	0.00	0.00	0.00
	N	151	151	151	151	151	151	151
L5BL	r	0.43	0.51	0.44	0.67	1.00	0.58	0.54
	p	0.00	0.00	0.00	0.00	.	0.00	0.00
	N	151	151	151	151	151	151	151
L6BL	r	0.45	0.42	0.45	0.47	0.58	1.00	0.73
	p	0.00	0.00	0.00	0.00	0.00	.	0.00
	N	151	151	151	151	151	151	151
L7BL	r	0.41	0.43	0.46	0.40	0.54	0.73	1.00
	p	0.00	0.00	0.00	0.00	0.00	0.00	.
	N	151	151	151	151	151	151	151

Appendix 5.14 Correlation coefficient values between dental crown dimensions in Jahai

Tooth		U1MD	U2MD	U3MD	U4MD	U5MD	U6MD	U7MD
U1MD	r	1.00	0.43	0.50	0.41	0.29	0.54	0.29
	p	.	0.00	0.00	0.00	0.03	0.00	0.03
	N	55	55	55	55	55	55	55
U2MD	r	0.43	1.00	0.29	0.24	0.19	0.27	0.13
	p	0.00	.	0.03	0.08	0.17	0.04	0.34
	N	55	55	55	55	55	55	55
U3MD	r	0.50	0.29	1.00	0.42	0.35	0.36	0.29
	p	0.00	0.03	.	0.00	0.01	0.01	0.03
	N	55	55	55	55	55	55	55
U4MD	r	0.41	0.24	0.42	1.00	0.52	0.28	0.28
	p	0.00	0.08	0.00	.	0.00	0.04	0.04
	N	55	55	55	55	55	55	55
U5MD	r	0.29	0.19	0.35	0.52	1.00	0.21	0.30
	p	0.03	0.17	0.01	0.00	.	0.13	0.03
	N	55	55	55	55	55	55	55
U6MD	r	0.54	0.27	0.36	0.28	0.21	1.00	0.35
	p	0.00	0.04	0.01	0.04	0.13	.	0.01
	N	55	55	55	55	55	55	55
U7MD	r	0.29	0.13	0.29	0.28	0.30	0.35	1.00
	p	0.03	0.34	0.03	0.04	0.03	0.01	.
	N	55	55	55	55	55	55	55
U1BL	r	0.64	0.41	0.44	0.32	0.14	0.45	0.49
	p	0.00	0.00	0.00	0.02	0.29	0.00	0.00
	N	55	55	55	55	55	55	55
U2BL	r	0.37	0.55	0.46	0.35	0.10	0.15	0.12
	p	0.01	0.00	0.00	0.01	0.49	0.27	0.38
	N	55	55	55	55	55	55	55
U3BL	r	0.37	0.53	0.54	0.26	0.18	0.35	0.30
	p	0.01	0.00	0.00	0.06	0.18	0.01	0.03
	N	55	55	55	55	55	55	55
U4BL	r	0.47	0.27	0.38	0.43	0.09	0.23	0.30
	p	0.00	0.05	0.00	0.00	0.52	0.10	0.03
	N	55	55	55	55	55	55	55
U5BL	r	0.39	0.26	0.24	0.44	0.33	0.36	0.39
	p	0.00	0.06	0.08	0.00	0.02	0.01	0.00
	N	55	55	55	55	55	55	55
U6BL	r	0.40	0.43	0.38	0.17	0.14	0.59	0.35
	p	0.00	0.00	0.00	0.23	0.31	0.00	0.01
	N	55	55	55	55	55	55	55
U7BL	r	0.36	0.30	0.33	0.31	0.21	0.47	0.34
	p	0.01	0.03	0.01	0.02	0.12	0.00	0.01
	N	55	55	55	55	55	55	55
L1MD	r	0.59	0.34	0.38	0.38	0.17	0.41	0.03
	p	0.00	0.01	0.00	0.00	0.21	0.00	0.83
	N	55	55	55	55	55	55	55
L2MD	r	0.64	0.39	0.49	0.50	0.28	0.51	0.34
	p	0.00	0.00	0.00	0.00	0.04	0.00	0.01

Appendix 5.14 (continued)

	N	55	55	55	55	55	55	55
L3MD	r	0.54	0.57	0.69	0.37	0.26	0.50	0.44
	p	0.00	0.00	0.00	0.01	0.06	0.00	0.00
	N	55	55	55	55	55	55	55
L4MD	r	0.36	0.18	0.34	0.77	0.43	0.27	0.32
	p	0.01	0.19	0.01	0.00	0.00	0.04	0.02
	N	55	55	55	55	55	55	55
L5MD	r	0.34	0.10	0.12	0.50	0.55	0.24	0.13
	p	0.01	0.46	0.38	0.00	0.00	0.07	0.34
	N	55	55	55	55	55	55	55
L6MD	r	0.46	0.28	0.38	0.31	0.28	0.76	0.27
	p	0.00	0.04	0.00	0.02	0.04	0.00	0.05
	N	55	55	55	55	55	55	55
L7MD	r	0.33	0.36	0.34	0.35	0.55	0.29	0.35
	p	0.01	0.01	0.01	0.01	0.00	0.03	0.01
	N	55	55	55	55	55	55	55
L1BL	r	0.01	-0.05	-0.15	-0.08	-0.03	-0.32	0.03
	p	0.95	0.71	0.26	0.56	0.85	0.02	0.84
	N	55	55	55	55	55	55	55
L2BL	r	-0.09	-0.12	-0.22	0.01	0.06	-0.33	0.01
	p	0.53	0.40	0.11	0.97	0.67	0.01	0.93
	N	55	55	55	55	55	55	55
L3BL	r	0.20	0.40	0.30	0.19	0.12	0.37	0.29
	p	0.15	0.00	0.02	0.18	0.36	0.01	0.03
	N	55	55	55	55	55	55	55
L4BL	r	0.35	0.22	0.17	0.22	0.27	0.41	0.33
	p	0.01	0.11	0.22	0.10	0.05	0.00	0.01
	N	55	55	55	55	55	55	55
L5BL	r	0.22	0.22	-0.06	0.31	0.15	0.37	0.14
	p	0.10	0.11	0.65	0.02	0.29	0.01	0.31
	N	55	55	55	55	55	55	55
L6BL	r	0.26	0.33	0.14	0.18	0.06	0.44	0.27
	p	0.06	0.01	0.32	0.19	0.68	0.00	0.05
	N	55	55	55	55	55	55	55
L7BL	r	0.31	0.30	0.26	0.38	0.27	0.46	0.44
	p	0.02	0.03	0.06	0.00	0.04	0.00	0.00
	N	55	55	55	55	55	55	55

Appendix 5.14 (continued)

Tooth		U1BL	U2BL	U3BL	U4BL	U5BL	U6BL	U7BL
U1MD	r	0.64	0.37	0.37	0.47	0.39	0.40	0.36
	p	0.00	0.01	0.01	0.00	0.00	0.00	0.01
	N	55	55	55	55	55	55	55
U2MD	r	0.41	0.55	0.53	0.27	0.26	0.43	0.30
	p	0.00	0.00	0.00	0.05	0.06	0.00	0.03
	N	55	55	55	55	55	55	55
U3MD	r	0.44	0.46	0.54	0.38	0.24	0.38	0.33
	p	0.00	0.00	0.00	0.00	0.08	0.00	0.01
	N	55	55	55	55	55	55	55
U4MD	r	0.32	0.35	0.26	0.43	0.44	0.17	0.31
	p	0.02	0.01	0.06	0.00	0.00	0.23	0.02
	N	55	55	55	55	55	55	55
U5MD	r	0.14	0.10	0.18	0.09	0.33	0.14	0.21
	p	0.29	0.49	0.18	0.52	0.02	0.31	0.12
	N	55	55	55	55	55	55	55
U6MD	r	0.45	0.15	0.35	0.23	0.36	0.59	0.47
	p	0.00	0.27	0.01	0.10	0.01	0.00	0.00
	N	55	55	55	55	55	55	55
U7MD	r	0.49	0.12	0.30	0.30	0.39	0.35	0.34
	p	0.00	0.38	0.03	0.03	0.00	0.01	0.01
	N	55	55	55	55	55	55	55
U1BL	r	1.00	0.49	0.47	0.60	0.57	0.60	0.51
	p	.	0.00	0.00	0.00	0.00	0.00	0.00
	N	55	55	55	55	55	55	55
U2BL	r	0.49	1.00	0.57	0.49	0.36	0.45	0.39
	p	0.00	.	0.00	0.00	0.01	0.00	0.00
	N	55	55	55	55	55	55	55
U3BL	r	0.47	0.57	1.00	0.60	0.50	0.50	0.49
	p	0.00	0.00	.	0.00	0.00	0.00	0.00
	N	55	55	55	55	55	55	55
U4BL	r	0.60	0.49	0.60	1.00	0.70	0.31	0.49
	p	0.00	0.00	0.00	.	0.00	0.02	0.00
	N	55	55	55	55	55	55	55
U5BL	r	0.57	0.36	0.50	0.70	1.00	0.43	0.59
	p	0.00	0.01	0.00	0.00	.	0.00	0.00
	N	55	55	55	55	55	55	55
U6BL	r	0.60	0.45	0.50	0.31	0.43	1.00	0.62
	p	0.00	0.00	0.00	0.02	0.00	.	0.00
	N	55	55	55	55	55	55	55
U7BL	r	0.51	0.39	0.49	0.49	0.59	0.62	1.00
	p	0.00	0.00	0.00	0.00	0.00	0.00	.
	N	55	55	55	55	55	55	55
L1MD	r	0.36	0.29	0.28	0.26	0.25	0.38	0.23
	p	0.01	0.03	0.04	0.05	0.07	0.00	0.10
	N	55	55	55	55	55	55	55
L2MD	r	0.59	0.37	0.46	0.42	0.42	0.35	0.39
	p	0.00	0.01	0.00	0.00	0.00	0.01	0.00
	N	55	55	55	55	55	55	55
L3MD	r	0.66	0.58	0.67	0.50	0.42	0.62	0.58
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	55	55	55	55	55	55	55
L4MD	r	0.32	0.27	0.23	0.35	0.39	0.15	0.28
	p	0.02	0.05	0.10	0.01	0.00	0.26	0.04

Appendix 5.14 (continued)

	N	55	55	55	55	55	55	55
L5MD	r	0.34	0.12	0.15	0.30	0.42	0.14	0.31
	p	0.01	0.37	0.27	0.02	0.00	0.32	0.02
	N	55	55	55	55	55	55	55
L6MD	r	0.40	0.33	0.36	0.20	0.40	0.58	0.57
	p	0.00	0.01	0.01	0.15	0.00	0.00	0.00
	N	55	55	55	55	55	55	55
L7MD	r	0.38	0.32	0.35	0.25	0.40	0.23	0.51
	p	0.00	0.02	0.01	0.07	0.00	0.09	0.00
	N	55	55	55	55	55	55	55
L1BL	r	0.03	0.06	-0.07	0.04	-0.12	-0.39	-0.26
	p	0.81	0.67	0.62	0.78	0.38	0.00	0.05
	N	55	55	55	55	55	55	55
L2BL	r	-0.06	-0.05	-0.12	0.05	-0.03	-0.54	-0.23
	p	0.66	0.73	0.39	0.71	0.81	0.00	0.09
	N	55	55	55	55	55	55	55
L3BL	r	0.48	0.33	0.68	0.43	0.50	0.47	0.47
	p	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	N	55	55	55	55	55	55	55
L4BL	r	0.44	0.26	0.37	0.34	0.48	0.46	0.43
	p	0.00	0.05	0.01	0.01	0.00	0.00	0.00
	N	55	55	55	55	55	55	55
L5BL	r	0.33	0.32	0.28	0.39	0.59	0.46	0.49
	p	0.01	0.02	0.04	0.00	0.00	0.00	0.00
	N	55	55	55	55	55	55	55
L6BL	r	0.36	0.38	0.34	0.30	0.43	0.57	0.52
	p	0.01	0.00	0.01	0.03	0.00	0.00	0.00
	N	55	55	55	55	55	55	55
L7BL	r	0.57	0.38	0.48	0.56	0.60	0.58	0.66
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	55	55	55	55	55	55	55

Appendix 5.14 (continued)

Tooth		L1MD	L2MD	L3MD	L4MD	L5MD	L6MD	L7MD
U1MD	r	0.59	0.64	0.54	0.36	0.34	0.46	0.33
	p	0.00	0.00	0.00	0.01	0.01	0.00	0.01
	N	55	55	55	55	55	55	55
U2MD	r	0.34	0.39	0.57	0.18	0.10	0.28	0.36
	p	0.01	0.00	0.00	0.19	0.46	0.04	0.01
	N	55	55	55	55	55	55	55
U3MD	r	0.38	0.49	0.69	0.34	0.12	0.38	0.34
	p	0.00	0.00	0.00	0.01	0.38	0.00	0.01
	N	55	55	55	55	55	55	55
U4MD	r	0.38	0.50	0.37	0.77	0.50	0.31	0.35
	p	0.00	0.00	0.01	0.00	0.00	0.02	0.01
	N	55	55	55	55	55	55	55
U5MD	r	0.17	0.28	0.26	0.43	0.55	0.28	0.55
	p	0.21	0.04	0.06	0.00	0.00	0.04	0.00
	N	55	55	55	55	55	55	55
U6MD	r	0.41	0.51	0.50	0.27	0.24	0.76	0.29
	p	0.00	0.00	0.00	0.04	0.07	0.00	0.03
	N	55	55	55	55	55	55	55
U7MD	r	0.03	0.34	0.44	0.32	0.13	0.27	0.35
	p	0.83	0.01	0.00	0.02	0.34	0.05	0.01
	N	55	55	55	55	55	55	55
U1BL	r	0.36	0.59	0.66	0.32	0.34	0.40	0.38
	p	0.01	0.00	0.00	0.02	0.01	0.00	0.00
	N	55	55	55	55	55	55	55
U2BL	r	0.29	0.37	0.58	0.27	0.12	0.33	0.32
	p	0.03	0.01	0.00	0.05	0.37	0.01	0.02
	N	55	55	55	55	55	55	55
U3BL	r	0.28	0.46	0.67	0.23	0.15	0.36	0.35
	p	0.04	0.00	0.00	0.10	0.27	0.01	0.01
	N	55	55	55	55	55	55	55
U4BL	r	0.26	0.42	0.50	0.35	0.30	0.20	0.25
	p	0.05	0.00	0.00	0.01	0.02	0.15	0.07
	N	55	55	55	55	55	55	55
U5BL	r	0.25	0.42	0.42	0.39	0.42	0.40	0.40
	p	0.07	0.00	0.00	0.00	0.00	0.00	0.00
	N	55	55	55	55	55	55	55
U6BL	r	0.38	0.35	0.62	0.15	0.14	0.58	0.23
	p	0.00	0.01	0.00	0.26	0.32	0.00	0.09
	N	55	55	55	55	55	55	55
U7BL	r	0.23	0.39	0.58	0.28	0.31	0.57	0.51
	p	0.10	0.00	0.00	0.04	0.02	0.00	0.00
	N	55	55	55	55	55	55	55
L1MD	r	1.00	0.54	0.45	0.31	0.36	0.49	0.12
	p	.	0.00	0.00	0.02	0.01	0.00	0.39
	N	55	55	55	55	55	55	55
L2MD	r	0.54	1.00	0.67	0.50	0.33	0.47	0.41
	p	0.00	.	0.00	0.00	0.01	0.00	0.00
	N	55	55	55	55	55	55	55
L3MD	r	0.45	0.67	1.00	0.30	0.20	0.49	0.51
	p	0.00	0.00	.	0.02	0.15	0.00	0.00
	N	55	55	55	55	55	55	55
L4MD	r	0.31	0.50	0.30	1.00	0.55	0.37	0.35
	p	0.02	0.00	0.02	.	0.00	0.01	0.01

Appendix 5.14 (continued)

	N	55	55	55	55	55	55	55
L5MD	r	0.36	0.33	0.20	0.55	1.00	0.33	0.32
	p	0.01	0.01	0.15	0.00	.	0.01	0.02
	N	55	55	55	55	55	55	55
L6MD	r	0.49	0.47	0.49	0.37	0.33	1.00	0.30
	p	0.00	0.00	0.00	0.01	0.01	.	0.03
	N	55	55	55	55	55	55	55
L7MD	r	0.12	0.41	0.51	0.35	0.32	0.30	1.00
	p	0.39	0.00	0.00	0.01	0.02	0.03	.
	N	55	55	55	55	55	55	55
L1BL	r	-0.03	-0.04	-0.16	0.06	0.11	-0.30	0.18
	p	0.85	0.76	0.24	0.68	0.41	0.03	0.19
	N	55	55	55	55	55	55	55
L2BL	r	-0.18	-0.06	-0.26	0.16	0.24	-0.32	0.28
	p	0.19	0.65	0.06	0.23	0.08	0.02	0.04
	N	55	55	55	55	55	55	55
L3BL	r	0.23	0.26	0.55	0.22	0.13	0.34	0.40
	p	0.09	0.06	0.00	0.11	0.33	0.01	0.00
	N	55	55	55	55	55	55	55
L4BL	r	0.25	0.35	0.33	0.34	0.43	0.36	0.55
	p	0.06	0.01	0.01	0.01	0.00	0.01	0.00
	N	55	55	55	55	55	55	55
L5BL	r	0.26	0.29	0.21	0.37	0.49	0.47	0.24
	p	0.06	0.03	0.13	0.01	0.00	0.00	0.07
	N	55	55	55	55	55	55	55
L6BL	r	0.33	0.34	0.37	0.35	0.31	0.58	0.20
	p	0.01	0.01	0.01	0.01	0.02	0.00	0.14
	N	55	55	55	55	55	55	55
L7BL	r	0.17	0.39	0.49	0.38	0.34	0.47	0.57
	p	0.21	0.00	0.00	0.00	0.01	0.00	0.00
	N	55	55	55	55	55	55	55

Appendix 5.14 (continued)

Tooth		L1BL	L2BL	L3BL	L4BL	L5BL	L6BL	L7BL
U1MD	r	0.01	-0.09	0.20	0.35	0.22	0.26	0.31
	p	0.95	0.53	0.15	0.01	0.10	0.06	0.02
	N	55	55	55	55	55	55	55
U2MD	r	-0.05	-0.12	0.40	0.22	0.22	0.33	0.30
	p	0.71	0.40	0.00	0.11	0.11	0.01	0.03
	N	55	55	55	55	55	55	55
U3MD	r	-0.15	-0.22	0.30	0.17	-0.06	0.14	0.26
	p	0.26	0.11	0.02	0.22	0.65	0.32	0.06
	N	55	55	55	55	55	55	55
U4MD	r	-0.08	0.01	0.19	0.22	0.31	0.18	0.38
	p	0.56	0.97	0.18	0.10	0.02	0.19	0.00
	N	55	55	55	55	55	55	55
U5MD	r	-0.03	0.06	0.12	0.27	0.15	0.06	0.27
	p	0.85	0.67	0.36	0.05	0.29	0.68	0.04
	N	55	55	55	55	55	55	55
U6MD	r	-0.32	-0.33	0.37	0.41	0.37	0.44	0.46
	p	0.02	0.01	0.01	0.00	0.01	0.00	0.00
	N	55	55	55	55	55	55	55
U7MD	r	0.03	0.01	0.29	0.33	0.14	0.27	0.44
	p	0.84	0.93	0.03	0.01	0.31	0.05	0.00
	N	55	55	55	55	55	55	55
U1BL	r	0.03	-0.06	0.48	0.44	0.33	0.36	0.57
	p	0.81	0.66	0.00	0.00	0.01	0.01	0.00
	N	55	55	55	55	55	55	55
U2BL	r	0.06	-0.05	0.33	0.26	0.32	0.38	0.38
	p	0.67	0.73	0.01	0.05	0.02	0.00	0.00
	N	55	55	55	55	55	55	55
U3BL	r	-0.07	-0.12	0.68	0.37	0.28	0.34	0.48
	p	0.62	0.39	0.00	0.01	0.04	0.01	0.00
	N	55	55	55	55	55	55	55
U4BL	r	0.04	0.05	0.43	0.34	0.39	0.30	0.56
	p	0.78	0.71	0.00	0.01	0.00	0.03	0.00
	N	55	55	55	55	55	55	55
U5BL	r	-0.12	-0.03	0.5	0.48	0.59	0.43	0.60
	p	0.38	0.81	0.00	0.00	0.00	0.00	0.00
	N	55	55	55	55	55	55	55
U6BL	r	-0.39	-0.54	0.47	0.46	0.46	0.57	0.58
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	55	55	55	55	55	55	55
U7BL	r	-0.26	-0.23	0.47	0.43	0.49	0.52	0.66
	p	0.05	0.09	0.00	0.00	0.00	0.00	0.00
	N	55	55	55	55	55	55	55
L1MD	r	-0.03	-0.18	0.23	0.25	0.26	0.33	0.17
	p	0.85	0.19	0.09	0.06	0.06	0.01	0.21
	N	55	55	55	55	55	55	55
L2MD	r	-0.04	-0.06	0.26	0.35	0.29	0.34	0.39
	p	0.76	0.65	0.06	0.01	0.03	0.01	0.00
	N	55	55	55	55	55	55	55

Appendix 5.14 (continued)

L3MD	r	-0.16	-0.26	0.55	0.33	0.21	0.37	0.49
	p	0.24	0.06	0.00	0.01	0.13	0.01	0.00
	N	55	55	55	55	55	55	55
L4MD	r	0.06	0.16	0.22	0.34	0.37	0.35	0.38
	p	0.68	0.23	0.11	0.01	0.01	0.01	0.00
	N	55	55	55	55	55	55	55
L5MD	r	0.11	0.24	0.13	0.43	0.49	0.31	0.34
	p	0.41	0.08	0.33	0.00	0.00	0.02	0.01
	N	55	55	55	55	55	55	55
L6MD	r	-0.3	-0.32	0.34	0.36	0.47	0.58	0.47
	p	0.03	0.02	0.01	0.01	0.00	0.00	0.00
	N	55	55	55	55	55	55	55
L7MD	r	0.18	0.28	0.4	0.55	0.24	0.2	0.57
	p	0.19	0.04	0.00	0.00	0.07	0.14	0.00
	N	55	55	55	55	55	55	55
L1BL	r	1	0.87	0.04	0.09	-0.08	-0.19	-0.01
	p	.	0.00	0.79	0.53	0.58	0.16	0.94
	N	55	55	55	55	55	55	55
L2BL	r	0.87	1	0.02	0.19	0.01	-0.19	0.02
	p	0.00	.	0.88	0.17	0.92	0.16	0.86
	N	55	55	55	55	55	55	55
L3BL	r	0.04	0.02	1	0.38	0.29	0.23	0.51
	p	0.79	0.88	.	0.00	0.03	0.10	0.00
	N	55	55	55	55	55	55	55
L4BL	r	0.09	0.19	0.38	1	0.68	0.61	0.67
	p	0.53	0.17	0.00	.	0.00	0.00	0.00
	N	55	55	55	55	55	55	55
L5BL	r	-0.08	0.01	0.29	0.68	1	0.76	0.61
	p	0.58	0.92	0.03	0.00	.	0.00	0.00
	N	55	55	55	55	55	55	55
L6BL	r	-0.19	-0.19	0.23	0.61	0.76	1	0.61
	p	0.16	0.16	0.10	0.00	0.00	.	0.00
	N	55	55	55	55	55	55	55
L7BL	r	-0.01	0.02	0.51	0.67	0.61	0.61	1
	p	0.94	0.86	0.00	0.00	0.00	0.00	.
	N	55	55	55	55	55	55	55

Appendix 5.15 Correlation coefficient values between dental crown dimensions in pooled three ethnic groups

Tooth		U1MD	U2MD	U3MD	U4MD	U5MD	U6MD	U7MD
U1MD	r	1	0.64	0.50	0.50	0.47	0.48	0.39
	p	.	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U2MD	r	0.64	1	0.53	0.55	0.48	0.36	0.27
	p	0.00	.	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U3MD	r	0.50	0.53	1	0.61	0.56	0.43	0.37
	p	0.00	0.00	.	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U4MD	r	0.50	0.55	0.61	1	0.68	0.51	0.40
	p	0.00	0.00	0.00	.	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U5MD	r	0.47	0.48	0.56	0.68	1	0.48	0.46
	p	0.00	0.00	0.00	0.00	.	0.00	0.00
	N	453	453	453	453	453	453	453
U6MD	r	0.48	0.36	0.43	0.51	0.48	1	0.50
	p	0.00	0.00	0.00	0.00	0.00	.	0.00
	N	453	453	453	453	453	453	453
U7MD	r	0.39	0.27	0.37	0.40	0.46	0.50	1
	p	0.00	0.00	0.00	0.00	0.00	0.00	.
	N	453	453	453	453	453	453	453
U1BL	r	0.47	0.35	0.42	0.30	0.32	0.36	0.32
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U2BL	r	0.38	0.44	0.47	0.36	0.33	0.30	0.31
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U3BL	r	0.36	0.38	0.57	0.40	0.37	0.32	0.28
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U4BL	r	0.42	0.44	0.49	0.62	0.48	0.39	0.36
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U5BL	r	0.42	0.43	0.41	0.53	0.56	0.43	0.42
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U6BL	r	0.50	0.36	0.48	0.48	0.44	0.53	0.45
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U7BL	r	0.41	0.34	0.50	0.52	0.50	0.48	0.48
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L1MD	r	0.68	0.56	0.42	0.44	0.42	0.41	0.33
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L2MD	r	0.62	0.56	0.53	0.51	0.50	0.38	0.35
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453

Appendix 5.15 (continued)

Tooth		U1MD	U2MD	U3MD	U4MD	U5MD	U6MD	U7MD
L3MD	r	0.58	0.54	0.74	0.62	0.57	0.43	0.37
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L4MD	r	0.52	0.53	0.56	0.72	0.61	0.51	0.46
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L5MD	r	0.50	0.48	0.49	0.64	0.62	0.51	0.51
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L6MD	r	0.51	0.40	0.49	0.52	0.51	0.67	0.46
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L7MD	r	0.40	0.29	0.39	0.39	0.42	0.43	0.54
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L1BL	r	0.42	0.37	0.32	0.24	0.27	0.32	0.30
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L2BL	r	0.33	0.31	0.34	0.26	0.25	0.31	0.30
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L3BL	r	0.32	0.31	0.48	0.39	0.36	0.26	0.26
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L4BL	r	0.42	0.37	0.43	0.46	0.40	0.35	0.35
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L5BL	r	0.42	0.35	0.40	0.46	0.46	0.42	0.43
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L6BL	r	0.44	0.34	0.44	0.43	0.45	0.58	0.47
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L7BL	r	0.40	0.34	0.45	0.43	0.46	0.55	0.58
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453

Appendix 5.15 (continued)

		U1BL	U2BL	U3BL	U4BL	U5BL	U6BL	U7BL
U1MD	r	0.47	0.38	0.36	0.42	0.42	0.50	0.41
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U2MD	r	0.35	0.44	0.38	0.44	0.43	0.36	0.34
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U3MD	r	0.42	0.47	0.57	0.49	0.41	0.48	0.50
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U4MD	r	0.30	0.36	0.40	0.62	0.53	0.48	0.52
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U5MD	r	0.32	0.33	0.37	0.48	0.56	0.44	0.50
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U6MD	r	0.36	0.30	0.32	0.39	0.43	0.53	0.48
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U7MD	r	0.32	0.31	0.28	0.36	0.42	0.45	0.48
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U1BL	r	1	0.57	0.54	0.47	0.48	0.49	0.40
	p	.	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U2BL	r	0.57	1	0.54	0.46	0.42	0.40	0.41
	p	0.00	.	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U3BL	r	0.54	0.54	1	0.54	0.50	0.46	0.44
	p	0.00	0.00	.	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U4BL	r	0.47	0.46	0.54	1	0.78	0.62	0.53
	p	0.00	0.00	0.00	.	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U5BL	r	0.48	0.42	0.50	0.78	1	0.63	0.57
	p	0.00	0.00	0.00	0.00	.	0.00	0.00
	N	453	453	453	453	453	453	453
U6BL	r	0.49	0.40	0.46	0.62	0.63	1	0.63
	p	0.00	0.00	0.00	0.00	0.00	.	0.00
	N	453	453	453	453	453	453	453
U7BL	r	0.40	0.41	0.44	0.53	0.57	0.63	1
	p	0.00	0.00	0.00	0.00	0.00	0.00	.
	N	453	453	453	453	453	453	453
L1MD	r	0.26	0.29	0.29	0.34	0.36	0.38	0.33
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L2MD	r	0.33	0.30	0.31	0.38	0.39	0.38	0.34
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453

Appendix 5.15 (continued)

Tooth		U1BL	U2BL	U3BL	U4BL	U5BL	U6BL	U7BL
L3MD	r	0.48	0.45	0.54	0.58	0.51	0.55	0.50
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L4MD	r	0.41	0.38	0.41	0.51	0.48	0.45	0.41
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L5MD	r	0.38	0.34	0.34	0.44	0.50	0.45	0.46
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L6MD	r	0.35	0.32	0.32	0.41	0.42	0.51	0.48
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L7MD	r	0.29	0.25	0.28	0.34	0.38	0.46	0.49
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L1BL	r	0.57	0.48	0.44	0.40	0.39	0.44	0.32
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L2BL	r	0.52	0.50	0.48	0.43	0.38	0.40	0.33
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L3BL	r	0.50	0.51	0.65	0.45	0.44	0.45	0.47
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L4BL	r	0.47	0.47	0.52	0.63	0.55	0.51	0.44
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L5BL	r	0.46	0.44	0.46	0.62	0.65	0.56	0.46
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L6BL	r	0.41	0.35	0.42	0.49	0.53	0.68	0.51
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L7BL	r	0.45	0.43	0.45	0.48	0.54	0.63	0.67
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453

Appendix 5.15 (continued)

Tooth		L1MD	L2MD	L3MD	L4MD	L5MD	L6MD	L7MD
U1MD	r	0.68	0.62	0.58	0.52	0.5	0.51	0.40
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U2MD	r	0.56	0.56	0.54	0.53	0.48	0.40	0.29
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U3MD	r	0.42	0.53	0.74	0.56	0.49	0.49	0.39
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U4MD	r	0.44	0.51	0.62	0.72	0.64	0.52	0.39
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U5MD	r	0.42	0.50	0.57	0.61	0.62	0.51	0.42
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U6MD	r	0.41	0.38	0.43	0.51	0.51	0.67	0.43
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U7MD	r	0.33	0.35	0.37	0.46	0.51	0.46	0.54
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U1BL	r	0.26	0.33	0.48	0.41	0.38	0.35	0.29
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U2BL	r	0.29	0.30	0.45	0.38	0.34	0.32	0.25
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U3BL	r	0.29	0.31	0.54	0.41	0.34	0.32	0.28
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U4BL	r	0.34	0.38	0.58	0.51	0.44	0.41	0.34
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U5BL	r	0.36	0.39	0.51	0.48	0.50	0.42	0.38
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U6BL	r	0.38	0.38	0.55	0.45	0.45	0.51	0.46
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U7BL	r	0.33	0.34	0.50	0.41	0.46	0.48	0.49
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L1MD	r	1	0.73	0.50	0.53	0.49	0.51	0.36
	p		0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L2MD	r	0.73	1	0.60	0.59	0.51	0.48	0.33
	p	0.00		0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453

Appendix 5.15 (continued)

		L1MD	L2MD	L3MD	L4MD	L5MD	L6MD	L7MD
L3MD	r	0.50	0.60	1	0.61	0.51	0.53	0.39
	p	0.00	0.00	.	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L4MD	r	0.53	0.59	0.61	1	0.71	0.57	0.44
	p	0.00	0.00	0.00	.	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L5MD	r	0.49	0.51	0.51	0.71	1	0.54	0.54
	p	0.00	0.00	0.00	0.00	.	0.00	0.00
	N	453	453	453	453	453	453	453
L6MD	r	0.51	0.48	0.53	0.57	0.54	1	0.50
	p	0.00	0.00	0.00	0.00	0.00	.	0.00
	N	453	453	453	453	453	453	453
L7MD	r	0.36	0.33	0.39	0.44	0.54	0.50	1
	p	0.00	0.00	0.00	0.00	0.00	0.00	.
	N	453	453	453	453	453	453	453
L1BL	r	0.35	0.34	0.42	0.38	0.32	0.32	0.25
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L2BL	r	0.28	0.32	0.42	0.39	0.31	0.30	0.27
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L3BL	r	0.23	0.31	0.55	0.35	0.33	0.30	0.26
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L4BL	r	0.36	0.32	0.51	0.49	0.43	0.41	0.29
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L5BL	r	0.39	0.33	0.47	0.51	0.52	0.44	0.37
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L6BL	r	0.39	0.38	0.48	0.49	0.5	0.6	0.44
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L7BL	r	0.36	0.34	0.49	0.49	0.53	0.57	0.62
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453

Appendix 5.15 (continued)

		L1BL	L2BL	L3BL	L4BL	L5BL	L6BL	L7BL
U1MD	r	0.42	0.33	0.32	0.42	0.42	0.44	0.40
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U2MD	r	0.37	0.31	0.31	0.37	0.35	0.34	0.34
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U3MD	r	0.32	0.34	0.48	0.43	0.40	0.44	0.45
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U4MD	r	0.24	0.26	0.39	0.46	0.46	0.43	0.43
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U5MD	r	0.27	0.25	0.36	0.40	0.46	0.45	0.46
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U6MD	r	0.32	0.31	0.26	0.35	0.42	0.58	0.55
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U7MD	r	0.30	0.30	0.26	0.35	0.43	0.47	0.58
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U1BL	r	0.57	0.52	0.50	0.47	0.46	0.41	0.45
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U2BL	r	0.48	0.50	0.51	0.47	0.44	0.35	0.43
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U3BL	r	0.44	0.48	0.65	0.52	0.46	0.42	0.45
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U4BL	r	0.40	0.43	0.45	0.63	0.62	0.49	0.48
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U5BL	r	0.39	0.38	0.44	0.55	0.65	0.53	0.54
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U6BL	r	0.44	0.40	0.45	0.51	0.56	0.68	0.63
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
U7BL	r	0.32	0.33	0.47	0.44	0.46	0.51	0.67
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L1MD	r	0.35	0.28	0.23	0.36	0.39	0.39	0.36
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L2MD	r	0.34	0.32	0.31	0.32	0.33	0.38	0.34
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453

Appendix 5.15 (continued)

		L1BL	L2BL	L3BL	L4BL	L5BL	L6BL	L7BL
L3MD	r	0.42	0.42	0.55	0.51	0.47	0.48	0.49
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L4MD	r	0.38	0.39	0.35	0.49	0.51	0.49	0.49
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L5MD	r	0.32	0.31	0.33	0.43	0.52	0.50	0.53
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L6MD	r	0.32	0.30	0.30	0.41	0.44	0.60	0.57
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L7MD	r	0.25	0.27	0.26	0.29	0.37	0.44	0.62
	p	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L1BL	r	1	0.69	0.48	0.47	0.45	0.41	0.41
	p	.	0.00	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L2BL	r	0.69	1	0.56	0.47	0.45	0.36	0.42
	p	0.00	.	0.00	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L3BL	r	0.48	0.56	1	0.49	0.44	0.39	0.45
	p	0.00	0.00	.	0.00	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L4BL	r	0.47	0.47	0.49	1	0.68	0.52	0.49
	p	0.00	0.00	0.00	.	0.00	0.00	0.00
	N	453	453	453	453	453	453	453
L5BL	r	0.45	0.45	0.44	0.68	1	0.58	0.53
	p	0.00	0.00	0.00	0.00	.	0.00	0.00
	N	453	453	453	453	453	453	453
L6BL	r	0.41	0.36	0.39	0.52	0.58	1	0.66
	p	0.00	0.00	0.00	0.00	0.00	.	0.00
	N	453	453	453	453	453	453	453
L7BL	r	0.41	0.42	0.45	0.49	0.53	0.66	1
	p	0.00	0.00	0.00	0.00	0.00	0.00	.
	N	453	453	453	453	453	453	453

Appendix 5.16 Structural matrix of dental crown measurements in Malays

	Function 1
SMEAN(RL_L3_MD)	0.6744
SMEAN(RL_U3_MD)	0.6111
SMEAN(RL_U3_BL)[a]	0.3821
SMEAN(RL_L7_BL)[a]	0.3651
SMEAN(RL_L3_BL)[a]	0.3613
SMEAN(RL_L6_MD)[a]	0.3264
SMEAN(RL_U1_BL)[a]	0.3258
SMEAN(RL_U6_BL)[a]	0.3199
SMEAN(RL_U7_MD)	0.3172
SMEAN(RL_U2_BL)[a]	0.3124
SMEAN(RL_U6_MD)[a]	0.2911
SMEAN(RL_L2_BL)[a]	0.2892
SMEAN(RL_L4_BL)[a]	0.2648
SMEAN(RL_L2_MD)[a]	0.2556
SMEAN(RL_L1_BL)[a]	0.2466
SMEAN(RL_L4_MD)[a]	0.2449
SMEAN(RL_L6_BL)[a]	0.2390
SMEAN(RL_U7_BL)[a]	0.2318
SMEAN(RL_L5_BL)[a]	0.2287
SMEAN(RL_L7_MD)[a]	0.2208
SMEAN(RL_U4_BL)[a]	0.2199
SMEAN(RL_U1_MD)[a]	0.1733
SMEAN(RL_U4_MD)	0.1287
SMEAN(RL_L5_MD)[a]	0.1243
SMEAN(RL_U5_BL)[a]	0.1182
SMEAN(RL_L1_MD)[a]	0.1090
SMEAN(RL_U2_MD)	0.0813
SMEAN(RL_U5_MD)	0.0597

Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions. Variables ordered by absolute size of correlation within function.

a, This variable not used in the analysis.

Appendix 5.17 Summary of stepwise discriminant function methods in Chinese

Step	Number of Variables entered	Wilks' Lambda		Minimum D^2		Between Groups
		Lambda	Significance	Statistic	Significance	
1	SMEAN(RL_L7_MD)	0.643	0.000	2.194	0.000	Female and Male
2	SMEAN(RL_L4_BL)	0.596	0.000	2.680	0.000	Female and Male

a Maximum number of steps is 56.
b Minimum partial F to enter is 3.84.
c Maximum partial F to remove is 2.71.
d F level, tolerance, or VIN insufficient for further computation.

Canonical discriminant function

Function	Eigenvalue	Canonical Correlation	Wilks' Lambda	Chi-square	df	Sig.
1	0.6783	0.6357	0.5958	73.0061	2	0.000

a First 1 canonical discriminant functions were used in the analysis.

Appendix 5.18 Unstandardized discriminant function coefficients and group centroids in Chinese

	Function 1
SMEAN(RL_L7_MD)	1.7883
SMEAN(RL_L4_BL)	1.0362
(Constant)	-27.3296

Unstandardized coefficients

Sex	Function 1
Females	-0.8527
Males	0.7844

Unstandardized canonical discriminant functions evaluated at group means

Appendix 5.19 Structural matrix of dental crown measurements in Chinese

	Function
	1
SMEAN(RL_L7_MD)	.905
SMEAN(RL_L7_BL) [a]	.621
SMEAN(RL_L5_MD) [a]	.602
SMEAN(RL_L4_BL)	.592
SMEAN(RL_U6_BL) [a]	.492
SMEAN(RL_U5_BL) [a]	.488
SMEAN(RL_L5_BL) [a]	.485
SMEAN(RL_U4_MD) [a]	.480
SMEAN(RL_U5_MD) [a]	.474
SMEAN(RL_L6_BL) [a]	.461
SMEAN(RL_U7_BL) [a]	.456
SMEAN(RL_L4_MD) [a]	.443
SMEAN(RL_L6_MD) [a]	.426
SMEAN(RL_U6_MD) [a]	.425
SMEAN(RL_U1_MD) [a]	.412
SMEAN(RL_U7_MD) [a]	.404
SMEAN(RL_L3_MD) [a]	.397
SMEAN(RL_U1_BL) [a]	.396
SMEAN(RL_U3_MD) [a]	.390
SMEAN(RL_U4_BL) [a]	.383
SMEAN(RL_L1_MD) [a]	.373
SMEAN(RL_L2_MD) [a]	.358
SMEAN(RL_L3_BL) [a]	.327
SMEAN(RL_L2_BL) [a]	.312
SMEAN(RL_U3_BL) [a]	.290
SMEAN(RL_U2_MD) [a]	.268
SMEAN(RL_L1_BL) [a]	.265
SMEAN(RL_U2_BL) [a]	.209

Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions
Variables ordered by absolute size of correlation within function.

a. This variable not used in the analysis.

Appendix 5.20 Summary of stepwise discriminant function methods in Indians

Step	Number of Variables	Wilks' Lambda		Minimum D^2		Between Groups
		Lambda	Sig.	Statistic	Sig.	
1	SMEAN(RL_L3_MD)	0.766	0.000	1.206	0.000	Female and Male
2	SMEAN(RL_U5_BL)	0.731	0.000	1.457	0.000	Female and Male
3	SMEAN(RL_U2_MD)	0.686	0.000	1.805	0.000	Female and Male
4	SMEAN(RL_L4_MD)	0.668	0.000	1.964	0.000	Female and Male

a Maximum number of steps is 56.
b Minimum partial F to enter is 3.84.
c Maximum partial F to remove is 2.71.
d F level, tolerance, or VIN insufficient for further computation.

Canonical discriminant function

Function	Eigenvalue	Canonical Correlation	Wilks' Lambda	Chi-square	df	Sig.
1	0.4969	0.5762	0.6680	59.3011	4	0.0000

a First 1 canonical discriminant functions were used in the analysis.

Appendix 5.21 Unstandardized discriminant function coefficients and group centroids in Indians

	Function 1
SMEAN(RL_U2_MD)	-0.92129
SMEAN(RL_U5_BL)	1.207414
SMEAN(RL_L3_MD)	2.903341
SMEAN(RL_L4_MD)	-0.93429
(Constant)	-17.9233

Unstandardized coefficients

Sex	Function 1
Females	-0.67743
Males	0.723825

Unstandardized canonical discriminant functions evaluated at group means

Appendix 5.22 Structural matrix of dental crown measurements in Indians

	Function
	1
SMEAN(RL_L3_MD)	.784
SMEAN(RL_U5_BL)	.632
SMEAN(RL_U4_BL) [a]	.493
SMEAN(RL_U3_BL) [a]	.425
SMEAN(RL_U3_MD) [a]	.402
SMEAN(RL_L5_BL) [a]	.391
SMEAN(RL_L6_BL) [a]	.391
SMEAN(RL_L4_BL) [a]	.369
SMEAN(RL_U6_BL) [a]	.366
SMEAN(RL_L2_MD) [a]	.355
SMEAN(RL_U5_MD) [a]	.349
SMEAN(RL_U7_BL) [a]	.345
SMEAN(RL_L3_BL) [a]	.335
SMEAN(RL_U2_BL) [a]	.304
SMEAN(RL_L7_BL) [a]	.299
SMEAN(RL_L1_MD) [a]	.263
SMEAN(RL_U4_MD) [a]	.262
SMEAN(RL_L2_BL) [a]	.261
SMEAN(RL_U1_BL) [a]	.258
SMEAN(RL_L1_BL) [a]	.251
SMEAN(RL_U1_MD) [a]	.249
SMEAN(RL_L6_MD) [a]	.197
SMEAN(RL_L4_MD)	.196
SMEAN(RL_U7_MD) [a]	.175
SMEAN(RL_L5_MD) [a]	.167
SMEAN(RL_U6_MD) [a]	.150
SMEAN(RL_U2_MD)	.133
SMEAN(RL_L7_MD) [a]	.121

Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions
Variables ordered by absolute size of correlation within function.

a. This variable not used in the analysis.

Appendix 5.23 Summary of stepwise discriminant function methods in Jahai

Step	Number of Variables	Wilks' Lambda		Minimum D^2		Between Groups
		Lambda	Significant	Statistic	Significant	
1	SMEAN(RL_L3_MD)	0.772	0.000	1.140	0.000	Female and Male
2	SMEAN(RL_L7_MD)	0.621	0.000	2.363	0.000	Female and Male

At each step, the variable that maximizes the Mahalanobis distance between the two closest groups is entered.

a Maximum number of steps is 26.

b Minimum partial F to enter is 3.84.

c Maximum partial F to remove is 2.71.

d F level, tolerance, or VIN insufficient for further computation.

Canonical discriminant function

Function	Eigenvalue	Canonical Correlation	Wilks' Lambda	Chi-square	df	Sig.
1	0.611	0.616	0.621	24.804	2	0.000

a First 1 canonical discriminant functions were used in the analysis.

Appendix 5.24 Unstandardized discriminant function coefficients and group centroids in Jahai

	Function 1
SMEAN(RL_L3_MD)	3.1843
SMEAN(RL_L7_MD)	-1.8586
(Constant)	-3.9031

Unstandardized coefficients

Sex	Function 1
Females	-0.7267
Males	0.8105

Unstandardized canonical discriminant functions evaluated at group means

Appendix 5.25 Structural matrix of dental crown measurements in Jahai

	Function 1
SMEAN(RL_L3_MD)	.695
SMEAN(RL_L2_MD)[a]	.483
SMEAN(RL_U3_MD)[a]	.452
SMEAN(RL_L1_MD)[a]	.330
SMEAN(RL_U4_MD)[a]	.260
SMEAN(RL_U1_MD)[a]	.246
SMEAN(RL_U6_MD)[a]	.218
SMEAN(RL_U2_MD)[a]	.217
SMEAN(RL_L6_MD)[a]	.177
SMEAN(RL_L4_MD)[a]	.169
SMEAN(RL_L5_MD)[a]	.143
SMEAN(RL_L7_MD)	-.120
SMEAN(RL_U5_MD)[a]	-.056

Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions
Variables ordered by absolute size of correlation within function.

a. This variable not used in the analysis.

Appendix 5.26 Summary of stepwise discriminant function methods in pooled ethnic groups

Step	Number of Variables	Wilks' Lambda		Minimum D^2		Between Groups
		Lambda	Significant	Statistic	Significant	
1	SMEAN(RL_L3_MD)	0.787	0.000	1.078	0.000	Female and Male
2	SMEAN(RL_L7_MD)	0.743	0.000	1.376	0.000	Female and Male
3	SMEAN(RL_U4_MD)	0.712	0.000	1.610	0.000	Female and Male
4	SMEAN(RL_U4_BL)	0.688	0.000	1.811	0.000	Female and Male
5	SMEAN(RL_L2_MD)	0.671	0.000	1.953	0.000	Female and Male
6	SMEAN(RL_L2_BL)	0.660	0.000	2.050	0.000	Female and Male
7	SMEAN(RL_L1_BL)	0.647	0.000	2.177	0.000	Female and Male
8	SMEAN(RL_U6_BL)	0.639	0.000	2.249	0.000	Female and Male
9	SMEAN(RL_U5_MD)	0.633	0.000	2.311	0.000	Female and Male
10	SMEAN(RL_U3_MD)	0.626	0.000	2.380	0.000	Female and Male
11	SMEAN(RL_U2_MD)	0.619	0.000	2.455	0.000	Female and Male
12	SMEAN(RL_U7_MD)	0.613	0.000	2.512	0.000	Female and Male

At each step, the variable that maximizes the Mahalanobis distance between the two closest groups is entered.

a Maximum number of steps is 56.

b Minimum partial F to enter is 3.84.

c Maximum partial F to remove is 2.71.

d F level, tolerance, or VIN insufficient for further computation.

Canonical discriminant function

Function	Eigenvalue	Canonical Correlation	Wilks' Lambda	Chi-square	df	Significant
1	0.631	0.622	0.613	217.597	12	0.000

a First 1 canonical discriminant functions were used in the analysis.

Appendix 5.27 Unstandardized discriminant function coefficients and group centroids in pooled ethnic groups

	Function
	1
SMEAN(RL_U2_MD)	-.391
SMEAN(RL_U3_MD)	.594
SMEAN(RL_U4_MD)	-1.107
SMEAN(RL_U5_MD)	-.696
SMEAN(RL_U7_MD)	.362
SMEAN(RL_U4_BL)	.776
SMEAN(RL_U6_BL)	.357
SMEAN(RL_L2_MD)	-.778
SMEAN(RL_L3_MD)	2.126
SMEAN(RL_L7_MD)	.857
SMEAN(RL_L1_BL)	.917
SMEAN(RL_L2_BL)	-1.295
(Constant)	-20.434

Unstandardized coefficients

	Function
SEX	1
Female	-.780
Male	.805

Unstandardized canonical discriminant functions evaluated at group means

Appendix 5.28 Structural matrix of dental crown measurements in pooled ethnic groups

	Function
	1
SMEAN(RL_L3_MD)	.655
SMEAN(RL_U6_BL)	.551
SMEAN(RL_L7_MD)	.508
SMEAN(RL_U3_MD)	.504
SMEAN(RL_L7_BL)[a]	.483
SMEAN(RL_U4_BL)	.471
SMEAN(RL_L6_BL)[a]	.442
SMEAN(RL_U7_BL)[a]	.416
SMEAN(RL_U3_BL)[a]	.404
SMEAN(RL_U5_BL)[a]	.394
SMEAN(RL_U7_MD)	.388
SMEAN(RL_L5_BL)[a]	.375
SMEAN(RL_U1_BL)[a]	.372
SMEAN(RL_L4_BL)[a]	.369
SMEAN(RL_L1_BL)	.355
SMEAN(RL_L3_BL)[a]	.353
SMEAN(RL_L6_MD)[a]	.333
SMEAN(RL_U6_MD)[a]	.311
SMEAN(RL_U1_MD)[a]	.309
SMEAN(RL_L4_MD)[a]	.308
SMEAN(RL_L5_MD)[a]	.298
SMEAN(RL_U2_BL)[a]	.294
SMEAN(RL_U4_MD)	.234
SMEAN(RL_U5_MD)	.227
SMEAN(RL_L1_MD)[a]	.213
SMEAN(RL_L2_MD)	.207
SMEAN(RL_L2_BL)	.200
SMEAN(RL_U2_MD)	.184

Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions
Variables ordered by absolute size of correlation within function.

a. This variable not used in the analysis.

Appendix 5.29 Examples of using linear discriminant functions for sex prediction

Example of calculation using function of several variables in known Malay sample:

(-0.741).(6.44)+(1.366).(8.47)+(-1.144).(7.71)+(-0.918).(6.93)+(0.897).(10.14)+(2.273).(7.32)-15.62= 1.73. This discriminant score is larger than cutting score, 0.043, thus the case is predicted to be male. If the discriminant score is smaller than the cutting score, the case will be predicted as female.

Input	Variables in the functions	Coefficients	Constant	Tooth size	Discriminant score	Cutting score	Predicted membership	True membership
Known Malays (M2)								
Single crown variables								
UC MD	UC MD	2.21	-17.749	8.47	0.96970	0.026	Males	Males
LC MD	LC MD	2.553	-17.814	7.32	0.87396	0.029	Males	Males
Several variables								
All MD	UI2 MD	-0.741	-15.62	6.44	1.72994	0.043	Males	Males
	UC MD	1.366		8.47				
	UP1 MD	-1.144		7.71				
	UP2 MD	-0.918		6.93				
	UM2 MD	0.897		10.14				
	LC MD	2.273		7.32				

Appendix 5.29 (continued)

Input	Variables in the functions	Coefficients	Constant	Tooth size	Calculated score	Cutting score	Predicted membership	True membership
Known Chinese (C1)								
Single crown variables								
UM2 MD		2.100	-21.230	9.84	-0.56600	-0.018	Females	Females
UM2 BL		1.583	-17.917	11.01	-0.48817	-0.018	Females	Females
LC MD		2.525	-17.923	6.27	-2.09125	-0.021	Females	Females
LM2 MD		2.171	-22.836	10.14	-0.82206	-0.031	Females	Females
Several variables								
All maxillary	UI2 MD	0.762	-23.195	7.72	-0.11204	-0.020	Females	Females
MD	UM2 MD	1.748		9.84				
All MD	LI2 MD	-1.806	-22.787	6.00	-6.04310	-0.036	Females	Females
	LC MD	1.478		6.27				
	LM2 MD	1.806		10.14				

Appendix 5.29 (continued)

Input	Variables in the functions	Coefficients	Constant	Tooth size	Calculated score	Cutting score	Predicted membership	True membership
Known Indians (I3)								
Single crown								
LC MD		2.958	-20.120	6.95	0.4381	0.018	Males	Males
LM2 MD		2.289	-23.808	10.55	0.34095	0.009	Males	Males
All MD	LC MD	3.448	-16.984	6.95	0.37441	0.020	Males	Males
	UI2 MD	-0.929		7.11				
Known Jahai (O3)								
All MD	LC MD	3.184	-3.903	6.75	-1.03818	0.042	Females	Females
	LM2 MD	-1.859		10.02				
Unknown ethnic (M108)								
All except incisors	UP1 MD	-1.236	-22.687	7.84	7.09761	0.011	Males	Males
	UP2 MD	-0.657		6.98				
	UP1 BL	0.650		10.79				
	UM1 BL	0.506		12.09				
	LC MD	2.704		7.49				
	LM2 MD	0.961		11.11				

SECTION 4 ODONTOMETRIC PROFILES FOR HUMAN IDENTIFICATION IN MALAYSIAN POPULATIONS

Appendix 6.1 Tests of normality for dental crown dimensions in Mongoloid males

	N	Skewness			Kurtosis		
	Statistic	Statistic	SE	Z	Statistic	SE	Z
SMEAN(RL_U1_MD)	73	-0.004	0.281	0.02	-0.321	0.555	0.58
SMEAN(RL_U2_MD)	73	-0.388	0.281	1.38	0.194	0.555	0.35
SMEAN(RL_U3_MD)	73	-0.007	0.281	0.02	0.087	0.555	0.16
SMEAN(RL_U4_MD)	73	-0.425	0.281	1.51	0.176	0.555	0.32
SMEAN(RL_U5_MD)	73	0.086	0.281	0.31	-0.142	0.555	0.26
SMEAN(RL_U6_MD)	73	0.457	0.281	1.63	-0.535	0.555	0.96
SMEAN(RL_U7_MD)	73	0.252	0.281	0.90	0.166	0.555	0.30
SMEAN(RL_U1_BL)	73	0.050	0.281	0.18	0.016	0.555	0.03
SMEAN(RL_U2_BL)	73	-0.162	0.281	0.58	-0.123	0.555	0.22
SMEAN(RL_U3_BL)	73	0.181	0.281	0.65	0.849	0.555	1.53
SMEAN(RL_U4_BL)	73	0.338	0.281	1.20	-0.265	0.555	0.48
SMEAN(RL_U5_BL)	73	0.319	0.281	1.13	-0.270	0.555	0.49
SMEAN(RL_U6_BL)	73	-0.072	0.281	0.26	-0.850	0.555	1.53
SMEAN(RL_U7_BL)	73	-0.073	0.281	0.26	-0.747	0.555	1.35
SMEAN(RL_L1_MD)	73	0.022	0.281	0.08	-0.352	0.555	0.63
SMEAN(RL_L2_MD)	73	-0.339	0.281	1.21	-0.181	0.555	0.33
SMEAN(RL_L3_MD)	73	-0.018	0.281	0.06	-0.177	0.555	0.32
SMEAN(RL_L4_MD)	73	-0.078	0.281	0.28	-0.656	0.555	1.18
SMEAN(RL_L5_MD)	73	-0.271	0.281	0.96	-0.043	0.555	0.08
SMEAN(RL_L6_MD)	73	0.310	0.281	1.10	0.241	0.555	0.43
SMEAN(RL_L7_MD)	73	0.305	0.281	1.09	1.758	0.555	3.17
SMEAN(RL_L1_BL)	73	0.031	0.281	0.11	-0.110	0.555	0.20
SMEAN(RL_L2_BL)	73	-0.346	0.281	1.23	-0.053	0.555	0.10
SMEAN(RL_L3_BL)	73	0.195	0.281	0.69	-0.494	0.555	0.89
SMEAN(RL_L4_BL)	73	-0.054	0.281	0.19	-0.373	0.555	0.67
SMEAN(RL_L5_BL)	73	0.435	0.281	1.55	0.413	0.555	0.74
SMEAN(RL_L6_BL)	73	-0.065	0.281	0.23	0.268	0.555	0.48
SMEAN(RL_L7_BL)	73	-0.139	0.281	0.49	-0.116	0.555	0.21
Valid N (listwise)	73						

Appendix 6.2 Tests of normality for dental crown dimensions in Mongoloid females

	N	Skewness			Kurtosis		
	Statistic	Statistic	SE	Z	Statistic	SE	Z
SMEAN(RL_U1_MD)	73	-0.231	0.281	0.82	-0.537	0.555	0.97
SMEAN(RL_U2_MD)	73	0.324	0.281	1.15	-0.388	0.555	0.70
SMEAN(RL_U3_MD)	73	-0.249	0.281	0.89	-0.054	0.555	0.10
SMEAN(RL_U4_MD)	73	0.023	0.281	0.08	0.061	0.555	0.11
SMEAN(RL_U5_MD)	73	-0.311	0.281	1.11	-0.409	0.555	0.74
SMEAN(RL_U6_MD)	73	-0.047	0.281	0.17	-0.559	0.555	1.01
SMEAN(RL_U7_MD)	73	0.066	0.281	0.24	0.349	0.555	0.63
SMEAN(RL_U1_BL)	73	0.027	0.281	0.10	-0.337	0.555	0.61
SMEAN(RL_U2_BL)	73	-0.199	0.281	0.71	0.779	0.555	1.40
SMEAN(RL_U3_BL)	73	0.363	0.281	1.29	0.084	0.555	0.15
SMEAN(RL_U4_BL)	73	0.463	0.281	1.65	0.591	0.555	1.06
SMEAN(RL_U5_BL)	73	-0.408	0.281	1.45	0.004	0.555	0.01
SMEAN(RL_U6_BL)	73	-0.168	0.281	0.60	0.124	0.555	0.22
SMEAN(RL_U7_BL)	73	0.149	0.281	0.53	0.686	0.555	1.24
SMEAN(RL_L1_MD)	73	-0.068	0.281	0.24	-0.064	0.555	0.12
SMEAN(RL_L2_MD)	73	0.110	0.281	0.39	-0.856	0.555	1.54
SMEAN(RL_L3_MD)	73	0.070	0.281	0.25	0.620	0.555	1.12
SMEAN(RL_L4_MD)	73	-0.057	0.281	0.20	-0.248	0.555	0.45
SMEAN(RL_L5_MD)	73	-0.124	0.281	0.44	-0.298	0.555	0.54
SMEAN(RL_L6_MD)	73	0.003	0.281	0.01	-0.841	0.555	1.52
SMEAN(RL_L7_MD)	73	0.005	0.281	0.02	0.573	0.555	1.03
SMEAN(RL_L1_BL)	73	-0.089	0.281	0.32	0.444	0.555	0.80
SMEAN(RL_L2_BL)	73	0.255	0.281	0.91	0.336	0.555	0.60
SMEAN(RL_L3_BL)	73	0.227	0.281	0.81	0.133	0.555	0.24
SMEAN(RL_L4_BL)	73	-0.542	0.281	1.93	0.604	0.555	1.09
SMEAN(RL_L5_BL)	73	-0.133	0.281	0.47	0.603	0.555	1.09
SMEAN(RL_L6_BL)	73	-0.165	0.281	0.59	0.095	0.555	0.17
SMEAN(RL_L7_BL)	73	0.282	0.281	1.00	0.235	0.555	0.42
Valid N (listwise)	73						

Appendix 6.3 Tests of normality for dental crown dimensions in Indian males

	N	Skewness			Kurtosis		
	Statistic	Statistic	SE	Z	Statistic	SE	Z
SMEAN(RL_U1_MD)	73	-0.061	0.281	0.22	-0.406	0.555	0.73
SMEAN(RL_U2_MD)	73	0.067	0.281	0.24	0.524	0.555	0.94
SMEAN(RL_U3_MD)	73	0.131	0.281	0.47	0.554	0.555	1.00
SMEAN(RL_U4_MD)	73	0.131	0.281	0.47	0.362	0.555	0.65
SMEAN(RL_U5_MD)	73	0.163	0.281	0.58	-0.267	0.555	0.48
SMEAN(RL_U6_MD)	73	-0.031	0.281	0.11	-0.351	0.555	0.63
SMEAN(RL_U7_MD)	73	0.218	0.281	0.77	0.448	0.555	0.81
SMEAN(RL_U1_BL)	73	0.189	0.281	0.67	-0.029	0.555	0.05
SMEAN(RL_U2_BL)	73	-0.026	0.281	0.09	-0.278	0.555	0.50
SMEAN(RL_U3_BL)	73	0.195	0.281	0.70	-0.386	0.555	0.70
SMEAN(RL_U4_BL)	73	-0.165	0.281	0.59	-0.392	0.555	0.71
SMEAN(RL_U5_BL)	73	-0.044	0.281	0.16	-0.512	0.555	0.92
SMEAN(RL_U6_BL)	73	0.071	0.281	0.25	-0.245	0.555	0.44
SMEAN(RL_U7_BL)	73	-0.386	0.281	1.37	-0.317	0.555	0.57
SMEAN(RL_L1_MD)	73	-0.071	0.281	0.25	-0.289	0.555	0.52
SMEAN(RL_L2_MD)	73	-0.196	0.281	0.70	-0.762	0.555	1.37
SMEAN(RL_L3_MD)	73	0.066	0.281	0.23	-0.126	0.555	0.23
SMEAN(RL_L4_MD)	73	0.503	0.281	1.79	-0.078	0.555	0.14
SMEAN(RL_L5_MD)	73	-0.026	0.281	0.09	-0.234	0.555	0.42
SMEAN(RL_L6_MD)	73	-0.443	0.281	1.58	-0.176	0.555	0.32
SMEAN(RL_L7_MD)	73	-0.900	0.281	3.20	3.706	0.555	6.67
SMEAN(RL_L1_BL)	73	0.027	0.281	0.09	0.984	0.555	1.77
SMEAN(RL_L2_BL)	73	-0.023	0.281	0.08	0.317	0.555	0.57
SMEAN(RL_L3_BL)	73	0.321	0.281	1.14	1.134	0.555	2.04
SMEAN(RL_L4_BL)	73	0.188	0.281	0.67	-0.241	0.555	0.43
SMEAN(RL_L5_BL)	73	-0.003	0.281	0.01	-0.316	0.555	0.57
SMEAN(RL_L6_BL)	73	0.210	0.281	0.75	-0.279	0.555	0.50
SMEAN(RL_L7_BL)	73	0.028	0.281	0.10	0.276	0.555	0.50
Valid N (listwise)	73						

Appendix 6.4 Tests of normality for dental crown dimensions in Indian females

	N	Skewness			Kurtosis		
	Statistic	Statistic	SE	Z	Statistic	SE	Z
SMEAN(RL_U1_MD)	73	0.151	0.281	0.54	-0.442	0.555	0.80
SMEAN(RL_U2_MD)	73	0.355	0.281	1.26	-0.787	0.555	1.42
SMEAN(RL_U3_MD)	73	-0.053	0.281	0.19	-0.161	0.555	0.29
SMEAN(RL_U4_MD)	73	0.082	0.281	0.29	-0.613	0.555	1.10
SMEAN(RL_U5_MD)	73	0.027	0.281	0.10	-0.182	0.555	0.33
SMEAN(RL_U6_MD)	73	-0.027	0.281	0.10	-0.335	0.555	0.60
SMEAN(RL_U7_MD)	73	0.418	0.281	1.49	0.638	0.555	1.15
SMEAN(RL_U1_BL)	73	0.044	0.281	0.16	0.147	0.555	0.27
SMEAN(RL_U2_BL)	73	0.184	0.281	0.65	-0.073	0.555	0.13
SMEAN(RL_U3_BL)	73	-0.092	0.281	0.33	0.504	0.555	0.91
SMEAN(RL_U4_BL)	73	-0.183	0.281	0.65	-0.380	0.555	0.68
SMEAN(RL_U5_BL)	73	-0.149	0.281	0.53	-0.082	0.555	0.15
SMEAN(RL_U6_BL)	73	0.412	0.281	1.47	0.219	0.555	0.39
SMEAN(RL_U7_BL)	73	0.231	0.281	0.82	-0.277	0.555	0.50
SMEAN(RL_L1_MD)	73	0.154	0.281	0.55	-0.414	0.555	0.75
SMEAN(RL_L2_MD)	73	0.285	0.281	1.01	-0.427	0.555	0.77
SMEAN(RL_L3_MD)	73	-0.008	0.281	0.03	-0.293	0.555	0.53
SMEAN(RL_L4_MD)	73	0.098	0.281	0.35	0.736	0.555	1.33
SMEAN(RL_L5_MD)	73	-0.025	0.281	0.09	0.586	0.555	1.06
SMEAN(RL_L6_MD)	73	0.110	0.281	0.39	0.029	0.555	0.05
SMEAN(RL_L7_MD)	73	0.330	0.281	1.17	3.202	0.555	5.77
SMEAN(RL_L1_BL)	73	0.446	0.281	1.59	0.110	0.555	0.20
SMEAN(RL_L2_BL)	73	0.170	0.281	0.61	0.165	0.555	0.30
SMEAN(RL_L3_BL)	73	0.125	0.281	0.45	0.554	0.555	1.00
SMEAN(RL_L4_BL)	73	0.343	0.281	1.22	0.446	0.555	0.80
SMEAN(RL_L5_BL)	73	0.050	0.281	0.18	-0.338	0.555	0.61
SMEAN(RL_L6_BL)	73	0.133	0.281	0.47	-0.499	0.555	0.90
SMEAN(RL_L7_BL)	73	-0.054	0.281	0.19	0.087	0.555	0.16
Valid N (listwise)	73						

Appendix 6.5 Canonical discriminant function summary for prediction of ethnicity (three ethnic groups, female data)

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1 through 2	0.6162	108.47	14	0.000
2	0.8959	24.63	6	0.000

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	0.4540	79.6	79.6	0.559
2	0.1162	20.4	100.0	0.323

First 2 canonical discriminant functions were used in the analysis.

Appendix 6.6 Canonical discriminant function coefficients and group centroids for ethnicity prediction (three ethnic groups, female data)

Canonical Discriminant Function Coefficients

	Function 1	Function 2
SMEAN(RL_U3_MD)	1.1510	1.8811
SMEAN(RL_U5_MD)	1.2143	0.1570
SMEAN(RL_U7_MD)	-1.1017	0.8604
SMEAN(RL_U7_BL)	0.8722	-0.5981
SMEAN(RL_L6_MD)	0.5411	-1.8971
SMEAN(RL_L7_MD)	-0.9428	-0.4734
SMEAN(RL_L1_BL)	-1.4302	0.4808
(Constant)	-4.1703	5.4973

Unstandardized coefficients

Functions at Group Centroids

Ethnicity	Function 1	Function 2
Malays	0.260	-0.431
Chinese	0.705	0.375
Indians	-0.900	0.127

Unstandardized canonical discriminant functions evaluated at group means

Appendix 6.7 Canonical discriminant function summary for prediction of ethnicity (three ethnic groups, pooled-sex data)

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1 through 2	0.5609	257.01	24	0.000
2	0.8817	55.96	11	0.000

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	0.5719	81.0	81.0	0.603
2	0.1342	19.0	100.0	0.344

First 2 canonical discriminant functions were used in the analysis.

Appendix 6.8 Canonical discriminant function coefficients and group centroids for prediction of ethnicity (three ethnic groups, pooled-sex data)

Canonical Discriminant Function Coefficients

	Function 1	Function 2
SMEAN(RL_U1_MD)	-0.9342	1.6277
SMEAN(RL_U3_MD)	0.8330	0.8438
SMEAN(RL_U4_MD)	1.9042	0.5397
SMEAN(RL_U5_MD)	0.7158	1.2082
SMEAN(RL_U6_MD)	-0.3703	-1.2543
SMEAN(RL_U7_MD)	-0.8103	0.5212
SMEAN(RL_L2_MD)	0.2864	-1.4655
SMEAN(RL_L5_MD)	-0.7314	-0.3124
SMEAN(RL_L6_MD)	1.0218	-1.1020
SMEAN(RL_L1_BL)	-1.0287	0.2907
SMEAN(RL_L3_BL)	0.5751	-0.6009
SMEAN(RL_L5_BL)	-0.6509	0.2614
(Constant)	-6.1069	-1.3218

Unstandardized coefficients

Functions at Group Centroids

Ethnicity	Function 1	Function 2
Malays	0.4071	-0.4582
Chinese	0.6606	0.4285
Indians	-1.0559	0.0708

Unstandardized canonical discriminant functions evaluated at group means

Appendix 6.9 Canonical discriminant function summary for sex prediction using Mongoloid and Indian data

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	0.4634	100.0	100.0	0.5627

First 1 canonical discriminant functions were used in the analysis.

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	0.6834	109.08	7	0.000

Appendix 6.10 Canonical discriminant function coefficients and group centroids for sex prediction using Mongoloid and Indian data

	Function 1
SMEAN(RL_U2_MD)	-0.5406
SMEAN(RL_U1_BL)	0.7022
SMEAN(RL_U4_BL)	0.9759
SMEAN(RL_L3_MD)	2.2668
SMEAN(RL_L4_MD)	-1.7389
SMEAN(RL_L7_MD)	1.0499
SMEAN(RL_L3_BL)	-0.7365
(Constant)	-19.2234

Unstandardized coefficients

Functions at Group Centroids

SEX	Function 1
Females	-0.678
Males	0.678

Unstandardized canonical discriminant functions evaluated at group means

Appendix 6.11 Summary of canonical discriminant function for sex prediction using Mongoloid data

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	0.4173	100.0	100	0.5426

First 1 canonical discriminant functions were used in the analysis.

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	0.7056	49.35	5	0.000

Appendix 6.12 Coefficients of discriminant function and group centroids for sex prediction using Mongoloid data

Canonical Discriminant Function Coefficients

	Function 1
SMEAN(RL_U6_BL)	0.7188
SMEAN(RL_L2_MD)	-1.3918
SMEAN(RL_L3_MD)	1.8001
SMEAN(RL_L5_MD)	-0.9312
SMEAN(RL_L7_MD)	1.1988
(Constant)	-18.0118

Unstandardized coefficients

Functions at Group Centroids

SEX	Function 1
Females	-0.642
Males	0.642

Unstandardized canonical discriminant functions evaluated at group means

Appendix 6.13 Canonical discriminant function summary for prediction of ethnicity (Mongoloids vs Indians, male data)

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	0.6054	100.0	100.0	0.614

First 1 canonical discriminant functions were used in the analysis.

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	0.6229	66.74	6	0.000

Appendix 6.14 Canonical discriminant function coefficients and group centroids for prediction of ethnicity (Mongoloids vs Indians, male data)

Canonical Discriminant Function Coefficients

	Function 1
SMEAN(RL_U1_MD)	-1.3790
SMEAN(RL_U3_MD)	1.2976
SMEAN(RL_U4_MD)	2.3488
SMEAN(RL_U7_MD)	-0.8702
SMEAN(RL_L5_MD)	-1.3535
SMEAN(RL_L6_MD)	1.0188
(Constant)	-8.6694

Unstandardized coefficients

Functions at Group Centroids

Ethnicity	Function 1
Mongoloids	0.773
Indians	-0.773

Unstandardized canonical discriminant functions evaluated at group means

Appendix 6.15 Canonical discriminant function summary for prediction of ethnicity (Mongoloids vs Indians, female data)

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	0.5669	100.0	100.0	0.6015

First 1 canonical discriminant functions were used in the analysis.

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	0.6382	63.32	6	0.000

Appendix 6.16 Canonical discriminant function coefficients and group centroids for prediction of ethnicity (Mongoloids vs Indians, female data)

Canonical Discriminant Function Coefficients

	Function 1
SMEAN(RL_U3_MD)	0.8060
SMEAN(RL_U4_MD)	1.0560
SMEAN(RL_U5_MD)	1.4432
SMEAN(RL_U7_MD)	-1.4147
SMEAN(RL_U7_BL)	0.9503
SMEAN(RL_L5_BL)	-1.3095
(Constant)	-8.9969

Unstandardized coefficients

Functions at Group Centroids

Ethnicity	Function 1
Mongoloids	0.748
Indians	-0.748

Unstandardized canonical discriminant functions evaluated at group means

Appendix 6.17 Canonical discriminant function summary for prediction of ethnicity (Mongoloids vs Indians, pooled-sex data)

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	0.5662	100.0	100.0	0.601

a First 1 canonical discriminant functions were used in the analysis.

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	0.6385	128.31	8	0.000

Appendix 6.18 Canonical discriminant function coefficients and group centroids for prediction of ethnicity (Mongoloids vs Indians, pooled-sex data)

Canonical Discriminant Function Coefficients

	Function 1
SMEAN(RL_U1_MD)	-1.0655
SMEAN(RL_U3_MD)	1.1428
SMEAN(RL_U4_MD)	1.6581
SMEAN(RL_U7_MD)	-1.0967
SMEAN(RL_U7_BL)	0.5062
SMEAN(RL_L6_MD)	0.9192
SMEAN(RL_L1_BL)	-0.6685
SMEAN(RL_L5_BL)	-0.7988
(Constant)	-6.1227

Unstandardized coefficients

Functions at Group Centroids

Ethnicity	Function 1
Mongoloids	0.75
Indians	-0.75

Unstandardized canonical discriminant functions evaluated at group means

Appendix 6.19 Examples of using the linear discriminant functions

Three-group prediction used two linear discriminant functions which generated two discriminant scores. These two discriminant scores were then compared with a territorial map, to locate their position for predicting their group membership.

Example 1

Scenario: ethnicity prediction for known male specimen.

Canonical Discriminant Function Coefficients

	Function		Tooth size	Discriminant score		Coordinates
	1	2	M139	1	2	(1, 2)
SMEAN(RL_U1_MD)	-1.212	1.204	8.84	1.65	-0.72	(1.65, -0.72)
SMEAN(RL_U4_MD)	2.492	0.839	7.58			
SMEAN(RL_U5_MD)	0.765	1.316	6.96			
SMEAN(RL_U6_MD)	-0.336	-1.242	10.56			
SMEAN(RL_U7_MD)	-0.945	0.376	10.04			
SMEAN(RL_L5_MD)	-1.352	0.032	7.36			
SMEAN(RL_L6_MD)	1.539	-1.048	12.41			
SMEAN(RL_L3_BL)	0.672	-0.850	7.76			
SMEAN(RL_L6_BL)	-0.512	1.034	11.56			
(Constant)	-7.258	-10.118				

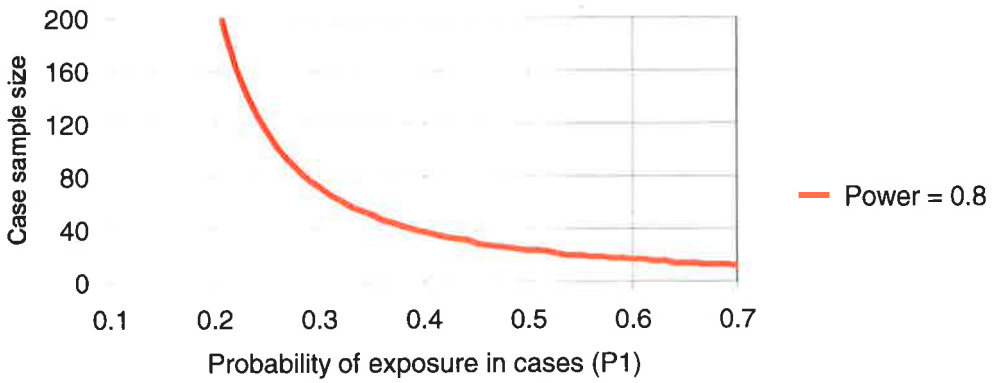
Unstandardized coefficients

Coordinates for two discriminant score were compared with the territorial map in Figure 6.1. In the map, x-axis represents discriminant function 1 while y-axis represents function 2. For the calculated discriminant scores (1.65, -0.72), the coordinates are located in the Malays territory.

If the sex of the specimen for ethnicity prediction was not known, then the coordinate of discriminant scores was compared with the territorial map in Figure 6.5. Similarly, if the specimen was female, then the map in Figure 6.3 should be used. Figure 6.1, 6.3 and 6.5 were in volume 1, Chapter 6.

SECTION 5 MORPHOLOGICAL VARIATIONS OF TEETH IN MALAYSIAN POPULATIONS

Appendix 7.1 Sample size calculations for 80% power in analysis of dental crown traits



The sample size calculation used (Dupont and Plummer, 1997) software version 1.0.17. The graphic was plotted using inputs as follows: alpha (Type 1 error) was set at 5%, the probability of exposure in one group, P_0 was 0.1 (10% prevalence) and the ratio between group samples was assumed to be one. This calculation utilized dichotomous data and Fisher's exact test. Fisher's exact test was chosen because uncorrected chi-square tests required less sample size than Fisher's exact test for the same parameter.

Appendix 7.2 Associations between sex and bilateralism for 12 dental crown traits in Malays

Traits	Tooth	Sex	Symmetry °	Asymmetry ¹	P-value
Shovel	11, 21	Males	107	5	0.74
		Females	141	8	
Carabelli	16,26	Males	83	21	0.76
		Females	105	24	
Metaconule	16,26	Males	47	15	0.28
		Females	52	25	
Hypocone	17,27	Males	91	13	0.95
		Females	109	18	
Distal accessory Ridge	33,43	Males	27	20	0.77
		Females	32	21	
Lingual cusp number	35, 45	Males	92	23	0.12
		Females	129	19	
Protostylid	36, 46	Males	52	10	0.06
		Females	49	21	
Deflecting wrinkle	36, 46	Males	23	16	0.21
		Females	17	21	
Metaconulid	36,46	Males	5	7	0.60 F
		Females	1	4	
Entoconulid	36, 46	Males	19	7	0.53
		Females	28	7	
Cusp number	37, 47	Males	51	15	0.86
		Females	57	18	
Groove pattern	37,47	Males	81	18	0.14
		Females	91	33	

°, absent-absent pair excluded; ¹, asymmetry in one or more grade; F, Fisher's exact test; *, $p<0.05$

Appendix 7.3 Associations between sex and bilateralism for 12 dental crown traits in Chinese

Traits	Tooth	Sex	Symmetry °	Asymmetry ¹	P-value
Shovel	11, 21	Males	78	9	0.67
		Females	76	7	
Carabelli	16,26	Males	61	10	0.69
		Females	45	9	
Metaconule	16,26	Males	29	18	0.73
		Females	30	16	
Hypocone	17,27	Males	59	6	0.04
		Females	48	14	
Distal accessory Ridge	33,43	Males	19	18	0.53
		Females	9	12	
Lingual cusp number	35, 45	Males	67	14	0.25
		Females	66	8	
Protostylid	36, 46	Males	47	4	0.38[F]
		Females	39	1	
Deflecting wrinkle	36, 46	Males	15	9	0.14
		Females	9	13	
Metaconulid	36,46	Males	5	4	1.00[F]
		Females	2	2	
Entoconulid	36, 46	Males	19	8	0.59
		Females	10	6	
Cusp number	37, 47	Males	53	15	0.09
		Females	57	7	
Groove pattern	37,47	Males	50	13	0.88
		Females	54	15	

°, absent-absent pair excluded; ¹, asymmetry in one or more grade; F, Fisher's exact test; *, $p<0.05$

Appendix 7.4 Associations between sex and bilateralism for 12 dental crown traits in Indians

Traits	Tooth	Sex	Symmetry °	Asymmetry ¹	P-value
Shovel	11, 21	Males	97	2	0.45F
		Females	106	5	
Carabelli	16,26	Males	80	21	0.75
		Females	82	24	
Metaconule	16,26	Males	49	22	0.20
		Females	58	16	
Hypocone	17,27	Males	78	13	0.76
		Females	85	16	
Distal accessory Ridge	33,43	Males	18	9	0.38
		Females	16	13	
Lingual cusp number	35, 45	Males	92	20	0.40
		Females	106	17	
Protostylid	36, 46	Males	27	4	0.10
		Females	29	12	
Deflecting wrinkle	36, 46	Males	24	15	0.12
		Females	34	10	
Metaconulid	36,46	Males	3	11	0.04 * F
		Females	7	3	
Entoconulid	36, 46	Males	16	3	0.73 F
		Females	26	8	
Cusp number	37, 47	Males	86	6	0.64
		Females	88	8	
Groove pattern	37,47	Males	75	26	0.42
		Females	83	22	

°, absent-absent pair excluded; ¹, asymmetry in one or more grade; F, Fisher's exact test; *, $p<0.05$

Appendix 7.5 Associations between sex and bilateralism for 12 dental crown traits in Jahai

Traits	Tooth	Sex	Symmetry [0]	Asymmetry [1]	P-value
Shovel	11, 21	Males	21	0	-
		Females	21	0	
Carabelli	16,26	Males	19	4	0.47
		Females	14	6	
Metaconule	16,26	Males	8	4	0.39
		Females	7	7	
Hypocone	17,27	Males	29	0	0.04[F]
		Females	20	4	
Distal accessory Ridge	33,43	Males	10	3	0.21[F]
		Females	1	2	
Lingual cusp number	35, 45	Males	24	5	0.47[F]
		Females	27	3	
Protostylid	36, 46	Males	3	2	1.00[F]
		Females	3	1	
Deflecting wrinkle	36, 46	Males	1	0	-
		Females	2	0	
Metaconulid	36,46	Males	3	2	-
		Females	0	0	
Entoconulid	36, 46	Males	4	4	0.47[F]
		Females	0	2	
Cusp number	37, 47	Males	21	2	0.64[F]
		Females	15	3	
Groove pattern	37,47	Males	13	4	0.33
		Females	11	7	

[0], absent-absent pair excluded; [1], asymmetry in one or more grade; F, Fisher's exact test; *, $p<0.05$

Appendix 7.6 Percentages of occurrence and sexual dimorphism for winging on the upper central incisors using the individual count method and graded-scale data in four ethnic groups (frequencies of occurrence in parentheses)

Ethnic group	Sex	N	Winging on upper central incisors						P-value
			Winging		Unilateral		Straight and counterwinging		
Malays	Females	164	7.9	(13)	4.3	(7)	87.8	(144)	0.432
	Males	125	11.2	(14)	6.4	(8)	82.4	(103)	
	Total	289	9.3	(27)	5.2	(15)	85.5	(247)	
Chinese	Females	87	17.2	(15)	11.5	(10)	71.3	(62)	0.516
	Males	89	13.5	(12)	7.9	(7)	78.7	(70)	
	Total	176	15.3	(27)	9.7	(17)	75.0	(132)	
Indians	Females	128	4.7	(6)	4.7	(6)	90.6	(116)	0.234[F]
	Males	116	2.6	(3)	9.5	(11)	87.9	(102)	
	Total	244	3.7	(9)	7.0	(17)	89.3	(218)	
Jahai	Females	27	14.8	(4)	3.7	(1)	81.5	(22)	0.115[F]
	Males	32	28.1	(9)	15.6	(5)	56.3	(18)	
	Total	59	22.0	(13)	10.2	(6)	67.8	(40)	

N, sample size; F, Fisher's exact test
*, $p<0.05$ **, $p<0.01$

Appendix 7.7 Percentages of occurrence and sexual dimorphism for shoveling on the upper central incisors using the individual count method and graded-scale data in four ethnic groups (frequencies of occurrence in parentheses)

Ethnic group	Sex	N	Shovelling on the upper central incisors								P
			Absent		Trace		Semi-shovel		Shovelling		
Malays	Females	159	1.3	(2)	54.7	(87)	43.4	(69)	0.6	(1)	0.730[F]
	Males	118	2.5	(3)	57.6	(68)	39.0	(46)	0.8	(1)	
	Total	277	1.8	(5)	56.0	(155)	41.5	(115)	0.7	(2)	
Chinese	Females	84			27.4	(23)	72.6	(61)	0.0	(0)	0.201[F]
	Males	88			21.6	(19)	75.0	(66)	3.4	(3)	
	Total	172			24.4	(42)	73.8	(127)	1.7	(3)	
Indians	Females	126	4.0	(5)	69.0	(87)	27.0	(34)	0.0	(0)	0.610[F]
	Males	115	3.5	(4)	73.9	(85)	21.7	(25)	0.9	(1)	
	Total	241	3.7	(9)	71.4	(172)	24.5	(59)	0.4	(1)	
Jahai	Females	26	3.8	(1)	76.9	(20)	19.2	(5)			0.480[F]
	Males	25	12.0	(3)	64.0	(16)	24.0	(6)			
	Total	51	7.8	(4)	70.6	(36)	21.6	(11)			

N, sample size; F, Fisher's exact test
*, $p<0.05$ **, $p<0.01$

Appendix 7.8 Percentages of occurrence and sexual dimorphism for Carabelli trait on the upper first molar using the individual count method and graded-scale data in four ethnic groups (frequencies of occurrence in parentheses)

Ethnic group	Sex	N	Carabelli trait on the upper first molar								P
			Absent		Pit and furrow		Tubercle		Free cusp		
Malays	Females	164	15.9	(26)	14.6	(24)	63.4	(104)	6.1	(10)	0.134
	Males	126	15.1	(19)	7.9	(10)	65.1	(82)	11.9	(15)	
	Total	290	15.5	(45)	11.7	(34)	64.1	(186)	8.6	(25)	
Chinese **	Females	88	38.6	(34)	8.0	(7)	50.0	(44)	3.4	(3)	0.003
	Males	88	14.8	(13)	12.5	(11)	63.6	(56)	9.1	(8)	
	Total	176	26.7	(47)	10.2	(18)	56.8	(100)	6.3	(11)	
Indians *	Females	131	16.8	(22)	14.5	(19)	66.4	(87)	2.3	(3)	0.029
	Males	118	11.0	(13)	25.4	(30)	56.8	(67)	6.8	(8)	
	Total	249	14.1	(35)	19.7	(49)	61.8	(154)	4.4	(11)	
Jahai *	Females	33	21.2	(7)	18.2	(6)	57.6	(19)	3.0	(1)	0.027[F]
	Males	30	6.7	(2)	10.0	(3)	56.7	(17)	26.7	(8)	
	Total	63	14.3	(9)	14.3	(9)	57.1	(36)	14.3	(9)	

N, sample size; F, Fisher's exact test; *, $p<0.05$; **, $p<0.01$

Appendix 7.9 Percentages of occurrence and sexual dimorphism for the metaconule on the upper first molar using the individual count method and graded-scale data in four ethnic groups (frequencies of occurrence in parentheses)

			Metaconule on the upper first molar								
Ethnic group	Sex	N	Absent		Weak cuspule		Small cuspule		Small moderate cusp		P
Malays	Females	157	42.7	(67)	28.7	(45)	23.6	(37)	5.1	(8)	0.632
	Maless	119	37.0	(44)	33.6	(40)	26.1	(31)	3.4	(4)	
	Total	276	40.2	(111)	30.8	(85)	24.6	(68)	4.3	(12)	
Chinese	Females	88	45.5	(40)	25.0	(22)	28.4	(25)	1.1	(1)	0.437[F]
	Males	89	40.4	(36)	27.0	(24)	27.0	(24)	5.6	(5)	
	Total	177	42.9	(76)	26.0	(46)	27.7	(49)	3.4	(6)	
Indians	Females	126	29.4	(37)	38.1	(48)	30.2	(38)	2.4	(3)	0.113[F]
	Males	111	22.5	(25)	48.6	(54)	22.5	(25)	6.3	(7)	
	Total	237	26.2	(62)	43.0	(102)	26.6	(63)	4.2	(10)	
Jahai	Females	26	19.2	(5)	61.5	(16)	19.2	(5)	0.0	(0)	0.163[F]
	Males	28	39.3	(11)	35.7	(10)	21.4	(6)	3.6	(1)	
	Total	54	29.6	(16)	48.1	(26)	20.4	(11)	1.9	(1)	

N, sample size; F, Fisher's exact test
*, $p<0.05$ **, $p<0.01$

Appendix 7.10 Percentages of occurrence and sexual dimorphism for hypocone reduction on the upper second molar using the individual count method and graded-scale data in four ethnic groups (frequencies of occurrence in parentheses)

Ethnic group	Sex	N	Hypocone								P
			Absent		Cuspule		Reduced		Large		
Malays	Females	148	20.3	(30)	5.4	(8)	58.1	(86)	16.2	(24)	0.640[F]
	Males	114	17.5	(20)	2.6	(3)	60.5	(69)	19.3	(22)	
	Total	262	19.1	(50)	4.2	(11)	59.2	(155)	17.6	(46)	
Chinese *	Females	70	27.1	(19)	8.6	(6)	54.3	(38)	10.0	(7)	0.015[F]
	Males	76	13.2	(10)	1.3	(1)	76.3	(58)	9.2	(7)	
	Total	146	19.9	(29)	4.8	(7)	65.8	(96)	9.6	(14)	
Indians	Females	117	39.3	(46)	6	(7)	44.4	(52)	10.3	(12)	0.177
	Males	106	30.2	(32)	4.7	(5)	45.3	(48)	19.8	(21)	
	Total	223	35.0	(78)	5.4	(12)	44.8	(100)	14.8	(33)	
Jahai	Females	29	13.8	(4)			51.7	(15)	34.5	(10)	0.099[F]
	Males	33	0.0	(0)			54.5	(18)	45.5	(15)	
	Total	62	6.5	(4)			53.2	(33)	40.3	(25)	

N, sample size; F, Fisher's exact test; *, $p<0.05$; **, $p<0.01$

Appendix 7.11 Percentages of occurrence and sexual dimorphism for the distal accessory ridge on the lower canine using the individual count method and graded-scale data in four ethnic groups (frequencies of occurrence in parentheses)

Ethnic group	Sex	N	Distal accessory ridge on the lower canine						P
			Absent		Weak		Strong		
Malays	Females	164	67.1	(110)	31.1	(51)	1.8	(3)	0.423[F]
	Males	126	61.9	(78)	34.1	(43)	4.0	(5)	
	Total	290	64.8	(188)	32.4	(94)	2.8	(8)	
Chinese**	Females	86	74.4	(64)	25.6	(22)	0.0	(0)	0.007[F]
	Males	90	54.4	(49)	42.2	(38)	3.3	(3)	
	Total	176	64.2	(113)	34.1	(60)	1.7	(3)	
Indians	Females	129	76.7	(99)	22.5	(29)	0.8	(1)	0.777[F]
	Males	116	74.1	(86)	24.1	(28)	1.7	(2)	
	Total	245	75.5	(185)	23.3	(57)	1.2	(3)	
Jahai **	Females	31	87.1	(27)	12.9	(4)			0.001
	Males	29	44.8	(13)	55.2	(16)			
	Total	60	66.7	(40)	33.3	(20)			

N, sample size; F, Fisher's exact test
*, $p<0.05$ **, $p<0.01$

Appendix 7.12 Percentages of occurrence and sexual dimorphism for lingual cusp number on the lower second premolar using the individual count method and graded-scale data in four ethnic groups (frequencies of occurrence in parentheses)

Ethnic group	Sex	N	Lingual cusp number on the lower second premolar								P
			One		Two		Three		Four		
Malays	Females	163	16.6	(27)	79.8	(130)	3.1	(5)	0.6	(1)	0.062[F]
	Males	121	27.3	(33)	67.8	(82)	5.0	(6)	0.0	(0)	
	Total	284	21.1	(60)	74.6	(212)	3.9	(11)	0.4	(1)	
Chinese	Females	83	24.1	(20)	69.9	(58)	6.0	(5)			0.730[F]
	Males	89	29.2	(26)	65.2	(58)	5.6	(5)			
	Total	172	26.7	(46)	67.4	(116)	5.8	(10)			
Indians *	Females	129	21.7	(28)	72.1	(93)	6.2	(8)			0.024
	Males	119	34.5	(41)	55.5	(66)	10.1	(12)			
	Total	248	27.8	(69)	64.1	(159)	8.1	(20)			
Jahai	Females	33	6.1	(2)	93.9	(31)	0.0	(0)			0.176[F]
	Males	33	15.2	(5)	78.8	(26)	6.1	(2)			
	Total	66	10.6	(7)	86.4	(57)	3.0	(2)			

N, sample size; F, Fisher's exact test
*, $p<0.05$ **, $p<0.01$

Appendix 7.13 Percentages of occurrence and sexual dimorphism for the deflecting wrinkle on the lower first molar using the individual count method and graded-scale data in four ethnic groups (frequencies of occurrence in parentheses)

Ethnic group	Sex	N	Deflecting wrinkle on the lower first molar						P
			Absent		Weak		Strong		
Malays	Females	131	54.2	(71)	31.3	(41)	14.5	(19)	0.641
	Males	105	49.5	(52)	37.1	(39)	13.3	(14)	
	Total	236	52.1	(123)	33.9	(80)	14.0	(33)	
Chinese	Females	78	62.8	(49)	19.2	(15)	17.9	(14)	0.356
	Males	71	52.1	(37)	28.2	(20)	19.7	(14)	
	Total	149	57.7	(86)	23.5	(35)	18.8	(28)	
Indians	Females	118	56.8	(67)	30.5	(36)	12.7	(15)	0.299
	Males	114	57.0	(65)	36.0	(41)	7.0	(8)	
	Total	232	56.9	(132)	33.2	(77)	9.9	(23)	
Jahai	Females	17	88.2	(15)	5.9	(1)	5.9	(1)	1.000F
	Males	9	88.9	(8)	11.1	(1)	0.0	0	
	Total	26	88.5	(23)	7.7	(2)	3.8	(1)	

N, sample size; F, Fisher's exact test; *, $p<0.05$; **, $p<0.01$

Appendix 7.14 Percentages of occurrence and sexual dimorphism for groove pattern on the lower second molar using the individual count method and graded-scale data in four ethnic groups (frequencies of occurrence in parentheses)

Ethnic group	Sex	N	Groove pattern on the lower second molar						P
			Y		Cruciform		X		
Malays	Females	150	10.0	(15)	60.7	(91)	29.3	(44)	0.569
	Males	116	6.9	(8)	59.5	(69)	33.6	(39)	
	Total	266	8.6	(23)	60.2	(160)	31.2	(83)	
Chinese	Females	77	5.2	(4)	61.0	(47)	33.8	(26)	0.835[F]
	Males	79	6.3	(5)	57.0	(45)	36.7	(29)	
	Total	156	5.8	(9)	59.0	(92)	35.3	(55)	
Indians	Females	124	41.9	(52)	46.8	(58)	11.3	(14)	0.708
	Males	114	36.8	(42)	51.8	(59)	11.4	(13)	
	Total	238	39.5	(94)	49.2	(117)	11.3	(27)	
Jahai	Females	25	4.0	(1)	80.0	(20)	16.0	(4)	0.742[F]
	Males	25	4.0	(1)	68.0	(17)	28.0	(7)	
	Total	50	4.0	(2)	74.0	(37)	22.0	(11)	

N, sample size; F, Fisher's exact test; *, $p<0.05$; **, $p<0.01$

Appendix 7.15 Percentages of occurrence and sexual dimorphism for the entoconulid on the lower first molar using the individual count method and graded-scale data in four ethnic groups (frequencies of occurrence in parentheses)

Ethnic group	Sex	N	Entoconulid on the lower first molar						P
			Absent		Weak		Strong		
Malays	Females	157	72.0	(113)	26.8	(42)	1.3	(2)	0.544 F
	Males	124	77.4	(96)	21.0	(26)	1.6	(2)	
	Total	281	74.4	(209)	24.2	(68)	1.4	(4)	
Chinese	Females	88	79.5	(70)	19.3	(17)	1.1	(1)	0.055 F
	Males	89	64.0	(57)	31.5	(28)	4.5	(4)	
	Total	177	71.8	(127)	25.4	(45)	2.8	(5)	
Indians*	Females	124	70.2	(87)	29.0	(36)	0.8	(1)	0.042 F
	Males	115	81.7	(94)	16.5	(19)	1.7	(2)	
	Total	239	75.7	(181)	23.0	(55)	1.3	(3)	
Jahai	Females	22	77.3	(17)	18.2	(4)	4.5	(1)	0.285 F
	Males	21	57.1	(12)	38.1	(8)	4.8	(1)	
	Total	43	67.4	(29)	27.9	(12)	4.7	(2)	

N, sample size; F, Fisher's exact test
*, $p<0.05$ **, $p<0.01$

Appendix 7.16 Percentages of occurrence and sexual dimorphism for the metaconulid on the lower first molar using the individual count method and graded scale data in four ethnic groups (frequency of occurrences in parentheses)

Ethnic group	Sex	N	Metaconulid on the lower first molar						P
			Absent		Weak		Strong		
Malays	Females	163	95.7	(156)	4.3	(7)	0.0	(0)	0.109 F
	Males	124	90.3	(112)	8.9	(11)	0.8	(1)	
	Total	287	93.4	(268)	6.3	(18)	0.3	(1)	
Chinese	Females	88	95.5	(84)	2.3	(2)	2.3	(2)	0.378 F
	Males	89	89.9	(80)	5.6	(5)	4.5	(4)	
	Total	177	92.7	(164)	4.0	(7)	3.4	(6)	
Indians	Females	127	91.3	(116)	6.3	(8)	2.4	(3)	0.414 F
	Males	120	87.5	(105)	6.7	(8)	5.8	(7)	
	Total	247	89.5	(221)	6.5	(16)	4.0	(10)	
Jahai	Females	25	96.0	(24)	4.0	(1)	0.0	(0)	0.441 F
	Males	30	83.3	(25)	10.0	(3)	6.7	(2)	
	Total	55	89.1	(49)	7.3	(4)	3.6	(2)	

N, sample size; F, Fisher's exact test
*, $p<0.05$ **, $p<0.01$

Appendix 7.17 Percentages of occurrence and sexual dimorphism for protostylid on the lower first molar using the individual count method and graded-scale data in four ethnic groups (frequencies of occurrence in parentheses)

Ethnic group	Sex	N	Protostylid on the lower first molar						P
			Absent		Weak		Strong		
Malays	Females	158	48.1	(76)	3.2	(5)	48.7	(77)	0.637[F]
	Males	124	43.5	(54)	4.8	(6)	51.6	(64)	
	Total	282	46.1	(130)	3.9	(11)	50.0	(141)	
Chinese	Females	82	41.5	(34)	8.5	(7)	50.0	(41)	0.186
	Males	82	28.0	(23)	12.2	(10)	59.8	(49)	
	Total	164	34.8	(57)	10.4	(17)	54.9	(90)	
Indians	Females	129	64.3	(83)	4.7	(6)	31.0	(40)	0.271[F]
	Males	118	72.0	(85)	1.7	(2)	26.3	(31)	
	Total	247	68.0	(168)	3.2	(8)	28.7	(71)	
Jahai	Females	23	69.6	(16)	8.7	(2)	21.7	(5)	0.268[F]
	Males	28	67.9	(19)	0.0	(0)	32.1	(9)	
	Total	51	68.6	(35)	3.9	(2)	27.5	(14)	

N, sample size; F, Fisher's exact test; *, $p<0.05$; **, $p<0.01$

Appendix 7.18 Percentages of occurrence and sexual dimorphism for cusp number on the lower second molar using the individual count method and graded-scale data in four ethnic groups (frequencies of occurrence in parentheses)

Ethnic group	Sex	N	Cusp number on the lower second molar						P
			Four		Five		Six		
Malays	Females	150	49.3	(74)	41.3	(62)	9.3	(14)	0.548
	Males	116	45.7	(53)	47.4	(55)	6.9	(8)	
	Total	266	47.7	(127)	44.0	(117)	8.3	(22)	
Chinese**	Females	75	50.7	(38)	37.3	(28)	12.0	(9)	0.007
	Males	80	26.3	(21)	56.3	(45)	17.5	(14)	
	Total	155	38.1	(59)	47.1	(73)	14.8	(23)	
Indians	Females	112	80.4	(90)	17.9	(20)	1.8	(2)	0.318[F]
	Males	105	72.4	(76)	26.7	(28)	1.0	(1)	
	Total	217	76.5	(166)	22.1	(48)	1.4	(3)	
Jahai	Females	24	62.5	(15)	33.3	(8)	4.2	(1)	1.00[F]
	Males	24	58.3	(14)	37.5	(9)	4.2	(1)	
	Total	48	60.4	(29)	35.4	(17)	4.2	(2)	

N, sample size; F, Fisher's exact test
*, $p<0.05$ **, $p<0.01$

SECTION 6 MORPHOLOGICAL VARIATION IN DENTAL CROWNS FOR HUMAN IDENTIFICATION

Appendix 8.1 Example of using a logistic regression function

Probability group membership = - 0.43735 – 1.04966*(shovel) + 0.94562*(metaconule) – 0.87188*(protostylid) - 1.48236*(second molar 4-cusp number) + 2.24243*(Y-groove pattern).

Example 1.

Case 6 (True membership is Indian, coded membership as positive)

Probability group membership = - 0.43735 – 1.04966*(0) + 0.94562*(1) – 0.87188*(0) - 1.48236*(1) + 2.24243*(1) = 1.27 (positive)

Thus, case 6 was predicted as Indian which is true.

Example 2.

Case 8 (True membership is Indian, coded membership as positive)

Probability group membership = - 0.43735 – 1.04966*(0) + 0.94562*(1) – 0.87188*(0) - 1.48236*(1) + 2.24243*(0) = - 0.96 (negative)

Thus, misclassification of case 8 as Mongoloid.

SECTION 7 DISCRIMINATION BETWEEN DIFFERENT HUMAN ETHNIC GROUPS USING METRIC AND NON-METRIC DENTAL DATA

Appendix 9.1 Coefficients of regression for 26 steps from backward stepwise analysis of combined dental crown size and morphology data

	Tooth	B	S.E.		Tooth	B	S.E.
Step	UI1_MD	0.9766	1.02	Step	UI1_MD	0.9790	1.01
1	UI2_MD	-0.5790	0.67	2	UI2_MD	-0.5818	0.66
	UC_MD	-2.1843	0.99		UC_MD	-2.1777	0.97
	UP1_MD	-2.2643	1.15		UP1_MD	-2.2655	1.15
	UP2_MD	-1.8403	1.11		UP2_MD	-1.8407	1.11
	UM1_MD	2.0948	0.88		UM1_MD	2.0990	0.87
	UM2_MD	2.9715	0.78		UM2_MD	2.9708	0.77
	UI1_BL	-1.0625	0.88		UI1_BL	-1.0599	0.87
	UI2_BL	0.2309	0.88		UI2_BL	0.2345	0.87
	UC_BL	0.0603	0.82		UC_BL	0.0567	0.82
	UP1_BL	-0.6766	1.07		UP1_BL	-0.6762	1.07
	UP2_BL	0.3684	1.00		UP2_BL	0.3682	1.00
	UM1_BL	0.0273	0.83		UM2_BL	0.6066	0.67
	UM2_BL	0.6012	0.69		LI1_MD	1.3952	1.52
	LI1_MD	1.3917	1.52		LI2_MD	-1.4892	1.15
	LI2_MD	-1.4867	1.15		LC_MD	-1.3701	1.08
	LC_MD	-1.3740	1.08		LP1_MD	1.9282	1.09
	LP1_MD	1.9308	1.09		LP2_MD	1.9854	1.18
	LP2_MD	1.9857	1.18		LM1_MD	-2.4044	0.84
	LM1_MD	-2.4016	0.85		LM2_MD	1.3578	0.80
	LM2_MD	1.3592	0.80		LI1_BL	2.1788	1.17
	LI1_BL	2.1720	1.19		LI2_BL	-0.8522	1.00
	LI2_BL	-0.8481	1.01		LC_BL	-0.8866	0.74
	LC_BL	-0.8854	0.74		LP1_BL	1.1623	0.84
	LP1_BL	1.1630	0.84		LP2_BL	1.5413	0.93
	LP2_BL	1.5357	0.95		LM1_BL	-0.6015	0.85
	LM1_BL	-0.6096	0.88		LM2_BL	-1.4821	0.91
	LM2_BL	-1.4889	0.94		WW	-1.9368	1.15
	WW	-1.9363	1.15		SZ	2.3131	0.70
	SZ	2.3094	0.71		CARA	-0.9739	0.76
	CARA	-0.9732	0.76		C5	-1.4484	0.57
	C5	-1.4483	0.57		HYP	2.5022	0.76
	HYP	2.4999	0.76		DAR	-1.0255	0.63
	DAR	-1.0275	0.63		1-LP2	1.1994	0.63
	1-LP2	1.1982	0.64		PZ	0.7988	0.55
	PZ	0.7993	0.55		DW	-0.3452	0.74
	DW	-0.3452	0.74		C7	-0.7715	0.93
	C7	-0.7683	0.94		C6	0.7556	0.72
	C6	0.7547	0.72		CN	0.9765	0.55
	CN	0.9793	0.56		Y-GP	-1.4615	0.68
	Y-GP	-1.4589	0.69		Constant	-15.9972	8.28
	Constant	-15.9791	8.30				

Appendix 9.1 (continued)

	Tooth	B	S.E.		Tooth	B	S.E.
Step 3	UI1_MD	0.9714	1.01	Step 4	UI1_MD	0.9847	1.01
	UI2_MD	-0.5859	0.66		UI2_MD	-0.5820	0.66
	UC_MD	-2.1601	0.93		UC_MD	-2.1004	0.91
	UP1_MD	-2.2727	1.14		UP1_MD	-2.2440	1.14
	UP2_MD	-1.8453	1.11		UP2_MD	-1.8450	1.10
	UM1_MD	2.1053	0.87		UM1_MD	2.0644	0.86
	UM2_MD	2.9683	0.77		UM2_MD	2.9657	0.77
	UI1_BL	-1.0522	0.87		UI1_BL	-0.9390	0.78
	UI2_BL	0.2518	0.83		UP1_BL	-0.6498	1.06
	UP1_BL	-0.6783	1.07		UP2_BL	0.3536	0.99
	UP2_BL	0.3775	0.99		UM2_BL	0.6114	0.67
	UM2_BL	0.6092	0.67		LI1_MD	1.4129	1.51
	LI1_MD	1.4031	1.51		LI2_MD	-1.5107	1.14
	LI2_MD	-1.4919	1.15		LC_MD	-1.3500	1.07
	LC_MD	-1.3609	1.07		LP1_MD	1.9213	1.09
	LP1_MD	1.9341	1.09		LP2_MD	1.9423	1.17
	LP2_MD	1.9851	1.18		LM1_MD	-2.3750	0.79
	LM1_MD	-2.4203	0.81		LM2_MD	1.3406	0.78
	LM2_MD	1.3656	0.79		LI1_BL	2.1513	1.17
	LI1_BL	2.1782	1.17		LI2_BL	-0.8040	0.99
	LI2_BL	-0.8491	1.00		LC_BL	-0.8633	0.69
	LC_BL	-0.8683	0.69		LP1_BL	1.1846	0.83
	LP1_BL	1.1693	0.84		LP2_BL	1.5551	0.92
	LP2_BL	1.5337	0.93		LM1_BL	-0.6093	0.85
	LM1_BL	-0.5995	0.85		LM2_BL	-1.4734	0.90
	LM2_BL	-1.4895	0.91		WW	-1.9272	1.14
	WW	-1.9277	1.14		SZ	2.2964	0.70
	SZ	2.3087	0.70		CARA	-0.9873	0.76
	CARA	-0.9701	0.76		C5	-1.4293	0.56
	C5	-1.4458	0.57		HYP	2.4762	0.74
	HYP	2.4937	0.75		DAR	-0.9949	0.62
	DAR	-1.0223	0.62		1-LP2	1.1900	0.63
	1-LP2	1.1981	0.63		PZ	0.7921	0.55
	PZ	0.7999	0.55		DW	-0.3191	0.73
	DW	-0.3513	0.74		C7	-0.7595	0.93
	C7	-0.7794	0.93		C6	0.7376	0.71
	C6	0.7618	0.72		CN	0.9850	0.55
	CN	0.9741	0.55		Y-GP	-1.4437	0.68
	Y-GP	-1.4593	0.68		Constant	-15.9517	8.18
	Constant	-15.9143	8.19				

Appendix 9.1 (continued)

	Tooth	B	S.E.		Tooth	B	S.E.
Step 5	UI1_MD	1.0070	1.00	Step 6	UI1_MD	1.0279	1.00
	UI2_MD	-0.5763	0.66		UI2_MD	-0.5926	0.65
	UC_MD	-2.1795	0.89		UC_MD	-2.1472	0.88
	UP1_MD	-2.2469	1.14		UP1_MD	-2.2160	1.13
	UP2_MD	-1.7505	1.08		UP2_MD	-1.7504	1.07
	UM1_MD	2.0549	0.86		UM1_MD	2.0811	0.86
	UM2_MD	2.9536	0.77		UM2_MD	2.9653	0.77
	UI1_BL	-0.8973	0.77		UI1_BL	-0.9365	0.77
	UP1_BL	-0.4333	0.87		UP1_BL	-0.3727	0.86
	UM2_BL	0.6425	0.67		UM2_BL	0.6338	0.67
	LI1_MD	1.3632	1.51		LI1_MD	1.3485	1.50
	LI2_MD	-1.5042	1.14		LI2_MD	-1.5119	1.14
	LC_MD	-1.3094	1.06		LC_MD	-1.3631	1.05
	LP1_MD	1.9163	1.10		LP1_MD	1.9175	1.09
	LP2_MD	1.9612	1.16		LP2_MD	1.9881	1.16
	LM1_MD	-2.3643	0.79		LM1_MD	-2.3512	0.79
	LM2_MD	1.3259	0.78		LM2_MD	1.2746	0.77
	LI1_BL	2.1537	1.17		LI1_BL	2.1540	1.17
	LI2_BL	-0.8569	0.98		LI2_BL	-0.8283	0.97
	LC_BL	-0.8347	0.68		LC_BL	-0.7976	0.68
	LP1_BL	1.1473	0.82		LP1_BL	1.1282	0.82
	LP2_BL	1.6503	0.87		LP2_BL	1.5712	0.85
	LM1_BL	-0.5789	0.84		LM1_BL	-0.6025	0.84
	LM2_BL	-1.4723	0.91		LM2_BL	-1.4513	0.91
	WW	-1.9507	1.13		WW	-1.9783	1.14
	SZ	2.3381	0.69		SZ	2.3623	0.69
	CARA	-1.0389	0.74		CARA	-1.0899	0.73
	C5	-1.4633	0.56		C5	-1.4710	0.56
	HYP	2.5111	0.74		HYP	2.5568	0.73
	DAR	-1.0053	0.61		DAR	-1.0308	0.61
	1-LP2	1.2105	0.63		1-LP2	1.2379	0.63
	PZ	0.7847	0.55		PZ	0.7721	0.55
	DW	-0.3060	0.72		C7	-0.7735	0.92
	C7	-0.7708	0.93		C6	0.7701	0.69
	C6	0.7774	0.70		CN	0.9455	0.54
	CN	0.9740	0.54		Y-GP	-1.4333	0.68
	Y-GP	-1.4452	0.68		Constant	-16.5561	8.11
	Constant	-16.2709	8.14				

Appendix 9.1 (continued)

	Tooth	B	S.E.		Tooth	B	S.E.
Step 7	UI1_MD	1.0589	1.00	Step 8	UI1_MD	1.1183	0.99
	UI2_MD	-0.6121	0.66		UI2_MD	-0.5434	0.65
	UC_MD	-2.2095	0.87		UC_MD	-2.3242	0.86
	UP1_MD	-2.3533	1.09		UP1_MD	-2.3407	1.09
	UP2_MD	-1.6872	1.07		UP2_MD	-1.6020	1.07
	UM1_MD	2.1517	0.84		UM1_MD	2.0973	0.83
	UM2_MD	2.9688	0.77		UM2_MD	3.0234	0.77
	UI1_BL	-0.9601	0.76		UI1_BL	-0.9923	0.77
	UM2_BL	0.5443	0.63		UM2_BL	0.4356	0.61
	LI1_MD	1.4126	1.50		LI1_MD	1.4015	1.48
	LI2_MD	-1.5476	1.14		LI2_MD	-1.6126	1.12
	LC_MD	-1.3843	1.05		LC_MD	-1.3671	1.06
	LP1_MD	1.9566	1.09		LP1_MD	2.1352	1.07
	LP2_MD	1.9575	1.15		LP2_MD	1.7831	1.13
	LM1_MD	-2.3258	0.79		LM1_MD	-2.2811	0.79
	LM2_MD	1.2522	0.76		LM2_MD	1.2720	0.75
	LI1_BL	2.1515	1.16		LI1_BL	2.1591	1.15
	LI2_BL	-0.8839	0.97		LI2_BL	-0.8164	0.96
	LC_BL	-0.7970	0.68		LC_BL	-0.8207	0.67
	LP1_BL	1.1172	0.81		LP1_BL	1.1818	0.81
	LP2_BL	1.4321	0.79		LP2_BL	1.4318	0.78
	LM1_BL	-0.6456	0.84		LM1_BL	-0.5613	0.83
	LM2_BL	-1.4533	0.90		LM2_BL	-1.5145	0.90
	WW	-1.9961	1.15		WW	-2.0738	1.16
	SZ	2.3727	0.69		SZ	2.4583	0.69
	CARA	-1.1102	0.73		CARA	-1.1991	0.72
	C5	-1.4771	0.55		C5	-1.5249	0.55
	HYP	2.5707	0.73		HYP	2.6912	0.72
	DAR	-1.0782	0.60		DAR	-1.0643	0.60
	1-LP2	1.2635	0.63		1-LP2	1.3330	0.62
	PZ	0.7484	0.55		PZ	0.6933	0.54
	C7	-0.6644	0.89		C6	0.5726	0.63
	C6	0.6810	0.65		CN	0.9752	0.54
	CN	0.9650	0.54		Y-GP	-1.2962	0.65
	Y-GP	-1.4280	0.68		Constant	-18.2510	7.91
	Constant	-16.7754	8.09				

Appendix 9.1 (continued)

	Tooth	B	S.E.		Tooth	B	S.E.
Step 9	UI1_MD	1.1498	0.99	Step 10	UI1_MD	1.2517	0.98
	UI2_MD	-0.5288	0.65		UI2_MD	-0.4791	0.64
	UC_MD	-2.3740	0.86		UC_MD	-2.3566	0.86
	UP1_MD	-2.3852	1.09		UP1_MD	-2.3101	1.08
	UP2_MD	-1.6101	1.06		UP2_MD	-1.4004	1.02
	UM1_MD	1.9618	0.80		UM1_MD	1.9096	0.79
	UM2_MD	2.9986	0.77		UM2_MD	2.9606	0.77
	UI1_BL	-0.9966	0.76		UI1_BL	-0.9094	0.74
	UM2_BL	0.4891	0.60		UM2_BL	1.5121	1.47
	LI1_MD	1.4625	1.47		LI2_MD	-1.6177	1.12
	LI2_MD	-1.6085	1.12		LC_MD	-1.3080	1.05
	LC_MD	-1.3937	1.06		LP1_MD	2.2061	1.07
	LP1_MD	2.2161	1.07		LP2_MD	1.6603	1.07
	LP2_MD	1.8870	1.11		LM1_MD	-2.2717	0.78
	LM1_MD	-2.2837	0.79		LM2_MD	1.2795	0.75
	LM2_MD	1.2397	0.75		LI1_BL	2.0471	1.14
	LI1_BL	2.1121	1.14		LI2_BL	-0.9391	0.94
	LI2_BL	-0.8162	0.95		LC_BL	-0.8695	0.66
	LC_BL	-0.8858	0.66		LP1_BL	1.2112	0.78
	LP1_BL	1.1058	0.79		LP2_BL	1.3187	0.77
	LP2_BL	1.3485	0.77		LM2_BL	-1.4347	0.76
	LM2_BL	-1.7222	0.85		WW	-2.3269	1.10
	WW	-2.2801	1.11		SZ	2.5605	0.68
	SZ	2.5316	0.68		CARA	-1.1758	0.71
	CARA	-1.1782	0.72		C5	-1.4920	0.55
	C5	-1.5026	0.55		HYP	2.7767	0.72
	HYP	2.7602	0.72		DAR	-1.0736	0.58
	DAR	-1.1209	0.59		1-LP2	1.3333	0.61
	1-LP2	1.3162	0.62		PZ	0.6144	0.53
	PZ	0.6775	0.54		C6	0.5273	0.62
	C6	0.5492	0.63		CN	1.0157	0.54
	CN	0.9895	0.54		Y-GP	-1.1984	0.63
	Y-GP	-1.3126	0.65		Constant	-19.6582	7.68
	Constant	-19.6897	7.64				

Appendix 9.1 (continued)

	Tooth	B	S.E.		Tooth	B	S.E.
Step 11	UI1_MD	1.1167	0.96	Step 12	UI1_MD	1.2227	0.96
	UC_MD	-2.4003	0.86		UC_MD	-2.3945	0.87
	UP1_MD	-2.2975	1.07		UP1_MD	-2.2889	1.08
	UP2_MD	-1.3919	1.01		UP2_MD	-1.3463	1.01
	UM1_MD	1.8342	0.77		UM1_MD	1.8060	0.77
	UM2_MD	2.9010	0.76		UM2_MD	2.8635	0.76
	UI1_BL	-0.9546	0.73		UI1_BL	-0.8912	0.72
	LI1_MD	1.3634	1.44		LI1_MD	1.2984	1.41
	LI2_MD	-1.5926	1.11		LI2_MD	-1.5341	1.10
	LC_MD	-1.3750	1.04		LC_MD	-1.4129	1.04
	LP1_MD	2.0600	1.04		LP1_MD	2.0765	1.05
	LP2_MD	1.5991	1.05		LP2_MD	1.4394	1.03
	LM1_MD	-2.1923	0.77		LM1_MD	-2.1278	0.75
	LM2_MD	1.3226	0.75		LM2_MD	1.2019	0.72
	LI1_BL	1.9682	1.13		LI1_BL	1.9243	1.13
	LI2_BL	-0.8572	0.93		LI2_BL	-0.7843	0.92
	LC_BL	-0.8018	0.65		LC_BL	-0.8928	0.64
	LP1_BL	1.1749	0.78		LP1_BL	1.1952	0.78
	LP2_BL	1.3095	0.77		LP2_BL	1.2676	0.77
	LM2_BL	-1.3497	0.75		LM2_BL	-1.2813	0.74
	WW	-2.3539	1.09		WW	-2.1877	1.06
	SZ	2.6769	0.67		SZ	2.6157	0.65
	CARA	-1.1688	0.71		CARA	-1.1506	0.70
	C5	-1.5005	0.55		C5	-1.3965	0.53
	HYP	2.7085	0.70		HYP	2.6867	0.70
	DAR	-1.1299	0.58		DAR	-1.1742	0.58
	1-LP2	1.2706	0.61		1-LP2	1.2504	0.60
	PZ	0.5790	0.53		PZ	0.5680	0.53
	C6	0.5112	0.62		CN	1.1354	0.53
	CN	1.0605	0.53		Y-GP	-1.1083	0.61
	Y-GP	-1.1161	0.62		Constant	-18.6858	7.52
	Constant	-19.7394	7.68				

Appendix 9.1 (continued)

	Tooth	B	S.E.		Tooth	B	S.E.
Step 13	UI1_MD	1.2684	0.95	Step 14	UI1_MD	1.5770	0.88
	UC_MD	-2.3577	0.86		UC_MD	-2.2721	0.85
	UP1_MD	-2.1451	1.06		UP1_MD	-2.1543	1.06
	UP2_MD	-1.3928	1.01		UP2_MD	-1.4359	1.01
	UM1_MD	1.7817	0.77		UM1_MD	1.8490	0.77
	UM2_MD	2.8814	0.76		UM2_MD	2.7964	0.75
	UI1_BL	-0.9781	0.71		UI1_BL	-1.0542	0.71
	LI1_MD	1.1973	1.38		LI2_MD	-1.1373	0.98
	LI2_MD	-1.5139	1.08		LC_MD	-1.5479	1.04
	LC_MD	-1.5020	1.04		LP1_MD	1.8681	1.02
	LP1_MD	1.8963	1.03		LP2_MD	1.4531	1.01
	LP2_MD	1.3991	1.01		LM1_MD	-2.0445	0.75
	LM1_MD	-2.0640	0.75		LM2_MD	1.3547	0.72
	LM2_MD	1.2284	0.72		LI1_BL	1.6325	0.95
	LI1_BL	1.4482	0.97		LC_BL	-0.9498	0.64
	LC_BL	-0.9456	0.63		LP1_BL	1.0445	0.76
	LP1_BL	1.1049	0.78		LP2_BL	1.3576	0.76
	LP2_BL	1.2607	0.77		LM2_BL	-1.3436	0.73
	LM2_BL	-1.2667	0.74		WW	-2.1001	1.06
	WW	-2.0797	1.07		SZ	2.6107	0.65
	SZ	2.5723	0.64		CARA	-1.0974	0.69
	CARA	-1.0996	0.69		C5	-1.3689	0.53
	C5	-1.4096	0.53		HYP	2.5446	0.68
	HYP	2.6151	0.69		DAR	-1.2635	0.57
	DAR	-1.1925	0.57		1-LP2	1.2525	0.60
	1-LP2	1.2692	0.60		PZ	0.4875	0.52
	PZ	0.5357	0.53		CN	1.1250	0.53
	CN	1.1358	0.53		Y-GP	-1.0104	0.60
	Y-GP	-1.0808	0.61		Constant	-18.7447	7.53
	Constant	-18.7536	7.51				

Appendix 9.1 (continued)

	Tooth	B	S.E.		Tooth	B	S.E.
Step 15	UI1_MD	1.6607	0.88	Step 16	UI1_MD	1.3529	0.83
	UC_MD	-2.1884	0.84		UC_MD	-2.2641	0.84
	UP1_MD	-2.3340	1.04		UP1_MD	-2.2283	1.04
	UP2_MD	-1.3026	0.99		UP2_MD	-1.2353	0.98
	UM1_MD	1.7666	0.77		UM1_MD	1.9174	0.76
	UM2_MD	2.9329	0.74		UM2_MD	2.8725	0.73
	UI1_BL	-1.1941	0.69		UI1_BL	-1.1938	0.69
	LI2_MD	-1.0325	0.97		LC_MD	-1.8440	1.02
	LC_MD	-1.6534	1.03		LP1_MD	1.5850	0.98
	LP1_MD	1.8295	1.01		LP2_MD	1.3181	0.99
	LP2_MD	1.4529	1.00		LM1_MD	-2.1848	0.74
	LM1_MD	-2.0226	0.75		LM2_MD	1.3980	0.69
	LM2_MD	1.3298	0.71		LI1_BL	1.7056	0.96
	LI1_BL	1.6909	0.96		LC_BL	-0.9422	0.62
	LC_BL	-0.9335	0.63		LP1_BL	1.1544	0.74
	LP1_BL	1.0920	0.75		LP2_BL	1.2835	0.75
	LP2_BL	1.3348	0.76		LM2_BL	-1.3446	0.72
	LM2_BL	-1.4000	0.72		WW	-2.3567	1.05
	WW	-2.3458	1.06		SZ	2.7172	0.64
	SZ	2.7038	0.64		CARA	-0.9298	0.67
	CARA	-1.0291	0.68		C5	-1.3339	0.51
	C5	-1.3641	0.52		HYP	2.5910	0.67
	HYP	2.5858	0.67		DAR	-1.2190	0.56
	DAR	-1.2584	0.57		1-LP2	1.2275	0.59
	1-LP2	1.2536	0.59		CN	1.1288	0.52
	CN	1.1771	0.52		Y-GP	-1.0055	0.59
	Y-GP	-0.9630	0.59		Constant	-19.3644	7.48
	Constant	-18.7490	7.57				

Appendix 9.1 (continued)

	Tooth	B	S.E.		Tooth	B	S.E.
Step 17	UI1_MD	1.1485	0.81	Step 18	UI1_MD	1.1540	0.81
	UC_MD	-2.2999	0.84		UC_MD	-2.4146	0.83
	UP1_MD	-2.5194	1.01		UP1_MD	-2.2127	0.95
	UM1_MD	1.7861	0.74		UM1_MD	1.7752	0.73
	UM2_MD	2.7376	0.72		UM2_MD	2.8411	0.71
	UI1_BL	-1.1861	0.69		UI1_BL	-1.1127	0.68
	LC_MD	-1.7590	1.02		LC_MD	-1.6708	1.01
	LP1_MD	1.4185	0.98		LP1_MD	1.6490	0.95
	LP2_MD	1.0024	0.95		LM1_MD	-2.0469	0.72
	LM1_MD	-2.1501	0.73		LM2_MD	1.3145	0.67
	LM2_MD	1.2630	0.67		LI1_BL	1.7733	0.94
	LI1_BL	1.7818	0.95		LC_BL	-1.0552	0.62
	LC_BL	-0.9986	0.62		LP1_BL	1.3007	0.73
	LP1_BL	1.3272	0.73		LP2_BL	1.3247	0.74
	LP2_BL	1.2591	0.74		LM2_BL	-1.1208	0.70
	LM2_BL	-1.2080	0.70		WW	-2.5033	1.05
	WW	-2.4876	1.06		SZ	2.5876	0.61
	SZ	2.7354	0.63		CARA	-0.9092	0.65
	CARA	-0.8455	0.66		C5	-1.2690	0.50
	C5	-1.2304	0.50		HYP	2.5141	0.67
	HYP	2.5177	0.67		DAR	-1.2041	0.55
	DAR	-1.1683	0.56		1-LP2	1.0063	0.54
	1-LP2	1.0353	0.55		CN	1.1966	0.50
	CN	1.1610	0.51		Y-GP	-0.9012	0.58
	Y-GP	-0.9719	0.58		Constant	-20.0642	7.47
	Constant	-19.8226	7.48				

Appendix 9.1 (continued)

	Tooth	B	S.E.		Tooth	B	S.E.
Step 19	UC_MD	-2.4710	0.83	Step 20	UC_MD	-2.8896	0.76
	UP1_MD	-2.1362	0.94		UP1_MD	-2.3565	0.93
	UM1_MD	1.9174	0.74		UM1_MD	1.9150	0.73
	UM2_MD	2.8673	0.71		UM2_MD	2.8308	0.70
	UI1_BL	-0.9071	0.65		UI1_BL	-1.0024	0.65
	LC_MD	-1.1832	0.93		LP1_MD	1.5599	0.92
	LP1_MD	1.6676	0.94		LM1_MD	-2.0538	0.71
	LM1_MD	-1.9059	0.71		LM2_MD	1.5731	0.66
	LM2_MD	1.4825	0.65		LI1_BL	1.7090	0.92
	LI1_BL	1.7908	0.92		LC_BL	-1.2557	0.61
	LC_BL	-1.1395	0.61		LP1_BL	1.3542	0.71
	LP1_BL	1.3833	0.72		LP2_BL	1.3644	0.73
	LP2_BL	1.3591	0.73		LM2_BL	-1.2576	0.69
	LM2_BL	-1.2846	0.70		WW	-2.3509	1.02
	WW	-2.4726	1.07		SZ	2.5951	0.60
	SZ	2.6005	0.61		CARA	-0.8258	0.63
	CARA	-0.9289	0.64		C5	-1.1375	0.48
	C5	-1.2102	0.49		HYP	2.3345	0.64
	HYP	2.3711	0.64		DAR	-1.0761	0.53
	DAR	-1.2141	0.55		1-LP2	0.9558	0.53
	1-LP2	1.0124	0.54		CN	1.2498	0.49
	CN	1.1995	0.50		Y-GP	-0.9771	0.57
	Y-GP	-1.0200	0.57		Constant	-18.4519	7.31
	Constant	-18.9368	7.33				

Appendix 9.1 (continued)

	Tooth	B	S.E.		Tooth	B	S.E.
Step 21	UC_MD	-2.9657	0.77	Step 22	UC_MD	-2.9564	0.76
	UP1_MD	-2.2198	0.91		UP1_MD	-2.1162	0.90
	UM1_MD	1.7879	0.73		UM1_MD	1.6267	0.70
	UM2_MD	2.7034	0.68		UM2_MD	2.6592	0.68
	UI1_BL	-1.0271	0.65		LP1_MD	1.4775	0.90
	LP1_MD	1.6346	0.92		LM1_MD	-1.9953	0.69
	LM1_MD	-2.0808	0.72		LM2_MD	1.6624	0.64
	LM2_MD	1.6590	0.66		LI1_BL	1.4308	0.82
	LI1_BL	1.9506	0.91		LC_BL	-1.5402	0.59
	LC_BL	-1.3551	0.60		LP1_BL	1.0904	0.69
	LP1_BL	1.2733	0.70		LP2_BL	1.3297	0.74
	LP2_BL	1.4041	0.73		LM2_BL	-1.0697	0.67
	LM2_BL	-1.0652	0.67		WW	-2.0469	0.93
	WW	-2.3915	1.01		SZ	2.5846	0.58
	SZ	2.6359	0.59		C5	-1.0629	0.47
	C5	-1.1130	0.48		HYP	2.1041	0.60
	HYP	2.1550	0.61		DAR	-1.0600	0.52
	DAR	-1.0347	0.52		1-LP2	0.8085	0.52
	1-LP2	0.8353	0.52		CN	1.3086	0.48
	CN	1.3404	0.49		Y-GP	-0.8761	0.57
	Y-GP	-0.9078	0.57		Constant	-19.1700	7.15
	Constant	-19.8366	7.27				
Step 23	UC_MD	-2.9105	0.75	Step 24	UC_MD	-2.6194	0.69
	UP1_MD	-2.4061	0.87		UP1_MD	-2.4613	0.85
	UM1_MD	1.5290	0.70		UM1_MD	1.4384	0.69
	UM2_MD	2.7968	0.67		UM2_MD	2.6717	0.65
	LP1_MD	1.6910	0.88		LP1_MD	1.5875	0.87
	LM1_MD	-2.0738	0.68		LM1_MD	-1.9930	0.66
	LM2_MD	1.7160	0.63		LM2_MD	1.7443	0.63
	LI1_BL	1.5600	0.81		LI1_BL	1.5193	0.80
	LC_BL	-1.4796	0.58		LC_BL	-1.4987	0.58
	LP1_BL	0.9688	0.69		LP1_BL	0.9243	0.68
	LP2_BL	1.4008	0.72		LP2_BL	1.4039	0.71
	LM2_BL	-1.0034	0.66		LM2_BL	-0.9273	0.65
	WW	-2.0764	0.93		WW	-2.0032	0.93
	SZ	2.6796	0.58		SZ	2.6076	0.57
	C5	-1.1146	0.46		C5	-1.0378	0.46
	HYP	2.2067	0.60		HYP	2.1760	0.60
	DAR	-1.0671	0.52		DAR	-1.0845	0.51
	1-LP2	0.6127	0.49		CN	1.3453	0.47
	CN	1.3513	0.48		Constant	-21.2301	7.07
	Constant	-21.2380	7.09				

Appendix 9.1 (continued)

	Tooth	B	S.E.		Tooth	B	S.E.
Step 25	UC_MD	-2.5677	0.69	Step 26	UC_MD	-2.4862	0.67
	UP1_MD	-2.3327	0.84		UP1_MD	-2.1936	0.82
	UM1_MD	1.3761	0.68		UM1_MD	1.2230	0.66
	UM2_MD	2.6235	0.64		UM2_MD	2.4183	0.61
	LP1_MD	1.5222	0.86		LP1_MD	1.4123	0.86
	LM1_MD	-1.8381	0.64		LM1_MD	-2.0027	0.63
	LM2_MD	1.5486	0.60		LM2_MD	1.4306	0.59
	LI1_BL	1.5731	0.78		LI1_BL	1.4052	0.76
	LC_BL	-1.3035	0.56		LC_BL	-1.4134	0.55
	LP2_BL	1.8837	0.64		LP2_BL	1.7104	0.61
	LM2_BL	-0.8102	0.64		WW	-1.9474	0.94
	WW	-1.9977	0.95		SZ	2.5821	0.55
	SZ	2.5576	0.56		C5	-1.0445	0.45
	C5	-1.0531	0.45		HYP	1.8717	0.55
	HYP	2.0027	0.58		DAR	-1.1326	0.50
	DAR	-1.0161	0.51		CN	1.2747	0.46
	CN	1.2326	0.46		Constant	-19.4562	6.75
	Constant	-20.1626	6.92				

Appendix 9.2 Coefficients of regression for 15 steps from backward stepwise analysis of combined dental crown size and morphology data

	Tooth	B	S.E.		Tooth	B	S.E.
Step 1	UC_MD	-2.1333	0.88	Step 2	UC_MD	-2.1419	0.86
	UP1_MD	-2.0975	1.06		UP1_MD	-2.0982	1.06
	UP2_MD	-1.8595	1.04		UP2_MD	-1.8455	0.99
	UM1_MD	2.1844	0.81		UM1_MD	2.1841	0.81
	UM2_MD	2.9100	0.72		UM2_MD	2.9099	0.72
	UP1_BL	-0.7517	1.01		UP1_BL	-0.7244	0.81
	UP2_BL	0.0395	0.89		UM1_BL	0.4126	0.73
	UM1_BL	0.4132	0.73		UM2_BL	0.5972	0.60
	UM2_BL	0.5936	0.61		LC_MD	-1.7111	0.95
	LC_MD	-1.7142	0.96		LP1_MD	1.2961	1.01
	LP1_MD	1.2984	1.01		LP2_MD	1.8214	1.05
	LP2_MD	1.8208	1.05		LM1_MD	-2.0162	0.70
	LM1_MD	-2.0174	0.70		LM2_MD	1.5717	0.68
	LM2_MD	1.5728	0.68		LP1_BL	0.8943	0.75
	LP1_BL	0.8969	0.75		LP2_BL	1.6139	0.83
	LP2_BL	1.6054	0.86		LM1_BL	-0.8452	0.82
	LM1_BL	-0.8480	0.82		LM2_BL	-1.5388	0.85
	LM2_BL	-1.5400	0.85		WW	-1.4138	1.00
	WW	-1.4091	1.00		SZ	2.2487	0.63
	SZ	2.2432	0.64		CARA	-1.1854	0.67
	CARA	-1.1798	0.68		C5	-1.4444	0.52
	C5	-1.4402	0.53		HYP	2.1134	0.66
	HYP	2.1076	0.68		DAR	-1.0850	0.56
	DAR	-1.0833	0.56		1-LP2	1.1548	0.58
	1-LP2	1.1535	0.58		PZ	0.8479	0.51
	PZ	0.8490	0.51		DW	-0.2835	0.67
	DW	-0.2857	0.68		C7	-0.9961	0.91
	C7	-0.9958	0.91		C6	0.8339	0.64
	C6	0.8301	0.65		CN	0.9222	0.52
	CN	0.9232	0.52		Y-GP	-1.3880	0.60
	Y-GP	-1.3873	0.60		Constant	-13.3050	7.57
	Constant	-13.2513	7.66				

This analysis uses only 20 variables, with variables for incisors deleted (see Chapter 9, volume 1)

Appendix 9.2 (continued)

	Tooth	B	S.E.		Tooth	B	S.E.
Step 3	UC_MD	-2.1340	0.86	Step 4	UC_MD	-2.0589	0.84
	UP1_MD	-2.0602	1.05		UP1_MD	-2.0521	1.05
	UP2_MD	-1.8326	0.99		UP2_MD	-1.8354	1.00
	UM1_MD	2.1956	0.81		UM1_MD	2.2520	0.81
	UM2_MD	2.9126	0.72		UM2_MD	2.8919	0.72
	UP1_BL	-0.6895	0.80		UP1_BL	-0.6953	0.80
	UM1_BL	0.4068	0.73		UM2_BL	0.6662	0.58
	UM2_BL	0.5792	0.60		LC_MD	-1.6671	0.94
	LC_MD	-1.7215	0.96		LP1_MD	1.2076	0.98
	LP1_MD	1.2803	1.01		LP2_MD	1.8113	1.04
	LP2_MD	1.8281	1.04		LM1_MD	-2.0226	0.69
	LM1_MD	-2.0085	0.70		LM2_MD	1.5519	0.67
	LM2_MD	1.5444	0.68		LP1_BL	0.8870	0.74
	LP1_BL	0.8906	0.75		LP2_BL	1.6240	0.81
	LP2_BL	1.5467	0.82		LM1_BL	-0.7462	0.79
	LM1_BL	-0.8576	0.82		LM2_BL	-1.3849	0.81
	LM2_BL	-1.5050	0.85		WW	-1.4992	0.99
	WW	-1.4433	1.00		SZ	2.3295	0.63
	SZ	2.2710	0.63		CARA	-1.2439	0.67
	CARA	-1.2312	0.67		C5	-1.4470	0.52
	C5	-1.4519	0.52		HYP	2.1842	0.65
	HYP	2.1657	0.65		DAR	-1.0795	0.56
	DAR	-1.1073	0.56		1-LP2	1.1792	0.57
	1-LP2	1.1780	0.58		PZ	0.8075	0.50
	PZ	0.8440	0.51		C7	-1.0455	0.90
	C7	-1.0050	0.90		C6	0.8247	0.63
	C6	0.8240	0.64		CN	0.8570	0.51
	CN	0.8926	0.52		Y-GP	-1.4234	0.60
	Y-GP	-1.3868	0.60		Constant	-13.4849	7.53
	Constant	-13.4414	7.57				

Appendix 9.2 (continued)

	Tooth	B	S.E.		Tooth	B	S.E.
Step 5	UC_MD	-2.1139	0.85	Step 6	UC_MD	-2.1543	0.84
	UP1_MD	-2.2904	1.02		UP1_MD	-2.1606	1.00
	UP2_MD	-1.7117	0.99		UP2_MD	-1.4812	0.95
	UM1_MD	2.3303	0.80		UM1_MD	2.3864	0.80
	UM2_MD	2.8638	0.72		UM2_MD	2.8442	0.72
	UM2_BL	0.5216	0.56		LC_MD	-1.5485	0.91
	LC_MD	-1.7568	0.95		LP1_MD	1.2667	0.97
	LP1_MD	1.2642	0.98		LP2_MD	1.4741	0.99
	LP2_MD	1.7643	1.05		LM1_MD	-1.9401	0.68
	LM1_MD	-1.9248	0.68		LM2_MD	1.5828	0.66
	LM2_MD	1.5025	0.67		LP1_BL	0.9225	0.72
	LP1_BL	0.8117	0.73		LP2_BL	1.4179	0.76
	LP2_BL	1.3958	0.76		LM1_BL	-0.9053	0.78
	LM1_BL	-0.8441	0.78		LM2_BL	-1.1217	0.76
	LM2_BL	-1.3852	0.81		WW	-1.5357	1.02
	WW	-1.5090	1.02		SZ	2.3192	0.62
	SZ	2.2921	0.63		CARA	-1.2577	0.66
	CARA	-1.2424	0.67		C5	-1.4669	0.52
	C5	-1.4519	0.52		HYP	2.2151	0.64
	HYP	2.1874	0.65		DAR	-1.0772	0.54
	DAR	-1.1442	0.55		1-LP2	1.2362	0.56
	1-LP2	1.1588	0.57		PZ	0.7001	0.50
	PZ	0.7791	0.50		C7	-0.6744	0.85
	C7	-0.8438	0.87		C6	0.6319	0.59
	C6	0.6662	0.59		CN	0.9091	0.51
	CN	0.8956	0.51		Y-GP	-1.2376	0.58
	Y-GP	-1.3686	0.60		Constant	-14.4374	7.55
	Constant	-14.1482	7.52				

Appendix 9.2 (continued)

	Tooth	B	S.E.		Tooth	B	S.E.
Step 7	UC_MD	-2.2617	0.83	Step 8	UC_MD	-2.2423	0.84
	UP1_MD	-2.1454	0.99		UP1_MD	-2.2031	0.99
	UP2_MD	-1.4396	0.95		UP2_MD	-1.3489	0.95
	UM1_MD	2.3857	0.79		UM1_MD	2.3922	0.78
	UM2_MD	2.9133	0.71		UM2_MD	2.8715	0.71
	LC_MD	-1.5710	0.91		LC_MD	-1.5782	0.91
	LP1_MD	1.4341	0.95		LP1_MD	1.4562	0.97
	LP2_MD	1.3706	0.98		LP2_MD	1.2105	0.96
	LM1_MD	-1.9060	0.68		LM1_MD	-1.8002	0.66
	LM2_MD	1.5767	0.66		LM2_MD	1.4338	0.62
	LP1_BL	0.9721	0.71		LP1_BL	1.0086	0.71
	LP2_BL	1.4115	0.76		LP2_BL	1.3809	0.75
	LM1_BL	-0.8623	0.78		LM1_BL	-0.8524	0.78
	LM2_BL	-1.2294	0.75		LM2_BL	-1.1795	0.75
	WW	-1.5973	1.03		WW	-1.4583	1.01
	SZ	2.3738	0.62		SZ	2.2998	0.61
	CARA	-1.3492	0.65		CARA	-1.3276	0.65
	C5	-1.5037	0.52		C5	-1.3992	0.50
	HYP	2.3259	0.63		HYP	2.3102	0.63
	DAR	-1.0630	0.54		DAR	-1.0806	0.54
	1-LP2	1.2892	0.56		1-LP2	1.2697	0.56
	PZ	0.6912	0.49		PZ	0.6613	0.49
	C6	0.5430	0.58		CN	0.9701	0.50
	CN	0.8875	0.50		Y-GP	-1.1804	0.56
	Y-GP	-1.1626	0.57		Constant	-14.5185	7.26
	Constant	-15.6411	7.40				

Appendix 9.2 (continued)

	Tooth	B	S.E.		Tooth	B	S.E.
Step 9	UC_MD	-2.3327	0.83	Step 10	UC_MD	-2.2579	0.82
	UP1_MD	-2.1912	0.99		UP1_MD	-2.3805	0.97
	UP2_MD	-1.2971	0.93		UP2_MD	-1.1261	0.92
	UM1_MD	2.1415	0.74		UM1_MD	2.0126	0.73
	UM2_MD	2.8074	0.70		UM2_MD	2.9507	0.69
	LC_MD	-1.5676	0.91		LC_MD	-1.6313	0.90
	LP1_MD	1.5203	0.97		LP1_MD	1.5072	0.96
	LP2_MD	1.3560	0.95		LP2_MD	1.3556	0.94
	LM1_MD	-1.7664	0.65		LM1_MD	-1.7184	0.65
	LM2_MD	1.4151	0.62		LM2_MD	1.3989	0.61
	LP1_BL	0.8950	0.69		LP1_BL	0.9160	0.67
	LP2_BL	1.2446	0.74		LP2_BL	1.2105	0.73
	LM2_BL	-1.4857	0.70		LM2_BL	-1.5619	0.70
	WW	-1.7394	0.98		WW	-1.9067	0.98
	SZ	2.3852	0.61		SZ	2.4760	0.60
	CARA	-1.2607	0.63		CARA	-1.1778	0.62
	C5	-1.3512	0.50		C5	-1.3265	0.49
	HYP	2.3316	0.63		HYP	2.3319	0.62
	DAR	-1.1289	0.53		DAR	-1.1317	0.53
	1-LP2	1.2611	0.56		1-LP2	1.2650	0.55
	PZ	0.6199	0.48		CN	1.0598	0.49
	CN	0.9945	0.49		Y-GP	-1.1412	0.55
	Y-GP	-1.1836	0.56		Constant	-15.8240	6.94
	Constant	-16.6800	7.02				

Appendix 9.2 (continued)

	Tooth	B	S.E.		Tooth	B	S.E.
Step 11	UC_MD	-2.2762	0.82	Step 12	UC_MD	-2.3772	0.81
	UP1_MD	-2.6349	0.94		UP1_MD	-2.3349	0.89
	UM1_MD	1.8843	0.70		UM1_MD	1.8955	0.70
	UM2_MD	2.7887	0.67		UM2_MD	2.8701	0.67
	LC_MD	-1.6146	0.89		LC_MD	-1.5147	0.88
	LP1_MD	1.3134	0.95		LP1_MD	1.5472	0.92
	LP2_MD	1.0499	0.90		LM1_MD	-1.5889	0.62
	LM1_MD	-1.6866	0.64		LM2_MD	1.3577	0.59
	LM2_MD	1.2774	0.59		LP1_BL	1.0090	0.67
	LP1_BL	1.0386	0.67		LP2_BL	1.2923	0.73
	LP2_BL	1.1970	0.73		LM2_BL	-1.3494	0.67
	LM2_BL	-1.4203	0.67		WW	-2.0008	0.96
	WW	-1.9700	0.96		SZ	2.3982	0.58
	SZ	2.5226	0.60		CARA	-1.1348	0.60
	CARA	-1.0792	0.61		C5	-1.2603	0.47
	C5	-1.2338	0.48		HYP	2.2039	0.61
	HYP	2.2415	0.61		DAR	-1.1138	0.52
	DAR	-1.0801	0.52		1-LP2	1.0758	0.52
	1-LP2	1.1052	0.53		CN	1.1231	0.48
	CN	1.0944	0.48		Y-GP	-1.0316	0.54
	Y-GP	-1.1038	0.55		Constant	-16.8993	6.84
	Constant	-16.6345	6.91				

Appendix 9.2 (continued)

	Tooth	B	S.E.		Tooth	B	S.E.
Step 13	UC_MD	-2.3190	0.80	Step 14	UC_MD	-2.8741	0.72
	UP1_MD	-2.1993	0.88		UP1_MD	-2.4548	0.87
	UM1_MD	1.7817	0.69		UM1_MD	1.6938	0.68
	UM2_MD	2.7803	0.66		UM2_MD	2.7609	0.65
	LC_MD	-1.3593	0.87		LP1_MD	1.3906	0.89
	LP1_MD	1.5324	0.91		LM1_MD	-1.5561	0.60
	LM1_MD	-1.4662	0.61		LM2_MD	1.3403	0.58
	LM2_MD	1.2739	0.59		LP2_BL	1.7381	0.64
	LP2_BL	1.8509	0.65		LM2_BL	-1.1966	0.64
	LM2_BL	-1.1779	0.65		WW	-1.8988	0.93
	WW	-2.0128	0.95		SZ	2.3449	0.56
	SZ	2.3681	0.57		CARA	-0.9317	0.58
	CARA	-1.0228	0.60		C5	-1.1386	0.45
	C5	-1.2343	0.46		HYP	1.9800	0.57
	HYP	2.0358	0.58		DAR	-0.8900	0.50
	DAR	-1.0615	0.52		1-LP2	0.9287	0.50
	1-LP2	0.9730	0.51		CN	1.0674	0.47
	CN	1.0228	0.47		Y-GP	-0.8920	0.54
	Y-GP	-0.9596	0.54		Constant	-15.6966	6.72
	Constant	-16.1151	6.75				
Step 15	UC_MD	-2.6043	0.69				
	UP1_MD	-1.7588	0.74				
	UM1_MD	1.7749	0.67				
	UM2_MD	2.7115	0.64				
	LM1_MD	-1.5284	0.60				
	LM2_MD	1.3486	0.57				
	LP2_BL	1.7782	0.63				
	LM2_BL	-1.0967	0.63				
	WW	-1.8733	0.93				
	SZ	2.3073	0.56				
	CARA	-1.0016	0.58				
	C5	-1.0616	0.44				
	HYP	1.8697	0.56				
	DAR	-0.8246	0.49				
	1-LP2	0.8977	0.49				
	CN	1.0085	0.46				
	Y-GP	-1.0710	0.53				
	Constant	-14.7652	6.71				