Becoming a dentist: characteristics, experiences and performance of students in the early years of the Adelaide dental course

School of Dentistry

Faculty of Health Sciences

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BDS (Adel) Grad. Dip. Clin Dent.

Thesis submitted for the degree of Doctor of Philosophy

October 2009

Volume 2

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List of achievements and professional development activities – Dimitra Lekkas during candidature for PhD 1999-2009

Research and Teaching grants

- Lekkas D, Townsend GC, Winning TA and Mullins G (2001) Australian and Dental Research Foundation (ADRF). *Progress of students through a PBL dental course* ($4,000).
- Lekkas D (2002) School of Dentistry, The University of Adelaide. Internal Research Grant. *Progress of students through the Adelaide BDS course* ($4,000).
- Lekkas D (2002) Colgate International Association of Dental Research (IADR). Post-graduate student travel award (Reimbursement for conference cost and air-fares).
- Lekkas D, Winning T, Townsend G, Kaidonis J, Ranjitkar S (2003-04) Learning and Teaching Development Grant, The University of Adelaide. *Professional development for post-graduates in their role as clinic teachers* ($22,226).
- Winning T, Suksudaj N, Lekkas D, Townsend G and Kaidonis J (2006) School of Dentistry, The University of Adelaide. Internal Research Grant. *Development of clinical skills in dental students* ($3,000).
- Winning T, Lekkas D and Townsend G (2006) School of Dentistry, The University of Adelaide. Internal Research Grant (Top-up funding). *Improving clinical performance in undergraduate dental students by supporting them to become effective self-assessors* ($3,452).
- Winning T, Lekkas D and Townsend G (2006) Australian and Dental Research Foundation (ADRF). *Improving clinical performance in undergraduate dental students by supporting them to become effective self-assessors* ($5,000).
- Winning T, Suksudaj N, Lekkas D, Townsend G and Kaidonis J (2007) Australian and Dental Research Foundation (ADRF). *The development of psychomotor skills in dental students* ($12,499).
- Suksudaj N, Winning T, Lekkas D, Townsend G and Kaidonis J (2008) Education Research Group Grant (IADR). *Psychomotor skills development in preclinical dental students* ($US1,000).
- Winning T, Suksudaj N, Lekkas D, Townsend G and Kaidonis J (2007) Australian and Dental Research Foundation (ADRF). *Factors influencing dental students' learning of psychomotor skills* ($8,500).

- Winning T, Skinner V, Lekkas D, Townsend G, Schönwetter D, Wener M, Mazurat N (2009) Australian and Dental Research Foundation (ADRF). *How well do our students communicate with their patients? Self- and patient evaluation of communication skills in dental student practitioners* (application submitted).

Published papers during candidature

- Lekkas D, Townsend G, Winning T and Mullins G (2001) Experiences of dental students undertaking a hybrid PBL course. In: *Proceedings of the 3rd Asia Pacific Conference on Problem-based learning (PROBLARC).* Yeppoon, Queensland, Australia pp244-265.
- Winning T, Lekkas D and Townsend G (2007) Developing clinical self-assessment skills in first-year dental students. From the *REAP International Online Conference on Assessment Design*. http:// http://www.reap.ac.uk/reap07/Portals/2/CSL/t2%20-%20great%20designs%20for%20assessment/raising%20students%20meta-cognition/Developing_clinical_self_assessment_skills_in_1st_year_dental.pdf
- Winning T, Lekkas D and Townsend G (2007) Supporting undergraduate dental students to become effective self-assessors in clinic. In: *Enhancing Higher Education, Theory and Scholarship*. Proceedings of the 30th Higher Education Research and Development Society of Australasia (HERSDA) Annual conference 8-11 July, Adelaide, South Australia p245.
- Winning T, Needleman M, Rohlin M, Carrassi A, Chadwick B, Eaton K, Hardwick K, Ivancakova R, Jallaludin RL, Johnsen D, Kim J-G, Lekkas D, Li D, Onisei D, Pissiotis A, Reynolds P, Tonni I, Vanobbergen J, Vassileva R, Virtanen J, Wesselink P and Wilson N (2008) Evidence-based care and the curriculum. *European Journal of Dental Education 12 (Suppl 1): 48-63.*
- Redwood C, Winning T, Lekkas D and Townsend (2009) Assisting the development of clinical self-assessment skills of first year dental students. *European Journal of Dental Education* (in press).

Published abstracts during candidature

- Lekkas D, Townsend G, Winning T and Mullins G (2002) Experiences of dental students undertaking a hybrid PBL course. *Journal of Dental Research* 82 (Spec Issue C):C-78.

- Lekkas D, Townsend G, Winning T and Mullins G (2002) Progress of students through the Adelaide Bachelor of Dental Surgery course: initial findings. *Australian Dental Journal* 47(4):S9-10.
- Lekkas D, Townsend G, Winning T and Mullins G (2003) Initial report of dental students' approaches to learning after 1 and 3 years of a hybrid PBL program. In: *Proceedings of the 3rd International Symposium on Problem-Based Learning in Dental Education*, Victor Harbour, 19-23 January. p37.
- Lekkas D, Townsend G, Winning T and Mullins G (2003) Experiences of students in a hybrid PBL course: the second year challenge. *Journal of Dental Research* 82 (Spec Issue C):C-107.
- Lekkas D, Townsend G, Winning T and Mullins G (2004) What determines academic success in the early years of dentistry? A preliminary analysis. *In: Proceedings of the Colgate Australia Clinical Dental Research Centre Research Day,* Adelaide, 20 August. p26.
- Lekkas D, Townsend G, Winning T and Mullins G (2004) What determines academic success in the early years of dentistry? *In: Maintaining Momentum: Anticipating, Innovating, Facilitating, Participating, Evaluating of the Association of Health Professional Education (ANZAME) Annual Conference*, Adelaide, 24-27 June. p94.
- Winning T, Lekkas D, Greenwood F (2005) Can we develop postgraduate students as clinical teachers? A pilot study. In: *Proceedings of the Society for Research in Higher Education, Annual Conference*, Edinburgh UK, 11-13 December.
- Lekkas D, Townsend G, Winning T and Mullins G (2006) Student progression following changes to curriculum and admission process. In: *Proceedings of the 84th General Session, International Association for Dental Research (IADR),* Brisbane, Australia, 27 June-1 July. Abstract number 2220 p116.
- Lekkas D, Townsend G, Winning T and Mullins G (2006) Adelaide dental students: Factors associated with progress and success in the early years. In: *Proceedings of the Colgate Australia Clinical Dental Research Centre Research Day*, Adelaide 18 August. p31.
- Suksudaj N, Winning T, Lekkas D, Townsend G and Kaidonis J (2007) The development of psychomotor skills in dental students. In: *Enhancing Higher Education, Theory and Scholarship of the 30th Higher Education Research and Development Society of Australasia (HERSDA) Annual Conference* [CD-ROM], Adelaide, South Australia, 8-11 July.

- Winning T, Lekkas D, Redwood C and Townsend G (2008) Can we develop effective self-assessors in dental clinical settings? – evaluation of outcomes. In: *Practice, Scholarship and Research in Health Professional Education, of the Association of Health Professional Education (ANZAME) Annual Conference*, University of News South Wales, 10-13 July, p208-209.
- Suksudaj N, Winning T, Lekkas D, Townsend G and Kaidonis J (2008) Internal factors influencing learning of psychomotor skills by dental students. In: *Practice, Scholarship and Research in Health Professional Education of the Association of Health Professional Education (ANZAME) Annual Conference*. University of News South Wales, 10-13 July, p116-117.
- Winning T, Lekkas D, Redwood C and Townsend G (2008) Learning to self-assess in clinical settings: evaluation of outcomes. *OTTAWA 2008*. *The 13th Ottawa International Conference on Clinical Competence.* Melbourne.
- Redwood C, Winning T, Lekkas D and Townsend G (2008) Can we develop effective self-assessors in dental clinical settings? Evaluation of outcomes. In: *Proceedings of the Colgate Australia Clinical Dental Research Centre Research Day,* Adelaide, 22 August.
- Suksudaj N, Winning T, Lekkas D, Townsend G, Kaidonis J (2008) Internal factors influencing learning of psychomotor skills by dental students. In: *Proceedings of the Colgate Australia Clinical Dental Research Centre Research Day,* Adelaide, 22 August.
- Winning T, Lekkas D, Redwood C and Townsend G (2008) Improving clinical performance in undergraduate dental students by supporting them to become effective self-assessors. *Australia Dental Journal* 53:S42.
- Suksudaj N, Winning T, Lekkas D, Townsend G and Kaidonis J (2008) Internal factors influencing learning of psychomotor skills by dental students. *Australia Dental Journal* 53:S39.
- Suksudaj N, Winning T, Townsend G, Kaidonis J and Lekkas D (2009) What factors influence learning of psychomotor skills by dental students? In: *Proceedings of the Colgate Australia Clinical Dental Research Centre Research Day,* Adelaide, August.

- Suksudaj N, Winning T, Townsend G, Kaidonis J and Lekkas D (2009) What factors influence learning of psychomotor skills by dental students?. 2nd Meeting of the International Association of Dental Research (IADR) Pan Asian Pacific Federation (PAPF), the 1st Meeting of IADR Asia/Pacific Region (APR) and the 47th Annual Meeting of the IADR Australia and New Zealand Division, 22-24 September, Wuhan, China.
- Winning T, Lekkas D, Redwood C and Townsend G (2009) Improving clinical assessment: Evaluating student's perceptions, knowledge and ability to identify and apply clinical criteria. In: *Feedback and flexible learning of the 4th Education Research Group of Adelaide (ERGA)*, Adelaide, The University of Adelaide, 24-25 September, p72.

Conference/workshop presentations by Dimitra Lekkas

- 3rd Asia Pacific Conference on Problem-based learning (PROBLARC) (2001) *Evaluation, staff development, curriculum planning and student learning*. Yeppoon, Queensland, Australia, 9-12 December. Oral presentation, *Experiences of dental students undertaking a hybrid PBL course.*
- International Association for Dental Research (IADR) Australian and New Zealand Division 42nd Annual Scientific Meeting (2002): Science Meets Clinic, Sydney, Australia, September. Poster presentation, *Experiences of dental students undertaking a hybrid PBL course.*
- 3rd International Symposium on Problem-based learning in Dental Education (2003). Victor Harbour, South Australia, 19-23 January. Poster presentation, *Initial report of dental students' approaches to learning after 1 and 3 years of a hybrid PBL program*.
- International Association for Dental Research (IADR) Australian and New Zealand Division 43rd Annual Scientific Meeting (2003): From benchtop to community, Melbourne, Australia, September. Oral presentation, *Experiences of students in a hybrid PBL course: the second year challenge.*
- Colgate Australia Clinical Research Centre Research Day (2004), School of Dentistry, The University of Adelaide, 20 August. Oral presentation, *What determines academic success in the early years of dentistry? A preliminary analysis.*

- The Association for Health Professional Education (ANZAME) Annual Conference (2004) Adelaide South Australia, 24-27 June. Poster presentation, *What determines academic success in the early years of dentistry?.*
- Learning and Teaching Development Unit Seminar Series, Current Issues in Higher Education (2004) The University of Adelaide, 17 August. Oral presentation with T Winning and F Greenwood, *Professional development for postgraduate students in their role as clinic teachers: using clinical scenarios in a tutor development program.*
- The 84th General Session and Exhibition of the International Association for Dental Research (2006) Brisbane, Australia 27 June-1 July. Poster presentation, *Student progression following changes to a curriculum and admission process.*
- Colgate Australia Research Day (2006) School of Dentistry, The University of Adelaide, 18 August. Poster with oral presentation, *Adelaide dental students: factors associated with progress and success in the early years.*
- 'Say it write' Tri-symposium (2006) The University of Adelaide, Flinders University and the University of South Australia. Attendance and participation in 3 x workshops including writing a 5000 word draft paper for publication and oral presentation. *A new dental curriculum and admission process: are student characteristics and performance affected?.*

Other professional development activities (as a researcher)

- Co-supervision of postgraduate students/undergraduate student research projects
    - Undergraduate dental education student vacation research project: Keith Lew (2002-03) *Estimation of patients' dental developmental age through the analysis of radiographic images: development of an online teaching resources* (Winning T, and Lekkas D).
    - Honours candidate: Anthony Puljich (2003-06) *Supporting student learning of alginate impression taking and study cast construction* (Winning T and Lekkas D). (incomplete).
    - 5th year undergraduate selective project: Julie Vo and Alice Tsang (2006) *Investigation of the effectiveness of implementation of DentSim teaching lessons* (D Lekkas).
    - 5th year undergraduate selective project: Ying Guo (2007) *Student Teaching: Observation & Analysis of Laboratory Tutoring process in DCP II BDS* (D Lekkas).

- Honours: Christopher Redwood (2007-08) *Assisting the development of clinical self-assessment skills of first-year dental students* (Winning T and Lekkas D). (Awarded second class honours).
- PhD candidate: Nattira Suksudaj (2006-to current) *Psychomotor skill development in preclinical dental students* (Winning T, Lekkas D, Townsend G and Kaidonis J).
- 5th year undergraduate selective project: Hannah Prouse (2009) *Characteristics of effective DCP tutors: perceptions of students and tutors* (D Lekkas).

- Conference/workshop attendance
  - 30th Higher Education Research and Development Society of Australia (HERDSA) Annual Conference (2007) *Enhancing Higher Education, Theory and Scholarship,* Adelaide, 8-11 July.
  - 9th Pacific Rim First Year in Higher Education conference (2006) *Engaging students*, Gold Coast, 12-14 July.
  - Education Research Group of Adelaide: The University of Adelaide (2006) *Building higher education that works*, Adelaide, 21 September.
  - University of Adelaide Graduate Centre: Research education programs. Attendance to two workshops (2006). 'What are examiners looking for when they assess a research thesis?' 24 May and 'Producing a thesis in the sciences' 3 October.
  - Journal review sessions conducted by Craniofacial and Biology Research Group and Dental Education Research Group, School of Dentistry, The University of Adelaide (2000-2006).

Glossary of Terms

Term	Definition
Bridging course	Pathway for overseas qualified dentists to gain a dental degree that allows registration to practice in Australia. The Adelaide School of Dentistry bridging course was a two-year course which articulated with the fourth and fifth year Adelaide Bachelor of Dental Surgery course.
Bridging student	An overseas qualified dentist who was admitted to the Adelaide School of Dentistry bridging course.
Conventional curricula (traditional)	Discipline-based or discipline-organised dental or medical curricula that are often divided into preclinical and clinical subjects or training periods.
Course	In this thesis, the term 'course' is used to refer to the entire five-year Adelaide dental course. 'Program' may also be an alternative term.
Deferred-entry student	Someone who has taken time out from an academic year but not due to academic failure. These students usually return to continue their dental studies.
International (overseas) student	For the purpose of the current study international students were those who were not Australian permanent residents. This includes students who were residents of New Zealand. International (excluding New Zealand residents) were admitted to the Adelaide dental course via the international student admission process.
Government secondary school	An Australian government/tax-payer funded secondary education institution.
Later-year entry student	Someone who has commenced a dental course in another Australian dental school and transferred to the Adelaide School of entry, most often in a year level other than first year.
Local/domestic/home student	For the purpose of the current study local students were those who were Australian permanent residents.
MATE student	Adelaide dental students who were admitted via the Malaysian-Australia Tertiary Education Scheme. These students were not admitted via the multifaceted admission process as per students for entry during 1998-2001.
Metropolitan/urban student/residence	An Australian tertiary student who comes from an area that has been determined a metropolitan/urban location based on postcode of home residence.
Non-government secondary (independent) school	An Australian secondary education institution that is predominantly funded by private school fees with some government funding.
Non-school leaver	A student who has completed or partly completed a previous tertiary Bachelor degree or higher level course of study at an Australian or overseas university.

Term	Definition
Repeating student	Student who has failed the year due to academic reasons and had to repeat the same year.
Residence/place of residence	The place at which a tertiary student has been or is residing. Two categories of residence are to be distinguished: Semester/term residence – the residence in which a tertiary student lives during the semester or term. This may not be the same as the student's permanent home address. Permanent home address – the place a students regards as being their permanent home residence. This may not be the same as the student's semester/term home address.
Rural student/residence	An Australian tertiary student who comes from an area that has been determined a rural location based on postcode of home residence.
School leaver	A student who has not commenced, completed or partly completed a previous tertiary Bachelor degree or higher level course of study at an Australian or overseas university.
Soup kitchen	A centre or place that offers meals, at no cost or a subsidised rate. Such activities are organised usually by charities or church groups.
Subject	In this thesis, the term 'subject' is used to refer to a unit of study that may run for a length of one semester or an entire academic year. 'Course' may also be used as an alternative term.
Swot vac	Study ('vacation') period prior to an examination period.
Tertiary Entrance Rank (TER)	The measure/score used by Australian tertiary institutions for admission purposes. Tertiary entrance scores are equivalent in all states of Australia (equivalent except for Queensland). The scores are made equivalent by procedures developed by the Australian Tertiary Admission system taskforce which developed the Equivalent National Tertiary Entrance Rank (ENTER) scores. Before the ENTER was developed it was difficult to judge performance of intestate applicants. The measure ranges from zero to 99.95. In South Australia the measure is referred to as Tertiary Entrance Rank (TER). For the purpose of this study this nomenclature is used to refer to previous academic achievement of Australian school leavers (Marks et al. 2001).
Transfer student	Student who commenced a dental course in another Australian dental school and has been admitted to an appropriate year level, as determined by the Adelaide School of Dentistry, Admissions committee. Places for such students are limited.

Chapter 1 Appendix

Table 1.1 Admission processes for Australian dental schools (for entry 2009)

University	Academic achievement	Admission Aptitude test	Personal qualities	Other comments re: admission process	Reference
University of Melbourne, Melbourne Dental School (admission for current undergraduate course – 2009 entry is last intake)	School leavers: TER (96.0 minimum) (equivalent standards for international applicants) Non-school leavers: uGPA (must be equivalent standard to TER)	UMAT (Applicants must obtain a weighted UMAT score above the 20th percentile)	NA	Selection is based on a combination of the applicants' TER/uGPA, performance in the UMAT and performance in prerequisite subjects. It is a three-subject (UMAT, TER and TER/UMAT) process. Offers are made from a ranked listing for each subject, commencing from the highest ranked person on each list until all subjects have generated the required number of offers. UMAT subject—25% (approximately) of offers to applicants with the highest weighted UMAT scores and a TER of 96 or higher TER subject—25% (approximately) of offers to applicants with the highest TER scores and a weighted UMAT above the 20th percentile. TER/UMAT subject—50% (approximately) of offers to applicants based on a combination of the TER and weighted UMAT ranks, with the TER rank given double weighting. International applicants do not sit UMAT.	University of Melbourne (2008a and b)
University of Sydney, Faculty of Dentistry	Graduate entry uGPA (4.0 or above = pass level at the Uni of Sydney)	GAMSAT	Multiple Mini-interview	3 stage process: completion of a Bachelors degree; attaining minimum threshold in GAMSAT (cut off score 57 for 2009 entry); then applicants are invited to sit multiple mini-interview. NB: In 2006, admission criteria included a semi-structured interview and practical manual dexterity test (University of Sydney 2006) however the admission process changed after 2006.	University of Sydney (2008)

TER: Tertiary Entrance Rank; GAMSAT: Graduate Australian Medical School Admission Test; UMAT: Undergraduate Medicine and Health Sciences Admission Test; uGPA: undergraduate Grade Point Average
NA = not applicable

University	Academic achievement	Admission Aptitude test	Personal qualities	Other comments re: admission process	Reference
University of Queensland, School of Dentistry	School leavers: Entry rank 99: Overall position 1 (equivalent standards for international applicants). Non-school leavers: uGPA (5.8 from Group 1 tertiary institutions; 6.5 from Group 2 tertiary institutions; for international students GPA 6.63 from Group I tertiary institutions)	UMAT	NA	UMAT is used as a secondary selector. The overall UMAT score rather than the percentile rank is used for selection purposes. International students currently do not sit UMAT. From 2010 they will be required to sit International Student Admissions Test (ISAT).	University of Queensland (2008 a and b)
University of Western Australia, Faculty of Medicine, Dentistry and Health Sciences	School leavers: TER (96.0 minimum) (equivalent standards for international applicants) Non-school leavers: uGPA (5.5 out of 7.0 ie, 65% or better)	UMAT (Applicants must obtain a percentile score of at least 20 in the first section of UMAT)	Structured Interview Including a Listening Skills exercise	The top standard (school leavers) and non-standard (non-school leavers) applicants are selected for interview based upon their UMAT results with the expectation that applicants meet the academic threshold. The first set of interviews usually take place in November and December. If applicant obtains a minimum TER of 96, and did not previously reach the academic threshold, the applicant may be offered an interview in January (subject to UMAT results). Final ranking for offers: based upon performance in the UMAT, performance at interview and academic results will be weighted 1:2:2. NB: For entry in 2007 all 3 components had equal weighting (University WA 2006) International students need to sit: International Student Admissions Test (ISAT). There is also Graduate entry option: potential applicants need to sit GAMSAT in lieu of UMAT.	University of Western Australia (2008)

TER: Tertiary Entrance Rank; GAMSAT: Graduate Australian Medical School Admission Test; UMAT: Undergraduate Medicine and Health Sciences Admission Test; uGPA: undergraduate Grade Point Average
NA = not applicable

University	Academic achievement	Admission Aptitude test	Personal qualities	Other comments re: admission process	Reference
University of Charles Sturt, Orange Campus, School of Dentistry and Health Sciences	School leavers: TER Non-school leavers: uGPA (no information on minimum standards)	NA	Questionnaire Interview	Applicants invited for interview after assessment of questionnaire	University of Charles Sturt (2008a and b)
LaTrobe University, Bendigo Campus, School of Dentistry and Oral Health	School leavers: TER 98.90 (no information on non-school leavers and international students)	NA	NA	Entry into the Bachelor of Health Sciences in Dentistry. Students who successfully complete the Bachelor degree will gain entry into the Masters program. No other information provided.	LaTrobe University (2008)
Griffith University, School of Dentistry and Oral Health	School leavers: TER (equivalent standards for non-school leavers and international applicants) TER cut-off score not provided.	UMAT	Interview	3-stage process for entry into the Bachelor of Health Sciences in Dental Science. Based on UMAT score, applicants will be selected to attend an interview. International students need to sit: International Student Admissions Test (ISAT). NB: Students who successfully complete the Bachelor of Health Sciences in Dental Science will gain entry into the Graduate Diploma program to then qualify as a dentist.	Griffith University (2008)

TER: Tertiary Entrance Rank; GAMSAT: Graduate Australian Medical School Admission Test; UMAT: Undergraduate Medicine and Health Sciences Admission Test; uGPA: undergraduate Grade Point Average
NA = not applicable

Table 1.2 Adelaide School of Dentistry admission processes and curricula prior to 1993 and after 1996

Conventional admission process based on previous academic achievement (1983-96)	Multifaceted (3 step) admission process (1997-2001)
Australian students • based on academic merit. Those with highest secondary school scores or tertiary-transfer students who achieved at least a credit average. International students • international school-leavers or tertiary-transfer students must satisfy equivalent academic levels of achievement as Australian students. • some applicants eg, MATES (refer Glossary of Terms) may have undertaken an unstructured interview.	Australian students • Step 1. Written Admission Test (cognitive ability) 'Undergraduate Medicine and Health Sciences Admission Test' (UMAT). Top performers are then invited to undertake step 2. • Step 2. Structured admission interview. 45min face to face; 2 assessors; 6 categories (motivation to become a dentist, compatibility with the course, tolerance of ambiguity, perseverance, supportive behaviour and personal effectiveness) assessed and an overall (global) rating (6 point categorical scale). • Step 3. Then applicants are ranked on the structured interview and school-leavers who achieve a final high-school result in the top 10th percentile (minimum TER of 90.00 out of 99.95) or tertiary-transfer students who achieve at least a credit average (5.0 out of 7.0) are eligible for an offer. International students • Step 1. Structured admission interview: A face to face or telephone interview 30-45min interview with 1-2 assessors assessing same categories as per Australian students. • Step 2. International school-leavers or tertiary-transfer students must satisfy equivalent academic levels of achievement as Australian students. (Adelaide University 2000a and b; Greenwood et al. 1999)
Conventional curriculum Prior to 1993	Hybrid PBL curriculum 1993-current
• teacher-centred. • discipline-based; lack of integration between theory and clinical components. • curriculum design and delivery mode promoted rote learning and assessment methods based on recall of facts. • large course workload; high contact hours. (Smales 1977; Townsend and Burgess 1993)	• student-centred learning and PBL philosophy. • dental learning packages; group work • integration between theory and clinical components. • inclusion of integrated written end of semester assessment. • early clinical exposure; self-assessment • reduction in workload and contact . (Townsend et al. 1997; Mullins et al. 2003)

TER: Tertiary Entrance Rank; PBL: Problem-Based Learning

Table 1.3 Description of subjects and assessment methods used in the Adelaide dental course during the early years (1998-2003) (Mullins et al. 2003 p22)

NOTE:
This table is included on page 36
of the print copy of the thesis held in
the University of Adelaide Library.

Appendix 1.1 Student assessment processes in the Adelaide School of Dentistry

At the end of each academic year student results are collated for each of the subjects. Subject co-ordinators within each year level and the Dean of the School convene a meeting ('Board of Examiners'). Students' performance is discussed in terms of fulfilment of subject and course requirements. Students who have not reached a pass (50% or above) are deemed to have failed the subject. Depending on performance in other subjects and documentation submitted to the committee by the student (as per the School's assessment policy) they may be offered a supplementary examination (on academic, medical or compassionate grounds). If students satisfactorily pass the supplementary examination(s) they are deemed to have passed the subject(s) (a pass grade is recorded) and the academic year. If a student is not eligible for supplementary examination(s) or does not satisfactorily complete them, then they are deemed to have failed the academic year. Students who have failed the academic year are subsequently reviewed by the School's 'Student Review Committee'. This committee reviews the progress of the student and will either recommend the student can repeat the year or, if the student has previously failed an academic year, the student's case is forwarded to the 'Faculty Student Review Committee'. Adelaide dental students who repeat an academic year undertake a 'Special Program' of study. This program requires the student to retake the subject(s) they have failed and the Dental Clinical Practice subject (even if they have passed this subject, students are required to complete all clinical and practical components to maintain skill level). In addition, they are required to keep a Journal of Reflection (to monitor their own progress) and to meet with the Associate Dean of Student Matters regularly throughout the year for mentoring. The Faculty Student Review Committee makes decisions on whether a student should be precluded from the dental course based on poor academic performance as per University policies.

Chapter 2 Appendix

Appendix 2.1 Consent form and information sheet for the PhD project

THE UNIVERSITY OF ADELAIDE
Division of Health Sciences
Dental School

CONSENT FORM
RE: RESEARCH PROJECT
"PROGRESS OF STUDENTS THROUGH THE ADELAIDE DENTAL COURSE"

1. I _____(please print name)
hereby consent to take part in the research project entitled:

" Progress of students through the Adelaide dental course"

2. I acknowledge that I have read the Information Sheet entitled:

" Progress of students through the Adelaide dental course "

3. I have had the project, so far as it affects me, fully explained to my satisfaction by the research worker.

4. I hereby consent to the use of any records which may include one or more of the following: preadmission academic and test results, oral assessment performance, results of my performance in all subjects, and questionnaires associated with this project conducted during the dental course. My consent is given freely.

5. Although I understand that the purpose of this research project is to improve the quality of dental education, it has also been explained that my involvement may not be of any benefit to me.

6. I have been informed that, while information gained during the study may be published, I will not be identified and my personal results will not be divulged.

7. I understand that I am free to withdraw from the project at any time and that this will not affect my undergraduate studies and education now or in the future.

8. I am aware that I should retain a copy of this Consent Form when completed, and the relevant Information Sheet.

Signed..... Date.....

Name of Witness
(please print).....Signed .....

I, ... have described to .....(name of subject)

the nature of the study. In my opinion she/he understood the explanation

Name .....

Signed..... Date.....

Status in project.....

THE UNIVERSITY OF ADELAIDE
Division of Health Sciences
Dental School

INFORMATION SHEET - RE: RESEARCH PROJECT
" PROGRESS OF STUDENTS THROUGH THE ADELAIDE DENTAL COURSE"

Over the next 4-5 years, Dr Lekkas will be undertaking a research project aimed at identifying the factors that affect progress of students through the first three years of the Adelaide dental course. It is planned to follow several cohorts of students (those enrolling as first years in 1998, 1999, 2000 and 2001) over a 3 year period to determine how they develop in terms of their expected knowledge, clinical skills and attitudes. It is anticipated that the results of the study will be helpful in the future in identifying students who may be "at risk" of experiencing difficulties in making the transition from school or other studies to studying dentistry at university. The findings should also enable the Adelaide School of Dentistry to optimise the chances of success of its students in the early years of the BDS course by modifying where appropriate curriculum design and content and providing additional resources for dental students to enhance their performance.

Although participation is voluntary, we would encourage all students to take part in this study to ensure that all relevant information can be collected and analysed. This information will be kept strictly confidential and individual results will not be divulged to any staff or other students. Each student will be assigned a code when they enrol in the study and prior to the analysis of the data, to retain anonymity throughout the project.

Your own undergraduate studies and education will not be influenced whether you participate or not.

Information to be gathered and analysed will include:

- Pre admission academic and test results and Oral Assessment performance
- Questionnaires about student characteristics eg, study habits, employment, and perceptions of progress through the course
- Results of your performance in the standard assessments in all subjects, including written examinations, annual oral interviews, laboratory exercises and clinical performance

Access to pre admission and undergraduate records will be required throughout the research project. Student identification numbers will only be requested at the beginning of the study in order to allow for matching of academic results with questionnaire data. Thereafter, the assigned student code will be used for all analyses. Information gained during the study may be published but results of individuals will not be identifiable.

We sincerely hope you will take part in this study and would be pleased to discuss any aspects further with you.

Yours sincerely

Dr D Lekkas (Principal Investigator)
BDS (Adel) Grad Dip Clin Dent
Ph 83035683

Professor G Townsend (supervisor) BDS
BScDent (Hons) PhD DDSc
Ph 83035968

Dr T Winning (supervisor)
BDSc (Hons) PhD
Ph 83035683

THE UNIVERSITY OF ADELAIDE

HUMAN RESEARCH ETHICS COMMITTEE

Document for people who are subjects in a research project

CONTACTS FOR INFORMATION ON PROJECT AND INDEPENDENT COMPLAINTS PROCEDURE

The Human Research Ethics Committee is obliged to monitor approved research projects. In conjunction with other forms of monitoring it is necessary to provide an independent and confidential reporting mechanism to assure quality assurance of the institutional ethics committee system. This is done by providing research subjects with an additional avenue for raising concerns regarding the conduct of any research in which they are involved.

The following study has been reviewed and approved by the University of Adelaide Human Research Ethics Committee:

Project title:
"Progress of students through the Adelaide dental course"

1. If you have questions or problems associated with the practical aspects of your participation in the project, or wish to raise a concern or complaint about the project, then you should consult the project co-ordinator:

   Name: Dr Gerry Mullins

   telephone: 83035771
   email: gmullins@acue.adelaide.edu.au

2. If you wish to discuss with an independent person matters related to
   - making a complaint, or
   - raising concerns on the conduct of the project, or
   - the University policy on research involving human subjects, or
   - your rights as a participant

contact the Human Research Ethics Committee's Secretary on phone (08) 8303 4014

Appendix 2.2 Australia Post postal codes

Australian metropolitan postal codes

South Australia	5000-5200
New South Wales	2000-2249
Victoria	3000-3210
Queensland	4000-4209
Tasmania	7000-7099
Western Australia	6000-6199, 6800-6999
Northern Territory	0800-0834
Australian Capital Territory	2600-2639

(Supplied by Faculty of Health Sciences, The University of Adelaide, Admissions Officer 2006)

Appendix 2.3 Commencement survey

This survey was used by students in Cohort B who commenced first year in 1999

Cover Sheet: To be removed before analysis by Dr Gerry Mullins

The University of Adelaide
School of Dentistry

Project Title "Progress of students through the BDS course"

Questionnaire Number 1A - 1999

INTRODUCTION

This survey is part of a research project investigating the progress of dental students through the Adelaide BDS course. In particular this project is examining factors that affect progress of students through the first three years of the course.

It is anticipated that the results of the study will enable the Adelaide School of Dentistry to optimise the chances of success of its students in the early years of the BDS course by modifying, where appropriate, curriculum design and content, by providing support for dental students to enhance their performance.

CONFIDENTIALITY

Ethical approval (H/06/99) has been gained for this project. In order for all students participating in the study to remain strictly anonymous, Dr Gerry Mullins from the Advisory Centre of University Education (who is not involved with any assessment of dental students) will be the only person who will have a master list of student identification numbers and code numbers.

Responses to this questionnaire will be strictly confidential and individual results will not be discussed or identifiable.

Please answer all questions. Your honest answers will be greatly appreciated and will help ensure a true reflection of student perceptions.

Student ID Number _____

"Progress of students through the Adelaide BDS course"

Questionnaire Number 1A 1999 (office use only) _ _ _ _ _

1. What is your Date of birth : ___/___/___

2. What is your Gender : *(Please tick one box only)*

Male	☐ 1
Female	☐ 2

3. Where are you living this semester ? *(Please tick one box only)*

- Your family home	1 ☐
- Shared house/flat	2 ☐
- Residential College	3 ☐
- Private Board	4 ☐
- Other (please state) _____	5 ☐

4. With whom are you living this semester ? *(Please tick one box only)*

- With parent(s)/brother(s)/sister(s)	1 ☐
- With partner and/children	2 ☐
- By myself	3 ☐
- Other (please state) _____	4 ☐

5. Where did you complete your secondary schooling ? *(Please tick one box only)*

- State (public) School - South Australia	1 ☐
- Private (fee paying) School - South Australia	2 ☐
- State (public) School - Other Australia	3 ☐
- Private (fee paying) School - Other Australia	4 ☐
- State (public) School - Overseas	5 ☐
- Private (fee paying) School - Overseas	6 ☐
- State (fee paying) School - Overseas	7 ☐

6. Please indicate your participation in any of the following activities during 1998.

(please tick a box and respond to each question)

6a. Playing a Musical Instrument

Yes ☐ No ☐

If Yes, *please indicate type of instrument(s)*

_____

_____

_____

Time spent (average hours per week)

_____

6b. Playing Sport

Yes ☐ No ☐

If Yes, *please indicate what sport(s) you were involved with*

_____

_____

_____

Time spent (average hours per week)

_____

_____

6c. Membership of Club(s)/Organisation(s)

Yes ☐ No ☐

If Yes, *please indicate what club(s)/organisation(s) you were involved with*

_____

_____

_____

Time spent (average hours per week)

_____

_____

6d. Prefectship/School Representive Council

Yes ☐ No ☐

If Yes, *please indicate Time spent (average hours per week)*

_____

_____

6e. Debating team

Yes ☐ No ☐

If Yes, *please indicate name of debating team*

_____

Time spent (average hours per week)

_____

_____

6f. Voluntary community service

Yes ☐ No ☐

If Yes, *please indicate type of voluntary community service*

_____

Time spent (average hours per week)

_____

6g. Other (please state) _____

_____

Time spent (average hours per week)

_____

"Progress of students through the Adelaide BDS course"

Questionnaire Number 1A 1999 (office use only) _ _ _ _ _

7. Were you involved in any paid employment in 1998 ? *(Please tick one box only)*

- None 1 ☐
- During the holidays or semester breaks only 2 ☐
- Regularly On Weekends/ Friday night/ Thursday night only 3 ☐
- Regularly during the week 4 ☐
- Full Time 5 ☐
- Other (please state)_____ 6 ☐

Please indicate

*Type of Work*_____

_____

_____

*Average hours per week*_____

_____

8. When did you decide to choose dentistry as a career ? *(Please tick one box only)*

- In primary school 1 ☐
- In High school before year 11 2 ☐
- In High school during years 11, 12 or 13 3 ☐
- During or after tertiary study 4 ☐
- After being in the workforce 5 ☐

9. Have you had any previous employment within the practice of dentistry ?

(Please tick more than one box if necessary)

9a.- None ☐ 1

9b.- As a dental assistant ☐ 2

9c.- As a dental hygienist ☐ 3

9d.- As dental therapist ☐ 4

9e.- As a dental technician ☐ 5

9f.- As a receptionist in a dental surgery ☐ 6

10. Have you had any previous experience/exposure to the practice of dentistry?

(please tick more than one box if necessary)

10a.- None	☐ 1
10b.- Work experience at a dental surgery	☐ 2
10c.- As a dental patient	☐ 3
10d.- Family member is a dentist/dental student	☐ 4
10e.- Family member works in a dental surgery	☐ 5

11. Was your decision to study dentistry influenced by ?

(please circle a number in each line)

	great influence	some influence	no influence
11a. - Your parent(s)	3	2	1
11b. - Your brother/sister(s)	3	2	1
11c. - Another relative	3	2	1
11d. - A dentist	3	2	1
11e. - Another dental employee	3	2	1
11f. - A careers counsellor	3	2	1
11g. - A teacher at school	3	2	1
11h. - A friend	3	2	1
11i. - Your own interest	3	2	1
11j. - Your belief that you would be suited to be a dentist	3	2	1
11k. - Other (please state) _____	3	2	1

"Progress of students through the Adelaide BDS course"

Questionnaire Number 1A 1999 (office use only) _ _ _ _ _

12. Was your decision to become a dentist influenced by ?

(please circle a number in each line)

	great influence	some influence	no influence
12a. - the status of dentistry	3	2	1
12b. - the income	3	2	1
12c. - the flexible working hours	3	2	1
12d. - the job security	3	2	1
12e. - the opportunity to be self employed	3	2	1
12f. - the opportunity of working with others in a team	3	2	1
12g. - your desire to help people	3	2	1
12h. - the work would be interesting and challenging	3	2	1
12i. - the work is important	3	2	1
12j. - the pleasant working environment	3	2	1
12k - the varying career paths after graduation	3	2	1
12l - other (please state) _____	3	2	1

13. What was the reason for choosing the University of Adelaide to study dentistry ?

(please tick more than one box if necessary)

13a. - parent(s) decision	☐ 1
13b. - my own decision	☐ 2
13c. - advice from teacher	☐ 3
13d. - advice from a dentist	☐ 4
13e.- brother/sister already attending	☐ 5
13f.- did not gain entry to other dental school of choice	☐ 6
13g.- did not gain entry to other course of choice	☐ 7
13h.- the good reputation of the Dental School	☐ 8
13i. - Government/Aid agency decision	☐ 9
13j.- the only dental school in South Australia	☐ 10
13k. - Other (please state) _____	☐ 11

Please check that you have completed all questions to the best of your ability

Thank you for your time in completing this questionnaire.

If you have any queries regarding this questionnaire please contact: Dr Gerry Mullins

Appendix 2.4 Post-admission survey

This survey was used by students in Cohort B who were asked to reflect back on first year in 1999

Cover Sheet: To be removed before analysis by Dr Gerry Mullins

The University of Adelaide
School of Dentistry

Project Title "Progress of students through the BDS course"

Questionnaire Number 2A - 2000

INTRODUCTION

This survey is part of a research project investigating the progress of dental students through the Adelaide BDS course. In particular this project is examining factors that affect progress of students through the first three years of the course.

It is anticipated that the results of the study will enable the Adelaide School of Dentistry to optimise the chances of success of its students in the early years of the BDS course by modifying, where appropriate, curriculum design and content, by providing support for dental students to enhance their performance.

CONFIDENTIALITY

Ethical approval (H/06/99) has been gained for this project. In order for all students participating in the study to remain strictly anonymous , Dr Gerry Mullins from the Advisory Centre of University Education (who is not involved with any assessment of dental students) will be the only person who will have a master list of student identification numbers and code numbers.

Responses to this questionnaire will be strictly confidential and individual results will not be discussed or identifiable.

Please answer all questions. Your honest answers will be greatly appreciated and will help ensure a true reflection of student perceptions.

Student ID Number _____

"Progress of students through the Adelaide BDS course"

Questionnaire Number 2A 2000 (office use only) _ _ _ _ _

1. What is your Date of birth : ___/___/___

2. What is your Gender : *(Please tick one box only)*

Male ☐ 1

Female ☐ 2

3. Where are you living this semester ? *(Please tick one box only)*

- Your family home 1 ☐
- Shared house/flat 2 ☐
- Residential College 3 ☐
- Private Board 4 ☐
- Other (please state) _____ 5 ☐

4. With whom are you living this semester ? *(Please tick one box only)*

- With parent(s)/brother(s)/sister(s) 1 ☐
- With partner and/ children 2 ☐
- By myself 3 ☐
- Other (please state) _____ 4 ☐

5. Please indicate your participation in any of the following activities in 1999 as a dental student

(please tick a box and respond to each question)

5a. Playing a Musical Instrument

Yes ☐ No ☐

If Yes, *please indicate type of instrument(s)*

_____

_____

_____

Time spent (average hours per week)

_____

5b. Playing Sport

Yes ☐ No ☐

If Yes, *please indicate what sport(s) you were involved with*

_____

_____

_____

Time spent (average hours per week)

_____

_____

5c. Membership of Club(s)/Organisation(s)

Yes ☐ No ☐

If Yes, *please indicate what club(s)/organisation(s) you were involved with*

_____

_____

_____

Time spent (average hours per week)

_____

_____

5d. Voluntary community service

Yes ☐ No ☐

If Yes, *please indicate type of voluntary community service*

_____

Time spent (average hours per week)

_____

5e. Other (please state) _____

_____

Time spent (average hours per week)

_____

6. Were you involved in any paid employment in 1999 ? *(Please tick one box only)*

- None 1 ☐
- During the holidays or semester breaks only 2 ☐
- Regularly On Weekends/ Friday night/ Thursday night only 3 ☐
- Regularly during the week 4 ☐
- Other (please state)_____ 5 ☐

Please indicate

*Type of Work*_____

_____

*Average hours per week*_____

_____

7. What factors do you think contributed to your success in the dental course last year ?

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

8. What difficulties did you face which influenced your success in the dental course last year ?

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

"Progress of students through the Adelaide BDS course"

Questionnaire Number 2A 2000 (office use only) _ _ _ _ _

11. If you experienced any difficulties during the dental course last year, please indicate if you sought any assistance

	(Please tick if yes) Yes	
11a. - from a family member	☐	1
11b. - from friends	☐	2
11c. - from other dental students	☐	3
11d. - from the Dental Student Counsellor	☐	4
11e. - from an Academic staff member	☐	5
11f. - from a part time tutor	☐	6
11g. - did not seek any help	☐	7
11h. - other (please state) _____	☐	8

Please check that you have completed all questions to the best of your ability

Thank you for your time in completing this questionnaire.

If you have any queries regarding this questionnaire please contact: Dr Gerry Mullins

Chapter 3 Appendix

Table 3.1 Characteristics and course preference of students who responded to the commencement survey

	First-year students Group 3: Cohorts A to D (1998-2001) MAHPBL	
	n	%
Number of commencement surveys received	164	
Total number of students	171	
Survey response rate		95.9
Characteristics		
Gender*		
Male	77	47.0
Female	87	53.0
Permanent place of residence *		
South Australian	83	50.6
Other Australian	42	25.6
International	39	23.8
Previous educational experience *		
School leaver	102	62.2
Non-school leaver	62	37.8
Course preference*		
Dentistry first preference	131	82.4
Dentistry second preference	28	17.6
Missing data	5	

MAHPBL: Multifaceted admission, hybrid PBL curriculum
* data obtained from admission application

Table 3.2 Commencement survey response rate for individual cohorts

	Group 3: Cohorts A to D (1998-2001) MAHPBL							
	Cohort A		Cohort B		Cohort C		Cohort D	
	n	%	n	%	n	%	n	%
Survey response rate		90.9		95.7		95.7		100
Number of surveys received	30		45		45		44	
Total number of students	33		47		47		44	

MAHPBL: Multifaceted admission, hybrid PBL curriculum

Table 3.3 Association between course preference and the influence of motivating factor: 'work is important' on the decision to become a dentist

Motivating factor and extent of influence: 'the work is important'	Course preference			
	Dentistry first preference		Dentistry second preference	
	n	%	n	%
Great	77	58.8	10	35.7
Some or None	54	41.2	18	64.3
Total	131	100	28	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=159*
* = missing data on students course preferences
x^2=4.95; p=0.02 (df =1)

Table 3.4 Association between permanent place of residence and the influence of motivating factor: 'income' on the decision to become a dentist

Motivating factor and extent of influence: 'income'	Permanent place of residence					
	South Australian		Other Australian		International	
	n	%	n	%	n	%
Great	13	15.5	10	24.4	14	35.9
Some or None	71	84.5	31	75.6	25	64.1
Total	84	100	41	100	39	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=164
x^2=6.46; p=0.04 (df =2)

Table 3.5 Association between permanent place of residence and the influence of motivating factor: 'status' on the decision to become a dentist

Motivating factor and extent of influence: 'status'	Permanent place of residence					
	South Australian		Other Australian		International	
	n	%	n	%	n	%
Great	14	16.9	15	34.1	15	40.5
Some or None	69	83.1	29	65.9	22	59.5
Total	83	100	44	100	37	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=164
x^2=8.92; p=0.01 (df =2)

Table 3.6 Association between course preference and the influence of motivating factor: 'belief would be suited to the profession' on the decision to study dentistry

Motivating factor and extent of influence: 'belief would be suited to the profession'	Course preference			
	Dentistry first preference		Dentistry second preference	
	n	%	n	%
Great	102	77.9	14	50.0
Some or none	29	22.1	14	50.0
Total	131	100	28	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=159*
* = missing data on students course preferences
x^2=9.08; p=0.00 (df =1)

Table 3.7 Association between course preference and the influence of 'dental practitioner' on the decision to study dentistry

Motivating factor and extent of influence: 'dental practitioner'	Course preference			
	Dentistry first preference		Dentistry second preference	
	n	%	n	%
Great	40	31.6	2	7.2
Some or none	91	68.4	26	92.8
Total	133	100	28	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=161*
* = missing data on students course preferences
x^2=6.95; p=0.01 (df=1)

Table 3.8 Association between permanent place of residence and the influence of motivating factor: 'parent' on the decision to study dentistry

Motivating factor and extent of influence: 'parent'	Permanent place of residence					
	South Australian		Other Australian		International	
	n	%	n	%	n	%
Great	8	9.6	6	14.6	12	30.0
Some or none	75	90.4	35	85.4	28	70.0
Total	83	100	41	100	40	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=164
x^2=8.45; p=0.01 (df=2)

Table 3.9 Association between previous educational experience and the influence of motivating factor: 'parent' on the decision to study dentistry

Motivating factor and extent of influence: 'parent'	Previous educational experience			
	School leaver		Non-school leaver	
	n	%	n	%
Great	10	9.8	16	25.8
Some or none	92	90.2	46	74.2
Total	102	100	62	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=164
x^2=7.40; p=0.01 (df=1)

Table 3.10 Association between gender and timing of the decision to choose a career in dentistry

Timing of decision	Gender			
	Male		Female	
	n	%	n	%
Primary school or Years 8-10 secondary school (junior years of school)	32	41.5	3	3.5
Years 11 or 12 or 13 secondary School (senior years of school)	29	37.7	69	80.2
During or after university studies or after being in workforce	16	20.8	14	16.3
Total	77	100	86	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=163*
*excludes miscellaneous 'other category'
x^2= 40.11; p=0.00 (df =2)

Table 3.11 Association between course preference and timing of career decision

Timing of decision	Course preference			
	Dentistry first preference		Dentistry second preference	
	n	%	n	%
Primary school or Years 8-10 secondary school (junior years of school)	53	40.7	6	21.4
Years 11 or 12 or 13 secondary School (senior years of school)	50	38.5	20	71.5
During or after university studies or after being in workforce	27	20.8	2	7.1
Total	130	100	28	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=158*
* some data re: preferences missing and *excludes miscellaneous 'other category'
x^2=10.29; p=0.01 (df=2)

Table 3.12 Association between previous educational experience and timing of the decision to choose a career in dentistry

	Previous educational experience			
	School leaver		Non-school leaver	
Timing of decision	n	%	n	%
Primary school or Years 8-10 Secondary school (junior years of school)	41	40.6	20	32.3
Years 11 or 12 or 13 Secondary School (senior years of school)	58	57.4	14	22.6
During or after university studies or after being in workforce	2	2.0	28	45.2
Total	101	100	62	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=163*
*excludes miscellaneous 'other category'
x^2=50.19; p=0.00 (df=2)

Table 3.13 Association between permanent place of residence and reason for choosing to study dentistry ('good reputation of the Adelaide School of Dentistry') at the University of Adelaide

	Permanent place of residence			
	Australian		International	
Reason: 'good reputation of the Adelaide School of Dentistry'	n	%	n	%
Yes	71	56.8	30	76.9
No	54	43.2	9	23.1
Total	125	100	39	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=164
x^2=5.09; p=0.02 (df=1)

Table 3.14 Association between permanent place of residence and reason for choosing to study dentistry ('parental decision') at the University of Adelaide

	Permanent place of residence			
	Australian		International	
Reason: 'parental decision'	n	%	n	%
Yes	17	13.6	14	35.9
No	108	86.4	25	64.1
Total	125	100	39	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=164
x^2=9.64; p=0.00 (df=1)

Table 3.15 Association between permanent place of residence and reason for choosing to study dentistry ('advice from dentist') at the University of Adelaide

Reason:	Permanent place of residence					
	South Australian		Other Australian		International	
'advice from dentist'	n	%	n	%	n	%
Yes	8	9.6	20	47.6	6	15.4
No	75	90.4	22	52.4	33	84.6
Total	83	100	42	100	39	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=164
x^2=25.37; p=0.00 (df=2)

Table 3.16 Association between previous educational experience and reason for choosing to study dentistry ('advice from dentist') at the University of Adelaide

Reason:	Previous educational experience			
	School leaver		Non-school leaver	
'advice from dentist'	n	%	n	%
Yes	16	15.7	18	29.0
No	86	84.3	44	71.0
Total	102	100	62	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=164
x^2=4.18; p=0.04 (df=1)

Table 3.17 Association between permanent place of residence and reason for choosing to study dentistry ('only dental school in South Australia') at the University of Adelaide

Reason:	Permanent place of residence					
	South Australian		Other Australian		International	
'only dental school in South Australia'	n	%	n	%	n	%
Yes	62	74.7	4	9.5	1	2.6
No	21	25.3	38	90.5	38	97.4
Total	83	100	42	100	39	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=164
x^2=80.07; p=0.00 (df=2)

Table 3.18 Association between previous educational experience and reason for choosing to study dentistry ('only dental school in South Australia') at the University of Adelaide

Reason: 'only dental school in South Australia'	Previous educational experience			
	School leaver		Non-school leaver	
	n	%	n	%
Yes	54	52.9	13	21.0
No	48	47.1	49	79.0
Total	102	100	62	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=164
x^2=15.02 p=0.00 (df=1)

Table 3.19 Association between permanent place of residence and reason for choosing to study dentistry ('did not enter the dental school of choice') at the University of Adelaide

Reason: 'did not enter the dental school of choice'	Permanent place of residence					
	South Australian		Other Australian		International	
	n	%	n	%	n	%
Yes	2	2.4	20	47.6	12	30.8
No	81	97.6	22	52.4	27	69.2
Total	83	100	42	100	39	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=164
x^2=37.82; p=0.00 (df=2)

Table 3.20 Association between previous educational experience and reason for choosing to study dentistry ('did not enter the dental school of choice') at the University of Adelaide

Reason: 'did not enter the dental school of choice'	Previous educational experience			
	School leaver		Non-school leaver	
	n	%	n	%
Yes	15	14.7	19	30.6
No	87	85.3	43	69.3
Total	102	100	62	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=164
x^2=5.96; p=0.00 (df=1)

Table 3.21 Association between gender and reason for choosing to study dentistry ('did not enter course of choice') at the University of Adelaide

Reason: 'did not enter course of choice'	Gender			
	Male		Female	
	n	%	n	%
Yes	10	13.0	3	3.4
No	67	87.0	84	96.6
Total	77	100	87	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=164
x^2=5.09; p=0.02 (df=1)

Table 3.22 Association between course preference and reason for choosing to study dentistry ('did not enter course of choice') at the University of Adelaide

Reason: 'did not enter course of choice'	Course preference			
	Dentistry first preference		Dentistry second preference	
	n	%	n	%
Yes	6	4.6	7	25.0
No	125	95.4	21	75.0
Total	131	100	28	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=159*
* = missing data on students course preferences
Fisher exact test 2 tailed p=0.002

Table 3.23 Exposure to the practice of dentistry prior to commencing dental studies

Number of exposures and type of exposure	n	%
One type	68	46.9
Dental patient	43	29.7
Family member is a dentist or dental student	13	9.0
Work experience	11	7.5
Family member works in a dental surgery	1	0.7
Two types	53	36.6
Dental patient and work experience	40	27.6
Dental patient and family member is a dentist or dental student	8	5.5
Family member is a dentist or dental student and family member works in a dental surgery	2	1.4
Dental patient and family member works in a dental surgery	2	1.4
Work experience and family member is a dentist or dental student	1	0.7
Three types	13	9.0
Dental patient, work experience and family member is a dentist or dental student	6	4.1
Dental patient, family member is a dentist or dental student and family member works in a dental surgery	5	3.5
Work experience, family member is a dentist or dental student and family member works in a dental surgery	2	1.4
All four types	11	7.5

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=145

Table 3.24 Association between permanent place of residence and previous exposure to the practice of dentistry

	Permanent place of residence			
	Australian		International	
Previous exposure to the practice of dentistry	n	%	n	%
Yes	115	92.0	30	76.9
No	10	8.0	9	23.1
Total	125	100	39	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=164
Fisher exact test 2 tailed p=0.02

Table 3.25 Association between permanent place of residence and previous exposure to the practice of dentistry (work experience)

Previous exposure to the practice of dentistry: work experience	Permanent place of residence			
	Australian		International	
	n	%	n	%
Yes	61	48.8	10	25.6
No	64	51.2	29	74.4
Total	125	100	39	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=164
x^2= 6.49; p=0.01 (df =1)

Table 3.26 Association between permanent place of residence and previous exposure to the practice of dentistry (dental patient)

Previous exposure to the practice of dentistry: dental patient	Permanent place of residence			
	Australian		International	
	n	%	n	%
Yes	93	74.4	22	56.4
No	32	25.6	17	43.6
Total	125	100	39	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=164
x^2=4.59; p=0.03 (df =1)

Table 3.27 Association between permanent place of residence and previous exposure to the practice of dentistry (family member is a dentist or dental student)

Previous exposure to the practice of dentistry: family member is a dentist or dental student	Permanent place of residence			
	Australian		International	
	n	%	n	%
Yes	23	22.5	26	41.9
No	79	77.5	36	58.1
Total	102	100	62	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=164
x^2=6.92; p=0.01 (df=1)

Table 3.28 Association between previous educational experience and previous exposure to the practice of dentistry (work experience)

	Previous educational experience			
	School leaver		Non-school leaver	
Previous exposure to the practice of dentistry: work experience	n	%	n	%
Yes	51	50.0	20	32.3
No	51	50.0	42	67.7
Total	102	100	62	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=164
x^2= 4.94; p=0.03 (df=1)

Table 3.29 Association between course preference and previous educational experience

	Course preference			
	Dentistry first preference		Dentistry second preference	
Previous educational experience	n	%	n	%
School leaver	36	54.5	61	93.8
Non-school leaver	30	45.5	4	6.2
Total	66	100	65	100

Group 2: (1993-96) CAHPBL
CAHPBL: Conventional admission, hybrid PBL curriculum
n=131*
* missing data on course preferences and previous educational experience
x^2=26.32; p=0.00 (df=1)

Table 3.30 Course preference of students commencing first-year between 1998-2001

	Group 3: Cohorts A to D (1998-01) MAHPBL									
	Cohort A 1998		Cohort B 1999		Cohort C 2000		Cohort D 2001		Total	
Course preference	n	%	n	%	n	%	n	%	n	%
Dentistry first preference	28	82.4	35	77.8	40	87.0	36	83.7	139	82.7
Dentistry second preference	6	17.6	10	22.2	6	13.0	7	16.3	29	17.3
Missing data	2		1		1		1		5	

MAHPBL: Multifaceted admission, hybrid PBL curriculum
Cohort A n=36; Cohort B n=46; Cohort C n=47; Cohort D n=44

Table 3.31 Association between previous educational experience and course preference

	Course preference			
	Dentistry first preference		Dentistry second preference	
Previous educational experience	n	%	n	%
School leaver	82	59.0	25	86.2
Non-school leaver	57	41.0	4	13.8
Total	139	100	29	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=168*
* missing data on course preferences
x^2=7.68;p=0.01 (df=1)

Table 3.32 Association between course preference of students who commenced first year during 1983-86 and 1998-2001

	Group 1: (1983-1986) CACC		Group 3: (1998-2001) MAHPBL	
Course preference	n	%	n	%
Dentistry first preference	50	43.1	139	82.7
Dentistry other preference	66	56.9	29	17.3
Total	116	100	168	100

Group 1: n=116*
Group 3: n=168*
CACC: Conventional admission, conventional curriculum
MAHPBL: Multifaceted admission, hybrid PBL curriculum
*missing data on course preference
x^2=48.42; p=0.00 (df=1)

Table 3.33 Association between course preference of students who commenced first year during 1993-96 and 1998-2001

	Group 2: (1993-1996) CAHPBL		Group 3: (1998-2001) MAHPBL	
Course preference	n	%	n	%
Dentistry first preference	68	50.7	138	82.7
Dentistry other preference	66	49.3	29	17.3
Total	134	100	168	100

Group 2: n=134*
Group 3: n=168*
CAHPBL: Conventional admission, hybrid PBL curriculum
MAHPBL: Multifaceted admission, hybrid PBL curriculum
*missing data on course preference
x^2=35.38; p=0.00 (df=1)

Table 3.34 Association between course preference and 'motivation to become a dentist' admission interview rating

	Course preference			
	Dentistry first preference		Dentistry second preference	
Rating	n	%	n	%
Rating 1	38	28.1	2	6.7
Rating 2	59	43.7	13	43.3
Rating 3/4/5/6	38	28.2	15	50.0
Total	135	100	30	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=165*
Rating 1: highest rating for particular attribute
*missing data for some ratings (total sample n=173)
x^2=8.32; p=0.02 (df=2)

Table 3.35 Association between course preference and 'perseverance' admission interview rating

	Course preference			
	Dentistry first preference		Dentistry second preference	
Rating	n	%	n	%
Rating 1	40	29.2	2	6.7
Rating 2	60	43.8	19	63.3
Rating 3/4/5/6	37	27.0	9	30.0
Total	137	100	30	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=167*
Rating 1: highest rating for particular attribute
*missing data for some ratings (total sample n= 173)
x^2= 7.03; p=0.03 (df=2)

Table 3.36 Comparison of previous academic achievement (TER score) of Australian school leavers and course preference

	TER score					
	94.99-99.99 ('very high achievement')		94.98-90.00 ('high achievement')		Total	
Course preference	n	%	n	%	n	%
Dentistry first preference	31	68.9	22	84.6	53	74.6
Dentistry second preference	14	31.1	4	15.4	18	25.4

Group 3: Cohorts B, C and D *(1999-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=71
* Cohort A not included as TER scores of applicants for 1998 entry could not be pooled with other cohorts as they were reported differently

Table 3.37 Comparison of achievement on the UMAT of Australian school leavers and course preference

	Overall UMAT performance: composite percentile bands							
	'higher achievement'				'lower achievement'			
	86-100%		85-71%		70-41%		Total	
	n	%	n	%	n	%	n	%
Course preference								
Dentistry first preference	13	76.5	12	63.2	25	78.1	50	73.5
Dentistry second preference	4	23.5	7	36.8	7	21.9	18	26.5

Group 3: Cohorts B, C and D *(1999-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=68#
* Cohort A not included as they did not have comparable UMAT scores as per students in Cohorts B, C and D
# total sample of Australian school leavers = 71; 3 missing UMAT results

Chapter 4 Appendix

Table 4.1 Association between cohort and gender

	First-year cohorts							
	1983		1984		1985		1986	
Gender	n	%	n	%	n	%	n	%
Male	12	42.9	23	76.7	20	71.4	18	58.1
Female	16	57.1	7	23.3	8	28.6	13	41.9
Total	28	100	30	100	28	100	31	100

Group 1: (1983-86) CACC
CACC: Conventional admission, conventional curriculum
n=117
x^2=8.34; p=0.04 (df=3)

Table 4.2 Association between permanent place of residence and gender

	Permanent place of residence					
	South Australian		Other Australian		International	
Gender	n	%	n	%	n	%
Male	51	48.1	21	65.6	10	25.6
Female	55	51.9	11	34.4	29	74.4
Total	106	100	32	100	39	100

Group 2: (1993-96) CAHPBL
CAHPBL: Conventional admission, hybrid PBL curriculum
n=177
x^2=11.64; p=0.00 (df=2)

Table 4.3 Association between previous educational experience and permanent place of residence

	Previous educational experience			
	School leaver		Non-school leaver	
Permanent place of residence	n	%	n	%
South Australian	82	84.5	22	59.5
Other Australian	15	15.5	15	40.5
Total	97	100	37	100

Group 2: (1993-96) CAHPBL
CAHPBL: Conventional admission, hybrid PBL curriculum
n=134*
* missing data on course preferences and previous educational experience.
For purpose of the chi-square analysis, international students were excluded (observed value less than 5.0)
x^2=9.69; p=0.00 (df=1)

Table 4.4 Characteristics of dental students commencing first-year between 1998-2001 (Group 3: MAHPBL)

	Cohort A 1998		Cohort B 1999		Cohort C 2000		Cohort D 2001	
Characteristic	n	%	n	%	n	%	n	%
Gender								
Male	18	50.0	29	63.0	19	40.4	16	36.4
Female	18	50.0	17	37.0	28	59.6	28	63.6
Previous educational experience								
School leaver	22	61.1	26	56.5	30	63.8	30	68.2
Non-school leaver	14	38.9	20	43.5	17	36.2	14	31.8
Permanent place of residence								
South Australian	21	58.3	22	47.8	22	46.8	24	54.6
Other Australian	12	33.3	13	28.3	11	23.4	10	22.7
International	3	8.4	11	23.9	14	29.8	10	22.7
Australian geographic locality								
Urban	29	87.9	33	94.3	28	84.8	28	82.4
Rural	4	12.1	2	5.7	5	15.2	6	17.6
Other Australian students: State/Territory of origin								
Victoria	3	25.0	4	30.8	1	9.1	3	30.0
New South Wales	2	16.7	6	46.2	1	9.1	1	10.0
Queensland	0	0.0	1	7.7	5	45.4	3	30.0
Australian Capital Territory	3	25.0	0	0.0	0	0.0	1	10.0
Tasmania	1	8.3	0	0.0	3	27.3	1	10.0
Western Australia	2	16.7	2	15.3	1	9.1	0	0.0
Northern Territory	1	8.3	0	0.0	0	0.0	1	10.0
International student: country of origin								
Malaysia	1	33.3	1	9.1	3	21.4	4	40.0
India/Other Asia	1	33.3	3	27.2	3	21.4	1	10.0
Singapore	0	0.0	2	18.2	4	28.6	1	10.0
New Zealand	1	33.3	1	9.1	2	14.3	1	10.0
Korea	0	0.0	0	0.0	1	7.1	2	20.0
Hong Kong	0	0.0	1	9.1	1	7.1	0	0.0
Canada	0	0.0	2	18.2	0	0.0	0	0.0
Europe/Africa	0	0.0	1	9.1	0	0.0	1	10.0

MAHPBL: Multifaceted admission, hybrid PBL curriculum
Cohort A n=36; Cohort B n=46; Cohort C n=47; Cohort D n=44

NB: Refer to Chapter 4 Table 4.1 for combined data regarding gender, previous educational experience and permanent place of residence

NB: Refer to Appendix 4 Table 4.5 for combined data regarding Australian geographic locality, permanent residence of other Australian and international students

Table 4.5 Permanent place of residence of first-year dental students, Group 3: Cohorts A to D (1998-2001) (MAHPBL)

	n	%
Permanent place of residence		
South Australian	89	51.4
Other Australian	46	26.6
International	38	22.0
Australian geographic locality		
Urban	118	87.4
Rural	17	12.6
Other Australian students: State/Territory of origin*		
Victoria	11	23.9
New South Wales	10	21.7
Queensland	9	19.6
Tasmania	5	10.9
Western Australia	5	10.9
Australian Capital Territory	4	8.7
Northern Territory	2	4.3
International student: Country of origin#		
Malaysia	9	23.7
India/Other Asia	8	21.0
Singapore	7	18.4
New Zealand	5	13.2
Korea	3	7.9
Hong Kong	2	5.3
Canada	2	5.3
Europe/Africa	2	5.3

MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=173
*n=46 and # n=38

Table 4.6 Association between previous educational experience and gender

	Gender			
	Male		Female	
Previous educational experience	n	%	n	%
School leaver	43	52.4	65	71.4
Non-school leaver	39	47.6	26	28.6
Total	82	100	91	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=173
x^2 =6.63; p=0.01 (df=1)

Table 4.7 Association between previous educational experience and permanent place of residence

	Permanent place of residence					
	South Australian		Other Australian		International	
Previous educational experience	n	%	n	%	n	%
School leaver	68	76.4	24	52.2	16	42.1
Non-school leaver	21	23.6	22	47.8	22	57.9
Total	89	100	46	100	38	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=173
x^2= 6.17; p=0.00 (df=2)

Table 4.8 Previous educational experience of students who commenced first year during 1998-2001 (Group 3: MAHPBL)

	Cohort A 1998		Cohort B 1999		Cohort C 2000		Cohort D 2001		Total	
Previous educational experience	n	%	n	%	n	%	n	%	n	%
All students										
School leaver	22	61.1	26	56.5	30	63.8	30	68.2	108	62.4
Non-school leaver	14	38.9	20	43.5	17	36.2	14	31.8	65	37.6
Australian students										
School leaver	21	63.7	22	62.9	25	75.8	24	70.6	92	68.1
Non-school leaver	12	36.3	13	37.1	8	24.2	10	29.4	43	31.9
International students										
School leaver	1	33.3	4	36.4	5	35.7	6	60.0	16	42.1
Non-school leaver	2	66.7	7	63.6	9	64.3	4	40.0	22	57.9

MAHPBL: Multifaceted admission, hybrid PBL curriculum
Cohort A (1998) n=33; Cohort B (1999) n=43; Cohort C (2000) n=40; Cohort D (2001) n=40

Table 4.9 Type of secondary school attended by Australian school leavers who commenced first year during 1998-2001 (Group 3: MAHPBL)

	Cohort A 1998		Cohort B 1999		Cohort C 2000		Cohort D 2001		Total	
Type of secondary school	n	%	n	%	n	%	n	%	n	%
Non-government	15	71.4	11	50.0	20	80.0	15	62.5	61	66.3
Government	6	28.6	11	50.0	5	20.0	9	37.5	31	33.7

MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=92
Cohort A n=21; Cohort B n=22; Cohort C n=25; Cohort D n=24

Table 4.10 Association between gender and study group

	Group 1 (1983-1986) CACC		Group 2 (1993-1996) CAHPBL		Group 3 (1998-2001) MAHPBL	
Gender	n	%	n	%	n	%
Male	73	62.4	82	46.3	82	47.4
Female	44	37.6	95	53.7	91	52.6
Total	117	100	177	100	173	100

CACC: Conventional admission, conventional curriculum
CAHPBL: Conventional admission, hybrid PBL curriculum
MAHPBL: Multifaceted admission, hybrid PBL curriculum
x^2=8.51; p=0.01 (df =2)

Table 4.11 Association between previous educational experience and study group

	Group 1 (1983-1986) CACC		Group 2 (1993-1996) CAHPBL		Group 3 (1998-2001) MAHPBL	
Previous educational experience	n	%	n	%	n	%
School leaver	102	87.2	98	72.1	108	62.4
Non-school leaver	15	12.8	38	27.9	65	37.6
Total	117	100	136	100	173	100

CACC: Conventional admission, conventional curriculum
CAHPBL: Conventional admission, hybrid PBL curriculum
MAHPBL: Multifaceted admission, hybrid PBL curriculum
x^2=21.36; p=0.00 (df =2)

Table 4.12 Previous academic achievement (TER score) of Australian school leavers

	Cohort B 1999		Cohort C 2000		Cohort D 2001	
TER score	n	%	n	%	n	%
94.99-99.99 ('very high achievement')	17	77.3	18	72.0	10	41.7
90.00-94.98 ('high achievement')	5	22.7	7	28.0	14	58.3
Total	22	100	25	100	24	100

Group 3: Cohorts B, C and D* (1999-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=71
* Cohort A not included as TER scores of applicants for 1998 entry could not be pooled with other cohorts as they were reported differently
x^2= 7.51; p=0.02 (df=2)

Table 4.13 Previous academic achievement (TER score) of Australian school leavers

	TER score					
	94.99-99.99 ('very high achievement')		90.00-94.98 ('high achievement')		Total	
	n	%	n	%	n	%
Gender						
Male	13	28.9	13	50.0	26	36.6
Female	32	71.1	13	50.0	45	63.4
Permanent place of residence 1						
South Australia	33	73.3	19	73.1	52	73.2
Other Australia	12	26.7	7	26.9	19	26.8
Permanent place of residence 2						
Metropolitan area	42	93.3	23	88.5	65	91.5
Rural or remote area	3	6.7	3	11.5	6	8.5
Type of secondary school						
Non-government	28	62.2	18	69.2	46	64.8
Government	17	37.8	8	30.8	25	35.2

Group 3: Cohorts B, C and D* (1999-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=71
* Cohort A not included as TER scores of applicants for 1998 entry could not be pooled with other cohorts as they were reported differently

Table 4.14 Performance of Australian school leavers on admission test (overall UMAT performance)

	Cohort B		Cohort C		Cohort D	
Overall UMAT performance: composite percentile bands	n	%	n	%	n	%
'Higher achievement'						
86-100%	5	23.8	8	34.8	4	16.7
85-71%	7	33.3	6	26.1	6	25.0
'Lower achievement'						
70-41%	9	42.9	9	39.1	14	58.3
Missing	1		2		0	
Total	13	100	25	100	24	100

Group 3: Cohorts B, C and D* (1999-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=71
Cohort B n=22; Cohort C n=25; Cohort D n=24
* Cohort A not included as they did not have comparable UMAT scores as per students in Cohorts B, C and D
NB: Refer to Chapter 4 Table 4.2 for combined data

Table 4.15 Association between type of secondary school and performance on cognitive admission test (overall UMAT performance) of Australian school leavers

	Type of secondary school			
	Non-government		Government	
Overall UMAT performance: composite percentile bands	n	%	n	%
'Higher achievement'				
86-100%	4	10.8	13	41.9
71-85%	12	32.4	7	22.6
'Lower achievement'				
41-70%	21	56.8	11	35.5
Total	37	100	31	100

Group 3: Cohorts B, C and D* (1999-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=68#
x^2= 8.74; p=0.01 (df=1)
* Cohort A not included as they did not have comparable UMAT scores as per students in Cohorts B, C and D
# total sample of Australian school leavers = 71; 3 missing UMAT results

Table 4.16 Achievement on the UMAT of Australian school leavers

	Overall UMAT performance: composite percentile bands							
	'Higher achievement'				'Lower achievement'			
	86-100%		71-85%		41-70%		Total	
	n	%	n	%	n	%	n	%
Gender								
Male	9	52.9	8	42.1	10	31.3	27	39.7
Female	8	47.1	11	57.9	22	68.7	41	60.3
Permanent place of residence 1								
South Australia	12	70.6	16	84.2	21	65.6	49	72.1
Other Australia	5	29.4	3	15.8	11	34.4	19	27.9
Permanent place of residence 2								
Metropolitan area	17	100	18	94.7	28	87.5	63	92.6
Rural or remote area	0	0	1	5.3	4	12.5	5	7.4
Type of secondary school								
Non-government	4	23.5	12	63.2	21	65.6	37	54.4
Government	13	76.5	7	36.8	11	34.4	31	45.6

Group 3: Cohorts B, C and D* (1999-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=68#
* Cohort A not included as they did not have comparable UMAT scores as per students in Cohorts B, C and D
# total sample of Australian school leavers = 71; 3 missing UMAT results

Table 4.17 Achievement on the admission interview of Australian school leavers

	Overall admission interview rating							
	Excellent		Good		Adequate		Total	
	n	%	n	%	n	%		
Gender								
Male	9	69.2	15	36.6	11	64.7	35	49.3
Female	4	30.8	26	63.4	6	35.3	36	50.7
Permanent place of residence 1								
South Australia	10	76.9	34	82.9	14	82.4	58	81.7
Other Australia	3	23.1	7	17.1	3	17.6	13	18.3
Permanent place of residence 2								
Metropolitan area	8	61.5	31	75.6	13	76.5	52	73.2
Rural or remote area	5	38.5	10	24.4	4	23.5	19	26.8
Type of secondary school								
Non-government	6	46.2	30	73.2	10	58.8	46	64.8
Government	7	53.8	11	26.8	7	41.2	25	35.2

Group 3: Cohorts B, C and D (1999-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=71

Table 4.18 Admission interview performance of four cohorts of students (Group 3: MAHPBL) commencing first year

	Cohort A 1998		Cohort B 1999		Cohort C 2000		Cohort D 2001	
Overall rating and individual category ratings	n	%	n	%	n	%	n	%
Overall								
Excellent	5	13.9	11	25.0	9	19.2	12	27.3
Good	23	63.9	21	47.7	19	40.4	25	56.8
Adequate	7	19.4	12	27.3	18	38.3	5	11.4
Barely adequate/unsuitable	1	2.8	0	0.0	1	2.1	2	4.5
missing data	0		2		0		0	
Motivation to do dentistry								
Rating 1	8	22.8	10	22.7	12	26.1	10	22.7
Rating 2	16	45.7	20	45.4	14	30.4	22	50.0
Rating 3	7	20.0	8	18.2	19	41.3	10	22.7
Ratings 4/5/6	4	11.4	6	13.6	1	2.8	2	4.6
missing data	1		2		1		0	
Compatibility with the course								
Rating 1	5	13.9	10	22.7	6	13.0	9	20.5
Rating 2	18	50.0	21	47.7	19	41.3	20	45.4
Rating 3	11	30.6	11	25.0	16	34.8	9	20.5
Ratings 4/5/6	2	5.5	2	4.5	5	10.9	6	13.6
missing data	0		2		1		0	
Tolerance of ambiguity								
Rating 1	3	8.4	4	9.1	4	8.7	7	15.9
Rating 2	16	44.4	14	31.8	20	43.5	17	38.6
Rating 3	12	33.3	25	56.8	17	36.9	12	27.3
Ratings 4/5/6	5	13.9	1	2.3	5	10.9	8	18.2
missing data	0		2		1		0	
Perseverance								
Rating 1	8	22.2	9	20.5	12	26.1	13	29.5
Rating 2	20	55.6	24	54.5	19	41.3	18	40.9
Rating 3	7	19.4	11	25.0	15	32.6	12	27.3
Ratings 4/5/6	1	2.8	0	0.0	0	0.0	1	2.3
missing data	0		2		1		0	
Supportiveness and encouraging behaviour								
Rating 1	2	5.7	5	11.4	7	15.2	10	22.7
Rating 2	16	45.7	21	47.7	15	32.6	20	45.4
Rating 3	16	45.7	15	34.1	21	45.7	11	25.0
Ratings 4/5/6	1	2.9	3	6.8	3	6.5	3	6.9
missing data	1		2		1		0	
Communication skills and personal effectiveness								
Rating 1	10	27.8	16	36.4	13	28.3	16	36.4
Rating 2	16	44.4	19	43.2	20	43.5	19	43.2
Rating 3	9	25.0	7	15.9	13	28.2	8	18.1
Ratings 4/5/6	1	2.8	2	4.5	0	0.0	1	2.3
missing data	0		2		1		0	

MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=71; First-year Cohorts: Cohort A n=36; Cohort B n=46; Cohort C n=47; Cohort D n=44; Rating 1: highest rating for particular attribute. NB: Refer to Chapter 4 Tables 4.3 and 4.4 for combined data

Table 4.19 Association between ratings on individual admission interview categories

	Individual admission interview categories											
	Motivation to become a dentist		Compatibility with the course		Tolerance of ambiguity		Perseverance		Supportive & encouraging behaviour		Communi-cation skills & personal effectiveness	
Rating	n	%	n	%	n	%	n	%	n	%	n	%
Rating 1	40	23.7	30	17.6	24	14.2	42	24.7	24	14.2	24	14.2
Rating 2	72	42.6	78	45.9	72	42.6	81	47.7	72	42.6	72	42.6
Rating 3	44	26.0	47	27.6	63	37.3	45	26.6	63	37.3	63	37.3
Ratings 4/5/6	13	7.7	15	8.8	10	5.9	2	1.2	10	5.9	10	5.9
Missing data	4		3		4		3		4		4	
Total	169	100	170	100	170	100	170	100	169	100	169	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
Rating 1: highest rating for particular attribute
n=173
x^2=61.18; p=0.00 (df=15)

Table 4.20 Association between gender and overall admission interview rating

	Gender			
	Male		Female	
Rating	n	%	n	%
Excellent	11	13.7	26	28.6
Good	42	52.5	46	50.5
Adequate/barely adequate	27	33.8	19	20.9
Total	80	100	91	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=171*
*missing data for some ratings (total sample n= 173)
x^2=6.98; p=0.03 (df=2)

Table 4.21 Association between gender and 'communication and personal effectiveness' admission interview rating

	Gender			
	Male		Female	
Rating	n	%	n	%
Rating 1	17	21.5	38	41.8
Rating 2	36	45.6	38	41.8
Ratings 3/4/5/6	26	32.9	15	16.4
Total	79	100	91	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
Rating 1: highest rating for particular attribute
n=170*
*missing data for some ratings (total sample n= 173)
x^2=10.23; p=0.01 (df =2)

Table 4.22 Association between previous educational experience and 'supportive and encouraging behaviour' admission interview rating

	Previous educational experience			
	School leaver		Non-school leaver	
Rating	n	%	n	%
Rating 1	17	15.9	7	11.3
Rating 2	55	51.4	17	27.4
Ratings 3/4/5/6	35	32.7	38	61.3
Total	107	100	62	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
Rating 1: highest rating for particular attribute
*missing data for some ratings (total sample n=173)
x^2=13.31; p=0.00 (df=2)

Chapter 5 Appendix

Table 5.1 Quantitative measures of academic progress

Measures of academic progress	Reference
Pass versus fail (year level; examinations)	Barnard and Siu (1966)[D]; Jacobsen (1987)[D]; Hoad-Reddick and Macfarlane (1999) [D]; Craig et al. (2004)[M]
Satisfactory versus non-satisfactory	Kay-Lambkin et al. (2002)[M]
Satisfactory versus non-satisfactory completion of degree (graduated dental school without difficulty; with difficulty; withdrew; dismissed)	Scheetz (1987)[D]; Sandow et al. (2002)[D]
Completion	Van den Berg and Hoffman (2005)[HE]
Obtaining first class award; passing with honours	James and Chilvers (2001)[M]
Degree classification ('higher' achievement versus failure)	Smith and Naylor (2001)[HE]; Morrison et al. (2005)[HE]
Failure to complete versus graduating with honours	Neame et al. (1992)[M]
Academic difficulty versus achieving 'distinction'	Julian (2005) [M]
Temporary interruption	Heintze et al. (2004)[D]
Prolonged completion	Jacobsen (1987)[D]
Time to complete	Barnard and Siu (1966)[D]; Murtaugh et al. (1999)[HE]; Susarla et al. (2003)[D]; Iputo and Kwizera (2005)[M]
Failure to complete	Barnard and Siu (1966)[D]
Drop out rate	Jacobsen (1987)[D]; Kramer and DeMarais (1986)[D]; Simpson and Budd (1996)[M]; Röding (1997)[D]; Heintze et al. (2004)[D]; Iputo and Kwizera (2005)[M]
Attrition rate	Kramer and DeMarais (1986)[D]; Susarla et al. (2003)[D]

HE: higher education; M: medical education; D: dental education

Table 5.2 Pre-admission factors that influence tertiary student academic success derived from selected international studies

Study sample	Independent (Pre-admission) factors	Outcome measure	Statistical analyses	Reference
N=310 1977-1981 N=292 1982-1986 Single Norwegian dental school Undergraduate course	• Prior academic achievement (pre-dental school average grade)	• Dental school grade average marks (weighted averages) • Number who passed examinations • Number who had prolonged time between admission and graduation • Drop out • Distribution of 'higher' and 'poorer' performers	Correlation tests	Jacobsen (1987)[D]
N=792 Single US dental school 1970-79	• uGPA • DAT(AA) and PAT scores • Age, gender; residency; occupation of father; number of degrees)	• Graduated vs non-graduated	Step-wise discriminant function	Scheetz (1987) [D]
N=782 University of Newcastle Medical school, Australia 1978-1989	• Secondary school achievement • Gender, age • Educational experience: field of previous study	• Academic progress: failure to complete the course and being awarded with honours on graduation	Non-parametric tests (Mann Whitney and x2 analysis)	Neame et al. (1992)[M]
N=117 Manchester dental school UK 1996	• A-level grades • Gender, residency, type of secondary school attended	• Academic progress: passing/failing Year 1 examination (semester 1 and 2)	Bivariate analyses Backward logistic regression modelling	Hoad-Reddick and Macfarlane (1999)[D]

*also examined post-admission factors (refer Appendix 7 Table 7.1)
uGPA: undergraduate Grade Point Average; DAT (AA): Dental Admission Test (Academic Average); PAT: Perceptual Ability Test
M: medicine; D: dentistry

Study sample	Independent (Pre-admission) factors	Outcome measure	Statistical analyses	Reference
N= 8867 Year 1 USA Single university; multiple courses 1991-1995	• Previous school achievement (high school GPA and cognitive test: SAT) • Age, residency and ethnicity	• Academic progress: withdrawal and completion	Survival analysis	Murtaugh et al. (1999) HE*
N= 197 Year 1 Australian students Single university, Science and IT courses	• Previous school achievement (TER score) • Gender, age	• Academic achievement: Semester 1 GPA	Multivariate analyses: ANOVA, regression, hierarchical regression	McKenzie & Schweitzer (2001)HE*
N=68 Year 1 Medical students Bahrain Arabian Gulf University 1998-99	• High school grade (standard final examination) • High school science grade • English admission test • Admission science grade • Admission interview • Total admission score	• Final Year 1 cumulative score end of semester 1 & 2 in various subjects	Multivariate linear regression	Al-Nasir et al. (2001)M
N=2270 Nottingham Medical School UK 5 year course 1970-1990	• A-level grades and classification of first degree, grades in subjects in final year of secondary school • Gender, ethnicity, deferred entry, residency, geographic region in UK for local students	• Categorical ratings: Obtaining Bachelor Medical Science degree after first 3 years, obtaining 1st class award, obtaining medical degree after 5 years and passing with honours	Bivariate analyses Multiple logistic regression	James and Chilvers (2001)M

*also examined post-admission factors (refer Appendix 7 Table 7.1)
GPA: Grade Point Average; SAT: Scholastic Aptitude Test; TER: Tertiary Entrance Rank; HE: higher education; M: medicine

Study sample	Independent (Pre-admission) factors	Outcome measure	Statistical analyses	Reference
N=78 Year 1 Australian students Single university; science course 2000	• Previous school achievement (TER) • Previous educational experience (school leavers, non-school leavers)	• Academic achievement: pass grade and examinations	Bivariate analyses	Tchen et al. (2001)[HE*]
N=459 University of Florida College of Dentistry, USA 1990-95	• DAT (AA) and PMAT scores • Admission interview score • undergraduate science and non-science GPAs	• Academic performance: overall Year 1, 2, 3, 4 GPA and final dental school GPA • Academic progress: Graduated with or without difficulty; dismissed; withdrew	Correlation and multiple regression analysis Logistic regression analysis	Sandow et al. (2002)[D]
N=278 Year 1 University of Newcastle Australian Graduate-entry medical course. 1994-97	• Age, gender • Previous educational experience • Mode of admission	• Year 1 – first and final assessment (satisfactory/unsatisfactory performance)	Logistic regression	Kay-Lambkin et al. (2002)[M]
N=317 University of Sydney Australian Graduate-entry medical course	• Gender • Residency (Australian/international) • Student background prior entry: health, biomedical, physical science, non-science	• Year 1, 2, 3-basic clinical sciences performance • Single best answer exam performance • Modified essay question performance • Relative risk of failure in summative assessment Year 2 and 3	Univariate analysis of variance; t-tests	Craig et al. (2004)[M]

*also examined post-admission factors (refer Appendix 7 Table 7.1)
DAT (AA): Dental Admission Test (Academic Average); PMAT: Perceptual Motor Aptitude Test; TER: Tertiary Entrance Rank
HE: higher education; M: medicine; D: dentistry

Study sample	Independent (Pre-admission) factors	Outcome measure	Statistical analyses	Reference
N= 387 Year 1 and 3 Australian science students, Single university 2000	• Previous school achievement (TER)	• Year 1 and 3 Academic achievement: GPA	Path analysis	Zeegers (2004) HE*
N=4076 All year levels 14 US medical schools 1992-93	• uGPA and MCAT	• Grades – average weighted • Completing course: academic distinction or difficulty	Descriptive and regression analyses	Julian (2005)M
N=95 Year 1 National University of Ireland, Cork 1997-99	• Leaving certificate (secondary school) performance including if student had repeated the Leaving Certificate • Age, gender	• Year 1 examination and median mark • Final year examination and median mark • Performance in individual modules	Correlation and regression analyses	Lynch et al. (2006)D
N=84 Single US dental school 1998-2000	• Pre-dental overall GPA • Science GPA • DAT scores	• Clinic performance in four specific disciplines • Performance on operative treatments • Clinical productivity	Univariate analyses Multiple linear regression	Park et al. (2006)D
N=90 Single Korean dental school Post-graduate entry 2005	• Student demographic data (age, gender) • Admission scores (uGPA and DEET – admission test) • Admission interview • Oral examination	• Semester 1, year 1 GPA	Correlation and Path analyses	Kim and Lee (2007)D

*also examined post-admission factors (refer Appendix 7 Table 7.1)
uGPA: undergraduate Grade Point Average; MCAT: Medical College Admission Test; DAT: Dental Admission Test; Tertiary Entrance Rank; DEET: Dental Education Eligibility Test
HE: higher education; M: medicine; D: dentistry

Table 5.3 Types of admission aptitude tests used in health profession courses to assess cognitive ability

Cognitive Admission Test	Cognitive abilities being tested	Used by
Dental Admission Test (DAT)	Quantitative reasoning, reading comprehension, natural sciences (biology, general and organic chemistry) that require problem solving, perceptual ability test (2D and 3D spatial-ability) (Kramer 1999; Kingsley et al. 2007)	National standardised test for all applicants in US dental schools
Canadian Dental Aptitude Test (C-DAT)	Survey of natural sciences, reading comprehension, perceptual ability test and Carving dexterity test (Canadian Dental Association 2008)	National standardised test for all applicants in Canadian dental schools
Undergraduate Medical and Health Science Admission test (UMAT)	Logical reasoning and problem-solving, understanding people (formerly interaction skills), non-verbal reasoning (ACER 2008a)	Standardised examination Selected Australian and New Zealand Undergraduate Medical, Dental, Oral Health, Physiotherapy, Pharmacy, Optometry courses
Dental Education Eligibility Test (DEET)	Reading comprehension, scientific reasoning parts 1 and 2, perceptual ability (Kim and Lee 2007)	Standardised examination Graduate entry medical and dental courses in Korea
Clinical Aptitude Test (UK CAT)	Verbal reasoning, quantitative reasoning, abstract reasoning, decision analysis, non-cognitive analysis (UKCAT Consortium 2009)	Standardised examination for European Union, international and UK applicants for entry into selected UK medical and dental schools
Graduate Australian Medical School Admission Test (GAMSAT)	Reasoning in humanities and social science, written communication and reasoning in biological and physical sciences (ACER 2008b)	Selected Australian graduate entry Medical, Dental and Pharmacy courses Also used by several UK graduate medical schools and one dental school (ACER 2008c)
Medical College Admission Test (MCAT)	Knowledge of scientific concepts and principles in general chemistry, physics, biology and organic chemistry that also require problem solving, critical thinking, written analysis and writing skills (Association of American Medical Colleges 2008)	Standardised examination Northern American Medical Schools

Table 5.4 Model 1 all students: academic progress (Group 3: Cohorts A to D, MAHPBL)

INDEPENDENT VARIABLES	CODE ID	CODE	OUTCOME VARIABLE	CODE (Sample size)
Student characteristics			Academic	
Gender	Male	0	progress	
	Female	1	over the first	
Permanent place of	South Australian	0	three years of the	
residence 1	Other Australian	1	course	
	International	2		
Permanent place of	Australian	0	Uninterrupted	0 (n=116)
residence 2	International	1	Failure*	1 (n=23)
Previous educational	School leaver	0		
experience	Tertiary transfer	1		
Academic achievement in first year dental studies				
Human Biology	'Lower' achiever	1		
	'Higher' achiever	2		
Dental Health Science	'Lower' achiever	1		
	'Higher' achiever	2		
Dental Clinical Practice	'Lower' achiever	1		
	'Higher' achiever	2		
Overall first year academic	'Lower' achiever	1		
achievement	'Higher' achiever	2		
Personal characteristics				
Course preference	Dentistry first preference	0		
	Dentistry second preference	1		
Structured admission interview categories: ratings				
Motivation	1	1		
	2	2		
	3	3		
	4/5/6	4		
Compatibility	1	1		
	2	2		
	3	3		
	4/5/6	4		
Tolerance of ambiguity	1	1		
	2	2		
	3	3		
	4/5/6	4		
Perseverance	1	1		
	2	2		
	3	3		
	4/5/6	4		
Supportive behaviour	1	1		
	2	2		
	3	3		
	4/5/6	4		
Communication & personal	1	1		
effectiveness	2	2		
	3	3		
	4/5/6	4		
Overall	Excellent	1		
	Good	2		
	Adequate/barely adequate	3		

MAHPBL: Multifaceted admission, hybrid PBL curriculum
Structured admission interview rating 1: highest; ratings 4/5/6: low
Failure* - excludes students who withdrew, deferred; students with missing data; students exempt from year 1 Human biology

Table 5.5 Model 2 all students: overall academic performance in first, second and third year (Group 3: Cohorts A to D, MAHPBL)

INDEPENDENT VARIABLES	CODE ID	CODE	OUTCOME VARIABLES	CODE (Sample size)
Student characteristics			Academic performance	
Gender	Male	0	Overall year 1	
	Female	1	'Lower' achiever	0 (n=65)
Permanent place of residence 1	South Australian	0	'Higher' achiever	1 (n=99)
	Other Australian	1		
	International	2	Overall year 2	
Permanent place of residence 2	Australian	0	'Lower' achiever	0 (n=65)
	International	1	'Higher' achiever	1 (n=90)
Previous educational experience	School leaver	0		
	Tertiary transfer	1		
			Overall year 3	
Personal characteristics			'Lower' achiever	0 (n=51)
Course preference	Dentistry first preference	0	'Higher' achiever	1 (n=81)
	Dentistry second preference	1		
Structured admission interview categories: ratings				
Motivation	Ratings and codes as per Appendix 5 Table 5.4			
Compatibility	"			
Tolerance of ambiguity	"			
Perseverance	"			
Supportive behaviour	"			
Communication & personal effectiveness	"			
Overall	"			
Year of Entry	1998	0		
	1999	1		
	2000	2		
	2001	3		

MAHPBL: Multifaceted admission, hybrid PBL curriculum
Structured admission interview rating 1: highest; ratings 4/5/6: low

Table 5.6 Model 3 Australian school leavers: overall academic performance in first, second and third year (Group 3: Cohorts B, C and D*, MAHPBL)

INDEPENDENT VARIABLES	CODE ID	CODE	OUTCOME VARIABLES	CODE (Sample size)
Student characteristics				
Gender	Male	0	Academic performance	
	Female	1	Overall year 1	
Permanent place of residence 1	South Australian	0	'Lower' achiever	0 (n=27)
	Other Australian	1	'Higher' achiever	1 (n=41)
Permanent place of residence 3	Australian metropolitan area	0	Overall year 2	
	Australian rural area	1	'Lower' achiever	0 (n=26)
			'Higher' achiever	1 (n=39)
Personal characteristics				
Course preference	Dentistry first preference	0		
	Dentistry second preference	1	Overall year 3 'Lower' achiever	0 (n=26)
Previous academic achievement			'Higher' achiever	1 (n=29)
TER score	90.00-94.99 (High achievement)	0		
	99.95-95.00 (Very high achievement)	1		
Type of secondary school				
	Non-government	0		
	Government	1		
Type of secondary school subject (final year)				
Biology	No	0		
	Yes	1		
Chemistry	No	0		
	Yes	1		
Physics	No	0		
	Yes	1		
Admission test performance				
UMAT composite percentile bands	66-70; 61-65; 56-60 51-55; 46-50; 41-45 ('Lower' achievers)	0		
	96-100; 91-95; 86-90 81-85; 76-80; 71-75 ('Higher' achievers)	1		
Structured admission interview categories: ratings				
Motivation	Ratings and codes as per Appendix 5 Table 5.4			
Compatibility	"			
Tolerance of ambiguity	"			
Perseverance	"			
Supportive behaviour	"			
Communication & personal effectiveness	"			
Overall	"			

MAHPBL: Multifaceted admission, hybrid PBL curriculum
Structured admission interview rating 1: highest; ratings 4/5/6: low
*Cohort A not included as they did not have comparable UMAT scores as per students in Cohorts B, C and D

Table 5.7 Model 4 Australian school leavers: academic performance in individual subjects and components of subjects (Group 3: Cohorts B, C and D*, MAHPBL)

INDEPENDENT VARIABLES	CODE ID	CODE	OUTCOME VARIABLES	CODE (Sample size)
Student characteristics			Academic performance	
Gender	Male	0	Human Biology Year 1	
	Female	1	'Lower' achiever	0 (n=24)
Permanent place of residence 1	South Australian	0	'Higher' achiever	1 (n=44)
	Other Australian	1		
Permanent place of residence 3	Australian metropolitan area	0		
	Australian rural area	1	Dental & Health Science Year 1	
			'Lower' achiever	0 (n=19)
			'Higher' achiever	1 (n=49)
Personal characteristics			Dental Clinical Practice Year 1	
Course preference	Dentistry first preference	0	'Lower' achiever	0 (n=11)
	Dentistry second preference	1	'Higher' achiever	1 (n=54)
Previous academic achievement				
TER score	90.00-94.99 (High achievement)	0	Structure & Function Year 2 'Lower' achiever	0 (n=22)
	99.95-95.00 (Very high achievement)	1	'Higher' achiever	1 (n=40)
Type of secondary school			Dental & Health Science Year 2	
	Non-government	0	'Lower' achiever	0 (n=11)
	Government	1	'Higher' achiever	1 (n=54)
Type of secondary school subject (final year)			Dental Clinical Practice Year 2	
Biology	No	0	'Lower' achiever	0 (n=15)
	Yes	1	'Higher' achiever	1 (n=50)
Chemistry	No	0	Diseases & Disorders Year 3	
	Yes	1	'Lower' achiever	0 (n=23)
Physics	No	0	'Higher' achiever	1 (n=50)
	Yes	1	Dental & Health Science Year 3	
Admission test performance			'Lower' achiever	0 (n=3)
UMAT composite percentile band	66-70; 61-65; 56-60 51-55; 46-50; 41-45 ('Lower achievers')	0	'Higher' achiever	1 (n=50)
	96-100; 91-95; 86-90 81-85; 76-80; 71-75 ('Higher' achievers)	1		

NB: Table 5.7 continues on the following page

INDEPENDENT VARIABLES	CODE ID	CODE	OUTCOME VARIABLES	CODE (Sample size)
			Dental Clinical Practice Year 3	
Structured admission interview categories: ratings			'Lower' achiever	0 (n=5)
	Ratings and codes as per Appendix 5		'Higher' achiever	1 (n=48)
Motivation	Table 5.4			
Compatibility	"		Clinical component of DCP 1	
Tolerance of ambiguity	"		'Lower' achiever	0 (n=31)
Perseverance	"		'Higher' achiever	1 (n=37)
Supportive behaviour	"		Clinical component of DCP 2	
Communication & personal effectiveness	"		'Lower' achiever	0 (n=29)
Overall	"		'Higher' achiever	1 (n=36)
			Clinical component of DCP 3	
			'Lower' achiever	0 (n=37)
			'Higher' achiever	1 (n=18)

MAHPBL: Multifaceted admission, hybrid PBL curriculum
Structured admission interview rating 1: highest; ratings 4/5/6: low
*Cohort A not included as they did not have comparable UMAT scores as per students in Cohorts B, C and D

Table 5.8 Subjects failed by students during the early years (Group 2: CAHPBL)

First year 1993-96	n	Second year 1994-97	n	Third year 1995-98	n
Human Biology	4	Structure & Function of the Body	5	Diseases & Disorders of the Body	2
Dental & Health Science	1	Dental & Health Science	2	Dental & Health Science	0
Dental Clinical Practice	0	Dental Clinical Practice	1	Dental Clinical Practice	3
Total subjects failed	5	Total subjects failed	8	Total subjects failed	5

CAHPBL: Conventional admission, hybrid PBL curriculum
NB: numbers represent a student failing a subject; however the same student may have failed more than one subject within the same year level

Table 5.9 Comparison of academic progress between the four cohorts during the early years (Group 3: MAHPBL)

	Cohort A Years 1 to 3: 1998-2000		Cohort B Years 1 to 3: 1999-2001		Cohort C Years 1 to 3: 2000-2002		Cohort D Years 1 to 3: 2001-2003	
Progress during early years	n	%	n	%	n	%	n	%
Uninterrupted	29	80.6	40	87.0	27	57.4	35	79.5
Interrupted	7	19.4	6	13.0	20	42.6	9	20.5
Total	36		46		47		44	

MAHPBL: Multifaceted admission, hybrid PBL curriculum
x^2=12.50; p=0.01 (df=3)

Table 5.10 Comparison of academic progress between the second-year cohorts (Group 3: MAHPBL)

	Second Year Cohorts A, B and D 1999, 2000 and 2002		Second Year Cohort C 2001	
Progress	n	%	n	%
Uninterrupted	106	91.4	30	75.0
Interrupted	10	8.6	10	25.0
Total	116		40	

MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=156
x^2=7.14; p=0.01 (df=1)

Table 5.11 Subjects failed by students during the early years (Group 3: MAHPBL)

First year 1998-2001	n	Second year 1999-2002	n	Third year 2000-03	n
Human Biology	5	Structure & Function of the Body	15	Diseases & Disorders of the Body	3
Dental & Health Science	5	Dental & Health Science	8	Dental & Health Science	0
Dental Clinical Practice	4	Dental Clinical Practice	9	Dental Clinical Practice	1
Total subjects failed	14	Total subjects failed	32	Total subjects failed	4

MAHPBL: Multifaceted admission, hybrid PBL curriculum
NB: numbers represent a student failing a subject; however the same student may have failed more than one subject within the same year level

Table 5.12 Proportion of students who were categorised as 'higher' and 'lower' achievers in first year (Group 3: MAHPBL)

	Cohort A (1998)		Cohort B (1999)		Cohort C (2000)		Cohort D (2001)	
Classification of achievement	n	%	n	%	n	%	n	%
Higher achiever	14	40.0	22	47.8	15	34.9	16	36.4
Lower achiever	21	60.0	24	52.2	28	65.1	28	63.6

MAHPBL: Multifaceted admission, hybrid PBL curriculum
Cohort 1998 n=35; Cohort 1999 n=46; Cohort 2000 n=43; Cohort 2001 n=44
excludes students who withdrew or deferred part way through the academic year

Table 5.13 Proportion of students who were categorised as 'higher' and 'lower' achievers in second year (Group 3: MAHPBL)

	Cohort A (1999)		Cohort B (2000)		Cohort C (2001)		Cohort D (2002)	
Classification of achievement	n	%	n	%	n	%	n	%
Higher achiever	15	45.5	16	37.2	20	50.0	14	35.9
Lower achiever	18	54.5	27	62.8	20	50.0	25	64.1

MAHPBL: Multifaceted admission, hybrid PBL curriculum
Cohort A n=33; Cohort B n=43; Cohort C n=40; Cohort D n=39
excludes students who withdrew or deferred part way through the academic year

Table 5.14 Proportion of students who were categorised as 'higher' and 'lower' achievers in third year (Group 3: MAHPBL)

	Cohort A (2000)		Cohort B (2001)		Cohort C (2002)		Cohort D (2003)	
Classification of achievement	n	%	n	%	n	%	n	%
Higher achiever	12	41.4	21	51.2	13	43.3	9	25.0
Lower achiever	17	58.6	20	48.8	17	56.7	27	75.0

MAHPBL: Multifaceted admission, hybrid PBL curriculum
Cohort A n=29; Cohort B n=41; Cohort C n=30; Cohort D n=36
excludes students who withdrew or deferred part way through the academic year

Table 5.15 Association between permanent place of residence and academic progress

	South Australian		Other Australian		International	
Progress	n	%	n	%	n	%
Uninterrupted	95	88.8	24	72.3	28	75.7
Interrupted	12	11.2	9	27.3	9	24.3
Total	107		33		37	

Group 2: 1993-96 (CAHPBL)
CAHPBL: Conventional admission, hybrid PBL curriculum
n=177
x^2=6.43; p=0.04 (df=2)

Table 5.16 Association between permanent place of residence and progress

	Permanent place of residence			
	Australian		International	
Progress	n	%	n	%
Uninterrupted	119	96.0	28	77.8
Academic fail	5	4.0	8	22.2
Total	124		36	

Group 2: 1993-96 (CAHPBL)
CAHPBL: Conventional admission, hybrid PBL curriculum
n=160
Fisher Exact test 2 tailed p=0.002

Table 5.17 Student characteristics and course preference of students with uninterrupted and interrupted progress during the early years (Group 2: CAHPBL)

	Uninterrupted Progress (n=147)		Interrupted Progress (n=30)		Academic Failure (n=13)	
Characteristics	n	%	n	%	n	%
Gender						
Male	70	47.6	12	40.0	4	30.8
Female	77	52.4	18	60.0	9	69.2
Previous educational experience						
School leaver	85	73.3	12	63.2	4	66.7
Non-school leaver	31	26.7	7	36.8	2	33.3
Missing data	31		11		7	
Permanent place of residence						
South Australian	95	64.6	12	40.0	4	30.8
Other Australian	24	16.3	9	30.0	1	7.7
International	28	19.0	9	30.0	8	61.5
Course preference						
Dentistry first preference	59	51.3	9	47.4	3	50.0
Dentistry other preference	56	48.7	10	52.3	3	50.0
Missing data	32		11		7	

CAHPBL: Conventional admission, hybrid PBL curriculum

Table 5.18 Student characteristics and course preference of students with uninterrupted and interrupted progress during the early years (Group 3: MAHPBL)

Characteristics	Uninterrupted progress (n=131)		Interrupted progress (n=42)		Academic failure (n=26)	
	n	%	n	%	n	%
Gender						
Male	61	46.6	21	50.0	17	65.4
Female	70	53.4	21	50.0	9	34.6
Previous educational experience						
School leaver	80	61.1	28	66.7	17	65.4
Non-school leaver	51	38.9	14	33.3	9	34.6
Permanent place of residence						
South Australian	68	51.9	21	50.0	13	50.0
Other Australian	34	26.0	12	28.6	7	26.9
International	29	22.1	9	21.4	6	23.1
Course preference						
Dentistry first preference	106	83.5	33	80.5	19	76.0
Dentistry other preference	21	16.5	8	19.5	6	24.0
Missing data	4		1		1	

MAHPBL: Multifaceted admission, hybrid PBL curriculum

Table 5.19 Structured admission interview performance of students who failed, deferred or withdrew (non-academic reasons) and had uninterrupted progress during the early years (Group 3: MAHPBL)

	Patterns of progress							
	Academic Failure (n=26)		Deferred or Withdrew (n=16)		Interrupted Progress		Uninterrupted progress (n=131)	
Performance	n	%	n	%	n	%	n	%
Overall rating								
Excellent	2*	7.7	6	37.5	8	19.0	29*	22.5
Good	12	46.2	7	43.8	19	45.2	69	53.5
Adequate	11	42.3	3	18.7	14	33.3	28	21.7
Barely adequate/unsuitable	1	3.8	0	0.0	1	2.4	3	2.3
Missing data	0		0		0		2	
Motivation to become a dentist								
Rating 1	3	11.5	5	31.3	8	19.0	32	25.2
Rating 2	10	38.5	5	31.3	15	35.7	58	45.7
Rating 3	9	34.5	6	37.5	16	38.1	28	22.0
Rating 4/5/6	4	15.4	0	0.0	4	9.5	9	7.1
Missing data	0		0		0		4	
Compatibility with the program								
Rating 1	1	3.8	5	31.3	6	14.3	24	18.7
Rating 2	12	46.2	5	31.3	17	40.5	61	47.7
Rating 3	8	30.8	3	18.7	11	26.2	36	28.1
Rating 4/5/6	5	19.2	3	18.7	8	19.0	7	5.5
Missing data	0		0		0		3	
Tolerance of ambiguity								
Rating 1	0	0.0	2	12.5	2	4.8	16	12.5
Rating 2	9	34.5	10	62.5	19	45.2	48	37.5
Rating 3	12	46.2	3	18.7	15	35.7	51	39.8
Rating 4/5/6	5	19.2	1	6.3	6	14.3	13	10.2
Missing data	0		0		0		3	
Perseverance								
Rating 1	4	15.4	8	50.0	12	28.6	30	23.4
Rating 2	13	50.0	3	18.7	16	30.9	65	50.8
Rating 3	8	30.8	5	31.3	13	31.0	32	25.0
Rating 4/5/6	1	3.8	0	0.0	1	2.4	1	7.8
Missing data	0		0		0		3	
Supportiveness and encouraging behaviour								
Rating 1	0	0.0	3	18.7	3	7.1	21	16.5
Rating 2	8	30.8	9	56.3	17	40.5	55	43.3
Rating 3	15	57.7	4	25.0	19	45.3	44	34.6
Rating 4/5/6	3	11.5	0	0.0	3	7.1	7	5.5
Missing data	0		0		0		4	
Communication skills and personal effectiveness								
Rating 1	3#	11.5	6	37.5	9	21.4	46#	35.9
Rating 2	13	50.0	9	56.2	22	52.4	52	40.6
Rating 3	9	34.5	1	6.3	10	23.8	27	21.1
Rating 4/5/6	1	3.8	0	0.0	1	2.4	3	2.3
Missing data	0		0		0		3	

MAHPBL: Multifaceted admission, hybrid PBL curriculum; Rating 1: highest rating for particular attribute
*Significant difference between overall rating and patterns of progress: x^2 =6.41; p=0.04 (df=2)
#Significant difference between rating for communication skills and personal effectiveness attribute and patterns of progress: x^2 =6.38; p=0.04 (df=2)

Table 5.20 Association between previous educational experience and third-year academic achievement

Classification of achievement	School leaver		Non-school leaver	
	n	%	n	%
Higher achiever	43	51.8	38	71.7
Lower achiever	40	48.2	15	28.3
Total	83		53	

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=136
x^2=5.31; p=0.02 (df=1)

Table 5.21 Association between course preference and first-year academic achievement

Classification of achievement	Dentistry first preference		Dentistry second preference	
	n	%	n	%
Higher achiever	88	65.2	12	42.9
Lower achiever	47	34.8	16	57.1
Total	135		28	

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=163
x^2=4.88; p=0.03 (df=1)

Table 5.22 Association between course preference and third-year academic achievement

Classification of achievement	Dentistry first preference		Dentistry second preference	
	n	%	n	%
Higher achiever	71	64.5	8	36.4
Lower achiever	39	35.5	14	63.6
Total	110		22	

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=132
x^2=6.06; p=0.01 (df=1)

Table 5.23 Association between rating on perseverance attribute and first-year academic achievement

Classification of achievement	Rating 1		Rating 2		Rating 3	
	n	%	n	%	n	%
Higher achiever	30	75.0	42	52.5	28	62.2
Lower achiever	10	25.0	38	47.5	17	37.8
Total	40		80		45	

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=165
Rating 1: highest rating for particular attribute
x^2=7.12; p=0.03 (df=2)

Table 5.24 Association between progress during the early years

Progress	Group 2 CAHPBL		Group 3 MAHPBL	
	n	%	n	%
Uninterrupted progress	147	91.9	127	83.0
Failed	13	8.1	26	17.0
Total	160		153	

CAHPBL: Conventional admission, hybrid PBL curriculum
MAHPBL: Multifaceted admission, hybrid PBL curriculum
x^2=5.64; p=0.02 (df=1)

Table 5.25 Association between patterns of progress of second-year students

Pattern of Progress	Group 2 Second Year (1994-1997) CAHPBL		Group 3 Second Year (1999-2002) MAHPBL	
	n	%	n	%
Uninterrupted	154	94.5	136	87.2
Interrupted	9	5.5	20	12.8
Total	163		156	

CAHPBL: Conventional admission, hybrid PBL curriculum
MAHPBL: Multifaceted admission, hybrid PBL curriculum
x^2 =5.14; p=0.02 (df=1)

Table 5.26 Subjects failed by students during the early years (Groups 2 and 3)

First year	n	Second year	n	Third year	n
Human Biology	9	Structure & Function of the Body	20	Diseases & Disorders of the Body	5
Dental & Health Science	6	Dental & Health Science	10	Dental & Health Science	0
Dental Clinical Practice	4	Dental Clinical Practice	10	Dental Clinical Practice	4
Total subjects failed	19	Total subjects failed	40	Total subjects failed	9

Group 2: CAHPBL (conventional admission, hybrid PBL curriculum)
Group 3: MAHPBL (multifaceted admission, hybrid PBL curriculum)
NB: numbers represent a student failing one or more subject

Table 5.27 Association between interrupted progress during the early years and course preference

	Interrupted Progress			
	Group 2 (CAHPBL)		Group 3 (MAHPBL)	
Course preference	n	%	n	%
First preference	9	47.3	36	80.0
Other preference	10	52.6	9	20.0
Total	19		45	

CAHPBL: Conventional admission, hybrid PBL curriculum
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=64*
*missing data for course preference
x^2=6.82; p=0.01 (df=1)

Chapter 6 Appendix

Appendix 6.1 Impact of paid part-time work on academic success of full-time tertiary students

Type of impact	Result	Reference
No negative effect		
Academic performance	-No significant difference in end of year academic marks between those who worked and those who did not work	Watts (2002)
	-Working up to 8 hours; 8-12 hours: no difference in academic performance compared with those not working	Van Den Berg & Hoffman (2005)
	-No correlation between hours worked versus semester GPA	Nonis and Hudson (2006)
	-High GPA amongst those who worked more than 20 hours and those who did not work. No difference in GPA between working and non-working students	Bradley (2006)
Positive effect		
Academic performance	-Working up to 11 hours improved grades marginally	Applegate and Daly (2006)
Self-perceptions	-No relationship between student marks and their perceptions regarding academic performance	Ford et al. (1995); McInnis and Hartley (2002); Watts (2002)
Negative effect		
Academic performance	-The more hours worked, the lower the semester weighted average grade	de la Harpe et al. (1997)
	-Unemployed and those studying PT and working FT higher GPA than those studying FT and working PT	McKenzie & Schweitzer (2001)
	-Working more than 14 hours/week associated with lower mean grade	Hunt et al. (2004)
	-Working more than 16 hours/week associated with lower grades in year 2 subjects	Salamonson & Andrew (2006)
	-Working more than 22 hours/week associated with lower semester 2 grades	Applegate & Daly (2006)
	-Negative association between paid work and cumulative GPA	Svanum and Bigatti (2006)
Academic progress		
Drop out/withdrawal	-After controlling for field of study and contact hours participating in >20 hours paid work increased odds of dropping out compared with those who did not work	Vickers et al. (2003)
Poor progress	-Those students who worked more than 12 hours who significantly more likely to have poor progress compared with those working less	Van Den Berg and Hoffman (2005)
	-Unsuccessful progress into subsequent year level if worked more than 20hours/week compared with < 9hours/week; 3rd year students not working were more likely to complete on time compared with those working	Moreau and Leathwood (2006)
Self-perceptions	-Those who worked longer hours anticipated getting lower grades	McInnis et al. (2000)
	-33% of those who worked considered that "work detracted from studies in serious way"	Curtis and Williams (2002)
	-Majority of those who worked more than 14 hours/week believed working reduced their academic performance	
	-Students who worked were more likely to feel their studies were 'always' a struggle compared with non-working students	Moreau and Leathwood (2006)

FT: Full-Time; PT: Part-Time; GPA: Grade Point Average

Appendix 6.2 Follow-up post-admission survey

Cover Sheet: To be removed before analysis by Dr Gerry Mullins

The University of Adelaide
School of Dentistry

Project Title "Progress of students through the BDS course"

Questionnaire - Follow up 2004

INTRODUCTION

This survey is part of a research project investigating the progress of dental students through the Adelaide BDS course. In particular this project is examining factors that affect progress of students through the first three years of the course.

It is anticipated that the results of the study will enable the Adelaide School of Dentistry to optimise the chances of success of its students in the early years of the BDS course by modifying, where appropriate, curriculum design and content, and by providing support for dental students to enhance their performance.

CONFIDENTIALITY

Ethical approval (H/06/99) has been gained for this project. In order for all students participating in the study to remain strictly anonymous, Dr Gerry Mullins from the Graduate Centre (who is not involved with any assessment of dental students) will be the only person who will have a master list of student identification numbers and code numbers.

Responses to this questionnaire will be strictly confidential and individual results will not be discussed or identifiable.

Please answer all questions. Your honest answers will be greatly appreciated and will help ensure a true
reflection of student perceptions and experience.

Please write in your Student ID Number _____

(Please note: This sheet is removed by Dr Gerry Mullins prior to analysis by Dr Lekkas)

PART A

The following questions are for those students who were involved in paid part-time work on a regular basis (ie, during the week/week nights/weekends) during semester 1 and or 2 in either 1st or 2nd or 3rd year

If you did not work part-time on a regular basis during the semesters in 1st, 2nd or 3rd year OR only worked in the holidays (mid-semester breaks, mid year break; end of year break) please tick the box and go to Part B question 3. ☐

1a. What were your main reasons [eg, to meet basic needs such as food, rent, transport costs; to afford 'extras' such as entertainment, holidays; to support my family] for being involved in regular paid work during the semester(s) in 1st or 2nd or 3rd year ?

1b. Please nominate which ONE of these reasons was the most important reason for working

---

2a What positive influences [eg, improved communication skills, enhanced ability to deal with people; helps to be more organised] did involvement in regular paid work during the semester(s) have on your dental studies in 1st or 2nd or 3rd year?

2b. What negative influences [eg, insufficient time to study, insufficient preparation for DLPs, clinic sessions; increased stress] did involvement in regular paid work during the semester(s) have on your dental studies in 1st or 2nd or 3rd year ?

PART B

The following questions are for those students who were involved in extracurricular activities (eg, sports -including gym, clubs/organisations, music, volunteer work) during 1st or 2nd or 3rd year

If you did not participate in any extracurricular activities during 1st, 2nd or 3rd year please tick the box and go to Part C, question 5 ☐

3a. What were your main reasons [eg, to maintain physical fitness; leisure time with friends; stress relief from uni work] for being involved in extracurricular activities (eg, sports - including going to the gym, clubs/organisations, music, volunteer work) during 1st or 2nd or 3rd year ?

3b. Please nominate which ONE of these reasons was the most important reason for being involved in extracurricular activities

---

4a. What positive influences [eg, helps to become organised; to be physically/mentally fit to cope with uni work] did involvement in extracurricular activities have on your dental studies in 1st or 2nd or 3rd year ?

4b. What negative influences [eg, insufficient time to study; insufficient time to prepare for DLPs, clinics] did involvement in extracurricular activities have on your dental studies in 1st or 2nd or 3rd year ?

PART C
The following questions are for students who lived in college in either 1st, 2nd or 3rd year.

If you did not live in a college during 1st, 2nd or 3rd year, please tick the box and there are no further questions to answer ☐

5a. What positive influences [eg, having other dental students at college to study with; access to peer tutors; access to internet and texts] did living at college have on your dental studies in 1st or 2nd or 3rd year ?

5b. What negative influences [eg, insufficient quiet time for study] did living at college have on your dental studies in 1st or 2nd or 3rd year ?

If you lived in college during 1st, 2nd or 3rd year and then changed to either private accommodation (eg, rental /non rental - on own or with others) or with family, please answer questions 6a and 6b

If you did not move out of college accommodation during the Years 1-3 of the BDS, please tick the box and there are no further questions to answer ☐

6a. What were your main reasons [eg, too many distractions from study; costs involved; parental decision] for moving away from college after 1st or 2nd or 3rd year ?

6b. Please nominate which ONE of these reasons was the most important reason for leaving college

---

6c. What positive influences [eg, could spend more time studying without distractions, less time spent socialising thus was less tired and could study more effectively] did moving away from college have on your dental studies in 2nd or 3rd year ?

6d. What negative influences [eg, lost access to study group or peer tutor; lost ease of access to internet, textbooks] did moving away from college have on your dental studies in 2nd or 3rd year ?

Please check that you have completed all relevant questions to the best of your ability

Thank you for your time in completing this questionnaire.

Table 6.1 Characteristics and course preference of students who responded to the commencement survey (Group 3: MAHPBL)

	Cohort B (First-year 1999)		Cohort C (First-year 2000)		Cohort D (First-year 2001)		Total	
	n	%	n	%	n	%	n	%
Number of commencement surveys received	45		45		44		134	
Total number of students	47		47		44		138	
Survey response rate		95.7		95.7		100.0		97.1
Characteristics								
Gender*								
Male	28	62.2	18	40.0	16	36.4	62	46.3
Female	17	37.8	27	60.0	28	63.6	72	53.7
Permanent place of residence *								
South Australian	21	46.6	21	46.7	24	54.6	66	49.2
Other Australian	12	26.7	10	22.2	10	22.7	32	23.9
International	12	26.7	14	31.1	10	22.7	36	26.9
Previous educational experience *								
School leaver	25	55.6	29	64.4	30	68.2	84	62.7
Tertiary transfer	20	44.4	16	35.6	14	31.8	50	37.3
Course preference *								
Dentistry first preference	34	77.3	38	86.4	36	83.7	108	82.4
Dentistry other preference	10	22.7	6	13.6	7	16.3	23	17.6
Missing data	1		1		1		3	

MAHPBL: Multifaceted admission, hybrid PBL curriculum
* data obtained from admission application

Table 6.2 Characteristics and course preference of students who responded to the post-admission survey (Group 3: Cohorts A to D, MAHPBL)

	First-year students Cohorts A to D (1998–2001)		Second-year students Cohorts A to D (1999-2002)		Third-year students Cohorts A to D (2000-03)	
	n	%	n	%	n	%
Number of post-admission surveys received	151		131		107	
Total number of students	157		138		129	
Survey response rate		96.2		94.9		82.9
Characteristics						
Gender*						
Male	70	46.4	59	45.0	50	46.7
Female	81	53.6	72	55.0	57	53.3
Permanent place of residence*						
South Australian	78	51.7	68	51.9	56	52.3
Other Australian	39	25.8	32	24.4	28	26.2
International	34	22.5	31	23.7	23	21.5
Previous educational experience*						
School leaver	97	64.2	83	63.4	68	63.6
Non-school leaver	54	35.8	48	36.6	39	36.4
Course preference*						
Dentistry first preference	123	83.7	105	82.7	85	81.0
Dentistry second preference	24	16.3	22	17.3	20	19.0
Missing data	4		4		2	

MAHPBL: Multifaceted admission, hybrid PBL curriculum

* data obtained from source other than post-admission survey

Table 6.3 Characteristics and course preference of students who responded to the post-admission survey (Group 3: Cohorts B, C and D, MAHPBL)

	First-year students Cohorts B,C and D (1999–2001)		Second-year students Cohorts B,C and D (2000-2002)		Third-year students Cohorts B,C and D (2001-03)	
	n	%	n	%	n	%
Number of post-admission surveys received	121		105		93	
Total number of students	124		109		102	
Survey response rate		97.6		96.3		91.2
Characteristics						
Gender*						
Male	55	45.5	47	44.8	42	45.2
Female	66	54.5	58	55.2	51	54.8
Permanent place of residence*						
South Australian	61	50.4	54	51.4	48	51.6
Other Australian	29	24.0	23	21.9	23	24.7
International	31	25.6	28	26.7	22	23.7
Previous educational experience*						
School leaver	79	65.3	69	65.7	59	63.4
Non-school leaver	42	34.7	36	34.3	34	36.6
Course preference*						
Dentistry first preference	100	84.0	85	82.5	76	82.6
Dentistry second preference	19	16.0	18	17.5	16	17.4
Missing data	2		2		1	

MAHPBL: Multifaceted admission, hybrid PBL curriculum
* data obtained from source other than post-admission survey

Table 6.4 Characteristics and course preference of students who responded to the first-year post-admission survey (Group 3: MAHPBL)

	Cohort A (First year 1998)		Cohort B (First year 1999)		Cohort C (First year 2000)		Cohort D (First year 2001)	
	n	%	n	%	n	%	n	%
Number of post-admission surveys	30		41		40		40	
Total number of students	33		44		40		40	
Survey response rate		90.9		93.2		100		100
Characteristics								
Gender								
Male	15	50.0	25	61.0	16	40.0	14	35.0
Female	15	50.0	16	39.0	24	60.0	26	65.0
Place of permanent residence*								
South Australian	17	56.7	20	48.8	18	45.0	23	57.5
Other Australian	10	33.3	11	26.8	10	25.0	9	22.5
International	3	10.0	10	24.4	12	30.0	8	20.0
Previous educational experience*								
School leaver	18	60.0	24	58.5	27	67.5	28	70.0
Non-school leaver	12	40.0	17	41.5	13	32.5	12	30.0
Course preference*								
Dentistry first preference	23	82.1	32	80.0	34	87.2	34	85.0
Dentistry second preference	5	17.9	8	20.0	5	12.8	6	15.0
Missing data	2		1		1		0	

MAHPBL: Multifaceted admission, hybrid PBL curriculum

* data obtained from source other than post-admission survey

Table 6.5 Characteristics and course preference of students who responded to the second-year post-admission survey (Group 3: MAHPBL)

	Cohort A (Second year 1999)		Cohort B (Second year 2000)		Cohort C (Second year 2001)		Cohort D (Second year 2002)	
	n	%	n	%	n	%	n	%
Number of post-admission surveys	26		41		29		35	
Total number of students	29		42		31		36	
Survey response rate		89.7		97.6		93.5		97.2
Characteristics								
Gender								
Male	12	46.1	25	61.0	11	37.9	11	31.4
Female	14	53.9	16	39.0	18	62.1	24	68.6
Place of permanent residence*								
South Australian	14	53.9	20	48.8	13	44.9	21	60.0
Other Australian	9	34.6	11	26.8	6	20.7	7	20.0
International	3	11.5	10	24.4	10	34.6	7	20.0
Previous educational experience*								
School leaver	14	53.9	25	61.0	20	69.0	24	68.6
Non-school leaver	12	46.1	16	39.0	9	31.0	11	31.4
Course preference*								
Dentistry first preference	20	83.3	31	77.5	25	89.3	29	82.9
Dentistry second preference	4	16.7	9	22.5	3	10.7	6	17.1
Missing data	2		1		1		0	

MAHPBL: Multifaceted admission, hybrid PBL curriculum
* data obtained from source other than post-admission survey

Table 6.6 Characteristics and course preference of students who responded to the third-year post-admission survey (Group 3: MAHPBL)

	Cohort A (Third year 2000)		Cohort B (Third year 2001)		Cohort C (Third year 2002)		Cohort D (Third year 2003)	
	n	%	n	%	n	%	n	%
Number of post-admission surveys	14		37		20		35	
Total number of students	27		41		26		35	
Survey response rate		51.9		90.2		76.9		100
Characteristics								
Gender								
Male	8	57.1	22	59.5	7	35.0	12	34.3
Female	6	42.9	15	40.5	13	65.0	23	65.7
Place of permanent residence*								
South Australian	9	64.3	19	51.4	8	40.0	21	60.0
Other Australian	4	28.6	10	27.0	6	30.0	7	20.0
International	1	7.1	8	21.6	6	30.0	7	20.0
Previous educational experience*								
School leaver	10	71.4	23	62.2	13	65.0	23	65.7
Non-school leaver	4	28.6	14	37.8	7	35.0	12	34.3
Course preference*								
Dentistry first preference	9	69.2	29	78.4	16	84.2	30	85.7
Dentistry second preference	4	30.8	8	21.6	3	15.8	5	14.3
Missing data	1		0		1		0	

MAHPBL: Multifaceted admission, hybrid PBL curriculum
* data obtained from source other than post-admission survey

Table 6.7 Characteristics and course preference of students who responded to the commencement survey and all three post-admission surveys (first, second and third year) (Group 3: MAHPBL)

	Cohort B Commenced 1999		Cohort C Commenced 2000		Cohort D Commenced 2001		Total	
Number of students who completed pre-admission and all three post-admission surveys	35		19		34		88	
Characteristics	n	%	n	%	n	%	n	%
Gender*								
Male	20	57.1	6	31.6	11	32.4	37	42.0
Female	15	42.9	13	68.4	23	67.6	51	58.0
Permanent place of residence*								
South Australian	18	51.4	8	42.1	20	58.8	46	52.3
Other Australian	8	22.9	5	26.3	7	20.6	20	22.7
International	9	25.7	6	31.6	7	20.6	22	25.0
Previous educational experience*								
School leaver	21	60.0	13	68.4	23	67.6	56	63.6
Non-school leaver	14	40.0	6	31.6	11	32.4	31	36.4
Course preference*								
Dentistry first preference	28	80.0	15	83.3	29	85.3	72	81.8
Dentistry second preference	7	20.0	3	16.7	5	14.7	15	18.2
Missing data	0		1		0		1	

MAHPBL: Multifaceted admission, hybrid PBL curriculum

* data obtained from source other than post-admission survey

Table 6.8 Characteristics and course preference of students who responded to all three post-admission surveys (first, second and third year) (Group 3: MAHPBL)

	Cohort A Commenced 1998		Cohort B Commenced 1999		Cohort C Commenced 2000		Cohort D Commenced 2001		Total	
Number of students who completed all three post-admission surveys in years 1-3	13		35		19		34		101	
Characteristics	n	%	n	%	n	%	n	%	n	%
Gender*										
Male	8	61.5	20	57.1	6	31.6	11	32.4	45	44.6
Female	5	38.5	15	42.9	13	68.4	23	67.6	56	55.4
Permanent place of residence*										
South Australian	8	61.5	18	51.4	8	42.1	20	58.8	54	53.5
Other Australian	4	30.8	8	22.9	5	26.3	7	20.6	24	23.8
International	1	7.7	9	25.7	6	31.6	7	20.6	23	22.7
Previous educational experience*										
School leaver	9	69.2	21	60.0	13	68.4	23	67.6	66	65.3
Non-school leaver	4	30.8	14	40.0	6	31.6	11	32.4	35	34.7
Course preference*										
Dentistry first preference	8	66.7	28	80.0	15	83.3	29	85.3	80	80.8
Dentistry other preference	4	33.3	7	20.0	3	16.7	5	14.7	19	19.9
Missing data	1		0		1		0		2	

MAHPBL: Multifaceted admission, hybrid PBL curriculum

* data obtained from source other than post-admission survey

Table 6.9 Characteristics and course preference of students who responded to all three post-admission surveys (Group 3: MAHPBL)

	Cohort B Commenced 1999		Cohort C Commenced 2000		Cohort D Commenced 2001		Total	
Number of students who completed all three post-admission surveys in years 1-3	35		19		34		88	
Characteristics	n	%	n	%	n	%	n	%
Gender*								
Male	20	57.1	6	31.6	11	32.4	37	42.0
Female	15	42.9	13	68.4	23	67.6	51	58.0
Permanent place of residence*								
South Australian	18	51.4	8	42.1	20	58.8	46	52.3
Other Australian	8	22.9	5	26.3	7	20.6	20	22.7
International	9	25.7	6	31.6	7	20.6	22	25.0
Previous educational experience*								
School leaver	21	60.0	13	68.4	23	67.6	56	63.6
Non-school leaver	14	40.0	6	31.6	11	32.4	31	36.4
Course preference*								
Dentistry first preference	28	80.0	15	83.3	29	85.3	72	81.8
Dentistry second preference	7	20.0	3	16.7	5	14.7	15	18.2
Missing data	0		1		0		1	

MAHPBL: Multifaceted admission, hybrid PBL curriculum
* data obtained from source other than post-admission survey

Table 6.10 Characteristics and course preference of students who responded to the follow-up post-admission survey in 2004 (Group 3: MAHPBL)

	Fourth year 2004 Cohorts C and D		Fifth year 2004 Cohorts B and C		Total	
	n	%	n	%	n	%
Number of follow-up surveys received	34		21		55	
Total number of students	46		29		75	
Survey response rate		73.9		72.4		73.3
Characteristics						
Gender*						
Male	12	35.3	10	35.3	22	40.0
Female	22	64.7	11	64.7	33	60.0
Permanent place of residence*						
South Australian	21	61.8	9	61.8	30	54.5
Other Australian	7	20.6	6	20.6	13	23.6
International	6	17.6	6	17.6	12	21.8
Previous educational experience*						
School leaver	25	73.5	15	73.5	40	72.7
Non-school leaver	9	26.5	6	26.5	15	27.3
Course preference*						
Dentistry first preference	28	82.4	19	82.4	47	85.5
Dentistry other preference	6	17.6	2	17.6	8	14.5

MAHPBL: Multifaceted admission, hybrid PBL curriculum
* data obtained from source other than post-admission survey

Table 6.11 Participation in paid employment prior to commencing dental studies (Group 3: MAHPBL)

Patterns of participation	n	%
None	45	33.6
During the holidays or semester breaks	32	23.9
Regularly on weekends or Thursday nights or Friday nights	19	14.2
Regularly during the week	14	10.4
Full time	16	11.9
Other	8	6.0

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=134

Table 6.12 Field of employment and time spent per week by students who were involved in paid employment on a regular basis prior to commencing dental studies (Group 3: MAHPBL)

	n	%
Field of employment		
Retail	18	54.5
Hospitality: bar work, waitering or working in a food outlet	6	18.2
Other: Para-professional: reception duties, supervisor and working in a pharmacy Tutoring Miscellaneous: paper delivery Domestic work: baby sitting	9	27.3
Time spent		
0.5 to 5 hours	7	21.2
6 to 10 hours	13	39.4
More than 10 hours	13	39.4

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=33

Table 6.13 Characteristics of students who were involved in full-time employment prior to commencing dental studies (Group 3: MAHPBL)

Characteristics	n	%
Gender*		
Male	8	50.0
Female	8	50.0
Permanent place of residence*		
South Australian	7	43.7
Other Australian	6	37.5
International	3	18.8
Previous educational experience*		
School leaver	5	31.3
Non-school leaver	11	68.7
Course preference*		
Dentistry first preference	16	100
Dentistry second preference	0	0
Field of employment		
Professional	5	31.3
Research work	3	18.8
Paraprofessional	2	12.5
Manual labour	2	12.5
Miscellaneous	2	12.5
Retail	1	6.2
Hospitality	1	6.2
Time spent working		
0.5 to 5 hours	0	0
6 to 10 hours	0	0
More than 10hours	16	100

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
* data obtained from admission application
n=16
FT: Full-Time

Table 6.14 Association between permanent place of residence and patterns of participation in paid part-time employment during first year

	Permanent place of residence					
	South Australian		Other Australian		International	
Patterns of participation	n	%	n	%	n	%
Not involved in paid PT employment or paid employment during holiday periods	37	50.7	29	76.3	27	84.4
Regular term-time paid PT employment	36	49.3	9	23.7	5	15.6
Total	73	100	38	100	32	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=143*
*excludes responses classified as 'other' types of paid work (n=8)
x^2 =14.00; p=0.00 (df=2)
PT: Part-Time

Table 6.15 Association between permanent place of residence and patterns of participation in paid part-time employment during second year

	Permanent place of residence					
	South Australian		Other Australian		International	
Patterns of participation	n	%	n	%	n	%
Not involved in paid PT employment or paid employment during holiday periods	32	49.2	21	67.7	29	93.5
Regular term-time paid PT employment	33	50.7	10	32.3	2	6.5
Total	65	100	31	100	31	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=127*
*excludes responses classified as 'other' types of paid work (n=4)
x^2 =18.20; p=0.00 (df=2)
PT: Part-Time

Table 6.16 Association between permanent place of residence and patterns of participation in regular paid part-time employment during third year

	Permanent place of residence					
	South Australian		Other Australian		International	
Patterns of participation	n	%	n	%	n	%
Not involved in paid PT employment or paid employment during holiday periods	26	46.4	20	76.9	19	90.5
Regular term-time paid PT employment	30	53.6	6	23.1	2	9.5
Total	56	100	26	100	21	100

Group 3: Cohorts A to D (1998-01) MAHPBL
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=103*
*excludes responses classified as 'other' types of paid work (n=4)
x^2=15.58; p=0.00 (df=2)
PT: Part-Time

Table 6.17 Patterns of participation in regular term-time paid part-time employment across the early years (Group 3: MAHPBL)

Pattern of participation	n	%
All three years	25	47.2
One year		
First year only	7	13.2
Second year only	2	3.8
Third year only	6	11.3
Two years		
First and second year	6	11.3
Second and third year	4	7.5
First and third year	3	5.7
Total	53	100

Cohorts A to D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
Total sample of Adelaide dental students during the early years of the course who completed all three post-admission surveys =101
PT: Part-Time

Table 6.18 The most important reason nominated by students for engaging in regular term-time paid part-time employment during the early years (Group 3: MAHPBL)

Reasons	n	%
Discretionary extras *extras; entertainment; pocket money; luxuries; shopping; spending money; clothes; freedom to do things I wished; to be more financially independent*	17	56.7
Essentials (including university expenses) *to meet basic needs; rent; to support family (whatever was left over was for extras); HECS; uni fees; money*	13	43.3
Missing data (no response given)	1	
Total number of responses (excludes missing data)	30	100

Cohorts B, C and D (2004)
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=30
*one student gave more than one answer
HECS: Higher Education Contribution Scheme (Australian Government University Student Fee scheme)
PT: Part-Time

Table 6.19 Participation in extracurricular activities prior to commencing dental studies (Group 3: MAHPBL)

	Yes		No	
Type of ECA	n	%	n	%
Sport	102	76.1	32	23.9
Club or organisation	63*	47.4	70*	52.6
Music	58	43.3	76	56.7
Prefect/Student representative council	48*	36.1	85*	63.9
Voluntary community service	38*	28.6	95*	71.4
Debating team	13*	9.8	120*	90.2
Other - recreational activity: (*watching TV, yoga, adventure team and rock band* and *concert show)* - paid work: (*work* and *working part-time)* - teaching/coaching: (*coaching school sport team)* - volunteer activity: (McDonalds '*McHappy Day'* and *TAFE open day*) - religious organisation: (*church)* - miscellaneous: (*form captain)*	20*	15.0	113*	85.0
Any of the above	120	89.6	14	10.4

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=134
* one student did not respond
TAFE: College of Technical and Further Education
PT: Part-Time; ECAs: Extracurricular activities

Table 6.20 Number of different types of extracurricular activities and time spent prior to commencing dental studies (Group 3: MAHPBL)

	n	%
Number of activities		
1 type	23	19.2
2 types	35	29.1
3 types	26	21.7
4 types	20	16.7
5 types	13	10.8
6-7 types	3	2.5
Time spent per week		
1 to 5 hours	28	25.2
6 to 10 hours	23	20.7
11 to 15 hours	24	21.6
16 to 20 hours	7	6.3
More than 20 hours	29	26.1
Missing data (not all students responded)	9	

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=120
ECAs: Extracurricular activities

Table 6.21 Number of different types of sports played and time spent, prior to commencing dental studies (Group 3: MAHPBL)

Number of sports played	n	%
1 type	40	39.2
2 types	29	28.4
3 types	20	19.6
More than 3 types	13	12.8
Total	102	100

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=102

Table 6.22 Number of different types of sporting activities participated in, per week, during first year (Group 3: MAHPBL)

Number of sports played	n	%
1 type	47	46.1
2 types	34	33.3
3 types	14	13.7
More than 3 types	7	6.9
Total	102	100

Cohorts A to D
MAHPBL: Multifaceted admission, hybrid PBL curriculum

Table 6.23 Number of different types of sporting activities participated in, per week, during second and third year (Group 3: MAHPBL)

	Second year		Third year	
Number of sports played	n	%	n	%
1 type	37	43.5	30	41.1
2 types	29	34.1	23	31.5
3 types	13	15.3	16	21.9
More than 3 types	6	7.1	4	5.5
Missing data	0		1	
Total	85	100	74	100

Cohorts A to D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=85

Table 6.24 Association between gender and participation in extracurricular activities during first year (Group 3:MAHPBL)

	Gender			
	Male		Female	
Participation in ECAs	n	%	n	%
Yes	63	41.7	58	38.4
No	7	4.6	23	15.2
Total	70	100	81	100

Cohorts A to D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
ECAs: Extracurricular activities
n=151
x^2 =7.98; p=0.02 (df=1)

Table 6.25 Association between gender and participation in extracurricular activities during third year (Group 3:MAHPBL)

	Gender			
	Male		Female	
Participation in ECAs	n	%	n	%
Yes	47	43.9	43	40.2
No	3	2.8	14	13.1
Total	50		57	

Cohorts A to D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
ECAs: Extracurricular activities
n=107
x^2 =6.87; p=0.01 (df =1)

Table 6.26 Association between previous educational experience and participation in extracurricular activities during first year (Group 3: MAHPBL)

	Previous educational experience			
	School leaver		Non-school leaver	
Participation in ECAs	n	%	n	%
Yes	74	49.0	47	31.1
No	25	16.6	5	3.3
Total	99	100	52	100

Cohorts A to D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
ECAs: Extracurricular activities
n=151
x^2 =5.24; p=0.02 (df=1)

Table 6.27 Patterns of participation in extracurricular activities across the early years (Group 3: MAHPBL)

Pattern of participation	n	%
All three years	69	72.6
One year		
First year only	5	5.3
Second year only	4	4.2
Third year only	6	6.3
Two years		
First and second year	4	4.2
Second and third year	5	5.3
First and third year	2	2.1
Total	95	100

Cohorts A to D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
ECAs: Extracurricular activities
Total sample of Adelaide dental students during the early years of the course who completed all three post-admission surveys=101

Table 6.28 The most important reason nominated by students for participating in extracurricular activities during the early years (Group 3: MAHPBL)

Reasons	n	%
Health benefits *fitness; maintain physical fitness; keeping fit; health*	20	51.2
Stress relief *stress relief*	5	12.8
Leisure *fun; leisure/enjoyment; I enjoy sport*	5	12.8
Other reasons *maintain a certain skill level; wanted to serve in church; to be happy other than work all the time; free food*	5	12.8
Social interaction *social past time – spending time with friends; interact*	4	10.3
Missing data (no response given)	4	
Total number of responses (excludes missing data)	39	100

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
ECAs: Extracurricular activities
n=42*
* one student gave more than one response

Table 6.29 Maximum time spent engaged in paid part-time employment and extracurricular activities during the early years (Group 3: MAHPBL)

	Cohort A		Cohort B		Cohort C		Cohort D	
Paid PT work & ECA	Either	Both	Either	Both	Either	Both	Either	Both
Time spent	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours
Year 1	28	41	16	30	24	28	25	32
Year 2	19	31	15	19	22	39	16	28.5
Year 3	NA	NA	NA	NA	NA	NA	18	32

MAHPBL: Multifaceted admission, hybrid PBL curriculum
Either: Participated in either regular PT paid employment or ECAs during the academic semester but not both
Both: Participated in both regular PT paid employment and ECAs, during the academic semester
PT: Part-Time; ECAs: Extracurricular activities
NA: Not applicable. Data related to time spent working was not collected for third-years students in Cohorts A, B and C

Table 6.30 Association between gender and patterns of participation in regular paid part-time employment and extracurricular activities during first year (Group 3: MAHPBL)

	Gender			
	Male		Female	
Patterns of participation	n	%	n	%
No Paid PT work/No ECAs Did not participate in either regular paid PT employment or ECAs during the academic semester (may have participated in paid work during holidays or semester break only)	5	6.8	17	21.8
Either Participated in either regular paid PT employment or ECAs during the academic semester but not both	44	60.3	43	55.1
Both Participated in both regular paid PT employment and ECAs during the academic semester	24	32.9	18	23.1
Total	73	100	78	100

Cohorts A to D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
PT: Part-Time; ECAs: Extracurricular activities
n=151
x^2 =7.26; p=0.03 (df=2)

Table 6.31 Association between gender and participation in regular paid part-time employment and extracurricular activities during second year (Group 3: MAHPBL)

	Gender			
	Male		Female	
Patterns of participation	n	%	n	%
No Paid PT work/No ECAs Did not participate in either regular paid PT employment or ECAs during the academic semester (may have participated in paid work during holidays or semester break only)	2	3.4	17	23.6
Either Participated in either regular paid PT employment or ECAs during the academic semester but not both	37	62.7	37	51.4
Both Participated in both regular paid PT employment and ECAs during the academic semester	20	33.9	18	25.0
Total	59	100	72	100

Cohorts A to D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
PT: Part-Time; ECAs: Extracurricular activities
n=131
x^2 =10.76; p=0.00 (df=2)

Table 6.32 Association between participation in regular paid part-time employment and extracurricular activities during first year and time spent per week (Group 3: MAHPBL)

	Either		Both	
Time spent per week	n	%	n	%
1 to 10 hours	64	79.0	8	19.0
More than 11 hours	17	21.0	34	81.0
Total	81	100	42	100

Cohorts A to D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
PT: Part-Time; ECAs: Extracurricular activities
Either (n=81)*; Both (n=42)
Either: Participated in either regular PT paid employment or ECAs during the academic semester but not both
Both: Participated in both regular PT paid employment and ECAs, during the academic semester
*missing data; not all students responded
$x^2 = 40.98$; p=0.00 (df=1)

Table 6.33 Association between participation in regular paid part-time employment and extracurricular activities during second year and time spent per week (Group 3: MAHPBL)

	Either		Both	
Time spent per week	n	%	n	%
1 to 10 hours	53	76.8	8	21.1
More than 11 hours	16	23.2	30	78.9
Total	69	100	38	100

Cohorts A to D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
PT: Part-Time; ECAs: Extracurricular activities
Either (n=69*); Both (n=38)
Either: Participated in either regular PT paid employment or ECAs during the academic semester but not both
Both: Participated in both regular PT paid employment and ECAs, during the academic semester
*missing data; not all students responded
x^2=31.09; p=0.00 (df =1)

Table 6.34 Patterns of participation in both paid part-time employment and extracurricular activities across the early years (Group 3: MAHPBL)

Pattern of participation	n	%
All three years	9	20.0
One year		
First year only	6	13.3
Second year only	5	11.1
Third year only	9	20.0
Two years		
First- and second year	6	13.3
Second- and third year	7	15.6
First- and third year	3	6.7
Total	45	100

Cohorts A to D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
PT: Part-Time
ECAs: Extracurricular activities
Total sample of Adelaide dental students during the early years of the course who completed all three post-admission surveys = 101

Table 6.35 Association between permanent place of residence and people student lived with during first year (Group 3: MAHPBL)

	Permanent place of residence			
	South Australian		Other Australian and International	
Type of person	n	%	n	%
Family	54	94.7	1	1.7
On own	1	1.8	36	61.0
Others	2	3.5	22	37.3
Total	57	100	59	100

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=116*
*missing data (not all students responded) and excludes category 'lived with partner or child'
x^2 =100.84; p=0.00 (df=2)

Table 6.36 Association between permanent place of residence and people student lived with during second year (Group 3: MAHPBL)

	Permanent place of residence			
	South Australian		Other Australian and International	
Type of person	n	%	n	%
Family	50	96.2	4	8.0
On own	2	3.8	21	42.0
Others	0	0.0	25	50.0
Total	52	100	50	100

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=102*
*missing data (not all students responded) and excludes category 'lived with partner or child'
x^2=79.87; p=0.00 (df=2)

Table 6.37 Associations between permanent place of residence and people student lived with during third year (Group 3: MAHPBL)

	Permanent place of residence			
	South Australian		Other Australian and International	
Type of person	n	%	n	%
Family	42	91.4	4	9.5
On own	2	4.3	16	38.1
Others	2	4.3	22	52.4
Total	46	100	42	100

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=88*
*missing data (not all students responded) and excludes category 'lived with partner or child'
x^2=58.89; p=0.00 (df=2)

Table 6.38 Association between previous educational experience and people student lived with during first year (Group 3: MAHPBL)

	Previous educational experience			
	School leaver		Non-school leaver	
Type of person	n	%	n	%
Family	45	58.4	10	25.7
On own	21	27.3	16	41.0
Others	11	14.3	13	33.3
Total	77	100	39	100

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=105*
*missing data (not all students responded) and excludes category 'lived with partner or child'
x^2 =11.95; p=0.00 (df=2)

Table 6.39 Association between previous educational experience and people student lived with during second year (Group 3: MAHPBL)

	Previous educational experience			
	School leaver		Non-school leaver	
Type of person	n	%	n	%
Family	42	63.6	12	33.3
On own	9	13.7	14	38.9
Others	15	22.7	10	27.8
Total	66	100	36	100

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=102*
*missing data (not all students responded) and excludes category 'lived with partner or child'
x^2=10.87; p=0.00 (df=2)

Table 6.40 Associations between previous educational experience and people student lived with during third year (Group 3: MAHPBL)

	Previous educational experience			
	School leaver		Non-school leaver	
Type of person	n	%	n	%
Family	37	64.9	9	29.0
On own	8	14.0	10	32.3
Others	12	21.1	12	38.7
Total	57	100	31	100

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=88*
*missing data (not all students responded) and excludes category 'lived with partner or child'
x^2 =10.50; p=0.01 (df=2)

Table 6.41 Association between gender and people student lived with during second year (Group 3: MAHPBL)

	Gender			
	Male		Female	
Type of person	n	%	n	%
Family	20	45.4	34	58.6
On own	16	36.4	7	12.1
Others	8	18.2	17	29.3
Total	44	100	58	100

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=102*
*missing data (not all students responded) and excludes category 'lived with partner or child'
x^2=8.63; p=0.01 (df =2)

Table 6.42 Association between gender and people student lived with during third year (Group 3: MAHPBL)

	Gender			
	Male		Female	
Type of person	n	%	n	%
Family	18	47.4	28	56.0
On own	13	34.2	5	10.0
Others	7	18.4	17	34.0
Total	38	100	50	100

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=88*
*missing data (not all students responded) and excludes category 'lived with partner or child'
x^2 =8.42; p=0.01 (df=2)

Table 6.43 Association between permanent place of residence and style of accommodation during first year (Group 3: MAHPBL)

	Permanent place of residence			
	South Australian		Other Australian and International	
Style of accommodation	n	%	n	%
Family home	57	95.0	1	1.7
Private accommodation	3	5.0	31	54.2
Residential college	0	0.0	26	44.1
Total	60	100	59	100

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=119*
*missing data (not all students responded)
x^2 =104.10; p=0.00 (df=2)

Table 6.44 Association between permanent place of residence and style of accommodation during second year (Group 3: MAHPBL)

	Permanent place of residence			
	South Australian		Other Australian and International	
Style of accommodation	n	%	n	%
Family home	51	96.2	1	2.0
Private accommodation	2	3.8	32	64.0
Residential college	0	0.0	17	34.0
Total	53	100	50	100

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=103*
*missing data (not all students responded)
x^2=91.54; p=0.00 (df=2)

Table 6.45 Association between previous educational experience and style of accommodation during first year (Group 3: MAHPBL)

	Previous educational experience			
	School leaver		Non-school leaver	
Style of accommodation	n	%	n	%
Family home	46	60.0	12	29.3
Private accommodation	16	20.5	19	46.3
Residential college	16	20.5	10	24.4
Total	78	100	41	100

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=119*
*missing data (not all students responded)
x^2 =11.15; p=0.00 (df =2)

Table 6.46 Association between previous educational experience and style of accommodation during second year (Group 3: MAHPBL)

	Previous educational experience			
	School leaver		Non-school leaver	
Style of accommodation	n	%	n	%
Family home	41	62.1	10	27.0
Private accommodation	15	22.7	19	51.4
Residential college	10	15.2	8	21.6
Total	66	100	37	100

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=103*
*missing data (not all students responded)
x^2 =12.35; p=0.00 (df=2)

Table 6.47 Type of change in style of accommodation, for those who changed once during the early years (Group 3: MAHPBL)

Type of change	n	%
College accommodation to private		
• lived in college in 1st year and changed to private accommodation in 2nd, 3rd year	4	26.7
• lived in college in 1st year and 2nd year and changed to private accommodation in 3rd year	7	46.6
Family home to private accommodation		
• lived in family home in 1st year and 3rd year and changed to private accommodation in 2nd year	1	6.7
• lived in family home in 1st year and 2nd year and changed to private accommodation in 3rd year	1	6.7
Private accommodation to college		
• lived in private accommodation in 1st year and changed to college in 2nd year, 3rd year	2	13.3
Total	15	100

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum

Table 6.48 Perceived positive outcomes of living in residential college during the early years (Group 3: MAHPBL)

Perceived positive outcomes	n	%
Resources	14	66.7
a. Peers, dental students, tutors *other dental students to talk with and study with; access to peer tutor; access to people doing similar subjects; older students to get past papers and info from; peer tutors; study groups*	12	57.1
b. Physical resources *resources available for support eg, library, photocopies; have past copies of past exams to copy*	2	9.5
Other positive outcomes *good to meet people; instant social support; extensive relaxation facilities*	3	14.3
Decreased personal responsibilities *no time needed for cooking and cleaning; didn't have to come home and cook/clean etc therefore more time*	2	9.5
No positive outcomes *none*	2	9.5
Total number of responses	21	100

Cohorts C and D (2004)
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=11

Table 6.49 Perceived negative outcomes of living in college during the early years (Group 3: MAHPBL)

Perceived negative outcomes	n	%
College environment	22	95.7
a. distractions/disruptions *too many distractions; too much going on all the time; occasional disruptions of nights; too many distractions outside study; more difficult to get time alone; too much beer; more socialising, decrease studying*	12	52.2
b. physical environment *not a good study environment; loud; noise level; extensive noise level*	6	26.1
c. college activities/regimentation *time restrictions on certain things (ie, dinner at certain time) – conflicted with late lectures; lots of organised activities; insufficient time to study*	4	17.4
Cost *cost*	1	4.3
Total number of responses	23	100

Cohorts C and D (2004)
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=11

Table 6.50 Reasons for moving out of residential college during the early years (Group 3: MAHPBL)

Reasons	n	%
College environment	16	69.6
a. distractions/disruptions *too many distractions*	3	13.0
b. physical environment *more privacy/more private room; better living and studying conditions; not wishing to share a bathroom*	4	17.4
c. college activities/regimentation *flexibility of meal times; too many characters and rules; had enough of food and lifestyle; poor standard of food*	6	26.1
d. social *other friends moved out; was getting too old for college; did not fit well in college life*	3	13.0
Other	2	8.7
Cost *too expensive; costs reduction; money; cost*	5	21.7
Total number of responses	23	100

Cohorts C and D (2004)
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=9

Table 6.51 The most important reason nominated by students for moving out of residential college during the early years (Group 3: MAHPBL)

Reasons	n	%
College environment	6	75.0
a. distractions/disruptions *too many distractions*	1	12.5
b. physical conditions *more privacy/more private room; better studying conditions*	2	25.0
c. college activities/regimentation *cooking own food*	1	12.5
d. social *did not get along with other students; wanted more independence; age difference with new students*	3	37.5
Cost *money*	1	25.0
Missing data (no response given)	1	
Total number of responses	8	100

Cohorts C and D (2004)
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=9
NB: one student gave more than one response

Table 6.52 Perceived positive outcomes of leaving residential college during the early years (Group 3: MAHPBL)

Perceived positive outcomes	n	%
Minimisation of distractions/disruptions *less distractions; less socialising; more private time*	8	61.5
Increased flexibility *more independence to do things when I wanted to do them; my time is more flexible; more independence; less rules*	5	38.5
Missing data (no response given)	1	
Total number of responses	13	100

Cohorts C and D (2004)
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=9

Table 6.53 Perceived negative outcomes of leaving residential college during the early years (Group 3: MAHPBL)

Perceived negative outcomes	n	%
Loss of access to college resources *loss of ease of internet access; no peer students; didn't have access to as many textbooks or people to discuss with*	7	43.8
Increased personal responsibilities *had to cook own meals/housework; still need to cook and clean during exam time; having to spend more time cleaning, organising, moving, finding property, paying bills; finance planning*	5	31.2
No negative outcome *none*	3	18.8
Travelling time *time problems – travel to and from uni longer*	1	6.2
Total number of responses	16	100

Cohorts C and D (2004)
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=9

Table 6.54 Association between people student lived with and patterns of participation in paid part-time employment during first year (Group 3:MAHPBL)

	Type of person					
	Family		On own		Others	
Patterns of participation	n	%	n	%	n	%
Not involved in paid PT employment or paid employment during holiday periods	27	50.0	29	80.6	16	80.0
Regular term-time paid PT employment	27	50.0	7	19.4	4	20.0
Total	54	100	36	100	20	100

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=110*
*missing data (not all students responded) and excludes category 'lived with partner or child' and excludes category 'other' paid work
x^2 =11.21; p=0.00 (df=2)
PT: Part-Time

Table 6.55 Association between people student lived with and patterns of participation in paid employment during second year (Group 3:MAHPBL)

	Type of person					
	Family		On own		Others	
Patterns of participation	n	%	n	%	n	%
Not involved in paid PT employment or paid employment during holiday periods	27	51.9	19	86.4	20	83.3
Regular term-time paid PT employment	25	48.1	3	13.6	4	16.7
Total	52	100	22	100	24	100

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=98*
*missing data (not all students responded) and excludes category 'lived with partner or child' and excludes category 'other' paid work
x^2=12.03; p=0.00 (df=2)
PT: Part-Time

Table 6.56 Association between people student lived with and patterns of participation in paid employment during third year (Group 3:MAHPBL)

	Type of person					
	Family		On own		Others	
Patterns of participation	n	%	n	%	n	%
Not involved in paid PT employment or paid employment during holiday periods	20	44.4	13	76.5	22	91.7
Regular term-time paid PT employment	25	55.6	4	23.5	2	8.3
Total	45	100	17	100	24	100

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=86*
*missing data (not all students responded) and excludes category 'lived with partner or child' and excludes category 'other' paid work
x^2 =16.58; p=0.00 (df=2)
PT: Part-Time

Table 6.57 Association between year level and style of accommodation (Group 3:MAHPBL)

	First year (1999-2001)		Second year (2000-02)		Third year (2001-03)	
Style of accommodation	n	%	n	%	n	%
Family	58	48.8	52	50.2	46	51.1
Residential college	26	21.8	18	17.5	6	6.7
Private	35	29.4	33	32.0	38	42.2
Total	119	100	103	100	90	100

Cohorts B, C and D
MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=312*
* excludes missing data (not all students responded)
x^2 =10.28; p=0.04 (df=4)
PT: Part-Time

Chapter 7 Appendix

Table 7.1 Post-admission factors that influence tertiary student academic success derived from selected Australian studies

Study sample and data collection method	Independent (Post-admission) factors	Outcome measure	Statistical analyses	Reference
N=78 Year 1 Australian students Single university; science course 2000 Data regarding most of the post-admission factors were collected via closed-question surveys eg, Beck Depression Inventory, State-Trait Inventory, Life Orientation Test, COPE scale	• Individual/student related factors: stress personality measures students' coping mechanisms involvement in paid work social support	• Academic achievement: pass grade in examinations	Bivariate analyses: one-way ANOVA, independent t-tests	Tchen et al. (2001)
N= 197 Year 1 Australian students Single university, Science and IT courses Closed questionnaires eg, College adjustment Scales Inventory, Depression, Anxiety and Stress Scale, Attributional Style Questionnaire, adapted Himelstein questionnaire	• Individual/student related factors: academic factors self-reported study skills demographic factors student workload (full-time or part-time status) cognitive appraisal factors: self-efficacy, attribution style • Institutional factors: individual/student related factors: psychosocial factors student institution integration, commitment, satisfaction, career orientation, social support • Individual/student related factors: psychosocial factors psychological health variables (anxiety, stress, depression)	• Academic achievement: Semester 1 Grade Point Average	Multivariate analyses: ANOVA, regression, hierarchical regression	McKenzie and Schweitzer (2001)

Study sample and data collection method	Independent (Post-admission) factors	Outcome measure	Statistical analyses	Reference
N=387 Year 1 and 3 Australian Single university; science students 2000 Closed questionnaires eg,revised Biggs SPQ, Vermunt Inventory of Learning Styles, Author designed questionnaire to examined self-efficacy of academic skills	• Individual/student related factors: Approaches to learning English language proficiency self-regulatory behaviours (self-efficacy)	• Academic achievement: Grade Point Average	Path analysis	Zeegers (2004)
N=197 Year 1 Australian university students Single university, 8 x Faculties Closed questionnaires eg,Motivated Strategies for Learning Questionnaire, The Neuroticism Extraversion Openness Five Factor Inventory	• Individual/student related factors: achievement motivation (self-efficacy) locus of control task value learning goals performance goals self-regulatory learning strategies personality traits	• Academic achievement: Semester 1 Grade Point Average	Structural equation modelling	McKenzie et al. (2004)

Appendix 7.1 Invitation, information sheet and consent form used for recruiting students to participate in focus group discussions

THE UNIVERSITY OF ADELAIDE
Faculty of Health Sciences
School of Dentistry

29th April 2002

Invitation to participate in phase 2 of project:
"Progress of students through the Adelaide BDS course"
Focus group interview

Dear 4th year Dental student,

I would you like to invite you to participate in a focus group interview to investigate factors influencing success of dental students as part of Dr Lekkas's PhD research project. From surveys Dr Lekkas conducted at the beginning of 1999, 2000 and 2001, students identified numerous student and course-related factors that influenced their success in the dental course. Dr Lekkas has provided me with a series of questions she wants to investigate further based on these collective student responses.

The focus group interview will consist of 5-6 students from your class, will last one and a half hours and will be conducted by myself. The interview will be audio-taped and be transcribed by a non-dental professional transcriber. To ensure anonymity and confidentiality, Dr Lekkas and her supervisors (Prof Townsend & Dr Winning) will not be aware of those students who are participating in the focus group interview and they will only have access to a written copy of the audio-tapes for analysis. Students' name or ID will not appear on these documents. In addition any personal information and data collected will not be used in any way that might enable identification.

Dr Lekkas would greatly appreciate that you attend these interviews and contribute your experiences on factors influencing progress of students during the course thus far. Light refreshments will be provided. In addition, a UniBooks voucher of $25 will be provided for participating students as reimbursement for your time commitment.

The date, time and place of the focus group interview will be:

Tuesday 2nd April 3.15-4.45pm (after DHSc IV) in Basement Seminar Room 1

Please refer to the attached information sheet for further details and the attached consent form, which explains conditions of consent. If you have any further queries please don't hesitate to contact me (details in information sheet) without any obligation to participate.
If you would like to participate in the focus group discussion please complete the written consent form, place it in the envelope provided and place it in my letter box (Vicki Skinner) which is on the 6th floor (behind the double doors) before Thursday March 27th 2002. Any contact will be treated as confidential. I look forward to speaking with you.

Yours sincerely

Vicki Skinner

Ms Vicki Skinner
Room 6103c ADH
Telephone: 8303 4229
Email: vicki.skinner@adelaide.edu.au

THE UNIVERSITY OF ADELAIDE
Faculty of Health Sciences
School of Dentistry

INFORMATION SHEET
"Progress of students through the Adelaide BDS course"
Group interview sessions

Dr Lekkas is currently undertaking a research project aimed at identifying the factors that affect progress of students through the first three years of the Adelaide BDS course in order to determine how they develop in terms of their expected knowledge, skills and attitudes. The findings should enable the Adelaide School of Dentistry to optimise the chances of success of its students in the early years of the BDS course by modifying where appropriate curriculum design and content and providing support for dental students to enhance their performance.

Most students have already enrolled in the project when they were asked to fill out written surveys during semester 1 in 1999 – 2001. The next phase of the project is to have students participate in discussions with an independent interviewer to further investigate initial responses from the written surveys. This aspect of the project is funded by the Australian Dental Research Foundation.

Your name has been chosen at random from class lists by a non-academic member of the School of Dentistrystaff. You are invited to participate in an interview, with Ms Vicki Skinner, who is not involved with teaching or assessment of dental students. Students participating in these interviews will not be known to Dr Lekkas or her supervisors (Professor Townsend and Dr Winning). The interviews will be audio-taped. Dr Lekkas and her supervisors will not be given the original taped interviews, they will only be given a written transcription (ie. a typed-out version of the interviews) and students names/identification or any other identifiers will not appear on these documents. You will be invited to review a typed transcript of your interview and approve its use or amend it if you choose. Project data will be stored securely and without any identifying information. Information/publications arising from the interviews will be kept strictly confidential and individual responses will not be identifiable or be divulged to any staff or other students. Your participation will not benefit nor harm your progress in your course and you are free to decline to take part without prejudice to yourself now or in the future. This project as been granted ethical approval H/06/99 by the University Human Ethics Committee.

We sincerely hope you will take part in this next part of the study and you are welcome to seek further information from Vicki Skinner who is available Mondays, Tuesdays and Wednesdays. ***It would be preferable to contact Vicki via phone 83034229 or email vicki.skinner@adelaide.edu.au or in person on Wednesdays only.***
Thank you

THE UNIVERSITY OF ADELAIDE
Faculty of Health Sciences
School of Dentistry

CONSENT FORM
"Progress of students through the Adelaide BDS course"
Group interview sessions

PLACE THIS COPY IN ENVELOPE IF YOU WISH TO PARTICIPATE

1. I _____ (please print name) hereby consent to take part in interviews within the research project entitled: " Progress of students through the Adelaide BDS course "
2. I acknowledge that I have read the Information Sheet entitled:" Progress of students through the Adelaide BDS course - Group interview sessions"
3. I have had the project, so far as it affects me, fully explained to my satisfaction by the research worker.
4. Although I understand that the purpose of this research project is to improve the quality of dental education, it has also been explained that my involvement may not be of any benefit to me.
5. I have been informed that, while information gained during the study may be published, I will not be identified and my personal results will not be divulged.
6. I understand that I am free to withdraw from the project at any time and that this will not affect my undergraduate studies and education now or in the future.
7. I am aware that I should retain a copy of this Consent Form when completed, and the relevant Information Sheet.

Participant Signature..... Date.....

I, have described to .....(name of subject)
the nature of the study. In my opinion she/he understood the explanation.

Status in project:……..
Researchers Signature..... Date:.....

THE UNIVERSITY OF ADELAIDE
HUMAN RESEARCH ETHICS COMMITTEE

Document for people who are subjects in a research project

CONTACTS FOR INFORMATION ON PROJECT AND INDEPENDENT COMPLAINTS PROCEDURE

The Human Research Ethics Committee is obliged to monitor approved research projects. In conjunction with other forms of monitoring it is necessary to provide an independent and confidential reporting mechanism to assure quality assurance of the institutional ethics committee system. This is done by providing research subjects with an additional avenue for raising concerns regarding the conduct of any research in which they are involved.

The following study has been reviewed and approved by the University of Adelaide Human Research Ethics Committee:

Project title: "Progress of students through the Adelaide BDS course"

1. If you have questions or problems associated with the practical aspects of your participation in the project, or wish to raise a concern or complaint about the project, then you should consult the project co-ordinator:
   Name: Dr Gerry Mullins telephone: 83035771 email: gmullins@acue.adelaide.edu.au
2. If you wish to discuss with an independent person matters related to
   - making a complaint, or
   - raising concerns on the conduct of the project, or
   - the University policy on research involving human subjects, or
   - your rights as a participant

contact the Human Research Ethics Committee's Secretary on phone (08) 8303 4014

Appendix 7.2 Guiding questions used for focus group discussions

INTRODUCTION

- Welcome and thankyou
- Dr Lekkas's research to gain a better understanding of the factors that influence students' progress through their dental course. She has begun by surveying several groups of students across several years of the course. A range of factors have been identified by students that either contribute to success or difficulties. However, many of these factors might mean different things to different people.
- Therefore: the purpose of focus group is to ask for your ideas on some of these factors and help Dr Lekkas to understand their significance for you as students. Then hopefully this will help staff in the School of Dentistry to better support students to be successful.
- About focus groups
    - Anonymity and confidentiality applies
    - Discussion, my role is to say as little as possible and listen, just to keep your conversation going
    - No right or wrong answers, it's about people's experience and opinions - feel free to comment on what someone else says, whether you agree or disagree.
    - The usual rules of good communication apply eg, listen, respect others, no personal comments, avoid interrupting.
- Outline of the discussion, first talk about factors related to support people eg, staff and other students, then factors related to study patterns, and then the course itself.
- Any questions?

SUPPORT SYSTEMS

Staff/tutors 10mins

Students mentioned that 'helpful', 'supportive' staff/tutors/lecturers' aided their success

What type of help or support is offered by staff to students?

- can students describe: what do staff do, say, how do they behave to be helpful or supportive? eg, ready availability, particular type of feedback, check drafts of work, well-prepared, provide materials for study

Student colleagues 5-10mins

Other students were also mentioned as being helpful

What do dental students do to support each other?

- eg, provide notes or other materials, help each other find resources, seniors talk about own experiences or give advice, exam prep help

What do students in other areas do?

- eg, friends in other courses, residents in college, housemates etc

Now we'll talk about some of the comments students made about their study habits and how these contribute to success or difficulties.

STUDY HABITS 20-25mins

Some students said that 'hard work' contributed to success

What exactly do students refer to when they say hard work?

- ie, what sorts of activities are they doing what parts of the course are they doing it for clinic, DLPs, assignments etc

How does hard work help achieve success?

- what would students be trying to achieve... specific tasks such as complete assignments, keep up with set work, being prepared in advance, pass exams and tests OR general aims such as-become a better dentist, improve knowledge base, improve clinical skills

Study patterns: 2 types were mentioned as contributing to success: 'consistent study throughout the year' compared with 'studying hard during swot vac'/'last-minute study or cramming'

How do each of these types of strategies contribute to success?

Do students see these as equally essential for success, and why?

- what is the relative worth of each for success, can students rate the value of each for success - need to think about the purpose of each -what sort of success does each bring ie consistent study might yield different outcome [better clinician] than cramming or swot vac work [pass exams]
- [plus also 'cramming'] - how does this fit in - is it desirable or a necessity?

What factors influence whether you do either/which has the greatest effect, for what reason? When and why do students choose certain study patterns?

Study patterns: 2 different approaches were mentioned -'organised study' as contributing to success compared with 'disorganised study' contributing to difficulty.

What factors contribute to being disorganised, being inconsistent?

- what exactly do students mean by organised or disorganised? how does either state happen ie, what leads to organisation or disorganisation
- what factors contribute to being organised/disorganised -under what circumstances are you organised/disorganised?

Study patterns 'leaving work to the last minute'; 'poor time management skills'

- what factors contribute to students reporting poor time management?
- under what circumstances can student manage time well/badly?

Knowledge -was very rarely mentioned by students as a factor in success

- what are student views on the impact of knowledge as a factor for success during the course?
- why not mentioned? what do students think of knowledge, what sort of knowledge is important?

COURSE-RELATED FACTORS 15-20mins

Students reported that ‘workload’ and ‘contact hours’ contributed to student difficulties but they did not explain how

What difficulties do workload and contact hours contribute to?

Can students explain what 'workload' refers to? and how workload contributed to difficulties

- eg, amount of hours spent at uni (all of them or particular hours -clinic, DLPs, lectures)? the number of assignments to do? the amount of reading to do? the amount of work needed for DLPs (eg, amount of group work)?

Can students explain what 'contact hours' refers to ? and how contact hours contributed to difficulties

- eg, the number of hours spent at uni? the way the timetable is structured eg early starts, late finishes, long breaks between contact hours?

SOCIAL FACTORS 5-10mins

students also indicated that other commitments apart from study posed challenges/difficulties eg, work, family, sport

- please give examples of the difficulties faced
- in what ways do these things make problems -is it not enough time for all; lack of flexibility; the way hours are scheduled; tiredness or energy levels from all or any of these?

students indicated that living arrangements were also a problem

- what type of difficulties were faced?

Any other comments about success or difficulty in the course ?

Thank you very much

Table 7.2 Types of student responses to the post-admission survey questions (Group 3: MAHPBL)

Type of response	Example
Single word	• *Organisation (Year 1)* • *Maturity (Year 2)* • *Swot vac (Year 3)*
Short sentence	• *Good background knowledge (Year 1)* • *Fear of failing (Year 2)* • *Own health problems (Year 3)*
Long (descriptive) sentence	• *Studying throughout the weeks, not just the end of the semester (Year 1)* • *The friendships gained throughout the course have been a great source of support and a bit of a back up system when required. I think that was a huge help (Year 2)* • *Group study – I study with my friends, explaining my knowledge, very helpful especially when studying for clinical stuff (Year 3)*

Cohorts A to D
MAHPBL: Multifaceted admission, hybrid PBL curriculum

Table 7.3 Average number of post-admission survey responses (Group 3: MAHPBL)

	First-year students (1998-2001)	Second-year students (1999-2002)	Third-year students (2000-03)
	n	n	n
Factors related to success	2.9	3.0	2.6
Factors related to difficulties	2.2	2.1	2.1

Cohorts A to D
MAHPBL: Multifaceted admission, hybrid PBL curriculum

Table 7.4 Average number of responses given by first-year students who completed post-admission surveys (Group 3: MAHPBL)

	Cohort A (First year 1998)	Cohort B (First year 1999)	Cohort C (First year 2000)	Cohort D (First year 2001)
	n	n	n	n
Factors related to success	2.9	3.2	2.8	2.8
Factors related to difficulties	2.3	2.1	2.4	2.0

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Table 7.5 Average number of responses given by second-year students who completed post-admission surveys (Group 3: MAHPBL)

	Cohort A (Second year 1999)	Cohort B (Second year 2000)	Cohort C (Second year 2001)	Cohort D (Second year 2002)
	n	n	n	n
Factors related to success	2.8	3.4	2.6	2.9
Factors related to difficulties	2.0	2.2	2.3	1.9

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Table 7.6 Average number of responses given by third-year students who completed post-admission surveys

	Cohort A (Third year 2000)	Cohort B (Third year 2001)	Cohort C (Third year 2002)	Cohort D (Third year 2003)
	n	n	n	n
Factors related to success	4.3	2.8	2.4	2.6
Factors related to difficulties	3.7	2.3	2.1	1.8

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Table 7.7 Total number of responses to the questions about factors related to success and difficulties during the early years (Group 3: MAHPBL)

	First-year students (1998-2001)		Second-year students (1999-2002)		Third-year students (2000-03)	
	n	%	n	%	n	%
Factors related to success	440	57.1	391	58.7	276	55.9
Factors related to difficulties	330	42.9	275	41.3	218	44.1
Total number of responses	770		666		494	
Number of post-admission surveys	151		131		106	

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Table 7.8 Total number of responses given by first-year students to the questions about factors related to success and difficulties (Group 3: MAHPBL)

	Cohort A (First year 1998)		Cohort B (First year 1999)		Cohort C (First year 2000)		Cohort D (First year 2001)	
	n	%	n	%	n	%	n	%
Factors related to success	87	55.4	131	60.4	112	53.8	110	58.5
Factors related to difficulties	70	44.6	86	39.6	96	46.2	78	41.5
Total number of responses	157		217		208		188	
Number of post-admission surveys	30		41		40		40	

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Table 7.9 Total number of responses given by second-year students to the questions about factors related to success and difficulties (Group 3: MAHPBL)

	Cohort A (Second year 1999)		Cohort B (Second year 2000)		Cohort C (Second year 2001)		Cohort D (Second year 2002)	
	n	%	n	%	n	%	n	%
Factors related to success	74	59.2	140	61.1	74	52.1	103	60.6
Factors related to difficulties	51	40.8	89	38.9	68	47.9	67	39.4
Total number of responses	125		229		142		170	
Number of post-admission surveys	26		41		29		35	

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Table 7.10 Total number of responses given by third-year students to the questions about factors related to success and difficulties (Group 3: MAHPBL)

	Cohort A (Third year 2000)		Cohort B (Third year 2001)		Cohort C (Third year 2002)		Cohort D (Third year 2003)	
	n	%	n	%	n	%	n	%
Factors related to success	32	53.3	105	55.3	47	52.8	92	59.9
Factors related to difficulties	28	46.7	85	44.7	42	47.2	63	40.1
Total number of responses	60		190		89		155	
Number of post-admission surveys	14		37		20		35	

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Table 7.11 Frequency of 'student' and 'course' factors perceived to have contributed to success during the early years (Group 3: MAHPBL)

	First-year students (1998-2001)		Second-year students (1999-2002)		Third-year students (2000-03)	
Factors	n	%	n	%	n	%
Student	350	79.5	319	81.6	223	80.8
Course	90	20.5	72	18.4	53	19.2
Total number of responses	440		391		276	
Total number of post-admission surveys	151		131		106	

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Table 7.12 Frequency of 'student' and 'course' factors perceived to have contributed to success during first year (Group 3: MAHPBL)

	Cohort A (First year 1998)		Cohort B (First year 1999)		Cohort C (First year 2000)		Cohort D (First year 2001)	
Factors	n	%	n	%	n	%	n	%
Student	74	85.1	101	77.1	83	74.1	92	83.6
Course	13	14.9	30	22.9	29	25.9	18	16.4
Total number of responses	87		131		74		103	
Number of post-admission surveys	30		41		29		35	

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Table 7.13 Frequency of 'student' and 'course' factors perceived to have contributed to success during second year (Group 3: MAHPBL)

	Cohort A (Second year 1999)		Cohort B (Second year 2000)		Cohort C (Second year 2001)		Cohort D (Second year 2002)	
Factors	n	%	n	%	n	%	n	%
Student	63	85.1	108	77.1	64	86.5	84	81.6
Course	11	14.9	32	22.9	10	13.5	19	18.4
Total number of responses	74		140		74		103	
Number of post-admission surveys	26		41		29		35	

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Table 7.14 Frequency of 'student' and 'course' factors perceived to have contributed to success during third year (Group 3: MAHPBL)

	Cohort A (Third year 2000)		Cohort B (Third year 2001)		Cohort C (Third year 2002)		Cohort D (Third year 2003)	
Factors	n	%	n	%	n	%	n	%
Student	25	78.1	79	75.2	41	87.2	78	84.8
Course	7	21.9	26	24.8	6	12.8	14	15.2
Total number of responses	32		105		47		92	
Number of post-admission surveys	14		37		20		35	

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Table 7.15 Frequency of post-admission factors perceived to have contributed to success during first year (Group 3: MAHPBL)

Factors	Cohort A (First year 1998)		Cohort B (First year 1999)		Cohort C (First year 2000)		Cohort D (First year 2001)	
	n	%	n	%	n	%	n	%
STUDENT								
1. Study factors	15	17.2	37	28.2	38	33.9	46	41.8
a. Study patterns	9	10.3	18	13.7	28	25.0	28	25.4
b. Time management/organisation	6	6.9	19	14.5	10	8.9	18	16.4
2. Psychological factors	34	39.1	28	21.3	20	17.9	17	15.4
a. Motivation	25	28.7	19	14.5	14	12.5	11	10.0
b. Attitudes	8	9.2	7	5.3	2	1.8	4	3.6
c. Behaviours	1	1.15	2	1.5	4	3.6	2	1.8
3. Social factors	9	10.3	26	19.8	18	16.1	17	15.4
a. Support	2	2.3	18	13.7	13	11.6	10	9.0
b. Lifestyle	7	8.0	3	2.3	4	3.6	7	6.4
c. Accommodation	0	0.0	5	3.8	1	0.9	0	0.0
d. Finances	0	0.0	0	0.0	0	0.0	0	0.0
4.Previous experiences/academic preparedness	8	9.2	5	3.8	4	3.6	7	6.4
5. Knowledge	1	1.15	1	0.8	3	2.7	3	2.7
6. Skills	2	2.3	1	0.8	0	0.0	2	1.8
a. Communication	0	0.0	0	0.0	0	0.0	0	0.0
b. Group work	0	0.0	0	0.0	0	0.0	2	1.8
c. Clinic/practical/manual dexterity	1	1.15	1	0.8	0	0.0	0	0.0
d. Stress management	1	1.15	0	0.0	0	0.0	0	0.0
COURSE								
1. Positive student-staff interactions	4	4.6	14	10.7	15	13.4	7	6.4
2. Adelaide dental course	9	10.3	12	9.2	8	7.2	10	9.0
a. Curriculum content, structure and process	5	5.7	4	3.1	4	3.6	3	2.7
b. Contact hours/ timetabling	0	0.0	2	1.5	2	1.8	3	2.7
c. Workload	1	1.15	1	0.8	0	0.0	0	0.0
d. Assessment	1	1.15	2	1.5	2	1.8	0	0.0
e. Course objectives	0	0.0	0	0.0	0	0.0	0	0.0
f. Task difficulty	2	2.3	2	1.5	0	0.0	3	2.7
g. Environment	0	0.0	1	0.8	0	0.0	1	0.9
3. Resources	0	0.0	4	3.1	6	5.4	1	0.9
OTHER RESPONSES								
Student response *'Not successful'*	4	4.6	3	2.3	0	0.0	0	0.0
No comment provided	1	1.15	0	0.0	0	0.0	0	0.0

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Table 7.16 Frequency of post-admission factors perceived to have contributed to success during second year (Group 3: MAHBPL)

Factors	Cohort A (Second year 1999)		Cohort B (Second year 2000)		Cohort C (Second year 2001)		Cohort D (Second year 2002)	
	n	%	n	%	n	%	n	%
STUDENT								
1. Study factors	6	18.8	34	32.4	24	51.1	37	40.2
a. Study patterns	2	6.3	13	12.4	10	21.3	17	18.5
b. Time management/organisation	4	12.5	21	20.0	14	29.8	20	21.7
2. Psychological factors	7	21.9	17	16.2	5	10.6	8	8.7
a. Motivation	5	15.6	7	6.7	5	10.6	2	2.1
b. Attitudes	2	6.3	4	3.8	0	0.0	3	3.3
c. Behaviours	0	0.0	6	5.7	0	0.0	3	3.3
3. Social factors	7	21.9	26	24.7	11	23.4	33	35.8
a. Support	4	12.5	13	12.4	8	17.0	18	19.5
b. Lifestyle	2	6.3	12	11.4	3	6.4	13	14.1
c. Accommodation	0	0.0	1	0.9	0	0.0	1	1.1
d. Finances	1	3.1	0	0.0	0	0.0	1	1.1
4.Previous experiences/academic preparedness	1	3.1	1	0.9	0	0.0	0	0.0
5. Knowledge	0	0.0	0	0.0	0	0.0	0	0.0
6. Skills	3	9.4	0	0.0	0	0.0	0	0.0
a. Communication	0	0.0	0	0.0	0	0.0	0	0.0
b. Group work	0	0.0	0	0.0	0	0.0	0	0.0
c. Clinic/practical/manual dexterity	2	6.3	0	0.0	0	0.0	0	0.0
d. Stress management	1	3.1	0	0.0	0	0.0	0	0.0
COURSE								
1. Positive student-staff interactions	4	12.5	13	12.4	4	8.5	5	5.4
2. Adelaide dental course	2	6.3	7	6.6	2	4.2	7	7.7
a. Curriculum content, structure and process	2	6.3	6	5.7	1	2.1	3	3.3
b. Contact hours/timetabling	0	0.0	1	0.9	0	0.0	3	3.3
c. Workload	0	0.0	0	0.0	0	0.0	1	1.1
d. Assessment	0	0.0	0	0.0	0	0.0	0	0.0
e. Course objectives	0	0.0	0	0.0	1	2.1	0	0.0
f. Task difficulty	0	0.0	0	0.0	0	0.0	0	0.0
g. Environment	0	0.0	0	0.0	0	0.0	0	0.0
3. Resources	1	3.1	6	5.7	0	0.0	2	2.1
OTHER RESPONSES								
Student response *'Not successful'*	1	3.1	1	0.9	0	0.0	0	0.0
No comment provided	0	0.0	0	0.0	1	2.1	0	0.0

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Table 7.17 Frequency of post-admission factors perceived to have contributed to success during third year (Group 3:MAHPBL)

	Cohort A (Third year 2000)		Cohort B (Third year 2001)		Cohort C (Third year 2002)		Cohort D (Third year 2003)	
	n	%	n	%	n	%	n	%
STUDENT								
1. Study factors	27	36.5	50	35.7	30	40.5	37	35.9
a. Study patterns	13	17.6	36	25.7	19	25.6	12	11.6
b. Time management/organisation	14	18.9	14	10.0	11	14.9	25	24.3
2. Psychological factors	19	25.7	28	20.0	12	16.1	23	22.3
a. Motivation	15	20.3	12	8.6	10	13.5	13	12.6
b. Attitudes	2	2.7	9	6.4	1	1.3	4	3.9
c. Behaviours	2	2.7	7	5.0	1	1.3	6	5.8
3. Social factors	11	14.9	25	17.8	19	25.7	19	18.4
a. Support	4	5.4	17	12.1	14	18.9	10	9.7
b. Lifestyle	6	8.1	5	3.6	5	6.8	5	4.8
c. Accommodation	1	1.35	2	1.4	0	0.0	3	2.9
d. Finances	0	0.0	1	0.7	0	0.0	1	1.0
4. Previous experiences/academic preparedness	6	8.1	3	2.1	1	1.3	2	1.9
5. Knowledge	0	0.0	0	0.0	1	1.3	2	1.9
6. Skills	0	0.0	1	0.7	1	1.3	0	0.0
a. Communication	0	0.0	0	0.0	0	0.0	0	0.0
b. Group work	0	0.0	0	0.0	1	1.3	0	0.0
c. Clinic/practical/manual dexterity	0	0.0	0	0.0	0	0.0	0	0.0
d. Stress management	0	0.0	1	0.7	0	0.0	0	0.0
COURSE								
1. Positive student-staff interactions	5	6.8	16	11.4	5	6.8	2	1.9
2. Adelaide dental course	4	5.4	10	7.1	2	2.7	13	12.6
a. Curriculum content, structure and process	2	2.7	9	6.4	2	2.7	11	10.6
b. Contact hours/timetabling	1	1.35	0	0.0	0	0.0	0	0.0
c. Workload	0	0.0	0	0.0	0	0.0	0	0.0
d. Assessment	1	1.35	1	0.7	0	0.0	1	1.0
e. Course objectives	0	0.0	0	0.0	0	0.0	1	1.0
f. Task difficulty	0	0.0	0	0.0	0	0.0	0	0.0
g. Environment	0	0.0	0	0.0	0	0.0	0	0.0
3. Resources	2	2.7	6	4.3	3	4.0	4	3.9
OTHER RESPONSES								
Student response *'Not successful'*	0	0.0	1	0.7	0	0.0	0	0.0
No comment provided	0	0.0	0	0.0	0	0.0	1	1.0

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Table 7.18 A selection of verbatim student responses from post-admission survey: success factors-study patterns (Group 3: MAHPBL)

First-year students	Second-year students	Third-year students
91. I spent a lot of time on doing assignments and studying for exams	*105. Group studying; help from friends*	*36. Group study – I study with my friends, explaining my knowledge, very helpful especially when studying for clinical stuff*
11. Make on own notes, flow charts	*37. Doing study sessions with a friend for motivation*	*54. Rote learning*
48. Studying efficiently	*116. Many hours spent in the library, especially after uni finished*	*39. Regular attendance*
58. Ask question of lecturer/tutor		
38. Attend all the lectures		
23. Pay attention during lecture		

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
NB: the number alongside the quote denotes individual student code

Table 7.19 A selection of verbatim student responses from post-admission survey: success factors-time management and organisation (Group 3: MAHPBL)

First-year students	Second-year students	Third-year students
97. Constant reviewing of the given materials and followed readings	*7. Studying throughout the weeks, not just the end of the semester*	*30. Consistent work during the year, not just exam time*
26. Organisation	*35. Keeping up to date*	*29. Keeping up with work*
28. Cramming in swot vac	*29. Being organised*	*88. Better organisation compared the year before*
62. Good time management	*4. Excellent cramming in swot vac*	*70. Organising study time to be effective*
		8. Improved time management

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
NB: the number alongside the quote denotes individual student code

Table 7.20 A selection of verbatim student responses from post-admission survey: success factors-psychological factors (motivation, attitudes and behaviours) (Group 3: MAHPBL)

First-year students	Second-year students	Third-year students
	Extrinsic sources of motivation	
58. Did not want to do 1st year again	*77. Fear of failing*	*9. Expectations from family and friends*
18. A desire to pass so that I would stay with the friends in my year	*44. Motivation to finish the year off and get into 3rd year*	*5. The thought of failing – having to repeat the year wasting both time and money*
44. Wanting to specialise in future – need to do well to help keep this option open	*24. Knowledge of the fact clinic work (getting good at it) will be helpful in the future*	*28. A lot of luck*
63. Highly competitive nature of some of my class mates motivated me to work harder		
46. I found it easier to study because what I learnt was/is relevant to my developing career		
95. Luck got me through		
	Intrinsic sources of motivation	
13. I really want to do dentistry and had spent 1 year at uni so I knew that dentistry is what I really wanted to do	*24. Knowledge of the fact clinic work (getting good at it would be helpful in the future)*	*45. Personal motivation*
104. I think I was successful last year because I genuinely like dentistry, I enjoy both the theory and practice	*45. I was quite interested in the course overall which I believe made study and learning less of a chore*	*17. Enjoyment of course interest kept me motivated*
84. Introduction to the rest of my life	*24. Self motivation*	*44. Interest in topics covered*
110. Self motivation		*11. Self drive*
	Motivation	
70. Motivation	*54. Motivation*	*3. Motivation*
15. High motivation	*95. Motivated*	*18. My motivation to study*
	Attitudes and Behaviours	
47. Enjoyment of the course	*128. The fact that I was enjoying the course*	*22. Enjoyed the course a lot more*
36. Enthusiasm for the work	*79. Positive attitude*	*88. Positive attitude*
87. Perseverance	*52. Perseverance*	*23. Persistence*
59. Willingness to work	*35. Discipline*	*15. Will power*
61. Positive attitude as I enjoyed what I was doing	*50. Praying and God's help*	*44. Faith in God*
	Behaviours: hard work	
88. Honest hard work	*88. Hard working*	*51. Sheer hard work*
45. Constant hard work during term	*73. Hard work*	*60. Lots of hard work*
90. Hard work	*44. Hard work was essential in my success last year*	*1. Hard work*
100. Hard work		*97. Hard work*

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
NB: the number alongside the quote denotes individual student code

Table 7.21 A selection of verbatim student responses from post-admission survey: success factors-social factors (Group 3: MAHPBL)

First-year students	Second-year students	Third-year students
29. Other peers experiencing similar trials and experiences.	*46. The friendships gained throughout the course have been a great source of support and a bit of a back up system when required. I think that was a huge help*	*42. Having family support and help with household tasks such as washing, dinner*
76. Family support	*45. Furthermore, I could have made it without the loving support of both of my parents and fiancé during stressful exam period*	*92. Having a lifestyle outside the dental school*
6. A balance of social and uni work	*78. Balanced lifestyle eg, uni/music/sport*	*10. A balance between study and social activities*
79. Taking time to relax out of class	*34. I cut down on sport and social life (reluctantly) to give myself more time to study and more time to myself*	*72. I gave up some extracurricular activities and spent less time on those that I kept up with which enabled me to spend more time than in previous years focussing on uni*
91. Healthy diet and exercise	*35. After one year of becoming more settled with accommodation*	*95. Stable home life*
2. Cutting back hours at work, playing sport etc especially during the semester and during swot vac	*100. Close proximity to uni and library*	*41. Financial assistance from rural health scholarship*
33. Living in a new place with less distractions than living at home	*124. No monetary worries*	
114. A study room with a computer, printer and internet access	*101. Having money to buy appropriate textbooks*	

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
NB: the number alongside the quote denotes individual student code

Table 7.22 A selection of verbatim student responses from post-admission survey: success factors-previous experiences (school leavers) (Group 3: MAHPBL)

First-year students	Second-year students	Third-year students*
36. Study habits from year 12 and work	*15. Previous clinical experience from dental assisting work*	
120. My only advantage was my previous studies in human biology which helped me in this particular subject	*58. Better understanding of the 'university system' and uni exams*	

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
NB: the number alongside the quote denotes individual student code
* third-year school leavers did not make any comments re: previous experiences

Table 7.23 A selection of verbatim student responses from post-admission survey: success factors-previous experiences (non-school leavers) (Group 3: MAHPBL)

First-year students	Second-year students	Third-year students
22. Good background knowledge	*21. Maturity*	*68. Increased life experiences*
119. I had covered most of it before	*20. Previous university experience*	*13. Experience in the dental field*
16. Status and exemptions, less content to study	*66. Had some of it previously therefore easier*	
26. Previous university experience	*79. My background in health sciences (B Sc degree)*	
34. Past experience		
61. Having already been at university taught me to study effectively before I came to this dental school		

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
NB: the number alongside the quote denotes individual student code

Table 7.24 A selection of verbatim student responses from post-admission survey: success factors-knowledge and skills (Group 3: MAHPBL)

First-year students	Second-year students	Third-year students*
42. Ensuring I achieved an understanding rather than sampling rattling off answer	*56. Understanding of material taught in class*	*11. Organisation of patients*
8. Understanding the concepts and being able to relate them in situation	*14. Better interaction/communication with other class members*	*3. Stress release in sport and socialising, spending time with my boyfriend*
58. Not becoming 'stressed out' by doing other things I enjoy		

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
NB: the number alongside the quote denotes individual student code
* third-year students did not make any comments re: knowledge

Table 7.25 A selection of verbatim student responses from post-admission survey: success factors-positive student-staff interactions (Group 3: MAHPBL)

First-year students	Second-year students	Third-year students
100. Tutors were helpful and willing to guide	*72. Good feedback form lab and clinic tutor*	*41. Supportive academic staff*
61. Lecturers most of them were very approachable		*33. Having good clinical tutors*
15. Professional lecturer team		

Cohorts A to D, MAHPBL: multifaceted admission and hybrid PBL curriculum
NB: the number alongside the quote denotes individual student code

Table 7.26 A selection of verbatim student responses from post-admission survey: success-Adelaide dental course (Group 3: MAHPBL)

First-year students	Second-year students	Third-year students
112. The fact that the theory learned is attempted to be related to practice	*26. Learning through experience ie, through clinic*	*29. Increased clinical relevance with subjects studies*
65. Repetitive nature of teaching material	*62. Interesting course material relevant to clinical applications*	*65. Course load lighter during this year therefore more time to study*
28. DLP	*13. Very interesting subjects*	*30. Increased clinical hours*
74. Good course structure	*65. Lots of clinical and lab work*	*71. Having a few free sessions*
77. Interesting course and structure	*88. Course was well organised*	*104. Swot vac*
86. Well rounded array of activities	*140. Regular tests kept me up to date*	
113. It was good being in the clinical situation from the start of the course	*52. Clear outline of what was expected and needed to be done*	
14. Weekly tutorials and other assessments by uni staff to motivate study	*89. The material presented in class meetings formed a broad base which gave us a platform to do our own self-directed learning*	
37. Easy to understand syllabus		
117. I had heaps of spare time		
80. Study period during the week		
10. Workload was good		
121. We had practice tests		
83. Ease of workload		

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
NB: the number alongside the quote denotes individual student code

Table 7.27 A selection of verbatim student responses from post-admission survey: success-resources (Group 3: MAHPBL)

First-year students	Second-year students	Third-year students
23. Extensive class notes	*46. Notes were given out*	*57. Good lecture notes*
18. Excellent manuals for all subjects	*24. Comprehensive lectures*	*50. Organised lectures and lecture notes from lecturers*
38. Availability of resources in the library	*102. Having access to mock exam papers*	*64. Use of readily available information via the internet*
	51. Lecture notes on MyUni	

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NB: the number alongside the quote denotes individual student code

Table 7.28 A selection of verbatim student responses from post-admission survey: 'did not have a successful year' (Group 3: MAHPBL)

First-year students	Second-year students	Third-year students
21. I don't think I succeeded in my 1st year of the course *86. I didn't have a very successful first year* *72. I do not think my study habits are very positive but somehow it all worked out* *94. Mostly success in assignments and other assessments during the semester rather than exams at end of each semester*	*139. Success? what makes you sure that it was?*	*57. I don't think I was very successful* *29.I wasn't successful at all so I don't think this applies to me*

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NB: the number alongside the quote denotes individual student code

Table 7.29 Frequency of 'student' and 'course' factors perceived to have contributed to difficulties during the early years (Group 3: MAHPBL)

	First-year students (1998-2001)		Second-year students (1999-2002)		Third-year students (2000-03)	
Factors	n	%	n	%	n	%
Student	256	77.6	193	70.2	128	58.7
Course	74*	22.4	82*	29.8	90*	41.3
Total number of responses	330		275		218	

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*significant difference between year levels
x^2 =22.3; p=0.00; df =2

Table 7.30 Frequency of 'student' and 'course' factors perceived to have contributed to difficulties during first year (Group 3: MAHPBL)

	Cohort A (First year 1998)		Cohort B (First year 1999)		Cohort C (First year 2000)		Cohort D (First year 2001)	
Factors	n	%	n	%	n	%	n	%
Student	56	80.0	66	76.7	73	76.0	61	78.2
Course	14	20.0	20	23.3	23	24.0	17	21.8
Total number of responses	70		86		96		78	
Number of post admission surveys	30		41		40		40	

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Table 7.31 Frequency of 'student' and 'course' factors perceived to have contributed to difficulties during second year (Group 3: MAHPBL)

	Cohort A (Second year 1999)		Cohort B (Second year 2000)		Cohort C (Second year 2001)		Cohort D (Second year 2002)	
Factors	n	%	n	%	n	%	n	%
Student	45	88.2	53	59.6	56	82.4	39	58.2
Course	6*	11.8	36*	40.4	12*	17.6	28*	41.8
Total number of responses	51		89		68		67	
Number of post admission surveys	26		41		29		35	

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
*significant difference between year levels
x^2=22.3; p=0.00; df =3

Table 7.32 Frequency of 'student' and 'course' factors perceived to have contributed to difficulties during third year (Group 3: MAHPBL)

	Cohort A (Third year 2000)		Cohort B (Third year 2001)		Cohort C (Third year 2002)		Cohort D (Third year 2003)	
Factors	n	%	n	%	n	%	n	%
Student	17	60.7	45	52.9	34	81.0	32	50.8
Course	11*	39.3	40*	47.0	8*	19.0	31*	49.2
Total number of responses	28		85		42		63	
Number of post admission surveys	14		37		20		35	

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*significant difference between year levels
x^2 =11.4; p=0.001; df =3

Table 7.33 Frequency of post-admission factors perceived to have contributed to difficulties during first year (Group 3: MAHPBL)

Factors	Cohort A (First year 1998)		Cohort B (First year 1999)		Cohort C (First year 2000)		Cohort D (First year 2001)	
	n	%	n	%	n	%	n	%
STUDENT								
1. Social factors	22	43.1	22	24.7	32	47.0	22	32.8
a. Juggling commitments	4	7.8	4	4.5	10	14.7	6	9.0
b. Accommodation problems	5	9.8	6	6.7	3	4.4	3	4.4
c. Health problems	3	5.9	6	6.7	6	8.8	5	7.5
d. Personal problems	5	9.8	2	2.3	10	14.7	7	10.4
e. Financial problems	5	9.8	4	4.5	3	4.4	1	1.5
2. Study factors	11	21.6	15	16.8	11	16.1	11	16.4
a. Poor study patterns	0	0.0	1	1.1	2	2.9	0	0.0
b. Poor time management and disorganisation	11	21.6	14	15.7	9	13.2	11	16.4
3. Psychological factors	6	11.7	2	2.3	10	14.7	4	5.9
a. Attitudes/beliefs	2	3.9	1	1.1	0	0.0	1	1.5
b. Motivation	4	7.8	0	0.0	6	8.8	3	4.4
c. Behaviours	0	0.0	1	1.1	4	5.9	0	0.0
4. Skills	3	5.9	5	5.6	2	2.94	0	0.0
a. Communication	0	0.0	0	0.0	0	0.0	0	0.0
b. Group work	1	2.0	1	1.1	1	1.47	0	0.0
c. Clinic/practical/manual dexterity	2	3.9	4	4.5	1	1.47	0	0.0
5. Transition factors	0	0.0	6	6.7	0	0.0	0	0.0
6. Knowledge	2	3.9	1	1.1	1	1.47	0	0.0
COURSE								
1. Adelaide dental course	2	3.9	21	23.6	12	17.6	20	29.8
a. Curriculum content, structure and process	0	0.0	5	5.6	1	1.47	0	0.0
b. Contact hours/timetabling	0	0.0	5	5.6	1	1.47	6	9.0
c. Workload	2	3.9	7	7.9	8	11.8	8	11.9
d. Unclear/demanding expectations	0	0.0	1	1.1	0	0.0	4	5.9
e. Assessment	0	0.0	1	1.1	0	0.0	2	3.0
f. Perceived poor quality teaching	0	0.0	2	2.3	2	2.9	0	0.0
g. Task difficulty	0	0.0	0	0.0	0	0.0	0	0.0
2. Negative student-staff interactions	4	7.8	6	6.7	0	0.0	6	9.0
3. Resources	0	0.0	9	10.1	0	0.0	2	3.0
OTHER RESPONSES								
No difficulties	0	0.0	2	2.3	0	0.0	0	0.0
No comment	1	2.0	0	0.0	0	0.0	2	3.0

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Table 7.34 Frequency of post-admission factors perceived to have contributed to difficulties during second year (Group 3: MAHPBL)

Factors	Cohort A (Second year 1999)		Cohort B (Second year 2000)		Cohort C (Second year 2001)		Cohort D (Second year 2002)	
	n	%	n	%	n	%	n	%
STUDENT								
1. Social factors	20	28.6	28	32.5	34	35.4	29	37.1
a. Juggling commitments	6	8.6	11	12.8	11	11.5	10	12.8
b. Accommodation problems	6	8.6	7	8.1	8	8.3	6	7.7
c. Health problems	3	4.3	5	5.8	8	8.3	4	5.1
d. Personal problems	5	7.1	5	5.8	4	4.2	6	7.7
e. Financial problems	0	0.0	0	0.0	3	3.1	3	3.8
2. Study factors	9	12.8	10	11.6	13	13.5	14	17.9
a. Poor study patterns	0	0.0	0	0.0	1	1.0	2	2.5
b. Poor time management and disorganisation	9	12.8	10	11.6	12	12.5	12	15.4
3. Psychological factors	10	14.3	11	12.7	6	6.2	5	6.4
a. Attitudes	0	0.0	0	0.0	1	1.0	0	0.0
b. Motivation	7	10.0	7	8.1	4	4.2	5	6.4
c. Behaviours	3	4.3	4	4.6	1	1.0	0	0.0
4. Skills	4	5.7	3	3.5	5	5.2	5	6.3
a. Communication	1	1.4	1	1.2	4	4.2	2	2.5
b. Group work	1	1.4	2	2.3	0	0.0	2	2.5
c. Clinic/practical/manual dexterity	2	2.9	0	0.0	1	1.0	1	1.3
5. Transition factors	10	14.3	10	11.6	12	12.5	4	5.1
6. Knowledge	2	2.9	3	3.5	1	1.0	1	1.3
COURSE								
1. Adelaide dental course	13	18.6	17	19.8	18	18.6	10	12.8
a. Curriculum content, structure and process	3	4.3	7	8.1	9	9.4	1	1.3
b. Contact hours/timetabling	4	5.7	5	5.8	3	3.1	3	3.8
c. Workload	0	0.0	2	2.3	3	3.1	4	5.1
d. Unclear/demanding expectations	3	4.3	1	1.2	1	1.0	0	0.0
e. Assessment	0	0.0	0	0.0	1	1.0	1	1.3
f. Perceived poor quality teaching	3	4.3	1	1.2	0	0.0	1	1.3
g. Task difficulty	0	0.0	1	1.2	1	1.0	0	0.0
2. Negative student-staff interactions	1	1.4	1	1.2	4	4.2	1	1.3
3. Resources	0	0.0	2	2.3	1	1.0	6	7.7
OTHER RESPONSES								
No difficulties	1	1.4	0	0.0	1	1.0	3	3.8
No comment	0	0.0	1	1.2	1	1.0	0	0.0

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Table 7.35 Frequency of post-admission factors perceived to have contributed to difficulties during third year (Group 3: MAHPBL)

Factors	Cohort A (Third year 2000)		Cohort B (Third year 2001)		Cohort C (Third year 2002)		Cohort D (Third year 2003)	
	n	%	n	%	n	%	n	%
STUDENT								
1. Social factors	10	35.7	25	29.4	25	59.5	23	36.5
a. Juggling commitments	2	7.1	9	10.5	7	16.5	7	11.1
b. Accommodation problems	1	3.6	1	1.2	2	4.8	3	4.8
c. Health problems	3	10.7	3	3.6	5	11.9	5	7.9
d. Personal problems	3	10.7	9	10.5	8	19.1	6	9.5
e. Financial problems	1	3.6	3	3.6	3	7.2	2	3.2
2. Study factors	3	10.7	14	16.4	7	16.5	4	6.3
a. Poor study patterns	0	0.0	2	2.3	1	2.3	0	0.0
b. Poor time management and disorganisation	3	10.7	12	14.1	6	14.2	4	6.3
3. Psychological factors	4	14.3	3	3.6	1	2.3	0	0.0
a. Attitudes	0	0.0	1	1.2	0	0.0	0	0.0
b. Motivation	3	10.7	0	0.0	0	0.0	0	0.0
c. Behaviours	1	3.6	2	2.4	1	2.3	0	0.0
4. Skills	0	0.0	2	2.4	1	2.3	0	0.0
a. Communication	0	0.0	0	0.0	0	0.0	0	0.0
b. Group work	0	0.0	1	1.2	0	0.0	0	0.0
c. Clinic/practical/manual dexterity	0	0.0	1	1.2	1	2.3	0	0.0
5. Transition factors	0	0.0	0	0.0	0	0.0	0	0.0
6. Knowledge	0	0.0	0	0.0	0	0.0	0	0.0
COURSE								
1. Adelaide dental course	8	28.6	20	23.5	6	14.2	17	27.0
a. Curriculum content, structure and process	0	0.0	7	8.2	0	0.0	1	1.6
b. Contact hours/timetabling	4	14.3	1	1.2	0	0.0	4	6.3
c. Workload	2	7.1	8	9.4	2	4.8	3	4.8
d. Unclear/demanding expectations	0	0.0	1	1.2	1	2.3	0	0.0
e. Assessment	1	3.6	1	1.2	1	2.3	6	9.5
f. Perceived poor quality teaching	0	0.0	2	2.3	2	4.8	2	3.2
g. Task difficulty	1	3.6	0	0.0	0	0.0	1	1.6
2. Negative student-staff interactions	0	0.0	13	15.3	1	2.3	9	14.3
3. Resources	3	10.7	7	8.2	1	2.3	5	7.9
OTHER RESPONSES								
No difficulties	0	0.0	0	0.0	0	0.0	1	1.6
No comment	0	0.0	1	1.2	0	0.0	4	6.3

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Table 7.36 A selection of verbatim student responses from post-admission survey: difficulties-social factors (juggling commitments, personal, health and financial problems) (Group 3: MAHPBL)

First-year students	Second-year students	Third-year students
72. Outside socialising	*61. Trying to lead a too active social life*	*80.Working too much made it seem like I never had a break*
36. Study was not my first priority due to other activities	*83. Withdrawing from usual activities due to change in living conditions/lifestyle*	*36.Combined stress at home and at uni*
6. Feeling tired all the time	*1. Part-time work*	*23. I was exhausted (mentally and physically) after a day at uni therefore had no energy to study at home*
3. Got sick a few times	*28. Being unwell during the semester*	*55. Own health problems*
12. Personal problems; self identity lost, lack of self esteem	*31. Unable to sleep*	*26. Depression - chronic*
47. Family situation	*5. Family problems*	*34. Family problems*
59. Differences of opinion/work ethic with other members of class	*55. Personal difficulties*	

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NB: the number alongside the quote denotes individual student code

Table 7.37 A selection of verbatim student responses from post-admission survey: difficulties-social factors (living arrangements) (Group 3: MAHPBL)

First-year students	Second-year students	Third-year students
22. Homesickness	*8. Being away from home*	*35. Living problems at college*
9. Living away from home	*75. Leaving Adelaide every holidays and having to pack up my room at college*	*13. Distracted by living arrangements*
92. Being away from home, having to travel back and forth each semester	*62. Living by myself with too many responsibilities*	*19. No money to buy references*
34. Travelling generally 2 hours per day	*13. Live too far away from uni therefore could not do group work or go to the library without a lot of difficulty*	*20. Financial insecurity*
67. Poor finances, unable to purchase and texts etc	*60. Financial worries*	*9. No income apart from some money parents send down each week*
18. Expensive printing and photostating charges	*12. Financial difficulties eg, for textbooks*	

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
NB: the number alongside the quote denotes individual student code

Table 7.38 A selection of verbatim student responses from post-admission survey: difficulties-study factors (poor time management and disorganisation) (Group 3: MAHPBL)

First-year students	Second-year students	Third-year students
55. Last minute cramming during swot vac did not work for me	*18. Disorganisation. Had a few sheets and handouts missing so when time came to study them I was in rush to photocopy other peoples*	*12. Not organised*
24. No regular revision	*19. Not enough revision throughout the semester*	*46. Lack or/poor time management*
79. Not completing work until near deadline	*11. Got behind at the start of the semester in neuroanatomy; never caught up; found it difficult*	*35. Leaving studying and assignments to the last minute*
55. If more time was spent on course work I may have had more success	*25. Time management (could have been more efficient if I had a proper time table)*	*10. Not enough time to fully learn or understand concepts before having to apply them in clinic*
10. Bad time management	*6. Not enough time for additional reading*	*18. Time allocated for examination prep – too short*
48. Keeping up with work (I was always behind) this was a major factors that influenced my marks	*34. Limited time to cope with workload*	*11. Time was not evenly distributed between subjects. I had to spend all available time on particular subjects sometimes at the expense of others*
33. Not starting assignments early enough	*42. Time management in semester 2 difficult*	
12. Barely keeping up with deadlines		

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
NB: the number alongside the quote denotes individual student code

Table 7.39 A selection of verbatim student responses from post-admission survey: difficulties-transition factors (Group 3: MAHPBL)

First-year students	Second-year students
44. Settling in initially	*25. Big change from previous year (1st year)*
14. Adjusting to new city and new friends	*34. New things to learn*
43. Unfamiliar with work, it's new	*33. Big leap*
49. Not having done biology in high school	
20. Coping with PBL	
39. Getting use to self-directed learning process	
19. Getting use to the different clinic and lab environments	
52 Adjusting from the transition of year 12 to university ie, theoretical work and hands on stuff	
70. Coming straight from school and having worked hard there I did not have the same motivation and desire to put in the huge hours like I had the year before	

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
NB: the number alongside the quote denotes individual student code

Table 7.40 A selection of verbatim student responses from post-admission survey: difficulties-knowledge and skills (Group 3: MAHPBL)

First-year students	Second-year students	Third-year students
5. Language problem	*35. Doing group work with class mates who didn't contribute much*	*29. Badly organised students in group work*
66. Communication skills	*17. My work skills eg, in practical works*	*2. Clinic – seeing patients for the first time*
3. Other members of class not being so devoted to studies as myself and other members eg, group work and people not attending meetings/tutorials	*10. Initial difficulties with cavity preps and using handpiece*	
21. Lousy clinical skills	*55. Gross anatomy a bit hard to visualise*	
8. Getting confused with ideas and concepts	*47. Understanding topics*	
61. Not being able to comprehend a lot of material in Human Biology lectures (some genetics)		

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
NB: the number alongside the quote denotes individual student code

Table 7.41 A selection of verbatim student responses from post-admission survey: difficulties-Adelaide dental course (Group 3: MAHPBL)

First-year students	Second-year students	Third-year students
74. Early morning lectures	*60. The workload of the course*	*25. Massive amount of knowledge required*
35. Too much pre-reading and extra resources	*47. What they wanted us to know and to what extent was not clear*	*25. Having exams that are not spaced apart*
15. Full time workload	*20. Not enough swot vac time, need a few extra days*	*12. Some lecturers were disorganised and presented lectures very badly*
9. Some aspects were not taught very clearly	*32. Contact hours (too tired to study after uni)*	*4. Self-directed learning in a group that did not work*
89. Human biology	*53. Long uni hours and finding it hard to do work after each uni day*	*51. PBL*
4. 1 week swot vac not enough	*26. Workload was more than first year. Not used to it.*	*14. Hard workload*
42. PBL/DLP	*55. The volume of work which was given especially semester 2*	*42. Expected to know everything*
76. Long contact hours	*47. Work too much*	*28. Long contact hours*
74. Early morning lectures	*20. Increased workload*	*39. Lots of contact hours and work to do at home*
68. Too many contact hours	*59. Too many things/workload to keep up with many topics from each subject overlaps and its rather hard to focus on what to study for each subject*	*14. Heavy workload*
40. Overcoming a heavy workload		*33. Too much information overload at one go*
50. A lot of assignments on the go at the same time		
8. Not knowing what was expected in terms of work and tests		

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
NB: the number alongside the quote denotes individual student code

Table 7.42 A selection of verbatim student responses from post-admission survey: difficulties-negative student-staff interactions (Group 3: MAHPBL)

First-year students	Second-year students	Third-year students
40. Discrepancies with certain tutors	*48. Different tutors have different ideas on what we are expected to do*	*47. Tutors – not very supportive*
78. Tutor (clinic) in semester 1 seemed very critical	*45. Criticism by clinical tutor without explanation of criticism.*	*21. Inconsistency between tutors.*
3. High expectations from tutors	*3. Some lecturers/tutors putting extra pressure on us*	*62. Not enough consistency in tutors*
	18. Poor tutors	*69. Dealing with different views of different tutors*
	70. Some highly biased tutors	*8. Some lecturers/tutors demanded too much*
	44. Different tutors – different opinions	*37. Facing picky, strict clinical tutors makes life very stressful and hard*
		24. Having bad clinic tutors
		50. Tutors who were hard nosed

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NB: the number alongside the quote denotes individual student code

Table 7.43 A selection of verbatim student responses from post-admission survey: difficulties-resources (Group 3: MAHPBL)

First-year students	Second-year students	Third-year students
76. and lack of computer facilities at Adelaide University during practical hours	*80. Poor notes given*	*68. Failed to attends in clinic*
69. Difficulties obtaining books from the library	*3. Lack of resource material in library (either missing or borrowed already)*	*81. Patients failing to attend clinics – I had less opportunities to gain valuable clinic experience*
16. Lack of resources in the library- amount of books	*81. No free photocopying*	*11. Lack of patients*
45. Finding past exam papers	*31. Poor quality notes given*	*2. Difficult patients*
	7. Lack of lab/clinic tutors	*59. Lack of good notes in some subjects*
	37. Finding past exam papers	*18. Missing resources from library*

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
NB: the number alongside the quote denotes individual student code

Table 7.44 A selection of verbatim student responses from post-admission survey: difficulties-'no difficulties' (Group 3: MAHPBL)

First-year students	Second-year students	Third-year students
75. Honestly can't think of any at moment *77. I could have done better but was fairly happy all things considered* *96. Overall I did not find 1st year too hard, am worried about clinical skills.* *34. No overly mentionable*	*39. Nil not much difficulties faced* *28. General academic difficulties but nothing major*	*19. None significant*

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
NB: the number alongside the quote denotes individual student code

Table 7.45 Characteristics of first-year students classified as 'higher' and 'lower' academic achievers who completed post-admission surveys (Group 3: MAHPBL)

	First-year Higher academic achievers		First-year Lower academic achievers	
	n	%	n	%
Number of post-admission surveys	96		55	
Gender				
Male	42	43.8	28	50.9
Female	54	56.2	27	49.1
Place of residence*				
South Australian	55	57.3	23	41.8
Other Australian	23	24.0	17	30.9
International	18	18.7	15	27.3
Previous educational experience*				
School leaver	57	59.4	40	72.7
Tertiary transfer	39	40.6	15	27.3
Course preference*				
Dentistry first preference	83	87.4	40	76.9
Dentistry second preference	12	12.6	12	23.1
Missing data	1		3	
Admission interview performance*				
Excellent rating	20	20.8	13	24.5
Good rating	53	55.2	22	41.5
Adequate/below adequate rating	23	24.0	18	34.0
Missing data	0		2	

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
* data obtained from source other than post-admission survey

Table 7.46 Characteristics of second-year students classified as 'higher' and 'lower' academic achievers who completed post-admission surveys (Group 3: MAHPBL)

	Second-year Higher academic achievers		Second-year Lower academic achievers	
	n	%	n	%
Number of post-admission surveys	88		43	
Gender				
Male	39	44.3	20	46.5
Female	49	55.7	23	53.5
Place of residence*				
South Australian	47	53.4	21	48.8
Other Australian	26	29.5	7	16.3
International	15	17.1	15	34.8
Previous educational experience*				
School leaver	54	61.4	29	67.4
Tertiary transfer	34	38.6	14	32.6
Course preference*				
Dentistry first preference	71	81.6	34	85.0
Dentistry second preference	16	18.4	6	15.0
Missing data	1		3	
Admission interview performance*				
Excellent rating	19	21.6	9	22.0
Good rating	46	52.3	24	58.5
Adequate/below adequate rating	23	26.1	8	19.5
Missing data	0		2	

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
* data obtained from source other than post-admission survey

Table 7.47 Characteristics of third-year students classified as 'higher' and 'lower' academic achievers who completed post-admission surveys (Group 3: MAHPBL)

	Third-year Higher academic achievers		Third-year Lower academic achievers	
	n	%	n	%
Number of post-admission surveys	67		39	
Gender				
Male	31	46.3	18	46.2
Female	36	53.7	21	53.8
Place of residence*				
South Australian	34	50.7	23	59.0
Other Australian	18	26.9	9	23.1
International	15	22.4	7	17.9
Previous educational experience*				
School leaver	39	58.2	30	76.9
Tertiary transfer	28	41.8	9	23.1
Course preference*				
Dentistry first preference	57	87.7	27	69.2
Dentistry second preference	8	12.3	12	30.8
Missing data	2		0	
Admission interview performance*				
Excellent rating	15	22.4	8	20.5
Good rating	35	52.2	23	59.0
Adequate/below adequate rating	17	25.4	8	20.5

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
* data obtained from source other than post-admission survey

Table 7.48 Average number of responses by students classified as 'higher' and 'lower' academic achievers (Group 3: MAHPBL)

	First-year students (1998-2001)		Second-year students (1999-2002)		Third-year students (2000-03)	
	Higher achievers	Lower achievers	Higher achievers	Lower achievers	Higher achievers	Lower achievers
	n	n	n	n	n	n
Factors relating to success	3.2	2.5	3.2	2.5	2.7	2.5
Factors relating to difficulties	2.1	2.3	2.2	1.9	2.0	4.4

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum

Table 7.49 Total number of responses to factors related to success and difficulties by students classified as 'higher' and 'lower' academic achievers (Group 3: MAHPBL)

	First-year students (1998-2001)				Second-year students (1999-2002)				Third-year students (2000-03)			
	Higher achievers		Lower achievers		Higher achievers		Lower achievers		Higher achievers		Lower achievers	
	n	%	n	%	n	%	n	%	n	%	n	%
Factors relating to success	303	59.5	137	52.5	285	59.6	106	56.4	180	57.9	96	52.5
Factors relating to difficulties	206	40.5	124	47.5	193	40.4	82	43.6	131	42.1	87	47.5
Total number of responses	509		261		478		188		311		183	
Number of surveys	96		55		88		43		67		39	

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum

Table 7.50 Pattern of responses by students classified as 'higher' academic achievers (Group 3: MAHPBL)

	First-year students (1998-2001)		Second-year students (1999-2002)		Third-year students (2000-03)	
Patterns of responses	n	%	n	%	n	%
Success						
Student factors only	51	53.1	54	61.4	42	62.7
Both course and student factors	40	41.7	31	35.2	24	35.8
Course factors only	5	5.2	3	3.4	1	1.5
Difficulties						
Student factors only	69	71.9	45	51.1	33	49.3
Both course and student factors	18	18.8	26	29.6	16	23.9
Course factors only	9	9.3	17	19.3	18	26.8
Total number of post-admission surveys	96		88		67	

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum

Table 7.51 Pattern of responses by students classified as 'lower' academic achievers (Group 3: MAHPBL)

Patterns of responses	First-year students (1998-2001) n	%	Second-year students (1999-2002) n	%	Third-year students (2000-03) n	%
Success						
Student factors only	37	67.3	31	72.1	26	66.7
Both course and student factors	14	25.4	10	23.2	11	28.2
Course factors only	4	7.3	2	4.7	2	5.1
Difficulties						
Student factors only	38	69.1	26	60.5	21	53.8
Both course and student factors	10	18.2	8	18.6	11	28.2
Course factors only	7	12.7	9	20.9	7	18.0
Total number of post-admission surveys	55		43		39	

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum

Table 7.52 Selection of verbatim responses from post-admission surveys of third-year students classified as 'higher' and 'lower' academic achievers: difficulties-Adelaide dental course (Group 3: MAHPBL)

Higher academic achievers	Lower academic achievers
28. Long contact hours	*33. Not directly relevant subjects*
15. Long hours at uni	*25. Having exams that are not spaced apart*
39. Lots of contact hours and work to do at home.	*8. Not understanding what examiners wanted in their answers*
14. Heavy workload	*30. Exams too close to each other*
52. Increase in workload especially prosthodontics	*21. Long hours*
53. Large amount of information which you had to grasp.	*20. Workload*
33. Too much information overload at one go	*27. Amount of work to do*
56. Heavy workload	*25. Massive amount of knowledge required.*
47. 3rd year pros – always in the labs	*63. Increased workload*
36. Too much clinical self-assessment based on grades ie. S, S+, U, B, E, G in clinics even on first attempt	*6. Lack of outlines provided by lectures and too much information too quickly*
45. Too much pressure during exams	*32. All work done individually. Responsible for own learning*
13. The disorganised exam timetables	*42. Expected to know everything*
20. A tight exam timetable end of last year	
5. Poor teaching	
10. Unorganised lectures	
12. Some lecturers were disorganised and presented lectures very badly	
51. PBL	

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
NB: the number alongside the quote denotes individual student code

Table 7.53 Entire sample of verbatim responses from post-admission surveys of third-year students classified as 'higher' and 'lower' academic achievers: difficulties - student-staff interactions (Group 3: MAHPBL)

Higher academic achievers	Lower academic achievers
47. Tutors – not very supportive	*21. Inconsistency between tutors*
53. Inconsistency among different clinic tutors	*62. Not enough consistency in tutors*
	60. Dealing with different views of different tutors
50. Tutors who were hard nosed	
3. Difficult tutors	*83. Adapting to different tutors requirements*
22. Tutors with narrow views/or generalised racism	*8. Some lecturers/tutors demanded too much*
23. Help form speaking with tutors	*24. Having bad clinical tutors*
10. Individual tutors opinion	*9. Tutor favouritism*
40. Tutor time	*61. Unorganised, poor tutors*
21. Poor lecturers/tutors	
82. Tutors telling me contradictory information, especially clinical tutors	
1. Mean tutors who only ever look for faults – however small and insignificant	
37. Facing picky, strict clinical tutors makes life very stressful and hard	
52 .Other tutors were or appeared critical or negative which is very discouraging and does not help you to do any better or learn anything new	
3. Dentistry feeling more like a school than a uni – students are not respected as equals	
16. Personality clash with tutor always felt stressed that I was not good enough and I was the one causing his problem	

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
NB: the number alongside the quote denotes individual student code

Table 7.54 Entire sample of verbatim responses from post-admission surveys of third-year students classified as 'higher' and 'lower' academic achievers: difficulties – resources (Group 3: MAHPBL)

Higher academic achievers	Lower academic achievers#
68. FTA's in clinic *77. Patients – FTAs. Our learning depended a lot on what we could do for our patients eg,I did not have to do a block until semester 2. Only did 2 amalgams and only cut 1 med-large cavity from scratch* *81. Patients failing to attend clinics – I had less opportunities to gain valuable clinical experience* *11. Lack of patients* *28. Had a lot of FTAs in the 2nd semester* *33. Seeing enough patients – FTA's and not much clinic time* *41. FTA's* *2. Difficult patients* *22. Patients expecting too much* *23. Confusion with co-payments and paper work* *5. Waiting for DA's and tutors in clinic* *40. Some receptionists are not helpful – difficult to be organised* *59. Lack of good notes in some subjects.* *39. Lecture notes not on MyUni before lectures – difficult to add lecture notes after lecture* *18. Missing resources in library* *9. Inaccessible resources*	

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
NB: the number alongside the quote denotes individual student code
#No comments made by low achievers regarding perceived difficulties with resources

Table 7.55 Selection of verbatim responses from post-admission surveys of third-year students classified as 'higher' and 'lower' academic achievers: difficulties-social factors (Group 3: MAHPBL)

Higher academic achievers	Lower academic achievers
Lifestyle	
71. Spending too much time with friends	*15. Work and other commitments*
73. Having too many extracurricular activities and interests to waste time on	*27. Excessive workload outside university*
80. Working too much – made it seem like I never had a break	*14. Sporting commitments*
5. Commitment to other activities	*3. Work late nights – tired*
32. Was still learning how to separate personal life from professional life	*5. Being so busy and juggling uni, work, sport and social life*
31. Spending time relaxing, working on farm and fitting in study	
50. The extracurricular activities that I was involved in still took up some time and distracted than study a little	
Health problems	
10. Too exhausted or swamped to get up energy or enthusiasm for final exams	*4. Being too tired when coming home from uni to do anything. Finding it difficult to motivate myself to study*
26. Depression - chronic	*55. Own health problems*
36.Combined stress at home and at uni	*57. Body conditions*
23. I was exhausted (mentally and physically) after a day at uni therefore had no energy to study at home	*14. Fatigue from spending holidays working/studying – not enough time off*
	15. Stress from family issues and partner away with his work regularly for months at a time
	17. Work all day Saturday or Sunday, very tiring
	4. Getting glandular fever halfway through year (just before mid-years)
	27. Sickness for a week
Personal problems	
7. Personal difficulties	*25. Relationship difficulties*
24. Family difficulties	*43. Girlfriend*
54. Personal problems	*49. Lack of close friends*
29. Family problems and being away from home.	*58. Lack of encouragement from relatives/friends*
30. Environmental issues that became emotional issues	*56. Age*
34. Family problems	*67. Lack of transport*
	76. Parent away working, had to take care of my younger brother and sister
	19. Family responsibilities (helping my siblings with homework etc)
	28. Distractions – relationship problems
Financial problems	
75. Not having enough funds to purchase textbooks	*1. Money, no time to work*
37.Financial problems	*19. No money to buy references*
9. No income apart from some money parents send down each week	*16. Need to find work during holidays particularly looking during exams*
	20. Financial insecurity

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
NB: the number alongside the quote denotes individual student code

Table 7.56 Examples of responses to post-admission survey completed across each of the first three years of the course by students classified as 'higher' or 'lower' achievers (Group 3: MAHPBL)

Higher academic achievers: factors that were perceived to have contributed to success and difficulties		
Year level	Success	Difficulties
	Cohort C: South Australian: female: school leaver: lived in the family home with parents/brother/sister	
Year 1	*45. Constant hard work during term and* *46. Trying to ensure understanding of a learning issue soon after it was introduced*	*44. Did not have a well balanced life unlike when I was at school* *45. Because of study I had to cut down on social and other activities therefore I became depressed and found it harder to deal with stress* *46. Anxiety about not being good enough*
Year 2	*34. Hard work* *35.Trying to make myself go out and socialise with friends more often so that I would have a good break from study and stay happier*	*32. Stress and depression* *33. Was sick during swot vac*
Year 3	*21. Relaxed a bit more and did less study – let myself sleep in on Sunday instead of getting up to study* *22. Made some great friendships* *A classmate who used to ring me up and transmit her stress and panic onto me took time off – it made my friendship better and I was no longer worried about how much work she had done compared to me*	*17. Work all day Saturday or Sunday, very tiring.* *18. I was put in the same group as a girl in my class for every clinic session, lab session, DLP group and separated from the rest of my friends – I hated this because it changed my friendship with the others and made me secluded from the rest of the group*
	Cohort A: other Australian: male: non-school leaver: private board on his own	
Year 1	*77. Keeping up with work* *78. Working well in prac sessions* *79. Taking time to relax out of class* *80. Background knowledge*	*51. Being away from home for first time*
Year 2	*49. Studying* *50. Science background* *51. Used to exam procedures*	*41. House work* *42. Living alone*
Year 3	*24. Past exams* *25. Help from other students* *26. Good lecture notes*	*20. Workload* *21. Long hours*
	Cohort D: international student: female: school leaver: student hostel	
Year 1	*29. Keep work up to date.* *30. Always present and participate in class lectures, learning labs and tutorials* *31. Make full use of library resources* *32. Helpful tutors* *33. Helpful class mates*	*20. Lack of consistency* *21. Lack of participation of other group members when working in a group* *22. Difficulty in getting together and reaching agreement in group work* *23. Difficult to get hold of useful resources from library (always out on loan)*
Year 2	*29. Consistent catch up* *30. Make sure knowledge is up-to-date* *31. Never miss important clinic/lab sessions* *32. Being independent*	*22. Inconsistencies between tutors* *23. Expectations unclear (in certain subjects)*
Year 3	*28. Able to put up with demand from the course* *29. Able to put up with demoralisation from tutors (some)*	*20. A tight exam timetable end of last year* *21. Transport to exam hall during semester exams*

MAHPBL: Multifaceted admission, hybrid PBL curriculum NB: the number alongside the quote denotes individual student code

Lower academic achievers: factors that were perceived to have contributed to success and difficulties		
Year level	Success	Difficulties
	Cohort C: South Australian: male: school leaver: family home with parents/sister/brother	
Year 1	*55. Studied my arse of in swot vac for biology. Biology being my worst subject* *56. The questions in the bio exam related to the sections of biology I focussed on* *57. LUCK* *58. Did not want to do 1st year again*	*54. Motivation* *55. Organisation*
Year 2	*40. Luck*	*36. Ability to study* *37. Poor time management* *38. Peer pressure* *39. Biochemistry* *40. Interest of lectures* *41. Long bus rides* *42. Have to get up early*
Year 3	*26. Examples of past questions*	*20. Lack of time* *21. Inconsistency between tutors* *22. Time spent at uni and travelling time = too little time to study at home or too tired*
	Cohort B: other Australian: male: tertiary transfer student: shared house with flat mate	
Year 1	*82. Hard work close to exam* *83. Ease of workload* *84. Introduction to the rest of my life*	*53. Failure to realise seriousness at beginning of course* *54. Had to fit in work with study/financial stability*
Year 2	*82. Mouth* (Yearbook) *book* *83. Certain textbooks* *84. Classmates* *85. Ability to study effectively (not quantitatively)* *86. Swot vac* *87. Dr X and my tutors*	*46. Long hours (but nothing already compared to last year)* *47. Finances – expensive on family* *48. Different tutors with different ideas*
Year 3	*66. Ability to not completely absorb myself in dentistry* *67. Being able to do other things with other people who have different interests* *68. Increased life experiences*	*54. Personal problems*
	Cohort C: international student: female: school leaver: family home with parents/sister/brother	
Year 1	*3. Studying hard* *4. Help from tutors*	*3. Not enough time to study in the evenings because we finished late on most days and reached home late* *4. 1 week swot vac is not enough*
Year 2	*2. Hardwork* *3. Study regularly* *4. Managing time between work and studies.*	*5 Lack of time to study sometimes due to work commitments*
Year 3	*1. Hardwork* *2. Organisation and good management*	*1. Lack of time to study sometimes due to work*

MAHPBL: Multifaceted admission, hybrid PBL curriculum
NB: the number alongside the quote denotes individual student code

Table 7.57 Factors that were attributed to difficulties by students that failed second-year dental studies (Group 3: MAHPBL)

		Student factors		Course factors	Total responses
Student	Social factors	Psychological factors	Study factors	Adelaide dental course	
1	1	4	2		7 (28.0%)
2	1				1 (4.0%)
3	2	1			3 (12.0%)
4	1			1	1 (4.0%)
5					1 (4.0%)
6	2				2 (8.0%)
7		1		2	3 (12.0%)
8	1		1	1	3 (12.0%)
9	1				1 (4.0%)
10	3				3 (12.0%)
Total	12 (48.0%)	6 (24.0%)	3 (12.0%)	4 (16.0%)	25 (100%)

Cohorts A to D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=10

Table 7.58 Sources of support during the early years (Group 3: MAHPBL)

	First year (n=121)				Second year (n=105)				Third year (n=93)			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%
Source												
Informal												
Dental students	80	66.1	41	33.9	71	69.6	31	30.4	66	74.2	23	25.8
Friends	63	52.1	58	47.9	53	52.0	49	48.0	45	50.6	44	49.4
Family member	49	40.5	72	59.5	46	45.1	56	54.9	38	42.7	51	57.3
Institutional												
Academic staff	45	37.2	76	62.8	38	37.3	64	62.7	39	43.8	50	56.2
Part-time tutor	6	5.0	115	95.0	7	6.9	95	93.1	11	12.4	78	87.6
Dental counsellor	3	2.5	118	97.5	5	4.9	97	95.1	2	2.2	87	97.8
Other												
Medical student; dentist – external; college tutor; partner	NA	NA	NA	NA	4	3.9	98	96.1	NA	NA	NA	NA
Medical practitioner; sister; partner	NA	NA	NA	NA	NA	NA	NA	NA	5	5.6	84	94.4
Missing data from each of above categories	NA		NA		3		0		4			0

Cohorts B, C and D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
NA = not applicable
Total sample size (n) is calculated across the row

Table 7.59 Patterns of seeking support during the early years (Group 3: MAHPBL)

Pattern of seeking support	n	%
All three years	67	79.8
One year		
First-year only	3	3.6
Second-year only	0	0.0
Third-year only	2	2.3
Two years		
First- and second-year	3	3.6
Second- and third-year	6	7.1
First- and third-year	3	3.6

Cohorts B, C and D, MAHPBL: Multifaceted admission, hybrid PBL curriculum
n=84

Table 7.60 Comparison of post-admission factors related to success and difficulties of Australian dental/tertiary students, as identified by the current study, and factors that may influence academic success from two large Australian studies

FACTORS	Post-admission factors identified by Adelaide dental students that related to success and difficulties	Factors that may influence tertiary student academic performance and attrition (Pargetter et al. 1998)	Factors that may influence the first-year student experience (Krause et al. 2005)
STUDENT	Study factors Study patterns Time management	Student psychological characteristics Academic preparedness (study skills; prerequisite knowledge) Learning strategies (studying; learning approaches)	Student background characteristics Approaches to study; obstacles to effective study
	Social factors Support* Lifestyle Living arrangements Financial issues Health issues Personal issues	Social factors Family and peer support Financial issues	Contextual factors: social and economic context Residential arrangements Financial arrangements
	Psychological factors Motivation Attitudes/beliefs Behaviours	Student psychological characteristics Students' own goals/goal commitment Academic motivation Locus of control	Student background characteristics Goals; commitment; course selection
	Transition factors#	NA	NA
	Previous experiences/academic preparedness*	Student psychological characteristics Prerequisite knowledge	Student background characteristics Previous study
	Skills Communication Group work Clinic/practical/manual dexterity Stress management*	NA	NA
	Knowledge	NA	NA

'success' factor only # 'difficulty' factor only

Table 7.60 continues on the following page

FACTORS	Post-admission factors identified by Adelaide dental students that related to success and difficulties	Factors that may influence tertiary student academic performance and attrition (Pargetter et al. 1998)	Factors that may influence the first-year student experience (Krause et al. 2005)
COURSE	Adelaide dental course Curriculum content, structure and process Contact hours/timetabling Workload Assessment Course objectives* Task difficulty Unclear/demanding expectations# Perceived poor quality teaching#	Institutional factor Nature of the course Teaching paedagogy (learning and teaching activities) Course expectations/ characteristics	Institutional factor Teaching and courses (goals and standards clear; workload; assessment; satisfaction with quality of teaching)
	Student-staff interactions	Institutional factor: Academic integration Out-of-class contact with staff related to academic activities	Institutional factor: Engagement patterns Engaging with academic staff Relationship to staff
	Resources	NA	NA

'success' factor only # 'difficulty' factor only

Chapter 8 Appendix

Table 8.1 Pre- and post-admission factors that influence tertiary student academic success derived from selected recent (2006-09) international studies

Study sample	Pre-admission factors	Post admission factors	Outcome variable	Statistical analyses	Reference
N=650 UK university students Single university, multiple courses	• Personality traits: NEO Five-Factor Inventory • Cognitive ability: AH5 Group test of High Intelligence (administered to students once admitted to the course) • A-level point score • Attendance	NA	• Degree percentage (final percentage point score at end of the program)	Hierarchical multiple regression analyses	Woodfield et al. (2006) [HE]
N=210-230 US college students Psychology course Year 1 students; semester 1	NA	• Course effort - study effort; course attendance • Outside activities - employment; social activities; family responsibilities	• Grades and cumulative Grade Point Average (final grade attained in course)	Correlation; Regression analyses; Path analysis Proposed a theoretical model	Svanum and Bigatti (2006) [HE]
N=193 Australian university students Economics course in one subject/unit in first year 2000	• Ability: previous academic achievement grades in English and legal studies in secondary school, amount of coaching in mathematics, English outside of secondary school classes • Socioeconomic factors: gender, age, Non-English speaking background	• Commitment – hours of study; number of tutorials attended • External factors – level of paid work, living arrangements (home, college, away)	• Final mark in the unit of study in question	Ordinary Least Squares (OLS) Regression modelling and risk prediction	Dancer and Kamvounias (2008)[HE]

NA: not applicable
HE: higher education

Study sample	Pre-admission factors	Post admission factors	Outcome variable	Statistical analyses	Reference
N=1451 Year 1 Dutch university students Longitudinal study which followed students from secondary school 2004	• Control variables: gender, socioeconomic variables, prior academic achievement, recommendation, level of secondary education	• Predictor variables: personal networks, social support • Mediating variables: achievement motivation, time spent studying and working, procrastination, self esteem • Control variables academic discipline age at commencement of university	• Academic attainment (attained a diploma and length of study)	Multinomial logistic regression	Eggens et al. (2008)[HE]
N=381 Year 1 Australian students Single university Health Science course 2000-05	• Factors related to student: age, gender, language spoken at home, indigenous status, type of secondary school, socioeconomic status, previous secondary school achievement, achievement on secondary school mathematics and English subjects course preference payment of university fees	• Factors related to institution: participation in mentor scheme type of degree	• Academic performance: Year 1 weighted average mark (academic performance was categorised) • Academic retention: proportion of students who proceeded to the following year	Logistic regression	Mills et al. (2009) [HE]
N=748 Year 1 UK university students Humanities and social sciences in 3 modules 2005-06	• Gender, prior educational attainment, age	• Place of residence • Student attendance	• Assessment in 3 modules eg, Marks >70% = 1st class	Pearson moment correlation coefficients Mann Whitney U tests	Newman-Ford et al (2009) [HE]

HE: higher education

Study sample	Pre-admission factors	Post admission factors	Outcome variables	Statistical analyses	Reference
N=594 UK medical students Single medical school 5 year undergraduate entry medical course	• Age, gender, ethnicity • Place of residence • If gap year was taken prior to medical course • Whether a previous tertiary degree was obtained • Previous educational achievement • Negative comments by head teacher's reference letter • Timing of the offer of a place in the course • Year-of-entry to the course	NA	• Years 1 and 2 preclinical performance • Year 3 clinical performance • Year 5 clinical performance • Aggregate mark from final year OSCE clinical skills examination • Academic performance was categorised into poor and good performance	Bivariate statistical analyses Logistic regression	Yates and James (2007) [M]
N=3585 National sample USA Physiotherapy students Graduate entry courses 200-04	• Age, gender, ethnicity • Previous academic achievement (college GPA) • Admission cognitive test achievement: Quantitative and Verbal Graduate Record Examination • Year-of-entry	NA	• Categorical rankings: Graduated on time Non-academic delay/withdrawal Suspension Dismissal Repeating the year due to poor performance	Logistic regression Estimated students at risk of poor performance	Utzman et al. (2007)[HE]

NA: not applicable
GPA: Grade Point Average
HE: higher education; M: medicine
OSCE: Objective Structured Clinical Examination

Study sample	Pre-admission factors	Post admission factors	Outcome variables	Statistical analyses	Reference
N=94 US dental students 4 year graduate entry dental course Single dental school 2001-05	• science GPA • overall science GPA • Dental Admission Test performance (Academic ability component and Perceptual ability component) • ranking of college that was previously attended • college academic load • Year 1 GPA as a predictor of cumulative GPA on graduation	NA	• Underachievers versus normally tracked students • 10 underachievers (lowest GPA at the end of Year 1) for each of the 5 graduating classes. These were matched to a control group of normally tracked students from the same 5 graduating classes. • Year 1 GPA • GPA on graduation	Bivariate analyses Multiple regression analyses	Curtis et al. (2007) [D]
N=373 Canadian students 4 year graduate entry dental course 4 x Dental Schools	• Academic achievement on Dental Admission Test • Structured interview performance • Personality Costa and McCrae's NEO-PI-R form S that assessed the Five Factor Model of personality	NA	• Weighted GPA in Year 1,2,3, 4 preclinical/didactic and clinical subjects	Correlation tests Hierarchical regression analysis	Poole et al. (2007) [D]

NA: not applicable
GPA: Grade Point Average
D: dentistry