# First year on campus

Diversity in the initial experiences of Australian undergraduates

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Craig McInnis Richard James

## Executive summary

International attention has turned to the importance of the early experiences of undergraduate students in mass higher education systems. The formative experiences of students are pivotal in establishing attitudes, outlooks and approaches to learning that will endure beyond the undergraduate years.

This project was commissioned by the Committee for the Advancement of University Teaching to examine the initial experience of on-campus undergraduates, with particular reference to the role and significance of the social context for learning. The project report is based on 4028 responses to a mid-1994 survey of students in seven institutions, case study interviews with 60 staff and 120 students, and a survey of all universities which explored the nature and range of activities directed towards first year students. The report looks beyond the effects of sheer numbers to ways of improving teaching in the face of greater diversity in the first year student population.

'Diversity' is commonly taken to refer to age, gender, place of living, ethnicity and socio-economic background. Such differences in the student population, however, are accompanied by a less visible diversity, one which finds its roots in family and educational backgrounds, values, attitudes and expectations. The expansion of participation has increased the critical mass for identifiable subgroups that were formerly significantly under-represented in universities. In this context, the notion of a mainstream of students is somewhat illusory. We believe that universities and academics are still to come to terms with the full implications of student diversity in higher education: the changing needs of the student population are not well-understood, especially with respect to motives, interests and academic abilities.

What do first year students these days expect of university when they commence their undergraduate studies? How do their initial experiences vary? How well do students adjust to the teaching styles and academic

demands of university? How have universities responded to the needs of greater numbers of students from diverse backgrounds?

For some students the transition to university represents a challenging hurdle, while for others it is an intimidating gulf. The overriding issue for universities in their responses to the changing first year student population is how to induct large numbers of students into the world of higher learning while meeting a wider range of student needs. More students now require assistance beyond what was once the norm. However, such support should not dilute the challenge of independent learning. Challenge — and a reasonable level of anxiety — are part of the journey towards intellectual independence.

The first year on-campus students we surveyed were generally positive in outlook. Most students expect and enjoy the opportunity for intellectual challenge. They are generally sure of their reasons for attending university, and have a strong desire to do well. Most students have clear aims, a strong sense of purpose and are not, as is often supposed, narrowly vocational. The overwhelming majority attach a good deal of importance to studying in fields in which they have an intrinsic interest.

However, the survey found many students had negative views of teaching, courses, and university. For example:

- Barely half the students surveyed found their subjects interesting.
- Only 53 per cent of students thought academic staff were enthusiastic about the subjects they were teaching.
  - Less than half thought that teaching staff were good at explaining things.
  - Only 41 per cent of students thought there was a positive attitude towards learning amongst their fellow students.
- Well over a quarter of the students worked in isolation from their peers and were not interested in extra-curricular activities.
  - Around 30 per cent of the students were negative enough during the first semester to seriously consider deferring.

What of the views of academics? Recent research conducted by the Centre for the Study of Higher Education has shown that the number of Australian academics who say they are dissatisfied with the academic quality of students has more than doubled since the late 1970s. More than 70 per cent of academics now believe students have become more

demanding of their time, and most feel students are lacking in purpose and application. The attitudes of some staff towards their first year classes — predicated on a 'sink or swim' notion of university education — are based on assumptions about the knowledge and skills possessed by students which are considerably less relevant in a mass higher education system.

These serious mismatches between student and staff views, while not unusual, should not be dismissed as perennial and beyond resolution. Improving teaching and learning will help to some extent, but students also need to be clearly informed of their responsibilities in the process. It is also essential that academics have a more informed view of the diversity in the backgrounds, needs and aspirations of their students.

We found that the attitudes of first year students towards university were associated with a range of background and contextual factors. For example:

- A number of differences emerged between males and females: females tended to have stronger academic orientation and application towards their studies, a stronger sense of purpose, and were more likely to be satisfied with their courses.
- The type of secondary school that students attended was associated with differences in their attitudes and their perceptions of university teaching and courses.
  - Students from homes where neither parent had been to university showed a stronger sense of purpose and application.
  - Students living in residential colleges were more positive about their university experiences.
  - Mature-age students generally reported more positive attitudes and experiences than school-leavers.

School leavers are a particularly problematic group of first year students across the system. They were relatively less certain of their roles than older students, less diligent in their study habits, and less academically oriented. Just over a third said they were not ready to choose a university course, two-thirds thought university was more demanding than school, and 45 per cent believed that the standard at university was higher than they had expected.

There is clear evidence from this study that the needs of first year students require improved teaching within existing contexts and resources. Considerable improvement of first year programs can be achieved simply and effectively by attention to some fundamentals of teaching. In particular, changing the way in which academics and students interact on a daily basis can be a positive step towards improving the quality of teaching and learning. Two practical issues for teaching staff are central: the need for early and clear communication of expected learning outcomes, and the provision of timely, diagnostic feedback. These and other issues at the level of the university classroom can be addressed most effectively by the application of well-established principles for effective teaching in higher education.

Student evaluation of teaching is one valuable outcome of the system-wide concern for quality and quality assurance which began during the late 1980s. This is a positive development, but there is a risk that in focusing attention almost exclusively on student perceptions of the quality of instruction, the significance of the total university experience is overlooked. The role of the social context of learning ought to be an essential consideration in strategic planning to improve the first year experience. Information on students' attitudes and experiences beyond the narrow parameters covered by course and subject evaluation questionnaires should routinely be collected, analysed and disseminated.

Australian universities are on the threshold of dissolving distinctions between on-campus and off-campus education. Open access and flexible course delivery are challenging assumptions about the ways in which courses and teaching should be structured. Nevertheless, the on-campus university experience for first year students provides learning opportunities that are not readily replicated by other structures and forms of delivery. The immediate cause for concern is that even amongst on-campus students, a large group, at least a third, are not particularly connected —academically or socially — to the university.

The value of students learning alongside one another — in the same place, at the same time — should not be underestimated. This is where a cultivating climate can be most effectively established, one that should have sustaining effects for lifelong learning well beyond the quality of instruction or curriculum design. Efforts to improve the first year experience should give attention to creating a positive academic and social environment outside the classroom.

## Part I

## The study and context

This report is directed primarily at academics and administrators who are responsible for improving the quality of teaching and learning at first year level. While its principal aim is to generate discussion at system and institutional levels, academics with a research interest in the first year experience, and higher education more generally, will no doubt find sections useful. To keep the report accessible to a broad cross-section of the university community we have attempted to keep technical discussions to a minimum. Details of statistical analyses are confined largely to an appendix. A full annotated bibliography and literature review forms a separate document.

The report is in four parts. This first section provides an introduction to the concerns which shaped the research, the details of the project which was undertaken, and a description of the demographic diversity of the students we surveyed. Part II looks at the findings for the sample as a whole, examining first year students' goals, expectations and attitudes towards university and their perceptions of teaching and courses. In Part III, the focus of the report shifts to variations between identifiable student subgroups — we look at how sex, age, background, social and economic context, course-type and institution-type are related to students' attitudes and experiences. Finally, Part IV presents our conclusions and recommendations for enhancing the first year experience.

### Chapter 1

#### The issues

Barely half the first year students surveyed in 1994 for this study found their subjects interesting, and slightly less than half said that staff were good at explaining things. Only 53 per cent had the impression that the academics who taught them were enthusiastic about the subjects they were teaching. Only 43 per cent agreed they got satisfaction from studying and over a third had given serious consideration to deferring in the first six months of their courses. These negative results are a rather stark reminder of the challenges facing those responsible for policy and practice at the first year level.

The picture of the first year experience is not straight forward, nor is it entirely gloomy. We found some of the survey results, and our discussions with first year students (and academics) perplexing and sometimes paradoxical. For example, a clear majority of students, 83 per cent, had a strong desire to do well in their subjects, but 53 per cent said they only studied the minimum of what was actually required by their teachers. Only 16 per cent believed it was important to choose subjects that improved their chance of getting top marks. Sixty-one per cent of the students enjoyed the 'intellectual challenge' of their subjects and two-thirds found their course stimulating, but only 40 per cent agreed that they enjoyed the theoretical content. And while they rated some key aspects of the teaching rather poorly, 66 per cent considered the overall quality of teaching to be generally good.

The first year of university has been marked out as an area of special interest since the 1950s in Australia. Each wave of expansion in student numbers has generated interest in the student experience, and, especially, concerns about the academic preparation and orientation of students and the quality of the cohort as a whole (Anderson and Western 1970, Little 1970, Beswick 1982, Williams 1982). However, the conjunction of recent changes — large numbers of students, diversity in backgrounds, the application of teaching technology, and flexible course delivery — has sharpened questions about the value of on-campus university education, the importance of the social nature of learning, the significance of student affiliation with the university, and the nature of the undergraduate degree. As an indication of the intensified interest, at least three international conferences will be held on the first year experience in 1995, and the OECD has just commenced a multi-country thematic review of the first years of tertiary education — Australia is the first country to be examined. In the United States,

research and annual conferences specifically on first year concerns are organised by the University of South Carolina which houses a National Centre for the Study of The Freshman Year Experience.

The first year is important for a number of reasons. Among them, the first year: is particularly vulnerable from the university perspective to external pressures; is a significant transition period for individual students — at all ages and stages; and is the meeting point for the curriculum of schools (and other providers) and universities. The first year is also crucial to the success of government policy aimed at making higher education more open and flexible. This is where the effectiveness of access and equity policy is first tested.

If, as our results suggest, large numbers of students are looking for a challenge, but finding university study unsatisfying and their subjects uninteresting, then closer examination is required. It may be that moderate levels of satisfaction are all that can be expected in a transition period. Alternatively, it might be argued that the quality of teaching at the first year level is far from satisfactory. Either way, the first year experience is problematic for both students and academics in ways that are distinct from the concerns and opportunities of later years.

In commissioning this project, the Committee for the Advancement of University Teaching was motivated in the first instance by the rapid growth of student participation levels in universities — perhaps the most significant change in Australian higher education in recent times. The number of students increased by 64 per cent in the decade 1982-1992. The most remarkable period of growth was the increase of 37 per cent over five years from 421 000 in 1988 to 576 000 in 1993. CAUT identified diversity in the first year student population as an issue for university teaching. In line with CAUT's mission to raise the status and quality of teaching and learning in universities, the project brief had the primary goal of identifying ways in which the first year teaching and learning environment for on-campus students could be enhanced.

The large number of students enrolling in university for the first time has challenged assumptions and expectations about the nature of the undergraduate university experience — assumptions that have their origins in the elite system of higher education some 30 years ago. The rapid expansion in numbers over the early 90s has been the last dash in a long period of transition. Alternative forms of delivering courses to large numbers of students, and innovations in teaching have occupied a great deal of discussion, but for the most part these initiatives have been responses to the immediate and obvious crisis of large classes. More fundamental issues are now being raised by perceived changes in the characteristics of the student population, and, in particular, the diversity in the population.

In later chapters we look more closely at the views of academics, but it is appropriate here to report some basic sentiments they share about their teaching role which were revealed by a 1993 national survey of academics (McInnis, Powles and Anwyl 1995) that provided some direct contrasts with a 1978 study (Anwyl and Bowden 1978). Dissatisfaction with the academic quality of students more than doubled between 1978 and 1993 (proportions of the sample who were dissatisfied were 18 per cent and 38 per cent respectively). Indeed, less than a third of academics in 1993 were satisfied with the academic quality of the students. Notable proportions of the 1993 sample indicated that their teaching effectiveness was hindered by having too many students (28 per cent compared to 11 per cent in 1978), having to cope with too wide a range of student ability (46 per cent compared to 21 per cent in 1978), and students' lack of interest in the subject (28 per cent compared to 9 per cent). These differences were highly significant statistically. Two further findings from the 1993 survey are worth noting: 70 per cent of the academic staff disagreed with the statement that 'students these days are less demanding of my time', and 74 per cent agreed that 'most students only study those things that are essential to complete the course'. On most questions, staff in the older universities were significantly more positive about the qualities of their students.

These sentiments about students, teaching, and the purposes of the university while not universally shared — run deep through the academic profession and, as we shall see, academic views on students contrast sharply with student perceptions of themselves. We see the central problem for teaching and learning in the face of diversity as one of aligning institutional goals with individual needs, balancing a necessary and healthy tension for students against the risk of the tension becoming dysfunctional and counterproductive. For academics, diversity in the mass higher education context creates tensions in terms of their basic sentiments about the purposes of the university. How to address the needs of students from a wide range of backgrounds while maintaining the higher order goals of the university has become a sharper question. For students starting their first degree, the problem of alignment also tests their values and goals, as well as their sense of efficacy. The problem for many of them starts with the gap between their expectations and the reality of university teaching, particularly in terms of their orientation towards instrumental outcomes. A key question with respect to students has to do with how much responsibility they should assume for their learning and the quality of their university experience.

We assumed from the beginning of this project that students of all ages and backgrounds need, enjoy, and indeed expect university to provide them with intellectual challenges. How well and widely these needs are met remains to be seen. The issue is

vital given the increasing tendency of universities to respond to diversity by offering bridging courses, study skills courses, streaming according to ability and accelerated paths as well. The cause of much dissatisfaction and frustration for both academics and students is the gap in their expectations and the reality of performance — on both sides.

Flexible course delivery through innovative use of technology has been strongly supported by government with a view to reducing costs and making university education more accessible. University expenditure on computer-based education and interactive multimedia has increased dramatically. The agreement between the Commonwealth and the Open Learning Agency of Australia (OLAA) in relation to the Open Learning Initiative is set to challenge the dominance of on-campus education over distance education. There is already some evidence of an increase in the proportion of students enrolling in both on-campus and off-campus subjects, as well as taking subjects from more than one university.

Under conditions of mass participation the social nature of teaching and learning becomes problematic. We assumed from the outset that the way academics and students treat one another, minute-by-minute as it were, is the primary contributor to the learning climate. We took the view that successful learning, and a positive view of the university experience overall, is unlikely to occur in a social vacuum. This is probably more important at the first year level than at any other time. Whether the low levels of social interaction which are exhibited by some students have an impact on their academic performance is not entirely clear.

Earlier studies of the first year experience in Australia have focussed on: the extent to which students adapt to university and their levels of satisfaction (Watkins 1982, Williams 1982, Williams and Pepe 1983); how students adjust to the larger social setting (Mitchell 1990); and issues of transition from school to university, especially approaches to learning (Elsworth et al 1982, Ramsden 1989). The development of performance indicators has involved the widespread introduction of direct measures of student evaluation of the quality of teaching (Linke 1991). Most studies rely on student perceptions alone and few address the relationship between the effectiveness of the learning experience and the broader factors that contribute to student satisfaction or to learning outcomes.

There are currently signs of some serious rethinking of the purposes of the first degree. A 1993 DEET/OECD conference on the transition from elite to mass higher education raised questions about the declining role of specialisation in the first degree and the implications for approaches to teaching and learning (DEET 1993d). Renewed interest in lifelong learning has been accompanied in Australia by a major review commissioned by the Higher Education Council (Candy, Crebert and O'Leary 1994). The review focussed on whether, and in what ways, undergraduate degrees can promote 'enabling characteristics' in graduates — defined broadly in terms of the skills, attitudes

and outlooks that allow students to take control of their learning for both vocational and personal development throughout life. In the United Kingdom there is debate around the need for higher education to 'reinvent itself'. In the United States, analysts are talking about the 'triumph of the master's degree' (Clark 1994) as the higher degree is transformed into specialised career preparation. Likewise, it is clear that in Australia some fields of study are moving towards a more generalist first degree and shifting specialist vocational preparation to the graduate level (McInnis 1994a). With increasing numbers of students taking higher degrees overall, the undergraduate course is becoming more generalist, and the sequences and prerequisites of course structures will be based on a different set of assumptions.

#### .c3.The First Year Experience Project in summary;

The core of this project was a student survey designed to explore the nature of the initial experiences of first year students and the extent and impact of diversity in student backgrounds. In addition, interviews provided personal accounts from both students and staff which informed the analysis of the survey data, and allows us throughout the report to let students and staff tell of their experiences in their own voices.

Finally, with the intention from the outset of offering recommendations to improve the first year environment on-campus, a national survey of institutional practices provided an overview of existing programs and practices. While the study did not include any systematic evaluation of the range of curriculum initiatives and student support programs which were reported to us, we were nevertheless able to gain a broadbrush impression of system-wide trends and directions.

Our approach in the report is to map the nature and extent of diversity in the student experience, beginning at the national level, then working through to variations at institutional and course level. We discuss demographic patterns in the first year population, the process of student affiliation and integration into university life, and students' experiences of teaching and learning.

### Chapter 2

### The project aims and design

The principal aim of the study was to examine student diversity in terms of its influence on the nature of the learning experience for first year on-campus students. The project was shaped by the six objectives listed below. The first two were related to investigating the diversity hypotheses of the project brief provided by the Committee for the Advancement of University Teaching, the remaining four addressed specific requirements of the brief:

- To identify the nature and extent of diversity in the first year student population within universities, courses and departments.
- To describe and analyse the nature and extent of responses of universities to the impact of diversity on the first year experience.
- To provide a rich description and analysis of the student experience and the social context of learning in the first year.
- To identify effective practices likely to enhance learning in the first year.
- To provide a set of recommendations and suggestions for improving the quality of the first year experience.
- To disseminate the findings of the project to the higher education community.

The project's design was influenced by a substantial pilot study and assessment of prior research (McInnis 1993) and by an ongoing literature search of appropriate policy documents, reports and studies, both from Australia and overseas. The focus throughout was on collecting and presenting information in a form which would be useful for policy and practice at all levels in the higher education sector.

#### The first year of university: A process of socialisation

We framed the research around the concept of the first year as a process of socialisation into the role of university student. The model of socialisation which formed a working framework for the study characterises the teaching-learning process as a two-way process — the student shapes, and is shaped by, the university experience. This theory of socialisation has been applied to studies of adolescent educational ambition, academic socialisation, professional socialisation, and family processes (White 1959,

Edgar 1975, Edgar et al 1993). In this model, the student is not simply a passive consumer but an active partner in the first year experience, with responsibility for making choices and commitments. It follows that a satisfying and rewarding university experience is not something that can, or ought to be, simply provided by universities, it relies on the contribution of students.

With this model in mind we identified a series of variables which we believed would influence, contribute to, and characterise the first year experience. These factors fall into three broad categories. First, there are the background characteristics and experiences which students bring with them to university. These characteristics influence students' behaviour, outlook and expectations of higher education and thus their initial perceptions of their experience and their levels of satisfaction. Second, there are contextual factors for students at university, such as accommodation and financial arrangements, which have an impact on such matters as study habits. Finally, there are the factors which are more directly within the influence and responsibility of universities, such as the curriculum and timetables which relate to the teaching and learning experience and students' levels of satisfaction.

We began the project with an explicit set of assumptions about the student experience and the nature and purposes of higher education. The principal aim of higher education, as we see it, is to promote intellectual independence in students as the basis for lifelong learning. We believe this will be achieved — and students will perform best and be most satisfied with teaching — when they are acknowledged as active learners whose previous knowledge and skills are recognised. The first year experience ought not be cognitively comfortable for students, not least because optimal levels of anxiety are valuable for effective learning. Similarly, we take the view that learning at university is, and ought to be, different from learning at school, especially in terms of the demands made on students to take responsibility for their learning.

Finally, the study was conducted in the belief that being at university is not just a preparation for life, it is a life itself and it is to be valued as such. We assumed that for most students, most of the time, this life is reasonably rewarding. Therefore, we did not devote particular attention to students with problems or special needs; we focused the research on the full range of students — successful students with a strong sense of institutional 'belongingness', those who experience alienation in their first year, and the group somewhere in between.

#### The research components

The research for the First Year Experience Project involved three major components which will be described in detail in the remainder of the chapter.

- We investigated student diversity and the first year experience by inviting seven universities to participate in case studies. In these universities:
  - i. A random sample of first year students stratified by field of study was surveyed by questionnaire.
  - ii. Interviews were conducted with students and staff in selected courses and subjects.
- To review the policies and practices of universities, a national survey of institutions sought information on current and proposed curricula, innovations and support programs relevant to the first year.

#### The seven case study institutions

At the time of the study there were 37 universities in the Australian Unified National System. Seven institutions were identified as representative of the system as a whole and invited to participate in the project. All accepted the invitation. Since this is not intended to be a comparative study we have elected not to identify institutions by name, with their agreement. Instead, we describe the broad characteristics of each so that the essential flavour and significance of the institutional type is emphasised.

**New University** was created to serve a large industrial suburban region of a capital city. Though still small, campuses are being established in growing satellite suburbs. *New University* has a limited range of courses compared to more established institutions and aims to increase access to higher education for groups which have been under-represented in the past. Its students are ethnically diverse — over half the students speak a language other than English in their homes — and many have entered higher education after relatively low levels of achievement in secondary school.

In contrast, *Established University* is a large and old university. It is located principally on an inner city campus, although after recent affiliations it now embraces a number of smaller campuses as well. *Established* offers a wide range of disciplines, including high status professional programs. School-leavers dominate the profile of the highly competitive first year intake, and the student population is consequently younger than other universities of the study.

With origins in the expansion of higher education in the 1960s, *Suburban University* now has a well-formed profile. Its main campus is located on a large and leafy outer metropolitan site and, following mergers, there are also smaller campuses,

some in rural areas. *Suburban* is a mid-sized university with a wide range of courses, but does not offer a full suite of professional programs.

*International University* is another well-established university. Its main campus is located in the suburbs of a major city, and, after a series of amalgamations, it is now multi-campus. This university has a large student population and is known for research and development in a broad range of areas. It includes medicine and law among the wide range of courses offered. Large numbers of overseas students, especially from Asia, contribute to the student mix.

Distance education and a rural location are the most obvious features of *Regional University*, a medium size university. Since the first site was established in the 1950s, *Regional* has developed a specialised, though small, range of courses. With campuses in rural areas, almost all students live on or near campus.

The *University of Applied Studies* had its origins as an institute of technology and it retains a reputation for practical courses and applied research. Recognised as a university in the late 1980s, *Applied* is medium to large in size, offering courses in many professional areas. *Applied* aims for strong industry-education links. On most measures of student diversity, *Applied's* student population is fairly typical of the national profile of first year students as a whole.

Consolidated University is a relatively new university, established by merger in the 1990s. The history of its campuses, however, goes back much further. Consolidated is large, well known for vocationally oriented programs, and particular emphasis is given to access policies. Though courses are not offered in all professional areas, a wide range of programs are nevertheless available. Consolidated attracts a large proportion of mature-age students to its first year courses.

#### The student survey

A sample of first year students across the seven institutions was surveyed by questionnaire at the conclusion of semester one 1994. This time was chosen in the belief that by this stage students had had sufficient experience on which to base their judgments, and that the experience of the previous year was not too distant for those who were school-leavers. The project timeline did not allow for a later survey. The survey aimed for a high response rate by using a questionnaire of reasonable length, good design, and a systematic series of mailouts and reminders.

To obtain a representative sample our aim was to survey about 20 per cent of the first year intake of each institution, stratified by field of study (a more detailed explanation of the sampling procedures can be found in Appendix B). This procedure

resulted in the questionnaire being mailed to 7122 students. Each institution performed the random selection of students and mailed the survey. Reminder letters enclosing a copy of the questionnaire were sent to students who had not responded. With this approach, the project was able to achieve an overall response of 4028 — a response rate of 57 per cent — with a high of 65 per cent at *Established University* and a low of 39 per cent at *Consolidated University*. We believe the level of response to be more than adequate for the study's purposes, notwithstanding institutional variations which were beyond our control. We suspect that with an unprecedented level of evaluation going on in education in general, students are being confronted with many requests to complete questionnaires, and research of this kind will increasingly encounter 'questionnaire fatigue'. The low response rate at *Consolidated University* may also be attributable to its high proportion of part-time students.

The First Year Experience Questionnaire (FYEQ) was constructed largely around five point scale items. To gain a picture of diversity, it sought demographic information on students' backgrounds and their residential, travel and financial arrangements while at university. As well, we asked a series of questions regarding students' academic goals and their expectations of university. The items we used drew on earlier studies by Anderson et al (1975), Walker (1980), Williams (1982) and McInnis (1993).

In addition to this background information, the FYEQ sought information on students' attitudes and experiences during their first semester of university; in particular, the match between their expectations and their experiences, their usage of university services and facilities, their study habits, and their views of courses and teaching. The questions relating to courses and teaching were a reduced and revised version of the widely used Course Experience Questionnaire (Ramsden 1991). On the basis of the experiences of a 1992 University of Melbourne study (McInnis 1993), we structured the course and teaching items to have a focus of specific relevance to first year students. Further questionnaire items were suggested by the project's advisory and steering committees, as well as by senior staff from some of the case study universities. School-leavers were also asked to complete a short series of questions on transition issues, including the extent of family support.

The data was analysed using SPSS. Factor analyses were conducted on selected items to explicate the underlying dimensions. From this analysis, seven scales were developed — academic orientation, academic application, sense of purpose, student identity, teaching, workload and course. Student diversity on these scales was explored using MANOVA. Appendix B contains further details.

#### Case study interviews

To complement the questionnaire data, interviews were conducted between May and July 1994 with staff and students in a generally representative sample of courses and departments. In each institution we focused our interviews around two courses or subjects, in one university we also interviewed the staff and students of two residential colleges.

The courses and subjects were selected to cover a mix of disciplines, intake sizes, and entry scores. Overall we looked at a wide range of first year courses, including architecture, law, engineering, arts, education, science, commerce and health sciences, and a similar range of subjects, among them, history, mathematics, economics, accounting, law, English, and languages. The faculties and departments arranged the meetings with both staff and students and while we had no control over their sampling we are confident that overall the range of people we interviewed gave us sufficiently representative insights. In total, approximately 60 academics and 120 students were interviewed. At *Regional University*, with a high proportion of students living on or near campus, our interviews concentrated on life in the residential colleges.

We interviewed students in small 'focus groups'. We asked them about their courses and the teaching, their priorities, preferences and preoccupations in relation to learning, their interpretation of the tasks set, the value they place on the work, the difficulties they have and the learning strategies they employ. Our interviews with staff tended to be with individuals, though in some cases they were conducted with focus groups. We sought staff perceptions of changing patterns in attitudes and behaviour among first year students and the influence of these, if any, on their curricula and teaching. We investigated staff opinions of students' goals, the changing purposes of the first degree, and their roles as teachers. Many departments and staff provided us with documentation of their activities and reports of their own investigations during recent years.

#### National survey of university responses to diversity

A survey of all universities began in late 1993. We sought basic information, initially at management level, on such matters as the range of student backgrounds in courses, the services provided to first year students, processes of orientation and induction, and progress rates. The survey took the form of a letter to each institution that requested the names of appropriate contact people, data about the nature and extent of student diversity in courses at the first year level and the responses, past and projected, of the universities and faculties. We were conscious of the demands being made on universities for survey data and made it clear that we were only seeking readily

available information. For this reason the data collected were far from uniform in breadth and depth, and we no doubt missed some major activities within some universities.

The institutional survey provided information on special arrangements or innovations such as bridging courses, outreach programs, study skills courses, and support networks. It also produced documents on changes or innovation in course structures, curriculum content, assessment practices, objectives and the organisation of teaching and learning at the first year level.

### Chapter 3

### First year students: Diversity on campus

More Australians than ever before are now likely to experience university at some time in their lives. University teachers, according to the courses in which they teach and the campuses on which they teach, encounter varying student mixes— mature-age and part-time students, female students in traditionally male-dominated areas, students from socio-economically disadvantaged backgrounds, students from non-English speaking backgrounds, overseas students, Aboriginal and Torres Strait Islanders, and, not least, students from families with little or no experience of higher education.

The implications of a possibly more diverse undergraduate intake in terms of age, sex, ethnicity and educational backgrounds provided the impetus for this project. The demographic and enrolment trends in undergraduate commencers in Australia have been reported and widely discussed (Anderson and Vervoorn 1983, Beswick 1982, Williams et al 1993, DEET 1995). While the expansion in the number of undergraduates in recent years has brought changes in the student population, other trends have been in evidence for some time. For instance, the proportion of females enrolling in undergraduate education has been rising consistently since the early eighties, accelerated by the inclusion of nurse education courses in 1987. Women first became the majority of undergraduate commencers in 1985, by 1994 they represented 56 per cent of commencers. The number of overseas full-fee paying students has risen considerably, female overseas students now outnumbering their male counterparts. Notwithstanding these changes, the proportions of the major subgroups within undergraduate commencers have remained much the same over the last decade. The key point with respect to diversity and expansion, as we noted in Chapter One, is that the number of students in each of the enrolment categories and subgroups has increased to the point of becoming problematic in various ways within particular institutional and course contexts.

Given the considerable differences between Australian universities in their range of course offerings, the regions from which they draw students, and the extent to which they attract students' first preferences, we expected that the first year populations of the seven universities which were chosen for study would show distinctive demographic and enrolment features. Our survey incorporated a series of questions to gather details of the backgrounds of the sample. We asked respondents to report their age and sex, as well we asked a set of questions on their ethnicity and socio-economic background, such as birthplace and parents' birthplace, language spoken at home, the level of parents education, and the type of school attended. In addition to this background information, we also sought details of students' university lives: their enrolment load (full-time or part-time), course type, and residential and financial arrangements.

The information students provided offers insights into the large variations between the first year intakes of the seven case study institutions, reflecting the differentiation of Australian universities. As well, the figures show sizeable variations in

the sample according to students' field of study. We report these contrasts in this chapter to make the simple point that student diversity, as measured in sex, age and background characteristics, can take on quite distinct meanings in different locations and different courses.

#### The sample overall

Of the 4028 first year students who responded to the survey, 71 per cent were students aged 19 years or younger and 63 per cent were female (see Table 3.1). Most of the students in our sample were born between 1975 and 1977 and started school in the early 1980s. The majority entered university straight from secondary school, two-thirds completing a Year 12 certificate or comparable in 1993. Though there is no single accepted definition of a mature-age student, about one-third of the respondents could reasonably be thought of as mature-age students.

Table 3.1 Respondents by age and sex (%)

Female	Male	All students
63.5	36.5	70.9
58.0	42.0	16.9
58.2	41.8	5.1
67.8	32.2	7.2
62.6	37.4	100.0
	63.5 58.0 58.2 67.8	63.5 36.5 58.0 42.0 58.2 41.8 67.8 32.2

Two-thirds of the sample succeeded in gaining enrolment in the course of their first preference. Eighty-nine per cent of the students were enrolled in single bachelors degrees, a further eight per cent in combined degrees, and two per cent in undergraduate diplomas. Overall, 92 per cent of respondents were full-time students. *Consolidated University* had the lowest proportion of full-time students, at 73 per cent of the sample. In all other universities, however, over 90 per cent of the sample were full-time, to a high of 98 per cent in both *Established* and *Regional* universities. The overwhelming majority of students in this sample — 94 per cent — were contributors to the Higher Education Contribution Scheme (HECS). Only five per cent were overseas students paying full fees.

#### Variations between the universities

The diverse enrolment patterns of Australian universities are illustrated by the selected demographic characteristics of the respondents which are shown in Table 3.2. The variations are sizeable. For example, the proportion of students 19 years and under, whom we assume were school-leavers, ranged between 86 per cent at *Established University* and 43 per cent at *Consolidated University*. With regard to place of birth, the proportion of Overseas-born students in this sample was as low as 14 per cent in *Suburban University* and as high as 40 per cent at *International University*; furthermore, a language other than English was spoken in over half of *New University*'s students' homes, but in only 13 per cent of the homes of students at *Regional University*.

**Table 3.2** Selected demographic means of respondents by institution (%)

	Full-time enrolmen t	19 years and under	Born oversea s	LOTE spoken in home	Attende d indepen d.	Attende d Govt. school
					private school	
Regional	98.1	63.5	16.3	13.3	15.5	66.3
Established	97.5	85.7	22.0	29.2	40.6	36.9
International	96.3	77.2	39.9	45.5	26.3	51.0
Suburban	91.9	74.2	14.0	24.4	18.3	58.9
New	91.9	69.6	28.2	50.7	12.5	56.7
Applied	90.6	66.2	19.6	18.1	20.8	55.3
Consolidated	73.1	43.3	18.1	18.5	17.0	64.2
All respondents	92.1	70.9	22.3	27.8	23.6	53.5

On indirect indicators related to students' socio-economic background there were marked differences between the universities in this sample. The type of secondary school attended provides a useful example. On the basis of our sample, independent private schools provided 41 per cent of the first year intake at *Established University*, but only 13 per cent of *New University's*. Government schools, on the other hand, were attended by 66 per cent of first year students at *Regional University*, but by only 37 per cent of those at *Established University*. Another factor related to socio-economic profile is the proportion of students receiving Austudy (Table 3.3). Austudy was the principal income source for 27 per cent of first year students at *Established and International* universities, compared with 44 per cent at *Suburban University*, and 54 per cent at *Regional University*.

Table 3.3 Principal sources of income by institution  $(\%)^*$ 

	Family	Austudy	Part- time work	Full- time work	Savings	Loans
Datablish ad	FF 1	27.2	26.0	1.1	F 0	1 5
Established	55.1	27.3	26.0	1.1	5.0	1.5
International	48.6	27.1	24.9	2.5	6.0	2.0
Regional	41.0	53.5	9.4	0.3	8.9	4.2
Applied	36.2	30.0	32.8	7.3	3.8	2.2
Suburban	35.4	44.1	25.6	4.2	5.8	2.8
New	34.8	43.0	27.1	5.2	6.4	1.5
Consolidated	25.1	31.6	25.1	21.6	3.3	2.3
All	40.9	34.9	25.7	5.4	5.3	2.2
respondents						

<sup>\*</sup> These figures are based on the sources of income which students reported were their only or main means of financial support. Percentages for each item do not total 100 because students may have reported more than one principal source.

#### The University of Applied Studies

On the basis of our sample, each of the universities in the study had first year on-campus student populations which set them apart from the others. We wish to draw attention to some of these differences. The *University of Applied Studies* was reasonably close to the whole sample on most demographic indicators. *Applied's* respondents differed from the sample as a whole to the extent that they were less diverse ethnically as measured by parents' backgrounds and language spoken at home (a language other than English spoken in 18 per cent of students' homes, versus 28 per cent in the sample overall) and there was a somewhat larger proportion of older students (34 per cent aged 20 years or over, 29 per cent overall). Females comprised 61 per cent (versus 63 per cent overall), 80 per cent were Australian-born students (versus 78 per cent), 55 per cent attended government schools (versus 54 per cent), and 91 per cent were full-time students (versus 92 per cent).

#### Consolidated University

The most notable characteristic of the first year sample at *Consolidated University* was the spread of ages. As Table 3.4 shows, compared to the sample overall, *Consolidated* had a smaller proportion of school-leavers — only 43 per cent of the sample were 19 years of age or younger — but a high proportion, one-quarter, of students aged 30 years or older. With older students, the proportion of students with dependents is likely to be high; 19 per cent of *Consolidated's* first year students had one or more dependents, whereas this was the case with only 6 per cent of the sample as a whole. Since matureage students also tend to be part-time students, it is not surprising that 27 per cent of the *Consolidated* students who responded were part-timers, compared to 8 per cent of the sample overall. Furthermore, the fact that this first year group was older on average explains in part why the proportion with parents holding university degrees was

smaller than in other institutions. Seventy-eight per cent reported that neither parent had a degree, compared with 64 per cent overall (see Table 3.6 to follow).

Students at *Consolidated* were predominantly from government schools (64 per cent versus sample mean 54 per cent). Fifteen per cent of the sample at *Consolidated* were enrolled in an external subject as a component of their first year studies.

Table 3.4 Respondents' age by institution (%)

Institution	19 years	20 to 24	25 to 29	30 years
	and under	years	years	and over
Established	85.7	10.4	2.0	1.9
International	77.2	15.3	3.6	3.9
Suburban	74.2	12.8	6.7	6.4
New	69.6	18.3	6.4	5.8
Applied	66.2	20.7	5.7	7.4
Regional	63.5	24.5	4.9	7.1
Consolidated	43.3	23.3	8.5	25.0
All	70.9	16.8	5.1	7.2
respondents				
respondents				

#### Established University

The bulk of first year students at *Established University* were school-leavers and studying full-time. *Established* students were the youngest group, with 86 per cent of students 19 years of age or younger. Combined degrees are popular at *Established University*; 20 per cent of its first year students were studying for two degrees, well over double the proportion elsewhere. As Table 3.5 shows, students from independent private schools made up 41 per cent of the respondents at *Established* (24 per cent nationally), while students who attended government schools comprised 37 per cent of first year students (54 per cent overall).

**Table 3.5** School background of respondents by institution (%)

Institution	Governmen t school	Independent private school	Catholic school	Overseas school
Regional	66.3	15.5	16.0	2.2
Consolidated	64.2	17.0	16.3	2.5
Suburban	58.9	18.3	21.1	1.7
New	56.7	12.5	26.2	4.7
Applied	55.3	20.8	20.9	3.1
International	51.0	26.3	17.9	4.8
Established	36.9	40.6	19.2	3.3
All respondents	53.5	23.6	19.7	3.1

We can conclude from our sample of *Established* students that attending university was less likely to be an unexpected or unfamiliar experience for the students and their families than it might be in the other institutions. As Table 3.6 shows, respondents from *Established University* were more likely to have parents who had completed university studies than students in the other institutions — 26 per cent reported both parents as degree holders.

**Table 3.6 Parents' education by institution (%)** 

Institution	Neither	Both parents	Father only	Mother only
	parent with	with degree	with degree	with degree
	degree			
Consolidated	78.0	7.5	10.6	3.9
New	76.7	6.2	12.1	5.0
Suburban	68.7	12.1	12.5	6.7
Applied	66.9	11.7	15.0	6.3
Regional	65.6	12.8	11.9	9.7
International	54.2	23.7	17.3	4.7
Established	49.0	26.3	17.1	7.6
All	63.5	15.7	14.4	6.4
respondents				
•				

#### New University

In line with its mission, *New University* has strategies for increasing access to higher education for groups who have been under-represented in the past. In terms of entry score, access to most of the courses at *New* was relatively easy in 1994. Less than half the respondents (46 per cent) were studying the course of their first preference, whereas the sample average was 67 per cent (Table 3.7). Students in the sample at *New* were more likely to be immigrants or the children of immigrants; 61 per cent and 67 per cent of *New* students had mothers and fathers respectively who were born overseas, the highest proportions among the seven institutions studied (Table 3.8 to follow). In particular, the *New* sample had a large group of Vietnamese-born students, 12 per cent of the *New* respondents overall. Just over half the students spoke a language other than English in their homes, against the average of 28 per cent for the whole sample.

Table .c5.3.7 Proportion of respondents in course of first preference and proportion who hoped to change course, by institution; (%)

	% in course of	% who hoped
Institution	first	to change
	preference	course
Consolidated	77	10
International	75	15
Regional	71	18
Established	69	20
Applied	68	19
Suburban	58	23
New	46	21
All students	67	19

The parents of *New* students were among the least highly educated of the parents of the students in the sample. Over three-quarters of respondents came from families in which neither parent was a university graduate (Table 3.6). As noted earlier, *New* students were less likely to have attended private schools (13 per cent). However, there was a tendency for more of these students to have attended Catholic schools.

For most students sampled from *New University*, commencing first year was not associated with a major disruption to lifestyle — 82 per cent had not moved house and 73 per cent remained living with their families.

#### Suburban University

Despite also being situated in a multicultural city, 86 per cent of the students in the sample from *Suburban University* were born in Australia, the highest proportion in the sample (Table 3.8 to follow). One reason is that *Suburban* enrols fewer full-fee paying overseas students than other universities in the study. But this is only part of the story, since the parents of *Suburban* students also tended to be Australian-born compared with the sample overall, though this tendency was less marked.

*Suburban's* student population had a high proportion of school-leavers. As Table 3.7 indicated, *Suburban* students, similar to those of *New University*, were less likely to

be studying the course of their first preference (58 per cent compared with 67 per cent overall). Compared with *New*, however, more of *Suburban's* students had moved residence to commence first year, largely from within the same city (11 per cent) or from rural areas within the same state (16 per cent).

# Regional University

Regional University was an important inclusion in this study because well over half of its first year students live in residential colleges, and most others live near campus in rented accommodation of some description. Only five per cent of students in our sample lived with their families. Though most of Regional's students were living in residential colleges, they were somewhat older than the rest of the sample, an indicator of the decline in school-leaver enrolments at Regional in recent years. For our sample, sixty-four per cent were aged 19 years or younger, and one-quarter were aged 20 to 24 years. Almost all students, 98 per cent, were enrolled full-time.

Regional draws its students from rural areas with less ethnic diversity — 84 per cent of the students were Australian born, only 13 per cent of students reported a language other than English being spoken at home (Table 3.8), and students' parents were more likely to have been born in Australia (73 per cent and 72 per cent of mothers and fathers respectively). Regional had the highest proportion of respondents who had attended government schools, at 66 per cent. Paid part-time work is harder to come by in a regional university than it is in the city — part-time employment provided the principal source of income for only 9 per cent of the group. Most respondents relied on Austudy (54 per cent) or their families (41 per cent) for financial support.

#### International University

Access to most courses at *International University* is highly competitive. As Table 3.8 illustrates, *International* had the highest proportion of students who were born overseas, 40 per cent, and, like *New University*, the majority of students had parents who were born overseas. The ethnic mix was complex, with large groups from Hong Kong (eight per cent), Malaysia (six per cent) and Indonesia (two per cent). Consequently, the proportion of full-fee paying students was high, 11 per cent.

Only *Established University* had a higher proportion of students aged 19 years or younger than *International's* figure of 77 per cent. Like *Established's* first year students, there was a substantial group (24 per cent) whose parents both held degrees.

**Table 3.8 Respondent ethnicity by institution (%)** 

Institution	Students born overseas	Students' fathers born overseas	Students' mothers born overseas	LOTE spoken in home
			Overseas	
International	39.9	62.7	61.2	45.5
New	29.2	66.5	61.4	50.7
Established	22.0	45.5	41.5	29.2
Applied	19.6	34.7	30.3	18.1
Consolidated	18.1	37.5	36.8	18.5
Regional	16.3	28.5	26.9	13.3
Suburban	14.0	37.5	34.4	24.4

All	22.3	43.7	40.6	27.8
respondents				

# Field of study variations

Not only does our sample highlight the demographic differences between the first year populations in Australian universities, it also points to the substantial variations which are to be found between courses (Table 3.9). We coded student course type according to the ten field of study classifications used by DEET. For four of these fields of study the total number of students was low so we decided to report them in a category titled 'other' (see Appendix B for more details). We added a category of our own, 'combined degrees', because we believed it inappropriate to classify students in these programs according to one or other of their two areas of study. Although there are some limitations to the data by field of study (again, see Appendix B), some general observations are possible.

Table 3.9 Selected demographic details of respondents by field of study (%)

	Female	Male	19 years	Full- time	Australia
			and under		n born
Arts	73.2	26.8	67.4	91.3	81.9
Business	53.2	46.8	64.5	85.0	69.7
Education	81.2	18.8	73.6	95.6	90.1
Engineering	18.1	81.9	77.6	96.4	58.2
Health	79.7	20.3	64.4	89.3	78.7
Science	57.8	42.2	77.8	96.7	76.2
Combined degree	56.8	43.2	82.7	96.7	76.2
Other	54.4	45.6	68.0	90.9	81.5
All	62.6	37.4	70.8	92.1	77.7
respondents					

There were substantial differences within the sample between fields in the balance of the sexes. These were along familiar lines. In both Education and Health courses, four of every five first year respondents were female. In the category Arts/Humanities/Social Science ('Arts' hereafter), 73 per cent were female. Elsewhere these patterns were reversed: male respondents were predominant in Engineering, comprising 82 per cent of the Engineering sample overall.

Business/Administration/Economics ('Business' hereafter) also had a somewhat higher proportion of males than other fields of study, although the majority of students (53 per cent) were still female.

Age variations across the fields were not as marked. There was a tendency for school-leavers to be concentrated in Science, Engineering, and Education. Mature-age students were more likely to be found in Arts, Business and Health. Arts and Health both included substantial numbers of respondents aged 30 years and over — 11 per cent and 12 per cent respectively.

Sizeable variations were found between the fields of study with regard to ethnicity. Using the indicators of student birthplace, parental birthplace, and language spoken at home, Engineering students were the most heterogenous ethnic group. Nearly half the Engineering students (48 per cent) reported speaking a language other than English at home. Though a majority of students, 58 per cent, were born in Australia, 32 per cent were born in Asia. This was due in part to the presence of overseas students — 14 per cent of Engineering students were full-fee paying. Business courses also appeared to have more pronounced ethnic mixes. The other disciplines showed smaller variations from the national picture. Students in Education courses were considerably less diverse in their place of birth than other student groups seventy-eight per cent of the sample as a whole were born in Australia, compared with 90 per cent of Education students. The proportions of Education students with mothers or fathers born in Australia were well above the sample mean, and a language other than English was spoken in 16 per cent of homes, considerably less than the overall mean of 28 per cent. Teaching is still a career for upward social mobility. Fewer Education students had fathers who had completed university degrees: 23 per cent of students in Education courses reported that this was so, compared with 31 per cent nationally. The pattern was also true of mothers' educational background, but less

pronounced. Education courses also had the highest proportion of students who had attended government schools, 63 per cent, compared with 54 per cent of the sample overall. Business students were similar to Education students in these respects, albeit less markedly. In terms of parental education, students in Business courses had fewer university educated parents than the group as a whole, though the proportion attending Independent Private secondary schools was comparable.

### Institutional and course diversity

The seven universities which were used as case studies are illustrative of the differentiation of the Unified National System as a whole. Notwithstanding an overrepresentation in the sample of females, full-time students and school-leavers, the patterns which we have reported are indicators of the differing and uneven student mixes which are to be found on particular campuses and in particular courses. Since the formation of the Unified National System there have been reservations about the declared view of government that it would '... promote greater diversity in higher education' (Dawkins 1988:28). It was widely argued at the time of the reforms, and more recently with respect to the national quality processes, that institutional uniformity would be the most likely outcome of restructuring. The student profiles in our case study institutions, however, indicate considerable variation at the level of the institution and course. Indeed, even on this small sample of universities, the patterns reinforce the conclusion of a recent analysis that 'the universities within the Unified National System differ from each other on so many characteristics that it is not possible to obtain simple clusterings for the majority of universities' (Stanley and Reynolds 1994:336). Whether this translates into diversity of goals and outcomes is another issue.

While patterns at the institutional level are important for university-wide planning of support and enrichment services, the student mix within courses is especially significant when it comes to the classroom and the teaching and learning experience. This is where 'the rubber meets the road', where the experiences and skills of the students meet with the expectations of the academics who teach them. Given that demographic contrasts between institutions can be sharper when it comes to courses, the question is whether, and in what way, these variations in student backgrounds influence teaching and learning.

# Part II

# The first year experience

We have structured the three chapters of this section around seven attitude scales which were derived from the FYEQ. In each of these chapters we report the key findings for the student sample taken as a whole — in Part III we go further by breaking these overall figures into patterns for identifiable student subgroups and variations by course and institution.

In Chapter Four the focus is on students' motives for commencing higher education; we examine their reasons for enrolling and the clarity of their goals, as indicated by our 'sense of purpose' scale. For the school-leavers in the sample, we also look at the transition from school to university. In Chapter Five we investigate the findings on three scales which relate to the processes of becoming integrated into the university environment: 'student identity', that is, the extent to which students feel that they are suited to university; 'academic orientation', the intellectual challenge they experience in their subjects; and 'academic application', an indicator of the extent to which students work hard and are motivated to do well.

Finally, in Chapter Six we report on students' perceptions of the teaching they had experienced, their assessment of the workload during first semester and their satisfaction with their course overall, according to three corresponding scales. In each of these chapters we also report the comments of students and staff we met in interviews.

# Chapter 4

# Getting started at university: Gap or gulf?

The process of becoming a university student begins well in advance of the offer of a place. For most school-leavers who go on to university, the senior secondary years were focussed around the prospect of attending university. Most can articulate clearly why they want to go to university. As the likelihood of getting into university increases subject choices and approaches to study are determined accordingly. Students aspiring to university take on habits and values of which many are barely aware. Despite being a relatively more commonplace event, 'going to university' still means a lot for most Australian families. Likewise, mature-age students often contemplate university study for some time before taking the plunge. Browsing through course guides, discussions with friends, family and those who have been in similar situations, is part of a process of engagement, leading from vague interest to serious application, and the beginnings of an identity as a university student. The power of this anticipatory socialisation is easily underestimated. For most students identity formation is well-advanced by orientation week.

Quite obviously, students beginning university for the first time experience many social and personal changes. Their experience of transition is influenced by a complex array of personal and social background factors mediated by the organisational culture of the particular university. We have resisted the temptation in later chapters on student backgrounds to explore the data for insights into broader social trends. While important and interesting in themselves, such changes are considered in this report only to the extent that they are likely to have a reasonably direct impact on learning. Drawing the line however is not always so simple. Almost all of a student's attitudes and behaviours can be shown to connect in some way with their experience of learning at university, but, keeping to our brief, we have focussed on the factors that might usefully inform university policy and the practice of teaching. That includes raising awareness of the student motives, values and outlooks.

In 1993 two academics from the Victoria University of Technology wrote a leading letter to the Melbourne *Age* newspaper on the problems of teaching first year students from diverse backgrounds. Their main concern was the gulf between school and university confronting staff working with student populations where language

difficulties and poor study skills are more common. As the academics pointed out 'a large body of students are proceeding to university without a clear understanding of tertiary culture' (Hamilton and Trewhella 1993:16).

The gaps or gulfs, as the case may be, are obvious to both academics and students from the very first weeks at university. This chapter focuses on the experiences of students in our sample as they commenced university study. We look especially at the reasons the students gave for going to university, their sense of purpose as they commenced their degrees, and the adjustments they had made to cope with the academic demands of the university. The views of the students are juxtaposed against a range of academic staff perspectives on the beginning student.

# Reasons for enrolling

The motives of students have long been considered important influences on the way they approach university study. Students were asked in the FYEQ to rate the importance of seven reasons for enrolling at university (Table 4.1). A clear majority of the sample identified four reasons in particular that influenced them: studying in a field of interest (94 per cent); improving job prospects (84 per cent); developing talents and creative abilities (74 per cent); and training for a specific job (73 per cent).

**Table 4.1 Reasons for enrolling (%)** 

Reason	Not at all importan t				Very importan t
Studying in field that really interests me	0	0	5	15	79
To improve my job prospects	2	3	11	26	58
Developing talents and creative	2	5	20	34	40
abilities					
To get training for a specific job	4	6	18	29	44
The expectations of my parents or	33	19	23	17	8
family Few other opportunities because of the poor job market	34	22	26	11	7
Being with my friends	49	22	18	7	3

These patterns have changed little from those reported in earlier surveys (Anderson et al 1975, Beswick 1982). The peak of the higher education expansion in 1991/92 coincided with a high rate of youth unemployment, and, as a consequence, there has been a widely held view that many students were at university primarily because the alternatives, the dole and boredom, were not particularly attractive. In clear contrast, Table 4.1 shows that only 18 per cent of the current sample saw the lack of employment opportunities as an important factor in their decision to go to university. The survey results basically confirmed the impressions we gained from interviews with students — there appeared to be a reasonable level of commitment among first year students towards the university as a place of learning for its own sake, and for personal growth balanced against vocational goals.

# Sense of purpose

Having a clear sense of purpose upon enrolling for university is an advantage for students. Williams (1982:70) argued that results on a similar 'goal direction' scale showed 'a statistically significant difference between the responses of first year students who passed most of their courses, and those who discontinued before the end of their first year. Students who succeeded had clearer objectives' (1982:70). Table 4.2 shows responses to a group of four items — three directly from Williams — which were developed for the 1994 survey to examine the extent to which the students had clearly formed objectives, with 'I am clear about the reasons I came to university' most strongly representing the underlying sentiments of the scale. Students who score high on this scale could reasonably be assumed to be confident in approaching university study, although they may not necessarily be oriented towards the academic goals of the university. On self-rated academic performance, students who reported average marks of above 70 per cent also rated higher on clarity of purpose.

**Table 4.2** Sense of purpose (%)

	Strongl				Strongl
	y disagre				y agree
	e				
I am clear about the reasons I came to university	3	7	16	30	44
I know the type of occupation I want	10	11	18	26	36
University is just marking time while I decide my future	49	23	17	8	3

Contrary to stereotypes of aimless first year students, Table 4.2 shows that almost three-quarters of the first year students were clear about the reasons they came to university. Sixty-two per cent came to university knowing the type of occupation they wanted, and the same number believed that university would help them achieve their goals. A clear majority, 72 per cent, rejected the notion that they were simply marking time at university while looking for something else to do. It is worth emphasising that 49 per cent *strongly* disagreed with this statement.

#### From school to university

The large sub-sample of school-leavers (71 per cent) completed a section of the FYEQ which focussed on comparisons between their experience at school and at university, and shifts in patterns of support from home. A large proportion of the school-leavers (45 per cent) believed that the standard of work expected at university was much higher than they expected. A substantial majority (64 per cent) agreed that 'studying at university is more demanding' than at school. Student perceptions of the academic links between school and university were not very positive, and while their responses depend on whether they were pursuing the same or a related field of study, only 36 per cent agreed that their 'final school year was a very good preparation' for the university study they were doing. The students divided along similar lines in response to the item 'the subjects at university clearly build on my study at school' — 34 per cent agreed and 37 per cent disagreed.

The problem in transition mentioned frequently by students was the abrupt shift to personal responsibility for managing their learning; as one student said 'At school you get looked after, teachers put pressure on you to do the work on time, here it's up to you'. Some students at *Regional University* were quite frank about their initial difficulties adjusting to the academic demands: 'school was a lot more structured', 'nothing at uni is a cakewalk', 'I'd never written an essay more than 3 or 4 pages — now it's 10 pages!', and 'They use words you've never heard of. . .'.

For some students at *Applied University*, being thrown in at the deep end was a common experience:

In the first few weeks of the year nothing seemed to be happening, then all of a sudden you have an assignment for this subject, at the same time as one for that subject. And these are worth 40%! I would have liked some small assessment before the big essay.

Nevertheless, students were happy managing their own learning rather than being compelled to complete work in which they were not particularly interested. Many students we interviewed across the universities clearly enjoyed the fact that the workload can be 'user-defined', you can '... do as much or as little as you like', 'In Year 12 there is pressure on you to do work, here it's your responsibility', 'The work they give you here doesn't count for anything — but I do it'. Others seemed a little let down: they thought university would be more intense, more academic.

We came across mixed messages in relation to the differences between school and university. Many students were unsure about a number of issues, and the high

proportion of neutral responses on some questionnaire items tends to confirm their lack of certainty. We were struck by the number of students at both *New* and *Regional* universities who referred to university as 'school'. Indeed some students we interviewed could not identify significant differences between life at school and life at university. They enjoyed the freedom of university, (being 'allowed to leave the gates'), the spare-time, the absence of rigid pattern and were conscious of the responsibilities they had for their personal organisation. But university was not what these groups of students expected and, to their disappointment, it turned out to be an extension of school. One student said, with a mixture of regret and cynicism, 'the teachers at my old school would say *If you go to university you will really feel alive*. . . then I get here and it's nothing'.

As one school-leaver said: 'Last year at school you knew how you were going, what you were expected to do, this year it's not like that'. Having a clear understanding of academic expectations at university is an important element in successful academic adjustment for all students, not just school-leavers. Only a slight majority of the sample as a whole believed that staff 'made it clear from the start what they expect from students' (55 per cent) and that the aims and objectives of the subjects for which they were enrolled were made clear (56 per cent). A similar proportion (54 per cent) agreed they had a clear idea of where their course was going. On each of these three items, over a third of the students were neutral in their response. It seems reasonable to conclude that about 45 per cent of students were not confident about what was required of them, or of the direction they should take.

### Academic adjustment

The most common issue by far in our discussions with academics concerned the ability of first year students to cope with their subjects in terms of the standards required, the style of teaching and learning, and the level of difficulty. When asked what they found most challenging about the first year thus far, students in one focus group mostly cited orientation issues such as acquainting themselves with the services and with the library, all of which happens under pressure: 'I remember doing the library course but I still don't know how to use a lot of the things in the library'. The timetable had many students confused, 'I thought you had to go to all those tutorials and I was packing it. Someone told me you only had to go to one. Oh!' But sometimes the unintended consequences of the confusion can be positive:

I had no idea what the timetable meant. I stood there on the first day and said to the person next to me 'Do you know what this means?'. And they didn't know either, so I'm still friends with that person now . . .

Gaining a sense of the expectations and standards is a critical issue for first year students in first semester, particularly in the early stages when many students feel insecure; school-leavers are coming to grips with new standards and searching for new benchmarks of achievement, mature-age students are uncertain of what is expected of them and where they stand in relation to their peers. A common concern of all students was along these lines: 'I didn't know what I should be looking for, I wasn't sure of the direction I should be taking'. One complaint from students was to do with the wait until the end of first semester, and beyond, to receive an indication of standards and their own progress:

For me, you know where you are going when you get that first piece of assessment back. Then you get a bit of an idea where you stand in relationship to other people and if you have a clue as to what the subject is asking of you.

Just over a quarter of all students (26 per cent) found it 'quite difficult' to comprehend the material they were studying, 30 per cent were not sure or neutral, and 44 per cent did not have difficulty. Almost half the students, (47 per cent), said they did not have 'difficulty adjusting to the different style of teaching at university', 30 per cent had some difficulty.

Nowhere are these gaps and concerns more obvious than in mathematics which is the area frequently cited as providing evidence of the inadequate preparation of many first year students. Box 4.1 describes the situation in one Faculty of Engineering from the perspective of staff and how they have responded to the difficulties.

### Box 4.1 First Year Engineering — The problem of mathematical skills

In a first year Engineering course typically around 10-15 per cent of students drop-out in first semester. In all, only 50 per cent of the intake pass first year, about 25 per cent of the cohort will repeat. Staff attribute the difficulties which students experience to a number of factors, including deficiencies in specific knowledge and skills (particularly in mathematics and physics, though staff note that students' general knowledge is satisfactory), poor initial progress, and ineffective approaches to study for a university environment. Some staff take the view that students are too 'spoon-fed' at school, and consequently cannot adapt to the rigours of university, and the management of their own study. One of the main problems, in the view of staff, is that students lack fundamental mathematical skills — a problem laid at the feet of the school curriculum. In response, a third semester of mathematics has been implemented, an intensive January through March program, to provide an opportunity for students who are unsuccessful in mathematics in both semester one and two. Even with this initiative, the pass rate in first year mathematics was only 60 per cent in 1993.

Student use of support services designed for those with adjustment difficulties was much lower than we expected. Just over 13 per cent of our sample had used counselling services at some stage, and only 3 per cent used them often. Only 6 per cent had used study skills assistance often, although 20 per cent had made some contact. English language support services were used by 6 per cent of the students. The use of these services is discussed in Chapter Five.

# **Staff perspectives on the beginning student**

We made the point in the first chapter that the way in which academics and students treat each other minute by minute is a key indicator of the learning climate. If these interactions are based on incorrect or inappropriate assumptions about student motives, attitudes and outlooks, then it is unlikely to be productive or satisfying for either party. We have therefore included here, and at the conclusions of the next two chapters, some of the perspectives staff expressed in the case study interviews.

The results of a national survey of academics (McInnis, Powles and Anwyl 1995) allow us the opportunity to contrast the responses of academics and students on some matching items. Just over half (53 per cent) of the academics agreed 'there is a far greater range of abilities in classes these days' (only 17 per cent actually disagreed). A clear majority of academics (70 per cent) believed that the students are now more demanding of their time. In contrast to the responses of students reported earlier, academics generally saw students as lacking purpose. While 74 per cent of students said they were 'clear about the reasons they came to university', only 30 per cent of

academics believed they were. Likewise, while 72 per cent of students disagreed with the statement that they were marking time, only 46 per cent of academics disagreed. On a slightly more positive note, 40 per cent of academics believed that 'most students see the university experience as worthwhile in itself'.

In the case study interviews we found a similarly high level of consensus across institutions and departments in academic's perspectives of students. There were also some major differences. There were variations within departments which on occasion surprised staff who realised for the first time that they did not have a shared view of student abilities and attitudes. Some academics thought many students were uncertain about the nature of university, '. . . sometimes they come to university not too sure how intelligent they are meant to be' and at *Established University* one academic did not see her role as managing student's lives:

I think students are less capable of self-management than they were three or four years ago. They look to us here when they first come in, in the first semester, to try to manage their time, and we won't and we don't.

According to one staff member of *New University*, even students with reasonably high scores in the VCE need to adapt to new expectations. At the other end of the scale, those with low scores often believe that they should not be at university at all and have strong feelings of inferiority:

The challenge for me is getting them to feel that they belong, that they have a valid contribution to make to what we call the 'university'. A lot of them really don't think they are clever enough.

Another academic was less sympathetic. He felt that students of the past were 'more aggressive at learning' (seen as a positive quality) but now they were 'laissez faire' and 'expect to pass'. They are 'weak on concepts' and 'expect to dictate terms' — 'When it comes to standards, it's not acceptable'.

Again in contrast to the overall student responses, a number of staff at *Established University* referred to students' lack of purpose, 'most students don't quite know what to expect of university', 'many are still shopping', 'they are not sure what they want to do academically'. One academic responsible for advising students on subject selection and changes, noted to his surprise an increasing number of students who 'check with mum and dad before changing subjects'. Another believed that some students 'fall into' science because they don't know what else to do.

Adjustment: Whose problem?

We started the project with the assumption that most students were happy most of the time during the initial period of adjustment, positive in their orientations and purposeful in their approach to university. That is basically what we have found, in both the case studies and in the survey.

Understanding the aspirations and expectations which students bring with them to university is an essential step in facilitating their academic adjustment. We do not suggest that the transition ought to be comfortable and without challenge or an appropriate level of anxiety. Too much of the work done on the first year experience is based on observations about students from the clinical samples in counselling and study skills centres. We are in fact concerned that too much intervention can be a bad thing. Students want — and, we believe, need — a good dose of 'benign neglect', but in a positive and demanding environment where expectations are high and realistic (Musgrove 1970).

Many adjustment problems simply amount to basic misconceptions that could be remedied by better communication from universities and departments. It is one thing for students to be challenged or to have their anxiety raised to an optimum level, it is quite another for academics to work on the basis of a 'sink or swim' approach to course management. We got the impression, from the classroom experiences described by students, that the higher order goals used by some academics to justify their unwillingness to provide clear teaching aims is based on a thinly disguised lack of interest in teaching and students. For other academics who leave students floundering from the outset, the explanation is less offensive — they are simply well-intentioned but less than competent teachers.

We encountered courses where the staff were so focussed on attempting to cover an already overloaded curriculum that they had structured the student timetable to the exclusion of other development. The extent to which this overload exacerbates adjustment problems cannot be assessed by this study but it is certainly a big and perhaps unnecessary contributor.

There is a strong and growing view, in the face of mass participation, that initial adjustment difficulties for students will persist unless universities intervene to provide support early in the first year. We are not convinced that this is so, or that the forms of intervention currently favoured are necessarily the most effective. Our data suggests that a very small proportion of students make use of support services. Longitudinal research at Rutgers University indicates that weaker students who are supported by special programs have more persistence and perform better than students with similar academic profiles who do not (Schroder 1990). In contrast, Teichler makes the point that, 'Multi-variate analyses of college impacts suggest that students' achievement is to a

lesser extent determined by the conditions and provisions on the part of higher education institutions, programs, teaching styles, etc. than by ways the students act during their period of study' (1994:12). In the next chapter we consider the issues of student integration and involvement in university life, particularly the social patterns of their behaviour.

# Chapter 5

# Being at university: Academic integration and involvement

Improving university teaching at the first year level requires more than finding novel ways of delivering material, revising the curriculum, or fine-tuning assessment practices. These and other strategies will have greater impact if they are developed with an understanding of ways in which students are integrated into the university, and involved in their learning (Astin 1985, Tinto 1987). As we said at the outset of this report, we take the view that students are, and ought to be, active participants in the process of learning. It is also true that institutions, academics and peer groups create diverse cultures or subgroups with shared norms and values that can enhance or undermine this active participation. In other words, these socially shared values and behaviours can form distinctive learning climates which set the boundaries for student success and satisfaction.

In this chapter, we look at the early stages of students' integration into the university and field of study. There are patterns of diversity in the ways students initially connect with the university, and the extent to which they begin to take on academic and social norms. We consider in particular the sense of identity students develop, their orientation to academic study, and the extent to which they apply themselves to their academic work. In addition to the major dimensions of integration and involvement, we examine diversity in student study habits and attitudes and we also explore the uncertainties that students face through their thoughts about deferment. We return to the issue of diversity in the patterns of integration and involvement in Part III, where we consider the significance of social backgrounds and current circumstances in the student experience.

### **Student identity**

Students who are positive about their sense of place at the university, and who see themselves firmly in the role of student, are said to have made a 'comfortable entry' to life on campus (Williams 1982:63). A series of items on the FYEQ were developed to identify variations in student sense of identity. These were based on a similar scale used by Williams which he called 'Sense of Belongingness'. We should explain, for those familiar with the Williams' terminology, that we believed the extent to which individuals see themselves as students was conceptually more central than 'belongingness' to the process of integration and involvement.

The four items in Table 5.1 need little or no explanation. It could reasonably be assumed that students who score highly on this scale see themselves as becoming well-integrated into university life and are feeling good about it. Conversely, students who score low can be seen as somewhat distanced from the university, and perhaps feel let down because it has not matched their expectations.

**Table 5.1 Student identity (%)** 

	Strongl y disagre e				Strongl y agree
I really like being a university student	3	5	18	33	40
I think that university life really suits me	4	11	36	29	20
I really like the atmosphere of campus	5	11	30	31	23
University just hasn't lived up to my expectations	26	32	25	11	7

A clear majority of students in the sample (73 per cent) really liked being university students, and only a very small minority (8 per cent) were negative by the end of the first semester. Fewer of the students were sure about whether university life suited them. We got the impression that the notion of a university 'life' — distinctly more elite in its origins — was not readily embraced by many students. Indeed, highly instrumental, vocationally-oriented students may well have a negative view of the 'student life' as a leisurely and unproductive existence. Liking the 'atmosphere' of the campus is also derived from sentiments particularly appropriate to the elite era, and although 54 per cent agreement is hardly overwhelming endorsement, there were nevertheless some important institutional differences on this item.

There were quite large numbers of students who had not made a strong transition to the role of student and were not committed to the university by the middle of the first year. It may well be that most of this group never make a commitment — a scenario we discuss further in our conclusions. Although 58 per cent were satisfied that university had lived up to their expectations and only a minority (18 per cent) felt their expectations had not been met, a large proportion had yet to make up their minds one way or the other. Then again, a number had fairly minimal expectations in the first place:

It's probably better than what I thought it would be. I imagined it, from people's warnings, to be much more impersonal than it is. So I think I had a very low idea of what it would be like, and I've actually been pleasantly surprised.

One student at *Applied University* succinctly summed up the interrelationship between identity, orientation, and application in terms of commitment (note also the clear emphasis on the student's responsibility for development):

(University) generally has lived up to my expectations . . . but I couldn't find myself . . . and I think that is very important. When you are committed to university you tend to be very interested in studies. . . if you're not committed you tend to push your work aside. If you are part of it (university) you tend to develop yourself differently.

The other side of student integration that preoccupied discussion of the initial student experience in the 70s and 80s (Walker 1980, Williams 1982) was the process of alienation. Considering the extremes in the responses to the items in Table 5.1 it seems reasonable to conclude that somewhere between three and seven per cent of the students sampled are seriously alienated from the university. On the other hand, the students who are only marginally committed but not particularly concerned about it, present a bigger and more subtle challenge for universities.

For a long time a considerable amount of energy and enthusiasm has been put into orientation programs broadly aimed at inducting first year students into the university. The 'orientation week' is generally the most visible effort to assist students in the formation of their identity as students, and the development of their sense of affiliation with the institution and the course (See Box 5.1). While these programs are commonplace, surprisingly little is known about their effectiveness in integrating new students into the system. Nor has there been a great deal of consideration of the appropriateness of such activities for the changing student population. A recent study of an orientation program in one university identified the main functions as: 'the development of pride in being a student; getting to know other students; finding out about the immediate relevant workings of the college; and being influenced by and being able to identify different cultures within the college' (Macdonald 1993).

#### **Academic orientation**

Six items on the questionnaire formed a scale which we labelled 'academic orientation', and which we believe is an effective indicator of student academic integration and involvement. Two of the items came from Williams' 'academic involvement' scale. The other four items were developed for this project in response to concerns — raised by the project brief — about the extent to which the study values and habits of students in a mass higher education system align with the assumptions of academics. Factor analysis confirmed our view that Williams' scale combined two dimensions that needed separating: the value placed on the intrinsic worth of academic study, and the levels of application to study.

Students who score highly on the orientation scale show evidence of taking on the academic values and norms of the university and of their lecturers: their cognitive and intellectual 'positions' (Perry 1970) are in tune with the cultivating climate that traditionally characterises higher education (Little 1975). They are likely to appreciate academic activity for its own sake. There is some evidence to support the reasonable assumption that students with stronger academic orientation perform better academically than those who score lower on such scales (Williams 1982:74). Table 5.2 shows the patterns of response to the six academic orientation items. Most students (61 per cent) agreed they enjoyed the intellectual challenge of their subjects, but that clearly did not hold for the theoretical content, where only 40 per cent were positive. One inference is clear — academics who expect their personal enthusiasm for theoretical perspectives to be embraced by students in the first semester may become frustrated.

**Table 5.2** Academic orientation (%)

	Strongl				Strongl
	У				y agree
	disagre				
	e				
I really enjoy the intellectual challenge of my subjects	3	9	27	36	25
I enjoy the theoretical content of my subjects	7	15	39	28	12
Lectures often stimulate my interest in the subjects	4	16	35	32	12
I have found most of my subjects really interesting	6	15	29	33	18
Lectures are a valuable source of learning for me	3	9	24	38	26
I get a lot of satisfaction from studying	7	15	35	30	13

The two items that refer to lecturing were not intended to solicit student evaluations of the lecture as a teaching method, but were included because the lecture still looms large in the timetables and experiences of most first year students. The items show that 44 per cent of students agreed that their intellectual interest was stimulated by lectures (only 20 per cent disagreed); and 64 per cent found the lectures a valuable source of learning (only 12 per cent did not). At the very least this says that a high proportion of students were intellectually stimulated and considered their learning valuable with respect to one of the most common forms of course delivery. On the other hand, we found notable field of study differences in students academic orientation in both our survey and interviews. We discuss these in Chapter Nine.

# **Academic application**

The four items in Table 5.3 form a scale identifying students who are essentially conscientious in their approach to study. Working consistently, and being motivated to study, are clearly the key elements in this scale, but we were interested to see the item on seeking advice appear in this group since it is open to two interpretations. Those who 'regularly' consult academic staff may be highly anxious and dependent students who need considerable support and close direction. On the other hand, they may be highly conscientious students who are strongly focused on their work. Application should not be confused with independence.

**Table 5.3** Academic application (%)

	Strongl y disagre e				Strongl y agree
I worked consistently throughout first semester	15	24	26	23	14
I find it difficult to get myself motivated to study	8	20	31	25	17
I regularly seek the advice and assistance of the teaching staff	16	33	30	15	5
I have a strong desire to do well in all my subjects	1	2	14	32	51

While there is occasional cynicism among academics about student responses to items of this kind, our experience suggests that students are on the whole quite honest and fairly accurate in their assessment of their efforts. The students divided almost evenly on the issue of consistency, with 36 per cent agreeing that they worked consistently during semester, and 39 per cent disagreeing. Motivation was a problem recognised by a substantial proportion of the sample (42 per cent), with 17 per cent of the students indicating a strong concern about their difficulties in this respect. At the other end of the continuum, only eight per cent could say they had no difficulty in getting motivated. On the issue of independence, only 20 per cent of students regularly consulted academic staff about their work. There are two alternative explanations for this response that should be raised: first, it is possible that academics are simply unapproachable, unavailable, or both; second, students may be actively encouraged not to seek advice as part of the goal of developing their independence. We are inclined to reject both explanations on the basis of items discussed further in the next chapter; that is, most students (62 per cent) regard the academic staff as approachable, although fewer (45 per cent) thought they were usually available. While 70 per cent of the students said they had been encouraged to be independent learners, we cannot say if this kept them from consulting staff, although we seriously doubt it.

Finally, the obvious needs to be stated — it is clear that most students (83 per cent) have a strong desire to do well in all subjects. There is no suggestion from these responses that students are on the whole unconcerned, or cynical, about the need to

achieve academically, in contrast to the views expressed in some of our interviews with academics.

### Study habits and time commitments

Most students in the sample (77 per cent) usually spent four to five days per week on campus. We developed a number of questions to obtain a picture of the study habits of the first year students in the context of their other activities. The responses to these questions indicate the nature and extent of student commitment to the academic demands of the university, and, in principle, their level of integration. However, we have some reservations about assuming that students with diligent study habits are necessarily well-integrated into the life of the university. As we show in the section that follows, and in Chapter Six, large numbers of students are so heavily focussed on the immediate demands of their work that they miss out on the so-called university experience, and perhaps fail to acquire the skills and outlooks that ideally characterise the university graduate. We recognise that in some student cultures, social integration is contingent on not being diligent — being a 'conch' (conscientious student), or at least, a certain type of 'conch', can be a social liability. Students who are overly conformist and anxious to please their teachers are not considered kindly by their peers. The sample was divided fairly evenly in their course contact hours: around 30 per cent had 11 to 15 contact hours, 24 per cent from 16 to 20 hours; and 30 per cent from 21 to 30 hours per week. We have referred to the perceived significance of paid work elsewhere in this report. Just over half of this sample (53 per cent) did not have regular paid work, whereas one-quarter worked from 1 to 10 hours per week and the remaining 22 per cent worked 11 or more hours per week. Time spent on academic work over a typical university week varied considerably by field of study given the differences in contact hours. Sixty per cent of the students often, or almost always, studied on the week-ends, whereas only 15 per cent said they hardly ever, or never, studied on the week-ends.

As for their perceptions of their work habits within the university context, 24 per cent of the sample saw the contact hours in their course as an obstacle in terms of their ability to complete set tasks. Nevertheless, there was a large group of first year students in our sample (31 per cent), who believed they could pass their subjects by only working hard around examination times. One student said:

Last semester I left all my essays to the last minute and I still did quite OK. I'm glad I didn't bother doing all the background reading. It's pretty easy to bluff your way through — at least in first year.

However, this was not the case for 51 per cent of the students, and indeed a quarter of the sample strongly disagreed that it was possible to pass with a last minute effort. On a related item, two-thirds of the sample disagreed with the notion that they could do reasonably well without attending classes regularly. Just over half of the students said that they only seriously studied what was actually required; that is, they did not go beyond the reading lists and set exercises. Likewise, 44 per cent of the students agreed they often, or almost always, read suggested material in preparation for classes in

general. Just over half the students (53 per cent), often, or almost always, read the material required for lectures.

We also asked students to indicate the time spent on major activities in the 24 hours prior to answering the FYEQ (or their most recent day on campus). As the responses in Table 5.4 show, just over half spent between one and two hours at the library while a large proportion (37 per cent) did not use it at all. The bulk of students devoted somewhere between one to four hours to private study. Half the sample spent less than an hour on household or family duties, and about 16 per cent spent three or more hours on these activities. Almost half the students did not spend any time on sport during the weekdays. In contrast, most students spent some time on recreation, with more than half recording somewhere between 1 and 4 hours in the day. Finally, on weekdays most students said they spent less than two hours socialising, although it is interesting to note the 30 per cent or so who spent more than 3 hours on social activities. There are clearly limitations in the interpretation of these data and the aggregates obviously disguise great variations for sub-groups, and for individuals. Nevertheless, the distributions give some impression of the relative weight given to activities.

**Table 5.4** How students spend their weekday time (%)

	None	<1 hr	1 - 2	3 - 4	5 - 6	7 - 8	9 - 10	>10 hrs
Household or family duties	13	37	35	11	3	1	0	1
Library	37	28	25	8	2	0	0	0
Private study	16	19	34	23	6	2	1	1
Sport	48	23	23	5	1	0	0	0
Recreation	21	20	32	19	5	1	0	1
Social activities	23	18	30	20	7	2	1	1
Other significant activity	77	4	5	7	3	3	1	1

#### Patterns of social interaction and the learning process

Having the skills and capacity for academic achievement at university and the appropriate habits of an effective student, is generally not a sufficient precondition for success, either in a narrow academic sense, or in terms of the broader university experience. The model of socialisation on which this project is based argues that success at university is in no small part dependent on the shared significance given to particular activities by the status group. The level of academic involvement by students is in this respect tied to some extent with their social involvement in the university. Campus life outside the classroom is not a dominant aspect of the university experience for many students. Some students expected more 'life'. This was not necessarily a major concern though — one student said, 'I'm not really worried about it, I look for socialising outside of university'. Some students were travelling long distances which excluded them from extracurricular activities. On one campus, time between classes

was basically divided between classes, studying, or the video room which showed continuous recent-release films.

There was certainly a large proportion of students — at least a third — who were not particularly connected, socially or academically, to the university. For some students the relationship with the university and peers is fleeting — from car park to lecture theatre and home again — while others are transformed by their immersion in university life. A critical divide between students may well be the extent to which their learning is a social experience centred on the university campus.

As we discuss further in Chapter Ten, the social nature of the university experience has the potential for contributing positively to academic performance, and more generally should influence the individual's sense of competence. It is also the case that social involvement can undermine academic outcomes, and likewise reinforce negative views of competence. The nature and extent of social involvement is meaningful in its own right as part of the process of personal development and identity formation. The responses to the main items on social interaction indicate that most students were reasonably gregarious. There was, however, a notable proportion of students who appear to be socially isolated. As the responses in Table 5.5 show, while two-thirds of students appeared to have made close friends at university in their first semester, 23 per cent said they had not. More than a quarter of the sample agreed with the statement 'I generally keep to myself at university'. Put another way, barely half the students saw themselves as socially connected with the university through friendships. In addition, 28 per cent said they were not interested in the extra-curricular activities available, although almost half of the students actually used the organised clubs (47 per cent), and sports facilities (47 per cent) at some stage. We do not know if the lack of involvement bothers the 'non-social' students, but 57 per cent of the sample overall said they would

**Table 5.5** Study habits and social interaction (%)

like to make more use of university facilities if they could.

	Strongl y disagre e				Strongl y agree
I'm not particularly interested in the extra-curricular activities/facilities	16	28	28	18	10
I generally keep to myself at university	22	30	22	17	9
I have not made close friends at	39	24	15	13	10
university I would like to make more use of university facilities if I could	4	11	29	33	24
Participating in class discussions doesn't seem worthwhile	36	34	20	8	2
I feel very uncomfortable participating in group discussions	24	28	23	16	9

# Learning together

Student involvement in the social environment of the classroom is an important factor in the quality of the teaching-learning experience. Non-participation of students in class discussions is one of the most common complaints of university teachers, and, in turn, the cause of considerable anxiety for students (Rudduck 1978). While 52 per cent of this sample felt comfortable in group discussion, a quarter clearly felt uncomfortable. The pattern of non-involvement extended to working with other students. A sizeable proportion of students (30 per cent) hardly ever, or never, worked with other students on areas of study where they had problems, and 36 per cent hardly ever or never got together with other students to discuss subjects.

Students sometimes employ social learning strategies to meet mutual survival needs. For example, students in one university saw the study of law as very much a solitary pursuit, perhaps because they were extremely competitive. Yet, amid this competitiveness, some students were working co-operatively. To cope with the amount of reading expected, some students formed 'reading circles' in which the members read allocated articles, later sharing key details and insights.

The differences in academic performance between those students who interact with other students for study purposes and those who do not are revealing. We analysed the responses of three groups of students to some of the social interaction items. The three groups were defined according to their self-reported academic grades. A higher proportion of students with academic marks between 50 and 70 per cent 'almost always' or 'sometimes' worked with other students on areas with which they had problems. In contrast, students at the top and bottom of the self-reported grade point average were less social with respect to their academic work. Of the students achieving less than 50 per cent averages in their assessed work, the largest proportion (39 per cent) 'never' worked with other students. Likewise, 52 per cent of this group never got together with other students to discuss their subjects. The group whose average scores were above 71 per cent fell almost evenly into the three categories of 'almost always', 'sometimes' and 'never'. One clear difference between the top and bottom two groups. however, is that the poorer performers were clearly less sociable in other respects; 32 per cent of this group had not made close friends at university and 39 per cent said they kept to themselves. Although the high performers did not work with other students, they were by no means loners on campus.

Whether the low levels of social interaction reported for some students can be causally related to their academic performance is not entirely clear. A number of academics in the case study interviews observed that 'silent' students frequently do well in assessed work. Even if this is true, it still leaves open the question of the need for students to develop social attributes as part of their university experience. If students discontinue, fail, or simply become marginal participants, then it is a serious loss for them, as well as for the universities.

# **Factors undermining commitment: Moments of doubt**

As well as students who decide to discontinue or defer during the first year, there are many who go through periods of uncertainty about continuing. Our survey suggests strongly that there needs to be a greater recognition by staff (and by students) that in

their institution as a whole, somewhere between 30 and 40 per cent of first year students are likely to be uncertain enough at some time to seriously consider deferring. These moments of doubt will almost certainly have negative effects on their capacity to learn and to cope with the demands of university life. Personal situations and predispositions present a complex picture for the analysis of discontinuation. It is worth noting with respect to course choice, that 34 per cent of school-leavers in this sample believed they were not ready to choose a university course on leaving secondary school. Further, almost a third of them were not enrolled in the course of their first preference. The question of choice is both personal and structural. Thirty-five per cent of students in the survey said they had seriously considered deferring at some stage in the first semester. Three-quarters of them took the opportunity given in the survey to mark two reasons for considering deferring, suggesting that the business of deferring is not always straightforward or simple. Our survey has consistently shown that most students have a lot invested in coming to university. A decision to change direction, albeit temporarily, is not taken lightly. Given the diversity of students and experiences, it is also not surprising that their reasons for considering deferring were quite varied. No one or two reasons could be said to predominate in the frequency which they were mentioned by most students. Nevertheless, there was a tendency for 'university-related' reasons to be mentioned more frequently than 'non-university' related reasons (although it is not always easy to make a clear distinction between the two). Students who gave two reasons most commonly mentioned disliking the course they were doing (16 per cent of responses) disliking study (14 per cent) and emotional health (13 per cent). 'Emotional health' most probably includes a wide range of circumstances since it is likely that students would interpret its meaning in a variety of ways.

We do not know what weight individual students gave to their two reasons; one may have been much more important than the other, they may have been of equal weight or, as in often the case with life decisions, factors interact. We did note a tendency for reasons to cluster together. For example, students who mentioned emotional health, were more likely to include financial problems, disliking their course and disliking study. Disliking study was associated with disliking the course, financial problems and finding university was not living up to expectations. There was a relationship between disliking the course, wanting to change course and not finding the life as they had expected.

Perhaps students who gave only one reason were clearer in their reasons for considering deferring; perhaps their situations were less complex. Whatever the explanation, students giving only one reason had a different pattern of responses from those giving two. Almost one-third (30 per cent) took advantage of the 'other' category of this question which gave them the opportunity to write their specific reasons. Overall, physical health, family commitments, finding employment, daily travel problems and having paid work commitments did not figure prominently as reasons for considering deferring. In contrast, disliking study, disliking the course or wanting to change course were mentioned more frequently. So too were financial and emotional problems. Although we offered students 12 alternatives to mark as reasons for considering deferring, the alternatives clearly did not cover everything they wanted to say; 18 per cent of all reasons mentioned came into the 'other' category which students described themselves. These reasons included a wide range of factors, some directly

course and university related, others referring to personal circumstances and decisions. Among these were difficulties of transition to university life, such as troubles adjusting to city life, finding university a lonely place, being tired of study, finding it hard to adjust to the commitment required, and feeling overwhelmed by the different environment. One student said: 'I was exhausted after HSC and found it difficult to adjust. I had a bad case of itchy feet'. Another said, 'I felt too much was expected of me, too much reading. I felt lost'.

Difficulties of adjustment were not confined to younger students, as one mature age student's comment indicates: 'Language and back to study after ten years. Everything is new and strange to me'. A sense of uncertainty and feeling lost ran through many of the comments, for example: 'I felt disoriented by the different style of teaching and the social aspects, a little overwhelmed. I wasn't motivated to study and I didn't know why I was studying'. Ten per cent of the 'other' responses were of this kind, as was the related factor of feeling that a break was needed between school and university. There was a great deal of consistency here, and many students simply wrote: 'I needed a break from study!' or something similar. Overall, just over one-third of 'other' reasons were directly related to aspects of university life, such as the course, poor progress in the course, heavy workloads and dissatisfaction with university staff or other aspects of university life. Course related

university life, such as the course, poor progress in the course, heavy workloads and dissatisfaction with university staff or other aspects of university life. Course related comments included, 'I was failing', 'I wasn't going as well as I expected', 'I felt I couldn't cope with the study', 'I had doubts about my course', 'I had doubts about whether I was doing the best course for me'. In terms of social involvement, a much higher proportion of the students who had considered deferring (26 per cent) had not made close friends at university, more of this group kept to themselves (29 per cent), and were not interested in extra-curricular activities (29 per cent).

There was a clear contrast between these students and the group who did not consider deferring. One-third of the potential deferrers did not get satisfaction from studying as against 18 per cent of the non-deferrers. Further, 22 per cent of the 'at risk' group did not enjoy the intellectual challenge of their subjects, against 7 per cent of the others. One issue is the extent to which the experience of doubt in the early stages of the student experience can have lasting effects and influence academic involvement. While daily travel problems were not a common reason for considering deferring, a small minority of students referred to another aspect of travel — that is, the desire to travel either overseas or within Australia. The remaining reasons (each less than 10 per cent of the 'other' responses) included homesickness or wanting to be closer to home, other opportunities coming up, being stressed and unhappy in life and specific family circumstances such as births, deaths or relationship problems.

In summary, just over one-third of students surveyed had seriously considered deferring — uncertainty about continuing is quite widespread amongst students in the first year. Although there was considerable variation in their reasons for doing so, aspects of their courses and of university life, financial problems and general adjustment to university figured among the most common reasons. Even though these students did not at the time defer, the type of difficulties they identified were in many cases ongoing or likely to recur.

# Support services for personal affiliation, survival and maintenance

Despite personal problems and the apparently high levels of uncertainty and doubt, only small numbers of students used the support services provided by universities. Most institutions offer extensive services to help students manage those personal aspects of life which may become obstacles to academic progress. Services such as housing services, employment offices, legal and financial aid bureaus, and counselling services are familiar features, particularly of the large campuses. Clearly, support services of this kind are crucial to certain students and they were mentioned in several of our interviews with first year students.

The survey findings suggest that students were generally well informed of the services offered by their university. However the figures in Table 5.6 indicate that particular services had been sought by a minority of first year students. When asked to rate the most important services and facilities, students rated the campus libraries and cafeterias as the most valuable.

Table 5.6 Student usage and awareness of personal support services

Service	Often or quite often	Not often	Never	Not aware of service
Counselling	3.1	10.2	83.6	3.1
Financial Aid	2.5	4.5	86.1	7.0
Health	6.0	12.9	75.6	5.5
Student Employment	7.3	13.4	71.6	7.6
Student Housing	3.3	7.1	83.3	6.2
Pastoral/Religious	3.1	2.7	77.4	16.9
Womens' centre	1.2	2.2	84.1	12.5
Child Care	0.5	0.3	90.0	9.1
Study skills assistance	5.8	13.7	72.6	7.8

### Staff views on student integration and involvement

The academic staff we interviewed were keen to point out their perceptions of changes in the attitudes and abilities of first year students over recent years. In particular, we asked staff about student readiness for higher education. Opinions varied dramatically from institution to institution, and from course to course. No single pattern was discernible from the case study interviews: some staff argued that they are now enrolling an academically stronger and more motivated group of students, others the reverse. The national survey of academics referred to in previous chapters confirms this absence of strong views one way or another, for a high proportion of academics responded neutrally to items on changes in student attitudes and behaviours (McInnis, Powles and Anwyl 1995). Only a third thought that fewer students now showed a capacity for independent learning and only 22 per cent believed that the degree of application shown by students had deteriorated in the last five years. A sizeable 74 per

cent of the academics surveyed in 1994 agreed that 'most students only study those things that are essential to complete the course'. For some academics this can mean a series of gradual compromises 'I think my expectations have become more realistic. I think that's what it is. I think it's coming to terms with what I'm teaching and who I'm teaching . . .'.

Some academics we interviewed were highly aware of the diversity of social patterns amongst their students: '... there is always what I call the group of invisibles where it is very difficult in formal settings to make much contact because they tend to withdraw . . .'. Staff in a mathematics department felt that students are less likely to want challenges these days. More want access to staff at any time of the day, and are not shy about seeking it. Some of the most demanding are the mature age students. Yet, as the survey data shows, there are still students who require very little support or help: they are independent and will stick at problems. Some staff were concerned that students are overly dependent on staff assistance, a trend they attribute to the close staff-student relationships that develop in senior secondary. As one academic put it: 'A lot of the students now seem to want someone to lead them through the material'. Staff teaching in a law course expressed concern that first year students, by and large, are very conservative. As a consequence, students in one subject are urged to widen their perspectives om social issues, to open up their minds to issues. This creates tensions, because students are unclear of the purpose of discussing social issues and it is far from what they expected of first year law. In the words of one student: 'What has this got to do with law?' These subjects represent an awakening to new ideas, and a new discourse, especially for students who studied science in school. From the student perspective, these discussions end up being 'politically biased', and they feel strong pressure to be what they call 'politically correct'. On the other hand, staff are conscious of wanting to assist students to develop consistent work patterns. In the beginning weeks of an Engineering chemistry subject, students are given set problems each week so they can establish a regular working pattern. This requirement is relaxed and used less frequently later in the year in order to encourage independent learning. Some staff believe they are caught up in giving students a 'production line education' because they are competing with other departments for student attention:

They're just meeting deadlines and I think that has evolved in a way because everybody is concerned that they are not paying particular attention to their subject. Their way in counteracting that problem is to continually assess them to make sure they're paying attention to the subject and they just can't get through it all. And it probably ties in a bit more about the fact that they don't prepare for tutorials as well. It's because they're just constantly trying to meet deadlines in their other subjects.

### Getting a richer picture of the student experience

While there is no evidence of the impact of social learning climates on academic success in this study, an analysis (see Appendix B) of the associations between the seven scales of the FYEQ showed that students who had a higher academic orientation, and stronger student identity, were more satisfied with their course. Similarly, students who were more satisfied with their course also tended to be happier with the teaching and students with a greater sense of purpose were more comfortable with their workload.

Finally, students with greater academic application tended to be more satisfied with the teaching. None of this is particularly surprising. However the analysis does not identify the direction of causality. If, as we suspect, academic application and student identity influences perceptions of teaching, then the implication is that student evaluation of teaching is hardly the objective measure which it is often assumed to be. It follows that efforts to improve teaching and learning should focus on the total picture of the student experience. For example, although we drew attention to the quite small proportion of students who responded very negatively to the academic orientation items, it is more important to recognise that while most were keen to do well, a very large proportion of students were at best ambivalent in their attitudes towards their study. This lukewarm academic orientation of students represents a bigger teaching challenge for institutions and academics well beyond providing intervention and support strategies for the minority of students who fall into the extremely negative group. In particular, how to engage a large proportion of students in the process of higher learning who are perhaps cynical — or at least, unenthusiastic — about the theoretical nature of study is no mean task. We suggest that closer consideration of ways in which positive learning climates can be established and sustained might be a useful start. To do so requires systematic efforts to understand the relevant student cultures at the level of the course, the faculty, and the department; that is, the shared orientations towards learning at university and the socially supported habits of study. With this context in mind, the chapter that follows looks more closely at students' views of teaching, courses and workload.

# Chapter 6

# In the classroom: Fundamental divides

Adjusting to different styles of teaching, identifying standards and expectations, and managing workloads are all challenges for first year students. First year courses are still generally structured around the traditional format of lectures, tutorials, and practical classes. In the main, school-leavers meet a style of teaching which is less personal than that of school and, as we have already noted, one which attaches a premium to the capacity of individuals to manage their own learning. In this chapter we examine first year students' perceptions of teaching and courses, juxtaposed against the attitudes and beliefs of academic staff who co-ordinate and teach in first year programs.

Some of the frustrations and points of tension that emerge in the classroom in the early stages of the first year experience are of little consequence — they are an inevitable part of an adjustment process which is often uncomfortable. However, there are divides to which we will refer which are substantial impediments to the effective education of first year students. These arise from confusion of purpose, unrealistic and inappropriate expectations of performance, and a lack of genuine commitment to teaching and learning by both academics and students.

In the survey we asked students a series of 23 questions about their perceptions of teaching and courses. Twelve of these items were derived from the Course Experience Questionnaire (Ramsden 1991) and adapted for first year students on the basis of a pilot study of 1100 students (McInnis 1994). Seventeen of the items formed three groups after factor analysis. The first major group of items related to teaching divided into two parts conceptually — perception of the quality of teaching, and perception of the interest staff take in student academic progress. A second group of items referred to perception of the course as a whole. The third group of items focussed on student attitudes towards their workload.

# Good teaching from the perspective of first year students

Most of the first year students we spoke with had clear and often emphatic views on what makes good teaching and teachers. Indeed, their criteria matched closely the advice of experts on university teaching (McKeachie 1978, Ramsden 1992). Students valued lectures when they provide reinforcement: '[You] hear and you see it and you write it', and especially when the lecturer is good at establishing a framework:

A lecturer should be able to visualise the whole subject for students. . . I feel that they need to link the different topics together and then I can see the whole subject and I can understand better for myself.

One student described an effective lecturer as one who 'talks' rather than 'lectures', saying 'I find it good that he talks to you rather then just gives you overheads . . .', a view similar to that of another student:

The teacher put slides up on the board for the whole hour and just talked off the top of her head and she didn't have any notes, she just talked. I was really impressed with that 'cause it made me interested in the subject.

Another student provided some fairly basic performance indicators for a lecture. The good lecturer should have:

... good outlines when you enter a lecture. They say 'this is what we are going to do today'. They use overhead transparencies. Specifically typed ones. Ones that are legible and easy to read from the back of the room. Some that have colours in them. And an *occasional* use of a video if it's relevant. And basically someone that can help you if you need more assistance ...

When we asked students to summarise the characteristics of good teachers certain aspects came up repeatedly. For most students the good lecturer is quite simply one who explains things really well. As well, the good lecturer:

- is well organised,
- has good verbal skills,
- gives 'real life' examples,
- is approachable,
- is available and has consultation hours advertised.

# Perceptions of teaching and feedback

Our survey gave students the opportunity to report on the teaching they had experienced in first semester in terms of criteria such as those above. Table 6.1 shows the overall responses to these items. Previous research (Ramsden 1991) has shown aggregate-level associations between student learning outcomes and student perceptions of teaching. Students' judgements on these issues warrant attention, particularly so at the first year, where students' formative views may well influence their achievement in subsequent years.

A high proportion of the students we surveyed were negative about the quality of some fundamental aspects of teaching. Among the nine items in the table, the extent to

which staff were 'good at explaining things' most clearly represents the underlying concerns of the students about the quality of teaching. While 47 per cent believed that staff explained things well, only 10 per cent strongly agreed that this was so and a solid 38 per cent of students were not sufficiently impressed one way or the other. Just on half the students had the impression that staff were trying hard to make the subjects interesting; just over half agreed that the teaching staff were enthusiastic. Again, relatively few students were strongly positive in their responses. Given that students tend to be generous in their evaluations, they could hardly be described as impressed with the teaching they had experienced in the first six months.

**Table 6.1 Student perceptions of teaching (%)** 

	Strongly disagree				Strongly agree
Staff try hard to make the subjects interesting	5	12	34	38	12
The teaching staff are good at explaining things	4	12	38	37	10
Staff are enthusiastic about the subjects they	3	10	34	39	14
teach					
Most of the academic staff are approachable	3	9	26	39	23
Staff are usually available to discuss my work	5	16	34	32	13
Teaching staff here usually give helpful feedback on my progress	13	27	32	22	6
Staff make a real effort to understand difficulties students may be having	7	21	36	27	9
Most academic staff in my subjects take an interest in my progress	18	26	32	17	7
The quality of teaching in my course is generally good	2	7	25	49	17

Lectures are an obvious target for criticism, but the importance of small group teaching in the first year often remains underestimated. Tutorials and practical classes in first year subjects are frequently staffed by inexperienced part-time teachers with little preparation for their role — often working within a structure of minimal support. Students expressed concern with variation in the quality and attitudes of their tutors. Some were very happy with their tutors and believed their tutorials to be useful, others were less happy, having a sense of injustice about the 'lottery' of tutor quality: 'the problem is with the tutors not the lecturers'. Indeed, the pilot Melbourne study

indicated that tutorials were considerably more problematic than lectures for most students.

Despite some concerns about tutorials, 70 per cent of students found class discussions in small groups valuable — notwithstanding the student who said 'we never seem to do a lot, all we do is have class discussions' — but one-quarter found them unnerving: 'If the tutor asks you a direct question it can be very scary'. Students were concerned about not knowing enough:

[there is] much more opportunity to make a fool of yourself in a History tute than in an English tute. You can always have your own opinion on an English text. People are much more hesitant about history things.

These concerns are heightened when students are conscious of being in a tutorial group of high achievers. We met a group of students in one law course, who had all achieved exceptionally high results in order to be there. Despite their obvious capabilities and self-assurance, these students said they did not always have the confidence to ask questions of the lecturer or contribute to discussion when they were unsure of expectations or the level of sophistication of the debate. The knowledge that most of their classmates obtained high entry scores was unsettling and inhibiting. One student expressed her uncertainty by saying:

People don't really understand what he wants us to say. People are trying to be politically correct, and don't want to say anything, not because the lecturer will think it is wrong, but the rest of the class might think they are wrong.

Some of these students found listening to the class debates more comfortable, and in their view, more useful.

## Feedback on progress

The interaction between students and staff that counts most for first year students early in the year is centred on the feedback they receive about their academic performance. First year students are naturally anxious about their personal performance in relation to other students, and in terms of the expectations of the academics. They are consequently more negative about the aspects of teaching which involve direct personal contact with staff, such as provision of feedback and showing interest in progress. Only 24 per cent of the students believed that academic staff took an interest in their progress, only slightly more, 28 per cent, believed staff usually gave helpful feedback on their progress. Forty per cent did not feel that they received helpful feedback. Students

were more positive about staff being approachable (62 per cent), but they were less confident that staff were available to discuss work (45 per cent agreed that they were).

Some students attach a great deal of significance to the interest staff take in their progress. The general impression they have of staff concern and interest is probably more relevant than the actual performance. Indeed, students are fairly forgiving of staff, they know academics are busy and they do not have unrealistic expectations of the amount of attention they will receive. Our survey did not ask students if they were worried by the apparent lack of interest in their progress, however our interviews suggest that for many students this may not be a major issue. One student said

I don't think they care whether you pass or fail, that's your problem — that's the difference with university, at school the teachers wanted you to pass, at university they generally don't want you to fail, but they don't care whether you fail or not.

When we asked the same student whether this concerned him he went on to say: 'No, I like this. If you ask for help you can get it'. Among a group of students from one course, not one believed that staff took an interest in their progress, and nor did it bother them: 'they don't get time'; 'it's pretty impossible'; 'it's not their job to make sure everyone passes the course'. As we noted earlier, such attitudes explain in part why only 20 per cent of students said they regularly sought the advice and guidance of the teaching staff. Some students simply don't have too many expectations of assistance or believe they don't need it: 'I think the best they can do is really give the consultation hours . . . and that's basically all you can expect'.

There were some students though who believed firmly that staff should be more available to help them:

It's their job to help you when you need it. But it's when they are not going to help you when you need it. It really riles you, 'cause you need to talk to them, to ask them questions.

Being available is more than just declaring contact hours, students need to perceive that staff are approachable as well:

A lot of the lecturers seem so intellectual and out of reach that you wouldn't want to go up and ask them a question and you feel intimidated during a lecture . . . (having) consultation hours isn't really enough if you're not approachable.

Notwithstanding these criticisms of specific aspects of teaching, 66 per cent of students believed the teaching to be generally good and only 9 per cent said that it was not. We gained a similar impression from our interviews with students. Though students might find faults with aspects of the teaching, it does not follow that they are

dissatisfied with it to the point where it becomes a major obstacle to their satisfaction with the overall experience of learning.

### The workload

The way in which students perceive their workload and its pressures is obviously related to many factors: the nature of their course, the hours which they spend in activities outside the university, not least, their ambitions for good marks. Effective learning is less likely to occur when students perceive themselves overloaded with work to the point where they experience difficulty in managing and assimilating material. When asked about the volume of the workload in first year courses, the students we surveyed were divided (Table 6.2). Around one-third (32 per cent) found it too heavy, slightly more (34 per cent) did not agree. Forty per cent of students were of the view that the volume of work made it difficult to comprehend the subject matter, 31 per cent did not. Despite this polarisation, most students found the volume of work challenging — only seven per cent of students believed that the workload was not challenging enough.

**Table 6.2** Student perceptions of workload (%)

	Strongly disagree			Strongly agree	
My course workload is too heavy	10	24	34	20	12
The volume of work means that I can't comprehend it all thoroughly	8	23	29	25	15
The number of contact hours makes it difficult to complete tasks set for classes	16	33	28	16	8
The workload is not challenging enough for me	41	36	17	5	2
It seems to me that the syllabus tries to cover too many topics	7	25	33	22	13

Our interviews yielded further evidence that there are no clearcut conclusions to be drawn about the appropriateness of the workload in first year courses, nor the extent of concern which it causes students. Some students said that the workload was 'light', 'it varies from subject to subject', and 'last year I had pressure on me to study, less this year — this is why I am enjoying uni'. On the other hand, one student remarked that 'At school there is a myth that you don't have to work at university'. Perhaps the most

revealing comment was made by one student who said that at university the amount of work you do is 'user-defined':

If you actually did all of the recommended reading and read all your books each week, you would be working all the time obviously, you wouldn't stop, it would be the only thing you would do. But to get by, and to get by quite reasonably, it's pretty light . . . but that really suits me because I have to work [in paid employment] as well.

### Levels of satisfaction with courses

The majority of first year students reported that they were satisfied with their course (Table 6.3). Sixty-one per cent agreed with the statement 'overall, I am really enjoying my course', 24 per cent were neutral and 15 per cent disagreed — a pattern mirrored closely in responses to the statement 'overall, I am very satisfied with my university experience so far' (this time, 61 per cent, 23 per cent and 15 per cent respectively).

However, care must be taken not to overlook the extent of negative or undecided response. Despite the majority of students being satisfied, there was nevertheless a considerable number of students — approaching one in six — who declared they were dissatisfied with their first semester at university. Furthermore, taking into account those students who responded neutrally, it is thought provoking that 39 per cent of first year students were not prepared to say that they were enjoying their course, and 38 per cent did not agree that they were satisfied with university. The fact that over one-third (37 per cent) of first year students did not agree that they were finding their course intellectually stimulating is surely cause for concern.

**Table 6.3** Student perceptions of their course overall (%)

	Strongly disagree				Strongly agree
I am finding my course intellectually stimulating	4	8	25	39	24
Overall, I am really enjoying my	6	9	24	36	25
course Overall, I am very satisfied with my university experience so far	5	10	23	35	26

### The views of staff

Academics we spoke with raised a number of concerns which have emerged from their classroom experiences with first year students in recent years. These centred around

two issues, preparedness for university and attitudes towards study. Some staff commented that they believed they were meeting more students with difficulties adjusting to university and new styles of teaching and learning than they did in the past:

I am finding a lot more struggling kids . . . than there were two or three years ago. Especially with exams coming up, kids are starting to work and I'm finding more and more they don't seem to know how to work or their work is not getting them anywhere.

Others were emphatic that standards had declined. One said 'You have a look at our exam, our exam papers for the last ten years. What we have set back then and what is set now would be little comparison'. Box 6.1 illustrates how approaches to assessment have been influenced by staff perceptions of changes in the ability of incoming first year students.

### **Box 6.1 Changing assessment practices in Economics**

Assessment practices in one Economics department have changed in response to increasing student numbers and perceived changes in student quality. First year numbers have increased from around 350 students in 1975 to 450 in 1994. The most obvious change in the assessment has been the growing use of multiple-choice examinations, relied on in preference to open-ended and unstructured questions. Most of the changes have been incremental: there was no suggestion among staff that the recent expansion in numbers produced a dramatic response. As one academic said, 'We've adjusted to the inevitable. We don't have as many people to throw in front of the classes'. Nor for that matter do they have enough staff to mark assignments as they once did. One academic in the focus group asked his colleagues, 'When was the last time we had four assignments for first year?' then went on to point out, 'I've found myself setting more precise, more black and white easier questions, "explain what is . . ." questions rather than evaluation'.

Staff agreed that the sort of question asked in previous years would involve a quote such as 'The Keynsian model is a product of peculiar circumstances of its time' which students would be invited to discuss. When students started to have difficulty the question was changed to 'How is expenditure divided up in the Keynsian model?' The students were then taken through step-by-step, and the trick thereafter was to devise a question which the average student could follow. Some open-ended component was allowed so that a good student could shine. As well as shifting to more multiple-choice questions, the department was assessing more frequently because of the semester system.

More changes are likely, 'to keep the lazy ones working' and to test abilities other than those tested by the multiple-choice approach. Indeed, the multiple-choice questions in any one test have been cut down to only ten, but more tests are given overall. Random tutorial tests are used and there is now much more compulsion in the first year — students have to go to tutorials. The first mid-semester test in 1994 was five short answer questions where the question was on the page and there were seven or eight lines and a blank space for diagrams, followed by ten multiple choice questions. The questions aimed to get at different sorts of ability. In something of an experiment, the final exam now has two essay questions rather than one, which had been the norm for previous years. Having gone too far in one direction staff were concerned to get some balance back in their approach: 'We are trying to buck that feeling that we are doing it all mechanically. In order to do that we have the compulsion in the tutorials and the extra test'.

Throughout the focus group discussion the staff were keen to avoid any suggestion of grade inflation to push students through. The department was not frightened to fail students: 'We're pretty cold-blooded about failing students. Failing more than 30 per cent would be a bit on the high side. Historically it's been about 25'.

Staff teaching subjects in the Humanities, Social Sciences and Arts tended to express concern about student preparedness in terms of the ability to write in a grammatically correct and interesting fashion. At one university, staff teaching Arts subjects meet students with weaknesses in reading, writing or oral presentation which require intensive skill development. In some cases the students might have academic

potential, but require knowledge of techniques for writing. In these cases, the removal of a blockage might be quite simple, and student progress spectacular. It is often simply a case of learning to write in new ways. In the view of one staff member, 'Kids aren't taught at school a particular kind of academic discourse and I think it is the function of the university to teach it'.

The other major area of concern for staff was associated with the attitudes of first year students. The view of one group of staff was that over the last ten years students had become less capable of concentrating in the classroom for lengthy periods and 'tune out', especially when any theory is involved. As one experienced lecturer said, 'I think it seems to be harder to get them to work hard, they well and truly like it to be given to them the easiest way possible'. Some staff associated the attitudes of school-leavers with styles of teaching in senior school:

Their skills are down, but what concerns me more, and it's gotten worse, is their reliance on other people to feed them what they have to do. It's in terms of the way they see their role in the learning process and the role of the lecturer or teacher in their learning process . . . The [Year 12 curriculum] was supposed to help develop in them time management skills and research skills . . . in point of fact there is so much time management in the [Year 12 curriculum] that teachers, to do the best thing for their kids, have taken over a lot of the time management — timetabling them from go to woe.

### Another academic, from a different discipline, said:

One of my tutors is a former school teacher. He has been running his tutorials in an extraordinarily structured way. He was teaching Year 8 kids last year and I thought, 'But Tom this is not Year 8 mate', but the students love it. Very close blackboard work . . . the sort of tutorials that I would have thought a few years ago the students would have said 'Listen we're not at school any more'. When he started doing this I thought, 'Tom they are not going to react too well, they are adults now'. But in fact, a lot of them, in their evaluations, were highly complimentary about the structure, whereas a couple of the older tutors who are much more freewheeling, and very capable, but expect the students to behave as if they are in a seminar situation, received comments which suggest that some of the students are plainly a little critical of the lack of direction.

On the basis of accounts such as these, it would be ironic if first year students are becoming more dependent on getting guidance, despite the approaches to teaching and assessment in senior secondary which are designed to promote independence.

A major problem for many staff teaching in the first year in addition to the increasing spread of student abilities, is the uneven preparedness within the student population. This uneven preparation, perhaps in terms of specific topics or techniques, means that selecting a suitable starting point is problematic in first year subjects. These

tensions are perhaps most prominent in subjects which have large intakes and large class sizes. The response of one department to this situation is described in Box 6.2.

#### Box 6.2 Streaming as a response to the big spread and the long tail

One department of mathematics teaching approximately 2,000 first year students each year has faced problems with variation in student skills and understandings for a number of years and has initiated a number of strategies in response. Here diversity is measured largely in terms of mathematical readiness, because mathematics is a subject that relies heavily on accumulated techniques. Readiness takes two distinct forms: algebraic skills and topic exposure. Extensive and systematic collection of data on students' skills during the last five years by the first year co-ordinator shows the department, by and large, has faced increasing student diversity, not simply in terms of tertiary entrance score, but in the range of skills that incoming students demonstrate. The spread of student knowledge, skills, and potential appears larger than ever before.

In the past few years there have been a number of attempts to deal with the breadth of student skills. The first response of the department to emerging diversity in the late 1980s was to create a special assistance program involving extra tutorials. This ran until 1991. The impact of this initiative on pass rates was limited, and staff noticed students' results suffered in other subjects because of the additional time demands. The mixed success was also due to the gaps which some students needed to close. The principal departmental response to diversity is to offer a number of alternative streams including an advanced stream and a stream for students without certain skills. (A few students jump first year altogether, courtesy of a special program which allow students to study first year mathematics during Year 12 in certain schools and school clusters.)

Students may sit an exemption test which allows the appropriately prepared to advance directly to the advanced stream. At the other end of the spectrum, the results of a diagnostic test are used as a basis to counsel students to select the most basic stream. This pre-testing program involves questions which are designed to test students' skills with algebraic manipulations, and in many cases cover skills which students might be expected to have acquired by the end of Year 10.

The streaming is an attempt to cater for diversity by providing more homogenous classrooms in which both the more prepared and the less prepared students can progress at rates that are appropriate for them. This has created a suite of programs which require much co-ordination — for example, the largest stream has around 1200 students, five lecturers and 35 tutors.

Despite some hiccups, this program appears to be a viable means of confronting the large differences in students topic awareness and skill bases. In a subject such as mathematics, where much of students' development depends on the gradual accumulation of techniques and skills, class groups with widely different levels of preparedness can present almost insurmountable difficulties in pitching lectures and teaching materials at levels which are accessible and challenging for all.

We encountered evidence of some fundamental divides between students and staff which were associated with divergent goals and expectations. Some students believed they were clear on what they needed to do because 'our teacher teaches the concepts and how you use them in exam conditions', others offered comments such as:

I get frustrated with our lecturer when you spend half an hour on proofs when he could have just told us the outcome. I get confused about what you need to know. Proofs just seem like a waste of time — I get confused whether I need to know what the proof is or whether I just need to know that it is true.

Underpinning this attitude are beliefs about the type of learning expected at university, and illustrate some of the uncertainty experienced by first year students. On the issue of preparedness for university study, we encountered examples of considerable gaps between the attitudes of staff and students. Box 6.3 tells the story of such a gap, an extreme example admittedly, but one which we believe is repeated in other first year courses and subjects.

### Box 6.3 Divides between staff and students on the issue of readiness

Staff in a mathematics department were adamant that, in general, first year students are less well-equipped to cope with first year mathematics than in the past — furthermore they were convinced that this is not a question of poor student attitudes. As one staff member put it, 'The majority of students are significantly worse in various fundamental areas of algebra and calculus, the things we would call the basics . . . though clearly you still get some students who are exceptional. Many of the overseas and interstate students are better prepared academically'. In the view of staff, the best, say, one-quarter of students are not as well prepared as students of the past, but they certainly have as much potential. The problem is at the 'bottom end', where there are a group of students '. . . who are not prepared for university mathematics as we knew it'.

Many of the students, however, told a somewhat different story regarding their readiness. For them, the first year mathematics was too easy, it went over too much old ground, material that they knew from school: '[I am] a bit disappointed, I thought it would be harder and covering new areas, not just rehashing material from Year 11', 'I was looking forward to it, its one of my favourite subjects, and I was thinking, wow, now I'm going to do university maths and they just come up and go, OK, we're going to do vectors. Boring!', and 'I'm finding it really boring, a lot of it is repeats . . . really basic stuff which you did in Year 11 and 12. You don't want to stay there, you just feel like walking out . . . a lot of people do. A lot of people just don't bother turning up to maths'. Less critically, other students made comments such as 'It's been tedious because it has been going over old ground but it has plugged all the holes in my knowledge'. Others were finding the subject useful: 'A low key subject has given me time to adjust', 'I needed this background'.

### Bridging the divide between staff and students

Bearing in mind that students' perceptions of the teaching and learning experience was only one component of this project, our research was not an attempt to comprehensively map students' views on the quality of the teaching they had experienced. However, we believe the findings are sufficient to reveal some significant divides between academic staff and students. These are divides of expectations, and differences in conceptions of roles and responsibilities.

Meeting with academic staff, we encountered a range of attitudes on the issue of supporting students. At one extreme, for staff who we think of as 'curriculum centred', students who are not well-equipped for the curriculum they wish to teach are in the wrong place. We met staff who were locked into a curriculum —perhaps regulated by professional bodies — which was out of reach of a good proportion of the students. At the other end of the continuum, we found 'student-centred' staff who were more inclined to see their role as picking up students, whatever their level of preparedness, and assisting them to move forward.

From the students' perspective, their role in the teaching and learning effort, at least in the first semester, is an uncertain one. Many school-leavers seem to come quickly to the conclusion that they need to be far more independent than they were at school, saying 'at school you get looked after, teachers put pressure on you to do the work on time, here it's up to you'. However, it does not follow that they know what this entails:

... most teachers at school tend to shovel information on you and give you things to read. At university it's do it yourself ... some people are very lost, especially in first semester.

From the stories told to us by staff, there are quite a few students who do not make a quick transition to a more independent approach to learning. Perhaps the issue is in determining how universities might purposefully engineer such a transition instead of leaving it to chance.

The extent of students' negative ratings of the quality of teaching is too large to be easily dismissed. While there are undoubtedly a series of factors associated with these perceptions which are beyond the reach of institutional policies and programs, there are others nevertheless which are within the control of universities — attention to the effective use of academics' time might be a starting point — and for which they should assume responsibility. In saying this we are conscious that a level of anxiety is necessary in a learning environment, but we imagine this to be an environment which students would also consider to be supportive, with high but realistic expectations,

demanding but not destructive. While it can be argued that universities should encourage a step towards intellectual independence in the first year by setting high expectations of performance, the question remains, how high? The notion of throwing the students in the deep end — a legacy perhaps of the elite era and, we suspect, a strong basic sentiment of many academics — may simply be inappropriate across the whole higher education system.

# Part III

# Patterns of diversity

In the following three chapters we look at variations in the first year experience between selected subgroups with the aim of considering the likely implications for teaching. In Chapter Seven, we examine the influence of diverse student backgrounds using the variables of sex, age, educational background and ethnicity. In Chapter Eight, we discuss the influences of accommodation, sources of income, and the extent of family support on students' goals, outlooks and how they describe their university experience. The focus in Chapter Nine is on diversity across and within institutions, with a particular focus on variations by field of study.

In each of the chapters we discuss the findings for selected student subgroups according to the seven scales of previous chapters — sense of purpose, student identity, academic orientation, academic application, perception of teaching, perception of workload, and overall level of satisfaction with course. The aim of these comparisons is to illustrate the sometimes strong differences in the outlooks of student subgroups that have implications for strategies aimed at improving teaching at the first year level. Many of the contrasts presented here are readily recognised; on the other hand, some do not support commonly held perceptions.

In highlighting variations in each of these chapters we are conscious of not wishing to exaggerate differences. While there may be statistically significant differences between identifiable subgroups on the characteristics measured by the scales, the spread within each subgroup may remain very broad. This leaves us with the dilemma of wishing to report statistically significant differences where relevant, while not wanting to overlook, or de-emphasise, the larger diversity within subgroups. The research reinforces the lesson that the differences between subgroups rarely justify the adoption of stereotypes. Likewise, there may be statistically significant differences which really do not mean much in practical terms. Nevertheless, the subgroup differences in the basic elements of the first year experience we have identified may provide useful pointers when it comes to planning support services, curriculum

changes, or closer explorations of the total student experience at the level of the institution and course.

# Chapter 7

# The influence of age, sex and student background

Age, sex, socio-economic background and ethnicity contribute to and shape students' expectations of university, their adjustment to being university students, and, ultimately, their overall teaching and learning experience and satisfaction with it. In this chapter we describe differences in student responses according to broad subgroup characteristics, with the primary goal of illustrating the potential of such factors in shaping the learning environment of first year classes and the overall first year experience.

Most of the subgroups characteristics examined in this chapter have been widely discussed in terms of access and equity issues. However, the discussion and research on universities and educational privilege has been preoccupied with selective admissions, changes in participation rates, and monitoring the academic performance of identified equity groups (Anderson and Vervoorn 1983, Beswick et al 1984, Birrell 1994, DEET 1990, McInnis 1991, Williams 1987). Despite the intensity of the debates, not much is known about the impact of access and equity policy on learning in the university classroom, or indeed, on the university experience itself, either for the subgroups concerned, or for the student body as a whole. Further, there has been little consideration of the impact of the social mix on learning climates in courses or the implications for teaching and curriculum development.

# Respondents' ages and backgrounds

Looking at the sample in broad terms, most of the students started school in the early 1980s and entered university straight from secondary school. Two-thirds completed a Year 12 certificate or comparable in 1993. Using the DEET definition of mature age — students who have commenced higher education other than directly or one year after completing Year 12 — 33 per cent were mature-age students. Taking 20 years of age as an alternative measure, 29 per cent of the sample were mature-age: 17 per cent aged 20 to 24 years, 12 per cent older than 25 years. We have used this second measure, 20 years of age, as our definition of mature age.

Williams et al (1993) confirmed that through the 1980s, participation in Australian higher education still did not reflect the socio-economic composition of the population despite policies to improve access and equity. Following the expansion of access in the late 1980s and early 1990s, however, it might be expected that more students would be entering university from lower socio-economic backgrounds and from families with little or no experience of university. This study does not allow us to

draw any definitive conclusions on these issues. For our sample, overall, 22 per cent of students had mothers who had completed a university degree and 31 per cent had fathers with degrees. However, for most first year students in this sample — 64 per cent — neither parent had graduated from university. Nevertheless, within students' families there was often experience of university; half the first year students reporting brothers or sisters who were attending university, or had in the past. This still left a large group, one-third of all students, who were the higher education pioneers of their immediate family.

Williams noted in 1982 that '... government schools and independent schools provide lesser and greater proportions respectively than their [student] numbers warrant' (1982:16). In our sample, 54 per cent of respondents came to university from government schools, 24 per cent from independent private schools, and 20 per cent from Catholic schools. Williams reported proportions of 59 per cent, 20 per cent and 21 per cent respectively.

Ethnicity is not a clearly defined characteristic. The usual indicators are students' birthplaces, their parents' birthplaces and the language spoken at home. While 78 per cent of first year students in our sample were born in Australia, 41 per cent and 44 per cent had mothers and fathers, respectively, who were born outside of Australia. South East Asian-born students, as a whole, made up 10 per cent of the sample. Students born in Vietnam formed the largest single ethnic group, 3 per cent of the sample. A language other than English was spoken in 28 per cent of students' homes.

# The impact of age

To investigate possible differences in the initial experience of first year students according to age, we divided the student sample into three categories — 19 years and under, 20 to 24 years, and 25 years and over. Major differences emerged between these age groups which we believe influence the patterns of responses identified for other subgroups in this chapter. Perhaps most relevant to the university classroom, students aged 19 and under were significantly less academically oriented, and showed significantly lower levels of application to their study than the two older groups. For example, the younger students were less likely to agree that they enjoyed the intellectual challenge of their subjects, or that they worked consistently through the first semester.

Significant differences between the three age groups also emerged on the sense of purpose scale. The older the students, the stronger their sense of purpose. These differences were reflected in students' reasons for enrolling, again following patterns which would be old news to academics teaching mixed age groupings. Fewer of the under 20s were clear about the reasons they came to university (70 per cent) compared with the over 25s (88 per cent). More of the younger students (19 years and under) rated studying in a field of interest as important, but fewer gave weight to developing their talents. Naturally enough, more younger students were still influenced by the expectations of their parents, and also by the need to improve their job prospects. Interestingly, the age group 20 to 24 years, varied slightly from both those under 20 and from those over 25. This group were more like the under 20s in the importance they attached to being with friends and developing talents, but a higher proportion were

motivated by the poor job market: we can speculate that many of them came to university after a brief and possibly unsatisfactory experience in the workforce.

It may be argued that it is expecting a lot of younger students to be as clear in their goals as older students who have had time to reflect on their motives for going to university. As we indicated in Chapter 1, there has been growing interest in the desirability of a more generalist degree, partly on the grounds that many first year students are not ready to specialise. To emphasise this point, we repeat that a substantial proportion of school-leavers (34 per cent) agreed with the statement, 'I was not really ready to choose a university course on leaving secondary school' while just 50 per cent felt they were ready to make the choice. The students divided more strongly on the item 'I would have preferred starting with a general first year at university before choosing a specific course': a minority of 28 per cent agreed, and 57 per cent disagreed.

For mature age students, going to university is sometimes a second chance, and not a moment is to be wasted: 'I went to university straight out of high school and I was just interested in the social life'. Higher education from their perspective can offer a '... better view of the world'. Intellectual stimulation is high on the agenda: 'The best thing . .. is opening up my mind again to all the possibilities and having opinions on things'; and, 'your mind is moving all the time.' Some mature age students felt they were making up for lost time:

I wasn't sure what I expected from university, all I knew is that I wanted my brain to develop . . . I felt like I was in a rut, I saw my children growing up and they were developing ideas and I felt behind. Before I started this course I didn't think critically about things.

But these higher order personal goals were not universally shared across the age groups, nor across the institutions. Some of the younger students talked more of deferring. They felt that at school there was substantial peer and staff pressure to do well enough to gain entry to university. Having achieved this measure of achievement, they had lingering doubts about their reasons for being there. On the other hand, while one student at *Established University* said that being at university '... buys you time while you decide what you really want to do', his sentiment was the exception to an otherwise clear impression that the students in his law course had clear goals and ambitions.

As Figure 7.1 shows, the three age groups varied markedly in the overall extent of their academic orientation. These differences were statistically significant. The older students, particularly those 24 years and over, were clearly more likely to relish the intellectual challenges of higher education. Indeed, almost half the students aged 24 and above fell in the top quarter of all students who showed stronger academic orientation, while the small proportion of older students in the lower quarter contrasts strongly with the under 20 students.

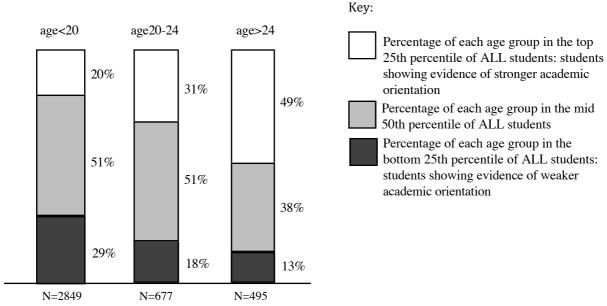


Figure .C7.7.1 Academic orientation ('I enjoy the intellectual challenge of my subjects') by age

Figure 7.2 shows that older students, when compared with students aged 19 years and less, perceived the teaching to be better. It is obvious why many academic staff prefer to teach older students — they are certainly more positive and complimentary. They were also happier with their courses overall and more comfortable with the workload. Although the older students seemed to adjust well to university teaching, they appeared more anxious about their abilities, and determining benchmarks for achievement was a concern of many: 'I am content with the standard of teaching and the university itself, but I am more worried about my own performance.' At *New University* the mature age students valued a subject designed to introduce them to university study: 'This is a necessary subject for me, easing me in', and another said '... for me, I wanted to start from the beginning again, and it's doing that'. Beginning university probably has its difficult moments for mature age students who are conscious of standing out among a group of largely school-leavers. Furthermore, the social needs of older students may be quite different — as one put it 'when you are a mature age student you get bored with the interests of the younger students'.

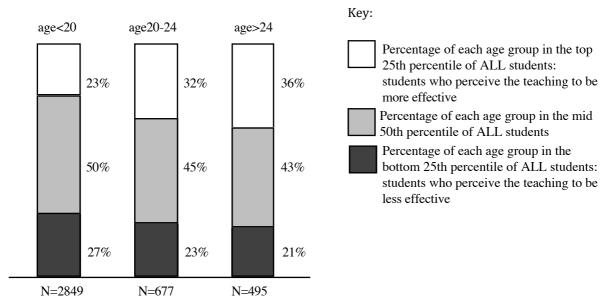


Figure .c7.7.2 Perception of teaching ('The teaching staff are good at explaining things') by age

The differences in attitudes, expectations and perceptions between the age groups show up in the classroom according to the staff and students we interviewed. Staff said to us that 'mature age students constantly clamour for help', unlike school-leavers (particularly the males) who are less inclined to seek assistance. It was apparent from the accounts of both staff and students that mature age students and school-leavers can be worlds apart at times — both can become frustrated with this gulf, school-leavers annoyed that mature age students dominate discussions, mature age students concerned about what they see to be a low level of discourse. In one course, a shift towards a larger proportion of school-leavers had resulted in a drop in the number of mature age students, altering the classroom dynamics to the point where, for the first time anyone could remember, discipline problems emerged in lectures. The evening classes, with relatively high numbers of part-timers, still tended to have many mature age students. This led to tensions in the classroom, for the divide between the mature age and the younger students can be significant — as one staff member noted, it is a divide of:

... attitude, approach to study, understanding of the processes of study. Mature age students tend to be the ones who will approach you after class, the ones who will ask questions, the ones who will be concerned and interested.

Less positively, from one teacher's perspective, mature age students make class management more complex:

... they're pretty keen to show that they've got some knowledge already in the area and they will always be interjecting, it's very difficult to keep a hold on them to make sure that you can move forward with the lecture and not make them feel as if they are being told to shut up.

One the other hand, meeting and working alongside mature age students presents challenges for school-leavers too: 'you don't know how to approach them at first I suppose'. A typical obstacle was the gap in experience:

I find that in terms of writing in assignments you feel that somehow you are being put off because they have a lot of experience they can tell better than you do. And they can write better than you do. You feel a bit . . . inferior.

Nevertheless, as one young student discovered: 'you assume age is knowledge . . . 'cause they know more than me. And yet I've done better . . .'. Students were sensitive to the special, or at least, different attention given to the mature age students and part-time students; as one put it, staff '. . . often single out part-time students as a group'. In some classes this was particularly obvious:

That was especially true in 'Accounting for Managers'. I did it in a 5.00 to 7.00 time slot and all of them were mostly people who work in a business, and so the lecturers always assumed that you had a background in business.

The problems which stem from student mixes obviously depend on the ratios of ages in any given class. We do not know the relevant thresholds at which the mix of ages becomes either productive or dysfunctional but the reports from academics and students suggest that the presence of only one or two confident mature age students in seminars and tutorials can create a negative learning climate, while a majority can overwhelm and discourage younger students. The creative management of the dynamics inherent in the age mix is often a major everyday challenge for academics.

# **Comparisons between males and females**

There were significant differences between males and females on four of our seven scales. Females showed higher levels of academic orientation (Figure 7.3) and academic application, slightly stronger senses of purpose, and tended to be more satisfied with their courses, indirectly supporting growing evidence of their relative success in universities (Birrell 1995). We uncovered no significant differences at this level of analysis between males and females in their sense of identity, perceptions of teaching, or their attitudes towards the workload. The academics we interviewed generally believed females to be more diligent students. One lecturer expressed concern that many females, especially Asian females, were quiet students who would study hard, 'take the medals, then go downtown and still get lower salaries'. These sentiments tend to be supported by the survey, in which more females said that they worked consistently during the semester than males.

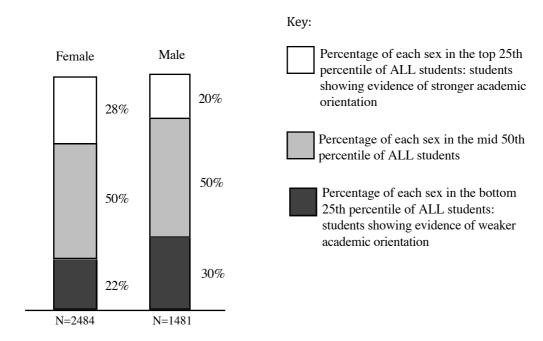


Figure .c7.7.3 Academic orientation ('I enjoy the intellectual challenge of my subjects') by sex

The sexes offered slightly different reasons for enrolling. More males were motivated by friendships and the expectations of their parents, while training for a specific job was of importance to marginally more females. It is possible that these minor variations might also be explained in terms of institutional, field of study and age differences. However, broadly speaking the findings of this study suggest that females are more positive about their early experiences at university, a conclusion which is sharpened when it is remembered that we received a better survey response from females, inviting the speculation that males who were less well integrated with university, or with a weaker sense of purpose, were less inclined to reply.

### **Cultural capital: Parent education**

Students' attitudes towards and expectations of higher education are usually assumed to be influenced by their cultural capital — that is, their resources and values closely associated with their socio-economic status. In particular, it might be expected that the extent of experience of higher education among the immediate members of their family is likely to be a major influence on the decision of students to enrol in university and their behaviour, attitudes and perceptions once there. We took parent completion of a degree to be a reasonable — and especially relevant — surrogate for the usual indices of socio-economic status which are education, income, and occupation. We examined the sample for notable variations in responses on the basis of possible combinations of parents and siblings with or without university experience. Our particular interest was with the 64 per cent of students whose parents had not completed a degree. As it turned out, the differences between the groups were somewhat smaller than we perhaps anticipated.

Students from homes where neither parent had a university degree showed a significantly stronger sense of purpose than students with one or both parents university educated. In terms of the reasons they identified for enrolling in higher education the students varied only slightly however. Where neither parent had a university degree, fewer students rated being with friends, or the expectations of parents, as important, and slightly more were motivated by the need for training for a specific job, and the poor job market.

A distinct pattern of responses emerged from the 15 per cent of students who came from homes where both parents had a degree. They appeared relatively less interested in training for a job, improving their prospects for a job, or worried about the poor job market. However, a considerably higher proportion of them (31 per cent) rated the expectations of their parents as important. Having both parents with a degree did not make a significant difference in terms of sense of purpose over having one parent with a degree. We should point out that just over half of these students were enrolled at the two most selective universities in the sample. It seems reasonable to conclude that for these students, getting a job is considered less problematic.

There was no significant difference on the academic orientation scale between students who came from homes where one or both parents had a degree, and those where neither parent had a degree. There were, however, significant differences in terms of academic application. While again there was no difference between students whose parents both had degrees and those with only one parent holding a degree, there was a clear and significant difference in the mean scores on academic application between one or both parents with a degree and neither. Students from homes where neither parent had a degree showed evidence of greater academic application. One explanation that springs to mind based on studies of social class differences in childrearing (eg. Kohn 1969) — is that for the students from homes where parents have little or no experience of university, the experience is considerably more problematic and academic success is not taken for granted. It may also be that the impact of parental pressure is much stronger for first generation university students — a different kind of pressure to that experienced by students from families in which both parents have degrees. Again, similar patterns of motivation can be found in research on ethnic and class differences in education (Marjoribanks 1978).

There were relatively small differences between the students according to parental education when it came to adjustment to the style of teaching, although slightly more students from homes where neither parent had a degree seemed to be experiencing adjustment problems. We found no significant differences according to parent education in terms of student attitudes towards teaching, courses and workload.

### **Cultural capital: School attended**

We contrasted the responses of students primarily in terms of three school categories: Government, Catholic, and Independent (non-Catholic) Private. Government and Independent Private school students showed only one area of minor difference in motives for attending university — a higher proportion of students from government school backgrounds rated training for specific jobs and the poor job market as important factors.

Students from Independent Private schools were less likely to say that they had difficulties adjusting to the style of teaching at university compared with Government and Catholic school students, but they were significantly lower in their sense of purpose than the sample overall. Figure 7.4 shows differences between the three groups of students on the academic application scale. The contrasts at both the top and bottom ends of the application scale are clear. Students from Independent Private and Catholic schools were significantly lower in their academic application than the rest of the sample. An almost identical pattern of results emerged for the academic orientation scale. Independent Private school students were also significantly less satisfied with teaching. However, no significant differences emerged between the groups when it came to their overall level of satisfaction with their courses, or their views on the workload.

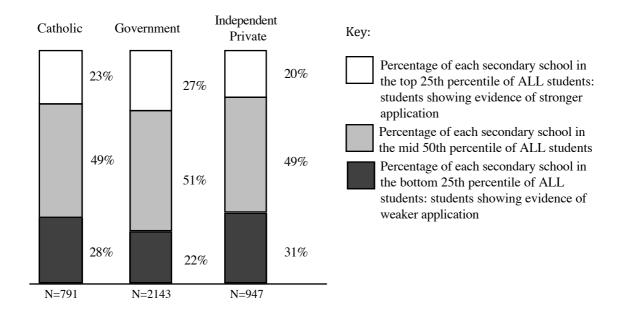


Figure .c7.7.4 Academic application ('I worked consistently throughout first semester') by school attended

The school background differences are in part mediated by factors such as age and field of study. However, as we have pointed out earlier, exploring the interactions of these variables is not our purpose here — rather, the data are used to illustrate the potential impact on the learning climate produced by different mixes in the social backgrounds and experiences of students. These results confirm that the nature of students' experiences during first semester are related to some extent to the secondary school they attended. There is a danger of over-simplifying the relationship. For instance, given that students from independent schools tend to be concentrated in certain institutions and fields of study, it is especially difficult to tease out the institutional and course effects from the influence of the educational backgrounds and levels of student achievement.

### **Ethnicity**

69

Australian universities draw their students from regions with different cultural and ethnic mixes. As we showed in Chapter Three, the distribution of overseas born students varies considerably across institutions. Likewise, courses within universities vary markedly in the extent to which their ethnic student profile has changed in recent years. The issue of ethnic mix and concentrations in particular courses was a major point of discussion for some academics we interviewed — both in terms of obstacles to teaching in styles to which they were accustomed and for the new opportunities generated by the presence of students from diverse ethnic backgrounds.

To explore the effects of ethnic mixes on the learning climate of first year courses and classes, we contrasted two broad ethnic groups readily identified from the demographic data — Australian-born and South-East Asian-born students. The latter group is of particular interest given their growth in numbers on Australian campuses, and their increasing influence on the shaping of many aspects of Australian higher education. We stress that this grouping of students as South-East Asian includes within it much ethnic and cultural diversity, but these students are also more likely to share common and important characteristics such as paying fees, living away from home and being school-leavers. We also acknowledge that the category of Australian-born includes students of South-East Asian origin who are still deeply embedded in their distinctive cultures. Nevertheless, even with this crude analysis, the broad comparisons are useful in reinforcing the fairly obvious point that on most aspects of the first year experience significant differences in student perceptions are associated with ethnic background.

Differences between the two groups were evident in their motives for enrolling. Fewer South East Asian-born students rated studying in a field of interest as important and more were concerned about the poor job market. There were differences in patterns of social influence as well. More South East Asian-born students considered being with friends as an important factor, and many (51 per cent) said they were motivated by the expectations of their parents, as against only 21 per cent of Australian-born students.

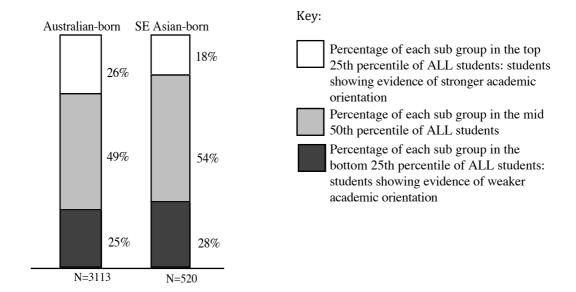


Figure .c7.7.5 Academic orientation ('I enjoy the intellectual challenge of my subjects') by Australian-born and South-East Asian-born students

Australian-born students were more academically oriented than South East Asianborn students — that is, Australian-born students were more likely to be enjoying the intellectual challenge of their subject, finding their subjects interesting, and receiving satisfaction from studying (Figure 7.5). However, there was no significant difference between these two groups in academic application — the scale which probed whether students worked consistently and were motivated to study. The differences on the workload scale were quite striking however, with South East Asian born students finding the workload more pressing. The academic staff we interviewed perceived Asian students, by and large, to value collaborative approaches to study, to have a strong work ethic and to experience strong family influences. One academic at *New University* identified patterns in student motivation in his classes more or less along ethnic lines, believing Vietnamese students to be highly dedicated, the group of full-fee paying Asian students to be less dedicated, and the Australian-born students, by and large, to be poorly motivated. In his experience, while the Vietnamese students were usually very hard-working, this endeavour did not guarantee them better academic results.

The survey also revealed that more South East Asian born students had difficulty adjusting to the style of teaching (37 per cent) than Australian born students (29 per cent). Furthermore, students born in South East Asia were less satisfied with their courses (see Figure 7.6) and more critical of the teaching than students born in Australia.

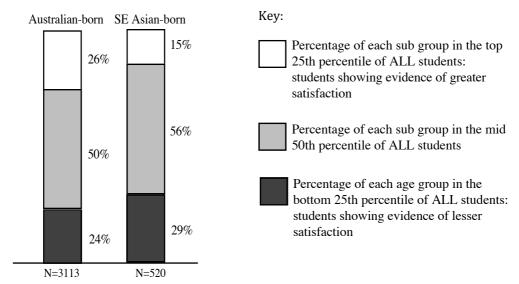


Figure 7.6 Satisfaction with course ('Overall, I am really enjoying my course') by Australian-born and South-East Asian-born students

Awareness of sizeable cultural differences such as these is a starting point for universities and academics exploring the more specific implications for their contexts. Clearly overseas students have particular needs, more so in certain fields of study, and these needs may be difficult to meet at times. One academic teaching in Law felt that overseas Asian students demand more staff time, often because they don't have a background in the Australian legal system:

We have had particular problems teaching the first year law subject here with the volume of Asian students. . . I mean, in the initial weeks of the course teaching the Australian legal system, there is a presumption that all the students sitting in front of you have a basic understanding of the Australian legal system. Well of course that can be misleading because half of the class, I mean a greater proportion of the class, don't understand . . .

We do not wish to make too much of these differences, and stress that we are conscious that students with different cultural backgrounds may attach different meanings and values to the FYEQ items. Nevertheless, the research has revealed significant differences in statistical terms between South East Asian-born students and Australian-born students. Quite different variations would no doubt emerge between other ethnic groups if we pursued this analysis further. Such differences in attitude have implications for teaching. An onerous workload, for example, may be self-imposed by high ambition, however, it might also indicate misunderstandings of expectations and be a sign of efforts which are ill-directed and which may not be fruitful. The attitudes and experiences of full-fee paying overseas students are of critical importance as the overseas marketing of Australian higher education grows and fee levels rise.

While raising these concerns we recognise that students from overseas encounter a series of specific challenges which will influence their attitudes and experiences, one of which is adjusting to new accommodation and financial arrangements. Academics at the chalkface are no doubt sensitive to the anxiety produced by the stress associated

with learning in a foreign country and would recognise the student who wrote to us saying 'I study very hard, but my marks were bad, I am still . . . very confused, and I don't know what I have done wrong . . .'.

# Chapter 8

# Social and economic context

All things being equal, the gap between first year and 'pre-university' life is likely to be less of a problem if students are happy with where they live, are not beset by financial problems and can rely on a reasonable amount of support from family and friends. Accommodation and income, in particular, are the down-to-earth practical matters which can make for vastly different first year experiences.

The nature of their residential arrangements divides students into readily identifiable groups. For many students, moving to new accommodation may be the single largest change in lifestyle when they commence university. Moving away from parents and getting a job are important means by which young people gain a growing sense of autonomy and they remain significant markers of growing independence, despite the shifts in young people's pathways to adulthood over the past couple of decades and the tendency for more young people to be living with their parents (Hartley and Wolcott 1994). Sixty-four per cent of the students aged 19 years or under were living with their families and 44 per cent of these students were not employed. Of the students who lived with their families and were not employed, 85 per cent were 19 years or under, only 13 per cent were 20 to 24 year olds.

While it is true that the majority of first year students live with their families, large numbers do not. Many live on relatively low incomes, often paying a significant proportion of their income in rent. In addition, students from lower-income families now attending university may be partially or substantially supported by their parents, whether they live with them or not, placing considerable strain on these families, and the students themselves. In our survey, 32 per cent of students agreed that money worries made it difficult for them to study and one-quarter of school-leavers agreed that they felt pressured by the financial commitments made by their parents in sending them to university.

The issues of student allowances and course fees have been widely discussed for many years. The broader issues of student incomes in general and housing options for students (as distinct from specific student accommodation) are more recent concerns as the diversity of student backgrounds has increased. It is noteworthy that students are identified as a special group in a recent discussion paper produced for the Commonwealth government's development of a National Youth Housing Strategy (Maas 1995).

Daily lives of students in the sample: Social and economic contexts We begin by looking at some general features of the sample as a whole. Australia has never had a tradition of students moving interstate for their university education and this remains the case in the 1990s. Only five per cent of students in the sample reported relocating to another state (against a national average of around 10 per cent). Nevertheless, a sizeable proportion, 39 per cent in total, moved house, usually within their home state (22 per cent), often within the same city (seven per cent) or from rural areas (14 per cent). Fifteen per cent took up residence in colleges.

The majority of students (61 per cent) did not change residence; for 54 per cent of the sample this meant remaining with their families. This figure varied considerably between institutions. At *Regional University*, which draws its students largely from surrounding rural districts, only five per cent of respondents were living with their families. On the other hand, *New University* had 73 per cent, catering as it does for an urban region.

At most Australian universities the commuting student is the norm. Many students spent a considerable amount of time travelling — over half the students travelled for more than one hour each day, 20 per cent spent more than two hours commuting in total. In contrast, approximately one-quarter of students lived close enough to campus to arrive within a few minutes. The majority of students in the sample (54 per cent) relied on public transport, 29 per cent travelled by car to university. At the inner urban campus of *Established University*, with no on-campus parking available to students, only 11 per cent of first year students travelled by car, yet close to half did so at universities where more spacious surrounds provide car parking space or where public transport might be less adequate or convenient.

### **Sources of income**

The relationship between income and adjustment to university life is likely to be complex. For some students, financial worries are fairly constant. Particularly for those who are supporting themselves financially, there is often 'a temptation to give up and go out to work for a year' as one student said. A regular comment from staff in one faculty was that students were saying that if they do not work, they cannot go to university. Yet the pressures of part-time, and in a minority of cases, full-time work, make it extremely difficult for some students to fulfil course expectations. The expectations of some employers that highly casualised labour should be available on call, can severely disrupt the best of study plans. Nevertheless, students who manage to survive a first year in difficult financial circumstances may well be more highly motivated than some with adequate accommodation and money.

One-quarter of the respondents worked up to ten hours per week in paid part-time employment. As Table 8.1 shows, the main or only source of income for the majority of students was either Austudy, family or part-time employment. Twenty-six per cent said that part-time work was their main or only source of income. For a small proportion of students — five per cent — full-time work was their most important source of income. Austudy was the principal income for 35 per cent, the only source for ten per cent. Sixty-three per cent relied on their families for financial support to some extent. These three main groups were similar as far as student identity and academic

orientation was concerned. They also tended to be very similar in terms of their overall enjoyment of their courses, and their satisfaction with the university experience in general.

**Table 8.1 Sources of income of respondents (%)** 

Source	Only	Main	Minor	Not a
	source	source	source	source
A., at., d.,	0.0	25.0	<i>(</i> 1	<b>500</b>
Austudy	9.9	25.0	6.1	59.0
Full-time work	3.4	2.0	0.3	94.3
Part-time work	3.5	22.2	22.3	52.0
Loans	0.0	2.2	3.8	93.9
Family	12.9	28.0	21.7	37.4
Savings	0.2	5.1	26.3	68.4

Some differences between the three groups might have been predicted as student source of income is related to our broad indicator of cultural capital (that is, whether or not parents have a degree). Students who had at least one parent with a degree were less likely to rely on Austudy as their principal source of income and more likely to rely on financial support from their family. For example, 59 per cent of students whose parents both held degrees relied on their family as their principal source of income compared with 48 per cent of those with only one parent holding a degree and 34 per cent of students whose parents did not have degrees. This last group were more likely to be supported solely or mainly by Austudy (41 per cent). Student dependence on part-time work was not clearly related to the cultural capital of parents, with around one-quarter of students saying this was their principal source of income irrespective of their parents' education.

The students who stood out as being consistently different from the group as a whole were those whose principal source of income was their spouse and those who were in full-time work. Not unexpectedly, a sense of student identity appeared to be much less strong amongst students whose principal source of income was full-time work than it was among those with other sources of income. While 74 per cent of the sample as a whole agreed that they really enjoyed being a university student, only 51 per cent of those employed full-time agreed with this proposition.

In terms of academic orientation, 84 per cent of students whose principal income source was their spouse or a scholarship agreed that they 'enjoyed the intellectual challenge of the subjects they were studying'. Noticeably lower percentages of students whose principal income sources were Austudy, loans, part-time work or their family agreed with this statement (62, 63, 57, and 59 per cent respectively). Students in full-time work sat in the middle between the two groups, with 70 per cent agreeing. Age differences, as discussed earlier, are one factor in these variations.

Being strongly academically orientated, does not necessarily equate with studying consistently. Generally, much smaller percentages of students from each of the income groups (between 28 and 47 per cent) reported that they 'worked consistently throughout the first semester', except in the case of students whose main income source was their spouse. Most of these students were mature age females, thus it is not surprising that they appeared generally hardworking and committed — more of these

students (63 per cent) than any other group said that they had worked consistently throughout the term.

There was a relationship between students' sense of purpose in coming to university and their sources of income. Students tended to respond in two broad groups. Those whose principal source of income was either Austudy, part-time work, loans or their family fell into one group; between 70 and 74 per cent said they were clear about the reasons they came to university, slightly below the average of 75 per cent for the whole survey population. The other group were above the average for the survey population. Between 82 and 87 per cent of those whose principal source of income was from full-time work, their spouse, a cadetship, or from 'other' sources had a clear sense of direction in coming to university. It should be noted that these last four groups made up only 18 per cent of the total survey population. Age and sense of maturity are likely to be factors which underpin the findings.

There was also a relationship between source of income and the expectations which students had about work standards. Overall, 45 per cent of school-leavers said that they found the standard at university higher than they expected. Students relying on Austudy, part-time work, or their family as their principal source of income were average in this regard. Students using other sources of income stood out as quite different from the average. Those who received money from spouses or full-time work were clearly more prepared for the standard of work they were expected to produce. Only 37 per cent of the former and 29 per cent of the latter found the standard higher than expected.

Students being supported by their families may well be very conscious of the financial pressures on a family which are associated with the costs of supporting a teenager and paying university fees. As one student said: 'There is pressure from my parents due to the financial situation — it is costing them a lot of money'. Not unexpectedly, this pressure takes the form of expectations to do well academically.

The working student and the part-time student I work 35 hours a week and do two subjects, so there is no time for anything else - I do not expect anything else from university.

There is obviously a range of reasons why people choose to study part-time. Many part-time students are mature age students, possibly with family and work commitments. Keeping in touch with established careers through part-time employment may be essential for many part-timers — as one student said 'to further my career I need to stay in some form of part-time employment as well as mixing in some study' — and work commitments may take priority over university when it comes to the pinch. For these students, their fraction of a full-time load might be small each year, and graduation is a distant goal. On the other hand, younger students might find that more sizeable part-time study fractions allow them to juggle the demands of substantial amounts of paid employment, particularly important for students who are supporting themselves financially.

Course load and work activities which limit the amount of time students are able to spend at university are influences on students' university experience, in particular the extent to which they regard themselves as university students. To look more closer at this issue we investigated the attitudes and experiences of full-time and part-time students, and three groups of working students: those with no paid employment, those

working up to 10 hours per week, and those working more than 10 hours. In this section we discuss both working students and part-time students in recognition of the substantial overlap between the two groups, notwithstanding that some students do not belong to both groups.

There were significant differences on the identity scale according to course load since the items were oriented towards full-time students. Full-time students were significantly stronger in their student identity than part-time students. For similar reasons we would expect that the more hours students spend on paid work the lower their sense of student identity and level of integration with the university. In our sample, students who worked 1 to 10 hours were significantly lower in their academic application than those who did not work at all. Interestingly, there was no significant difference in the academic application of students working over 10 hours and those who were not working at all. However, students working over 10 hours were significantly lower in their student identity than those not working. Given the frequency with which the issue of students in paid work was raised by academics in our case study interviews, we believe that this warrants closer investigation — the outcomes could have important policy implications by way of guidelines for optimum versus counterproductive hours of paid employment.

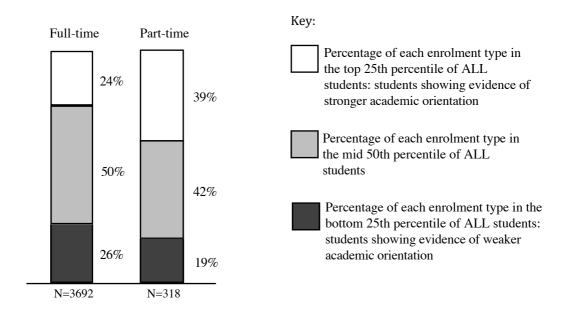


Figure 8.1 Academic orientation ('I enjoy the intellectual challenge of my subjects') by enrolment type

Figure 8.1 illustrates the differences between full-time and part-time students in the extent of their academic orientation. Part-time students showed significantly stronger academic orientation. As well, they were slightly more likely to enjoy the theoretical challenge of their subjects and were significantly higher in academic application. It might be expected that the amount of paid work students are doing during semester would also influence their attitude towards their courses, but when it came to perceptions of teaching and the course overall, no significant differences in statistical terms emerged between the three groups. However, there was a significant

difference on the workload scale — part-time students were significantly higher than full-time students, indicating that they tended to find the workload more acceptable.

As staff see it, the pressure on students for financial survival can be a problem in first year courses. Students with full-time jobs trying to be full-time students. One lecturer was dealing with a failing student who had two jobs 'she cannot find the time and there is no way of rescuing her at this stage'. The same staff member referred with rising frustration to another student who was so busy with work that he still did not have a copy of the textbook by the last week of the course.

Alternatively, there is the view among some staff that not all students who work do so for survival, some are seeking opulent lives — materially at least. Some staff were cynical about the expectations students have about their lifestyles, believing that paid work often provides luxuries rather then necessities:

This part-time work and everything, I find it all bundled up together. When we were at university you would never have considered going to night clubs . . . proper night clubs in town like . . . all those places where you pay proper bar prices to drink. It just amazes me to think the social life that they have outside university in going to these night clubs.

This attitude may simply be a function of age on the part of the academics concerned but it bears investigation if it is a sign that university is increasingly becoming somewhat less than central to the lives of at least some students.

The needs of growing numbers of working students and part-time students probably means more pressure for academics. Dealing with an increasingly large number of late essays puts plans for preparation or research on hold. Requesting letters from employers explaining why a student had to work extra time and therefore needs an extension, not only increases the 'administrivia', it raises interpersonal tensions for both staff and students. What also needs further investigation, perhaps, is the belief expressed by both academics and students that a set of forces are altering the nature of so-called part-time work. As one academic suggested:

I think part-time work has changed. It's no longer weekend or night-time waitering work, their part-time work is in the supermarkets during the day and their employers want them to work in the day and on call.

In instances where students are working in jobs in which they are effectively on call, if they wish to retain continuing employment they are placed in the situation of perhaps choosing between an assignment deadline or losing their job. They might choose the job.

Academics in business courses are the ones who often confront the issue of the working student:

They are registered as full-time but they only want to do it as a part-time. They have jobs during the day and come and do full-time at night and you've got to fit your lectures and tutorials around their jobs, and they cannot do this or that because of work. Well, you've got to try and accommodate tutorial times.

While many staff try to accommodate demands to set class times which suit, there is a limit:

... when you demand that assessment be done, or they be there, they say 'but we work'. You say 'well tough biscuits', and then they're all to the union. The union says you cannot discriminate [against] people who have to work to support themselves.

In summary, the view of some staff is that 'university study is no longer the primary objective in their lives . . . they're having trouble with their priorities'. However, we suspect that many students would not agree with this assessment, as the following section illustrates. Some part-time students might well argue that it is the lecturers who have trouble understanding their priorities. They might wonder too, how many of their lecturers have ever been part-time students and how much empathy they can reasonably expect.

### *Embarking on part-time study*

Consider the scenario which a student described to us. It's Thursday, 2 pm., your lecture begins at 2.15. You have rushed from work, struggled to find a parking space, the baby-sitter has been arranged to pick up the children from school. You arrive at the lecture room, only to find the lecture is cancelled. Again.

Part-time students understandably become frustrated by issues which full-time students take in their stride. One part-time student said to us, with a considerable degree of annoyance:

I needed to get something signed by the course co-ordinator. She says 'I will only see students on Mondays and Fridays between 1 and 3' — and I respect that. I get there at 1 pm, missing the first few minutes of my class, but she isn't there. In the break I went down there again, still not there.

Another echoed these sentiments, 'Access to the lecturers is difficult because the time that I'm at university they aren't there or they are lecturing. However I don't often need to see them, I just get on with what I am doing'.

The university experience for many part-time students is quite different to that of full-timers. In particular, the campuses and courses which focus on school-leavers may tend to overlook the needs of part-time students. The scheduling of classes is one source of grievances:

It all goes back to the fact that there is little or no flexibility in the timetable. It just does not meet my needs. The timetable bothers me because in my part-time work I am spending tremendous amounts of time backwards and forwards. They do not really offer night-time classes — their timetable is very 'school-hours'.

#### Another student pointed out that:

The only service I choose to use is the library, but on a Friday afternoon they close at five. You know, you're sitting there and the lights go out. Which is outrageous. I think the weekend hours should be extended. At times it doesn't open until 10.

When it comes to the learning experience, not studying the full course load in one year can have its drawbacks. Part-time students find it more difficult to see the connections between subjects: 'There was a subject there that I didn't have to do. But it is a key link for most of the students as it turned out'. Furthermore, part-time students are less well immersed in the campus communication networks, the consequences ranging from the trivial to the critical:

If there is a change to a timetable or whatever — room changes, a staff member away — you don't know about it but the other students know by word of mouth. I rely a lot on talking to others to get information on class changes and the expectations of the different lecturers.

Part-time students, in as much as they are peripheral to the student community, often miss out on the ad hoc, unplanned discussions about study which for other students are beneficial and part of their daily routines.

Certainly the part-timers we spoke with appeared focused and pragmatic, saying 'I have little interaction with the other students. I do not seek social interaction' and 'If I am there I will be in class or I will scoot to the library. I'm not there to have a cup of coffee or do other things'. Thus, university becomes a less rich experience socially. The part-time student may have less opportunity to dip into the milieu of campus life, there is often very little university life outside the classroom and the library. One summed it up by saying:

 $\dots$  I just go there to do my subjects, come and go. I do not participate in any activities other than my classes. So on the social side maybe there is more on offer, but I do not seek it — plus my time doesn't allow it.

The difficulties faced by part-time students and those who are working substantial hours in paid employment are not limited to first year students exclusively. However, we believe they take on special significance in the first year when the attitudes of students towards their course and their study are being shaped. We expect that part-time students, in particular, can experience disappointment with aspects of the service they encounter, nevertheless a strong commitment might override any sense of disquiet they may have. The obvious alternatives of Open Learning or Distance Education are not yet sufficiently comprehensive to meet the needs of all students.

#### **Family support**

Family support can include all sorts of assistance; for example, straight financial contributions from parents or other family members, having one's washing and ironing done, having access to a family car, getting help with medical expenses, having someone help with the preparation of class papers, being able to discuss issues with family members, and what we might call general emotional support. Even the latter is complex and may include having someone to talk through particular problems, having someone believe you will pass, having someone to encourage you when you hit a bad spot. The presence or absence of any one of these aspects of family support may make a difference in how first year students cope and can contribute to the quality of the first year experience.

The developing research on financial and other sorts of support arrangements between parents and young people suggests that there is a complex relationship between expectations about young people's independence, family support and socioeconomic background, and that financial and non-financial help may go from young person to parents as well as parents to young persons depending in part on who has the resources (Hartley and Wolcott 1994). While financial support is often crucial, in some cases it may well be the less easy to define emotional support which contributes most to the orientation and adjustment of first year students.

Overall, 76 per cent of school-leavers said that their parents were supportive of their Year 12 study, and only 10 per cent disagreed with the statement. Just on 50 per cent said that they often discussed their university work with family members (31 per cent disagreed). However, 31 per cent said that their parents had little understanding of their university work (45 per cent disagreed). This may imply that there are parts of university work that can be discussed with someone even though they may not understand it very well and that, in some cases, an interested and sympathetic ear is as useful as someone who really understands the issues.

This conclusion tends to be supported by the fact that this type of family support was not strongly related to whether or not parents had a degree. Just under half (49 per cent) of school-leavers who had a parent with a degree said that they often discussed their university work with members of their family; so too did 47 per cent of students whose parents did not have degrees. The discrepancy in relation to the item about parents having little understanding of university work was greater. Only 24 per cent of school-leavers whose parents held degrees agreed that their parents had little understanding of their university work compared with 37 per cent of those with 'non-degreed' parents.

For older students too, family support involves much more than money. The majority of mature age students are women and both the difficulties and the potential advantages which they face in returning to study, in universities and other learning environments, have been quite widely documented. While some women have the unequivocal support of partners, children and other family members, others do not. Some women face opposition from spouses and children; for others, their study is accepted as long as it does not 'interfere' with the needs of other family members. In one regard, studying is not very different from being employed, in that despite some changes in men's roles in recent years, most women continue to carry the main responsibility for housework and the care of children irrespective of their employment and study commitments. So support for mature age students with a spouse and possibly children may mean having one's aspirations recognised as legitimate, practical assistance with housework as well as financial support, and encouragement and understanding when the going gets tough.

# Type of accommodation

Upcraft (1991:145) noted that research in the 1970s

... confirmed what we had suspected for centuries: residence halls are good for first year students, no matter what criteria one chooses . . . The bottom line is that first year students who live in residence halls, compared to first year students living elsewhere, earn better grades, are more likely to graduate, get more involved in campus life, and are more satisfied with their collegiate experience, to name just a few of the many benefits which accrue from residence halls.

We are able to make some comparisons between students living in colleges or residential halls (15 per cent of the sample overall), those living with their family (54 per cent) those renting with others (16 per cent) and the remaining 15 per cent living in various other situations.

No clear relationship emerged between type of accommodation and whether students were clear about the reasons they came to university. However, there was a trend for those living with their families to be less clear than those renting. This is likely to be a function of age and is reflected in comments from students and staff that students coming directly from school may be uncertain of their direction. But *getting* to university is what matters. As one student said: 'I wasn't thinking of subjects, I just thought *I'm going to uni, wow!*'. A comparison between younger students (those 19 years and under) in different types of accommodation on the sense of purpose scale showed that college students had a significantly stronger sense of purpose than students living with their families and those renting.

Just under half (46 per cent) of the school-leavers who were living with their families agreed that the standard of work expected at university was much higher than they expected. This compared with 46 per cent of those who were renting, 41 per cent of students living in colleges and 33 per cent in other accommodation. First year students live with their families for a variety of reasons, however it is likely that a proportion of the younger ones are not yet ready to move away from home and family support. Dependence and independence are complex notions and it would be wrong to imply that these students are necessarily less able than others to cope with independent study. Nevertheless, from our survey findings and interviews with staff, we gained a fairly strong impression that younger students who live at home and are not in part-time or full-time employment are in general more dependent, less oriented to the demands of independent study and less at ease with the expectations placed on them.

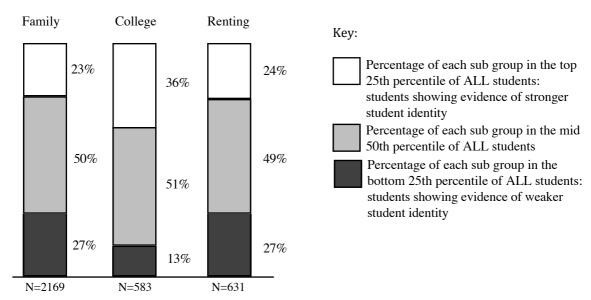


Figure 8.2 Student identity ('I really like being a university student') by accommodation

Overall, residential college students had the highest feeling of identity as university students, with 83 per cent agreeing that they really liked being students, compared with 73 per cent of those living with their family, 74 per cent who were renting and 69 per cent of students living in other types of accommodation. Those living in college or residential accommodation were significantly higher on the scale of student identity than students living in other types of accommodation (Figure 8.2). Students who live on campus often have more opportunities to become closely involved in university life, they are almost invariably full-time students and they rely less on part-time work as a source of income than other students.

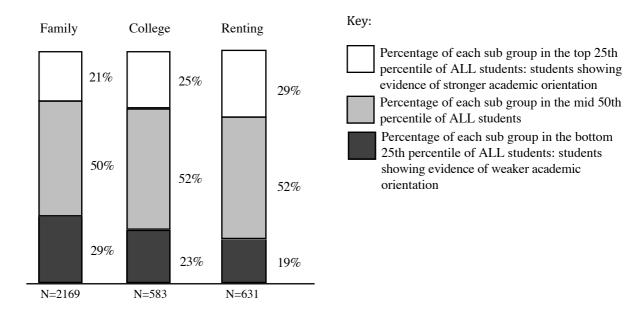


Figure 8.3 Academic orientation ('I enjoy the intellectual challenge of my subjects') by accommodation

However, student identity does not necessarily imply strong academic orientation (Figure 8.3). Only 62 per cent of college students agreed with the main item of the academic orientation scale ('I enjoy the intellectual challenge of my subjects') compared with 70 per cent of students living in 'other' accommodation, 69 per cent renting and 57 per cent living with their family.

Where students were living was related to their perceptions of their courses overall. Students living in residential colleges or rented accommodation were on the whole the most satisfied with the teaching, more satisfied with their courses, and were finding the workload more acceptable than students who lived with their families. In fact, students living in colleges were the first year students who were the most comfortable with the first year workload. There may be a number of reasons for this: virtually no time lost commuting, the availability of college tutors, ready access to other students for assistance. Students living with their family tended to be enjoying their course less, and to be less satisfied with their university experience. Consistent with other findings, it was college students who were most satisfied with their university experience in general. It may be that despite the very real differences between university and school, for younger students living at home, university is to some extent 'more of the same' at least as far as their living situation is concerned. In addition, we have already suggested that a proportion of younger students living with parents will be those who are less independent and less ready to cope with the demands of university. and therefore they are likely to be less satisfied in general with the first year experience.

# Life in the residential colleges

All but two Australian universities currently provide some form of residential accommodation for students. Student accommodation takes the form of catered and uncatered halls of residence, residential colleges and units, run by the universities, or affiliated organisations such as churches. The cost of such accommodation ranges from around \$45 per week for unserviced accommodation to \$250 per week for fully catered, fully serviced accommodation. The number of residential places provided by universities vary according to the geographical location, availability of local housing and historical factors.

As noted earlier, the literature suggests that residential colleges enhance both the social and academic experience of first year students (for example, Brothers and Hatch 1971). Nevertheless, there is little Australian literature on the effects of living in college on students' adaptation to study. Beswick (1984) showed that Australian students moved to college principally for the convenience of location, but most stayed longer than they had intended and were satisfied with the help provided with study and the level of social activities and interaction.

It has been argued (Gardner 1991) that the residential experience is important to educational success for three reasons: First, colleges are where students spend most of their time, and while these colleges are often sanctuaries, they are also the most intense peer group environment of most people's lives; second, the residential experience may be the first coeducational consensual living environmental experienced by students, and the kinds of friendships which develop in these halls influence either success or failure, as students are influenced by the expectations of their peer group: third, the college experience is important since new student satisfaction is frequently a function of their

satisfaction with their initial living experience and hence the residential experience makes a contribution to improving the retention rate of first year students.

College staff have a key role in assisting students to adjust to the residential and university experience. Mosier (1991:41) suggested that:

First year college students cope with a highly complex set of tasks, transitions and adaptations. While attempting to deal with self-identity, relationships, separation, and career planning issues, first year students need to achieve academic success . . . residence staff provide a unique environment to support systematically students' success.

However, for all its benefits, college life brings challenges, both practical and emotional. Beswick's 1984 study (Beswick et al 1984a) showed that Australian students believed high fees and simply noise were the most common tangible problems associated with living in college. Upcraft (1991:145) noted the more emotional issues associated with residential colleges:

For as long as we have housed students together on our campuses we have dealt with the typical adjustment problems of new students . . . including self esteem, roommates, homesickness . . . adjustment to freedom, changing parental/family relationships, social adjustments and sexuality. To that list I would also add alcohol use and abuse since, on most campuses, alcohol is a central focus of students lives, inside and outside residence halls.

From the accounts of the students and staff we spoke with, alcohol continues to play a pivotal role in college life, to the chagrin of staff in particular.

To gain insights into the experiences of students living in colleges, case studies of three colleges of one university were conducted. The colleges were chosen to ensure a wide range of experiences. One college had a long tradition of providing accommodation for teaching and nursing students, and, possibly as a result, had developed a strong nurturing ethos. The second college was relatively new, large and inexpensive. Its students were drawn from a wide variety of social backgrounds and were enrolled in diverse subject areas. It placed emphasis on self regulation and a minimum of rules. The third college was an expensive college attracting a higher proportion of students from boarding and independent schools. Its accommodation areas were segregated according to sex and it had a commitment to sporting excellence as well as a tradition of raising money for charity.

The colleges were considered by both the staff and first year students as the hub of university life, hastening the adjustment from school to university, as well as helping develop individual independence. College quickly becomes an important part of academic life as well. In the first week of university, tutors in most colleges have meetings with the students under their care to discuss their roles as tutors, what students should do if they are having a problem with their work, and the types of help available. Tutors believe they have a very important role in the first few weeks, one saying 'I think some of them live and die by us'.

For residential students, the college is an integral part of their learning environment. The academic support is extensive in many colleges. Many hold tutorials in addition to those offered at university. If a tutor from the college does not have specialised knowledge in an area where students feel there is need, some colleges will

engage an outside academic to provide a tutorial. Tutors expressed concerns which echoed those of academic staff — in particular, that many students have a poor grasp of grammar, the correction of which can quickly dominate the time available to offer advice. As well, a number of tutors expressed the all too familiar concern that students who really need help choose not to attend these tutorials.

Students see the college tutors as more approachable than those at the university, more readily available, more willing to help. One student described how he had visited the main campus of the university six times in one week to find a lecturer and had been unsuccessful each time. The accessibility of college tutors means that students can approach them at any time of the day, and students believe they are genuinely concerned with their welfare:

It is a really social college but at the same time the tutors really care. Like last night I was in the computer room at 11.15 and I had this huge stuff up on the disk and I called the tutor and he just rushed over . . . they are all eager to make life easier, even though they probably have stuff on as well.

Living in college also has an impact on the amount of group work in which students are involved. This group work is both formal and informal. In some courses, the assessment requires that students work in groups at times. Students often try to get in groups with other people from their college to make organisation easier, but in subjects where they do not have friends from college, this group work is a means of making friends.

We have got an assignment at the moment for a group of five. It is really hard because two of us are here, two of us are up top and the other one lives in town and we have to get together on the same day we are at uni. It is really hard to do because we are all separated, we are finding it difficult . . . [but] you get to know other people, and styles of work and it helps you later on working with other people . . . it is a lot harder but worthwhile.

Students in the colleges are also often involved in less formal learning groups. This informal group work includes working on assignments in groups, testing each other before exams and correcting essays. However the nature and level of this interaction was largely determined by the subjects being studied and individual preferences:

We usually do talk about ideas, and then we go and do our own essay or whatever and then afterwards we get each other to read it. We never change it after reading someone else's, its basically spelling, grammar and that sort of stuff.

Some students are more satisfied with this informal interaction than others, one saying: 'I pooled my ideas with someone doing the same essay as me and the person I pooled my ideas with got a better mark than me so I stopped that! I tend to work on my own if I have an exam'. Another said: 'I find it frustrating sometimes when you know the work, and someone else doesn't, and you spend most of your time trying to explain it to them'. Many students expressed concern about the relationship between group work and

plagiarism. While they believed informal group work is encouraged, some students were unsure of what constitutes plagiarism.

The colleges are obviously the centre of much social activity. For first year students, in particular, the role of the college in aiding the social transition from school to university is seen by college staff as particularly important. The need to provide a nurturing environment is evident in the roles and attitudes of the college staff. The tutors commented on the need to keep students busy in the first few weeks to ease homesickness and to help them make friends quickly. This was appreciated by the students as they believed that these organised activities made it easier for them to meet others in the college and to make friends. Possibly, the boarding school background of some first year students makes the move away from home easier.

A primary role of staff members in college is counselling. As with academic problems, in each college there is a system for dealing with the social problems which students experience. Students are referred by college staff to appropriate professionals if necessary. In addition, the resident tutors at one college participate in a week of basic counselling training before the academic year begins:

We deal with them as much as we can and help them, but then we pass them on to people who are qualified like social workers . . . we send them in the right direction but quite often that doesn't work. They come to you instead of the social worker because they feel comfortable talking to you and that is a bit hard because you are not really trained to help them.

Though the tutors have strategies for dealing with serious situations in which students require professional counselling, 'a lot of times they just need someone to be by their side'. Much of the time is spent the usual issues — homesickness, problems between friends and room-mates.

Exposure to cultural and socio-economic diversity is one of the broadening aspects of living in college. This diversity, however, has implications for the organisation of college life. One staff member remarked, 'I have got people in my block that live on \$10 a week and people that live on \$100 a week. It is really hard to have activities that they can all go to'. Overseas students tend to face specific problems when they move into college, stemming largely from language and cultural differences:

They have a lot of adjustments to make to Australian food, culture. For some people, if you were to go to their country, they would expect to go out of their way to make the guest feel comfortable. They do not seem to find that here and I have to make them see the other way around and say you have to go out of your way — which is not easy for those that are shy . . . The Australian normally does not go out of their way to start chatting to the overseas student. I think Australian students have their own conflict — how will I approach this overseas student. I do not know the language, I feel intimidated when I hear them in the dining hall speaking their own language, I feel left out.

#### And homesickness as well:

I woke up one morning about one o'clock in the morning and I heard this crying. I thought something terrible had happened. It was one of the girls from overseas . . . the young girl was so homesick, she had finally had a few beers or something and she was really beside herself . . . I felt

quite guilty that all I could say to her, because of the language barrier, was I felt as if I knew what she was going through because I have been in other countries where I can't speak their language. You just feel terrible . . . it is difficult.

The first year students we met who were living in colleges felt that the social life in college was the best thing about their university experience. They especially enjoyed the range of people they were meeting, the amount of activities available, and the freedom and new perspectives which college life was providing. They raised a few concerns, centering around the lack of privacy and the difficulty in finding time to themselves. Most agreed that it was difficult to get motivated with so many interesting things going on, however a number saw this as part of learning to take responsibility for yourself.

# Chapter 9

# Local contexts and learning climates

Universities and courses generate unique learning climates in the first year, each with peculiar challenges and opportunities for improvement. The variations in student responses to the First Year Experience Questionnaire according to their institution and their field of study illustrate the complex inter-relationship between the many elements in the learning climates of universities and courses. The variations derive in part from student background variables, as well as from differences in the policies, programs and performance of universities, departments and individual academics.

Diversity in the student population of each university is itself an outcome of variables such as location and the kind of courses on offer. Add to this the history and mission of the universities concerned, and it is hardly surprising that students should vary in their perceptions of their initial experiences.

In a competitive climate that encourages national performance ranking and rating of universities, there has been a tendency to draw simplistic institutional comparisons from complex data, particularly with respect to student perceptions of the quality of teaching. Isolating institutional effects from the background characteristics of the students, and other associated variables, is beyond the scope or intent of this project. The discussion that follows is therefore intended to illustrate the likely variations in the challenges of the first year experience faced by universities at the local level.

# Institutional and field of study effects Institutions

Student responses to the First Year Experience Questionnaire by institution were alike in many respects, although there were patterns which reflect the diversity that increasingly characterises the Australian higher education system. A summary of the extremes in the scale means for universities is presented in Table 9.1. On most scales the gaps between the highest and lowest means are substantial, and suggest quite marked variations in the nature and quality of the first year experience across universities. Although we did not attempt to test which variables best predict the variations, some fairly obvious institutional features appear to provide explanations.

Three of the seven universities showed no significant variations from the overall mean on any of the scales. However, the other four universities showed distinctive patterns of student response, positive and negative, which indicate directions for

improvement. Students of one university, for example, were significantly higher on the academic application and sense of purpose scales but lower on student identity. If the university in question considers it important to improve the student level of integration and identity, then the challenge in this case might be to provide structures and processes that encourage students to interact more frequently and more productively with the institution. At another university, on the other hand, the sense of identity, sense of purpose and level of satisfaction with the course was significantly higher than the overall mean. Perhaps the challenge here is to raise the level of academic application and promote stronger academic orientation.

Table .c5.9.1 Highest and lowest means for the seven scales by institution and field of study

	Institution		Field of study	
	Lowest mean	Highest mean	Lowest mean	Highest mean
Academic orientation	3.33	3.53	3.17	3.63
Academic application	3.01	3.34	3.08	3.21
Student identity	3.48	3.96	3.49	3.71
Sense of purpose	3.77	4.02	3.65	4.16
Teaching	3.20	3.37	3.08	3.45
Workload	2.65	2.95	2.31	3.14
Course overall	3.56	3.82	3.39	3.86

Taking the scales in the order of the table, the academic orientation scale showed little variation across the institutions, indeed, only one university differed significantly from the others. Three universities were almost identical in student response on this scale, despite obvious differences in size, selectivity, and the range of courses they offered. On the academic application scale, students of one university were significantly higher and in another were significantly lower. The most obvious explanation for the difference in this instance is the age profiles of the two student populations — the higher levels of academic application are most likely associated with age and maturity, but closer analysis at the local level might indicate alternative explanations.

Conventional wisdom has it that institutional size is a major obstacle to the formation of a strong sense of student identity. This was not the case with the case study universities at the level of analysis of this report. Four of the universities differed little in terms of student identity, and, more to the point, two institutions with similar

student numbers had means at opposite ends of the spectrum. The biggest variations between the universities were in student sense of purpose. As with the academic application scale, it might be speculated that the age profile of the students is a likely influence. The two universities with significantly higher sense of purpose means had the highest proportions of older students, while the two universities with the lowest sense of purpose means had the higher proportion of school-leavers.

Institutional differences in perceptions of teaching illustrate the dangers of drawing simplistic conclusions from such data. Only two universities were significantly lower than the overall mean on the teaching scale (again, in contrast to the variations by field of study considered below). Both share common features, such as higher proportions of full-time school leavers than the other universities in the sample. Otherwise, there were relatively uniform responses on the teaching scale at the level of the institution.

The interactions between variables such as these will no doubt be the subject of considerable research as universities make efforts to improve teaching under the pressure of accountability and quality assurance mechanisms. What needs to be considered, however, is the relationship between students' perception of teaching and their overall level of satisfaction with their course and university in general. This study points to an uncertain relationship between the two. Indeed, two universities with identically low means on the teaching scale had quite different means on the scale measuring satisfaction with the course as a whole: one had the lowest course satisfaction mean, while the other had a mean close to the overall average. The university with the strongest concentration of negative views on the teaching scale also had the higher level of course satisfaction.

One obvious conclusion here — supported to some extent by the case study interviews — is that the first year experience of teaching does not necessarily spill over into satisfaction with the course as a whole. This may say more about student expectations than it does about the quality of teaching. It certainly suggests that local analysis of the first year experience should not rely solely on perceptions of classroom teaching.

# Fields of study

The impact of diversity is generally most apparent, and of most consequence, at the level of the course. Table 9.1 shows the high and low means which were recorded among the seven fields of study which we examined. The differences between fields of study on the FYEQ scales were generally larger than those between institutions, and there were sizeable variations with respect to student sense of purpose, their

perception of the teaching and their views of the workload. There was less variation in responses on the course satisfaction scale.

The scales on which the variations of particular fields of study were statistically significant from the overall mean illustrate differing patterns of student response according to their broad areas of study:

- Arts students were higher on academic orientation, lower on sense of purpose, and more positive about the teaching and workload;
- Science students were average in most respects, but they had a lower sense of purpose, and were significantly more negative about the workload;
- Health students scored higher than the mean on academic orientation and sense of purpose. They were the only group significantly above the mean on course satisfaction, but were average in their views of teaching and the workload;
- Education students showed higher levels of application to their study but were not more academically oriented. They had higher sense of purpose, and were more positive about the teaching and workload;
- Business students were significantly more negative on all scales with the exception of workload;
- Engineering students responded more negatively on academic orientation items, and were also negative about the teaching and workload.

At this level of aggregation it is obvious that distinctions based on dichotomies such as 'vocational-liberal' education are inappropriate. Such distinctions are confounded by sharp contrasts between, say, Health and Engineering students on academic orientation, or between Education and Business students on academic application. There are some patterns, however, which make intuitive sense — for example, students in generalist arts and sciences course have less sense of purpose — but generalisations about the students in such broad fields based on the analysis here are risky. No doubt some of the differences — particularly on the teaching, workload and course scales — are also associated with the view of good teaching implicit in the FYEQ. For example, the items tend to favour teaching environments where there is opportunity and preference for high levels of teacher-student interaction. However, we do not believe that all the differences can be attributed simply to the instrument design.

It is clear that in some instances institutional characteristics can overcome field of study influences. For example, the positive views of teaching held by first year Arts students were strongly influenced by the institution in which they were enrolled, and Business students' sense of purpose seemed closely connected to particular institutions. As well, Engineering students' levels of academic orientation were also somewhat dependent on the university in which they were enrolled. As we note in Appendix B,

there are limitations to the conclusions that can be drawn from patterns of contrast on the basis of field of study and institution. Institutional differences in field of study profiles will be apparent in institutional aggregrates of student perceptions of their experiences and their levels of satisfaction. Furthermore, Ramsden has noted in a detailed exploration of these issues that there are 'recurring differences in (student) ratings between disciplines within fields of studies . . . [that] . . . call for the exercise of caution in interpreting differences among institutions across broad fields of study using this type of data' (1991:145). Clearly, variables such as institutional size and age and enrolment patterns intervene to varying degrees. The different attitudes towards the teaching, workload, and the variations in the overall levels of satisfaction between students according to field of study, might be explained in part by variations in their level of integration and commitment. However, we make the point again that conclusions about the overall learning climate of an institution cannot be drawn from an aggregate, because the aggregate is most likely to be weighted by the course profile of the university.

An example of contrasts and similarities: First year Arts and Engineering students

Scale means in themselves disguise important differences in the patterns of response. A more detailed examination of the contrasting responses of Arts and Engineering students in terms of their sense of purpose and academic orientation further illustrates the need for closer analysis of the underlying diversity in student attitudes. While it is true that Arts students overall have less sense of purpose as measured by the FYEQ items, Figure 9.1 shows that a marginally higher proportion of Arts students (22 per cent) than Engineering students (20 per cent) were among the students with the strongest sense of purpose. The major difference, however, is the longer 'tail' of Arts students with a weaker sense of purpose: indeed, 35 per cent of Arts students fell in the bottom 25th percentile of the total student sample on the sense of purpose scale. Thus, while both fields of study had similarly small proportions of highly focussed students who were clear about what they wanted from their course, the variation in attitudes within groups of Arts students was much greater.

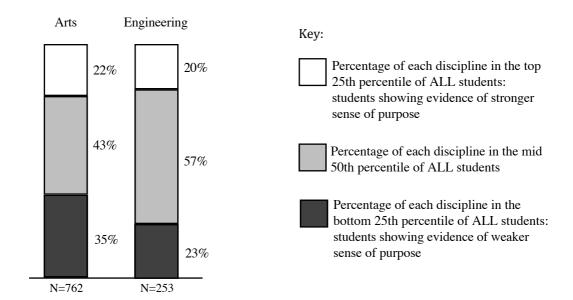


Figure 9.1 Sense of purpose ('I am clear about the reasons I came to university') by Arts and Engineering students

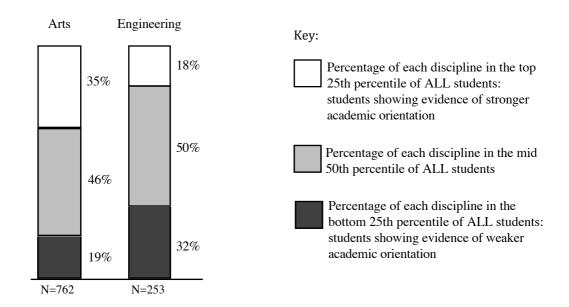


Figure 9.2 Academic orientation ('I enjoy the intellectual challenge of my subjects') by Arts and Engineering students

On the other hand, Figure 9.2 shows that when it comes to degree of academic orientation — the extent to which students say they enjoy the intellectual challenge — Arts students tended to be more positive overall than Engineering students. As with sense of purpose, there was greater diversity in the responses of Arts students. Almost twice as many Arts as Engineering students were in the top 25th percentile on academic orientation and, in contrast to the sense of purpose results, there was a substantial 'tail'

of Engineering students with negative attitudes towards academic study. Given that these are aggregate figures averaging the responses across universities, it is possible that in particular courses, Engineering lecturers face even larger proportions of students who are inclined to place less value on theoretical perspectives.

### Addressing the challenges

The variations between courses identified by our level of analysis have far-reaching implications. Not all first year students identify with an overall institutional ethos; in some instances they identify rather more clearly with the course they are studying or the professional group into which they are being inducted. When class numbers are relatively small, when there is a common core to first year studies, and when the course has a specific occupational focus, this sense of internal cohesion can be particularly strong and the integration process quite powerful. This identification with a course and faculty rather than a university is also often strengthened in multi-campus institutions where the group of students in a course are concentrated at one of the satellite campuses.

On the other hand, it is possible that the extent to which students hold strongly shared negative views of teaching or courses can reach a critical mass. If it does, then in our view it would be unlikely (but not impossible) for students to develop more positive attitudes as the year unfolds. It is most probable that most of these factors come into play at the level of the course and not the institution, since the course is the locus of the day-to-day social experience of students. The first year study did not seek to identify these kinds of patterns. For this a longitudinal investigation would be needed, few of which have been conducted in Australia.

There is accumulating evidence to suggest a strong association between 'particular features of the learning milieu and culture and the approaches to studying which students take' (Nulty and Barrett 1994:1). Nulty and Barrett show significant differences between learning styles of first and third year students in different disciplines, as well as suggesting some important institutional differences that relate to different missions and patterns of student recruitment. Their tentative finding is that in terms of approaches to learning there are distinct differences between types of institutions — students at 'traditional' universities are more abstract in their learning preferences than those at 'applied' universities — pointing to a fundamental divide between the academic and practical-technical traditions in higher education that runs through our observations and analysis (Smithers and Robinson 1995). Discussion of learning cultures and access to discourse is, in our view, focussed too heavily on

learning styles, and overlooks the broader goals and values of students and their predispositions towards particular fields that produces a particular social and learning climate.

Overall, the first year learning climate appears very much dependent on the mix of student attitudes, outlooks and behaviours. What students bring with them is too easily ignored when thinking of ways to improving teaching and learning. To pursue this, we analysed the relationships between our scales by dividing them into two broad categories: firstly, the orientation, application, sense of purpose and identity scales; secondly, the teaching, workload and course scales (Appendix B provides details of this analysis). The results of this analysis make conceptual sense and affirm the appropriateness of the conceptual framework with which we started. Students who were more academically oriented and had a stronger sense of identity were more satisfied with their courses. Furthermore, students who showed evidence of greater application to their work were more satisfied with their course and also tended to be more satisfied with the teaching. Finally, students' sense of purpose was related to perceptions of the workload: students with a greater sense of purpose were more comfortable with the workload. These findings suggest that the initial adjustment and integration of students is a major influence on their perceptions of teaching and learning and their assessment of the quality of their university experience.

Looking back through the variations by institution and by field of study it is apparent that improving the first year experience in specific contexts requires devising and implementing a range of context specific strategies. For example, the lack of purpose amongst science students and the related negative views they tend to have of their workload, cannot be addressed by adjusting the workload in isolation from other elements in the learning climate. On the other hand, universities with high proportions of part-time students — with low academic orientation and a weak sense of student identity — may be faced with lower levels of course satisfaction. It is difficult to imagine that this kind of learning climate can be changed without seriously rethinking the structures and processes that influence the nature of the relationships students have with the university or course. The permutations of explanations and strategies are quite obviously extensive. The challenge for university and course leaders aiming to enhance the quality of the experience is to identify the mix of factors involved and to get the balance right.

# Part IV

# Directions and conclusions

Substantial resources are allocated in all universities for a wide range of initiatives designed to enhance student learning and the overall university experience. In previous chapters we provided examples of some of these activities. In Chapter Ten we outline the broad nature and range of current approaches in the context of the project findings, particularly around the theme of the social nature of the learning environment for first year students, the significance of the on-campus experience.

The conclusions presented in Chapter Eleven focus on the broader implications of the changing nature of the first year experience for academics and universities.

# Chapter 10

# Responding to the challenges of the first year experience

Teaching and learning issues in the first year transition process have been characterised in this report as a series of gaps and gulfs, especially between school and university, and between students and academics. Gaps are usually inevitable, desirable and constructive. Gulfs are dysfunctional. In particular, gulfs between student understanding of what university education is about, and what is required for success, are at the heart of most concerns about the direction of the first year experience in a mass higher education system.

The need to provide first year students with a challenging academic environment in which the foundations for lifelong learning are established is hopefully the strongest message emerging from this study. Students want their sense of competence and self-efficacy enhanced by their initial experience of university. As we have said throughout, we do not mean by this that the first year experience ought to be cognitively comfortable, or that students should be indulged with a false sense of competence: most students need, enjoy, and indeed expect, university to provide them with intellectual challenges. School-leavers, for instance, would be disappointed if what they experienced at university was simply more school.

We fully appreciate the difficulty this talk of challenge presents for academics, especially in universities or courses where their teaching is constrained by serious gulfs between their expectations of student performance, and the sometimes obvious lack of student readiness to pursue university study. Nevertheless, to aim for anything less than the development of independent learning skills and outlooks is to deny the widely shared preference of most students to have a worthwhile learning experience at university.

Efforts to improve teaching and learning in the face of the diverse needs at the first year should not be unduly constrained by traditional academic views of higher education. However, if such improvements do not share the aim of providing all students, regardless of background or aspirations, with the opportunity to become independent learners, then the transition to higher education is illusory. Teaching and curriculum innovations which at least start with this assumption will be on the right track to improving the first year experience regardless of the changing shape and purposes of the first degree.

# Issues of student identity: The unconnected experience

A sense of student identity, a feeling of integration with the university, and a commitment to achieving well, are still very much in evidence amongst first year students. We gained the strong impression that going to university is still seen as a

special and valued period of transition to adulthood and vocations for most first year students, regardless of age and experience. We might speculate, however, that there is a likelihood that student identity, as we know it, is declining. In addition to the influence of flexibility and openness in course structures and delivery, there are broader social forces involved. As we have shown, sense of identity and affiliation with the university is influenced by the amount of time students spend on campus. Not surprisingly, part-time students, and those who work for substantial periods in paid employment, are less likely to see themselves as students. Although their proportions have altered little in the last decade, the absolute numbers of part-time students has increased markedly.

Perhaps a more problematic category of students are the *de facto* part-time students. Institutions are facing hard decisions about the distinction between full-time and part-time enrolments. The number of students able to work long hours for paid employment while passing full-time first year courses raises serious questions about the credibility of the courses. This is not especially new but we have the distinct impression that the number of students in this category is on the rise. In some courses, the presence of many such students can reduce the shared view of the university experience to a process of acquiring technical knowledge (even in the humanities) with a bare minimum of on-campus contact.

We have expressed concern about the substantial number of students who enter higher education without high expectations, and whose lives and outlooks seem largely untouched by the experience. We are not referring especially to students from identified access and equity groups, individuals who experience personal difficulties in the first year, or students who discontinue. The latter group's numbers represent a more obvious but perhaps less problematic indicator of a lack of integration and commitment: those who withdraw may well have shown signs of independence that some continuing students may lack.

Part-time students (and *de facto* part-timers) are obviously less likely to respond to surveys, but our results indicate that the longer the hours that students work for income, the less they feel part of a learning community. With such pressure on time something has to give, and the most obvious is the broader aspects of the university experience. There is no reason to believe that this situation will change. This has particular significance for the first year experience where the need to earn money sets the pattern for study habits in subsequent years. The ambiguity in enrolments needs to be addressed for the sake of both staff and students. Preserving some semblance of a university life for these students will continue to be a particularly difficult challenge for some universities. Flexibility is inevitable and desirable, but it does not follow that the first year experience of learning at university should be fragmented to the point where it is indistinguishable from a smorgasbord of community education studies.

Responding to the challenge of unconnected students is likely to be low on university priority lists, if only because these students make little noise. They meet the requirements sufficiently well to pass, but make few demands on the university or themselves. We argue, however, that as participation in higher education reaches out into communities where relatively few have been to university, the status and value of the experience is likely to be undermined if it is perceived as undemanding and unfulfilling. We also suggest that for this substantial group of students, learning in social isolation denies them opportunities to develop important generic skills, such as leadership and the ability to work in teams, currently valued by employers and society.

If students become marginal participants before they have barely begun university, then it is a serious loss for them, and for universities.

# Institutional strategies and approaches

Universities have been responding for some time to the problems and issues we have raised throughout this report. We are aware of many highly praised and high profile activities across the system. Universities provided us with a range of documentation describing their programs and projects directed specifically or generally towards the needs of first year students, and we also visited sites where dedicated and innovative work was in progress. Given the volume of information we received, we have not set out to catalogue the diverse programs, rather, our intention here is to sketch some patterns of the current responses of universities to the needs of first year students.

Institutional programs are partly responses to the increasing diversity of the student population, and partly responses to other forces, such as the emergence of new growth areas in higher education and pressures to increase or simply maintain student numbers. It is difficult to tease apart these interrelated influences on program initiation, design and implementation. In noting trends we do not to equate innovation with improvement since we have little or no evidence of outcomes. In our view, there is a need for considerably more objective and systematic evaluation of curriculum adaptations and innovations in higher education than we found.

Institutional responses to the problematic nature of the first year experience reveal a series of different starting points. A great deal of the activity in universities is targeted at specific subgroups. The programs we have identified in curriculum, teaching and support services fall into three broad categories: compensatory, foundational and enrichment — notwithstanding that most support programs and curriculum initiatives are multi-faceted:

- In compensatory programs, the problems at first year level are defined in terms of the lack of preparation with respect to specific skills and knowledge required for further study: the strategies are essentially remedial and embrace both the subject specifics as well as the skills and orientations necessary for successful study.
- Alternatively, or in addition, foundational programs address a problem which is usually defined as a lack of depth and breadth in knowledge of a more general kind: in this instance it is assumed that there is an educational and cultural vacuum to be filled before higher learning can occur. Furthermore, it is assumed that students are not yet in a position to make sufficiently informed decisions about their subsequent subject and course choices.
- Fewer examples of enrichment programs emerged from our survey. There were some
  accelerated or advanced programs for talented students in specific subject areas, such as
  mathematics and science. There were also efforts mainly associated with
  technological innovations to encourage students to work independently, and at their
  own pace, beyond the core requirements of the course.

Transition programs

Most universities offer programs which aim to promote integration into, and affiliation with the university. Efforts are largely focused around the Orientation Week activities, as we discussed in Chapter Five; however, many universities also conduct short programs during the summer which bear no direct relationship to the first year curriculum, are open to all-comers, and have the objective of facilitating the transition from school to university. Not enough is known about the students who do not participate. In these early weeks, it is possible that many students decide that the broader university experience is not for them. There is a case for reviewing the nature and impact of orientation week in many universities.

# Access and success: Initiatives for identifiable groups

A number of initiatives to support first year students are distinguished by their focus on subgroups identified as disadvantaged, or from less traditional higher education student backgrounds. Specific forms of disadvantage have been the subject of federal policy since the early 1980s, and targeted programs are now a well-established component of student support services. The 1994 NBEET report *Resource Implications of the Introduction of Good Strategies in Higher Education for Disadvantaged Students* identified six areas of disadvantage: students with disabilities, rural and isolated students, students from socio-economically disadvantaged backgrounds, students from non-English speaking backgrounds, women entering non-traditional fields of study, and women in postgraduate research studies. Cobbin et al. (1992) in the *National register of higher education preparatory programs* provided a comprehensive national picture of schemes for identifiable groups. The dual goals of most schemes are to increase access for specific subgroups, and to enhance student chances of success once enrolled.

# Bridging gaps

The vast majority of institutions have structured programs conducted before the academic year commences which are associated with first year curricula and which seek to enhance the academic preparedness of first year students. The focus may be on preparing for specific subjects or developing broader academic skills. The requirement for attendance ranges from entirely voluntary through to mandatory for entry to specific courses. The programs serve a variety of goals, principally to ensure that commencing students have been introduced to knowledge and skills which are considered to underpin teaching and learning in first year subjects and courses.

# Learning and academic skills units

Most universities, and some faculties, have special academic skills units, also referred to as learning skills units. Some of the units operate very close to the 'mainstream curriculum', others are peripheral. The units are generally small and may target particular groups of students. They practise their interventions via a blend of instruction and counselling: offering assistance in note-taking, time management, academic writing and reading skills, through one-to-one consultations or workshops. A growing focus is on integrating the teaching of academic skills into the content subjects students are studying. Activity from these centres is also increasingly centred on the notion of making the discourse of the disciplines explicit for students, on the assumption that many students do not have an understanding of the nature of

knowledge in the specific disciplines. The argument for developing learning skills *in situ* has grown as faculties increasingly accept responsibility for student performance.

# Foundation years and foundation subjects

Faced with a broadening range of knowledge and academic skills, universities are examining ways to bring students to a common baseline before specialist and advanced study proceeds. Common first year subjects or courses which may offer general studies in the liberal/arts tradition delay the choice of specialisation until second year. The concept of a common curriculum for a generalist first year has been the subject of increasing discussion and speculation in recent years. While some universities are still at the stage of feasibility investigations, others have progressed further but are questioning the effectiveness of their efforts. Such initiatives can be characterised as attempts to level the playing field, not so much on equity grounds, but to reduce diversity in the subsequent years of the undergraduate degree so that specialist study can begin in earnest.

# Programs for highly capable students

With curricula being influenced by increasing numbers of less well-prepared students, the needs of the highly capable students can be overlooked. Nationally, a small number of programs exist to accelerate the progress of the most highly capable students, including entry with advanced standing, accelerated degree programs and mentoring arrangements with senior academic staff. Some universities have provided opportunities and support for these students in secondary schools.

# **Support services: mainstream or marginal?**

Student support programs owe their origins to a set of interrelated factors. In some cases they are culmination of incremental policy adjustments over a period of time in response to emerging student needs, often reflecting local conditions and the professional interests of those involved. Others are the result of more rapid policy reaction to government policy initiatives and funding opportunities, or are the outcomes of institutional strategic plans and the establishment of market niches. Finally, some programs are quite simply the legacy of *ad hoc* short-term decisions.

There are first year students who do not understand the difference between school and university, or who are so lacking in fundamental skills that they are not ready to take responsibility for their learning. Admitting these students without providing adequate support services and then criticising them for failing to match up to expectations would be clearly a case of blaming the victim. Early detection schemes for students at risk of failing are an essential first step in dealing with this problem. These mechanisms are now more common, but there are still courses which do not provide an adequate opportunity for students to make an early assessment of their progress or of specific strengths and weaknesses.

In our view, it is an appropriate time for a system-wide stocktake of support services, and a careful reconsideration of their role alongside the rapidly changing modes of course delivery. We found little evidence of evaluation of individual programs

in the material provided to us beyond surveys of use and satisfaction. To emphasise this point, we note a recent DEET (1993e) report on student support services which found that while a 'wide variety of appropriate services' was provided by university administrations, student organisations, sporting associations and external bodies, the majority did not have a performance evaluation process.

By their size, physical location and status, support services such as study skills units face challenges tapping the mainstream, despite the well-intentioned efforts of their staff. Being outside the faculty and department mainstream, these programs are a step away from the student mainstream too. There are growing claims that in the cases where support initiatives are tied closely to the academic experiences during the first year, the impact is quite different. The desirability and means of integrating support services into the academic mainstream are questions facing staff responsible for these services as well as staff teaching and co-ordinating first year programs. From what we have seen, the thrust of several student support programs has been to get more closely involved in the academic teaching program during sizeable components of the first year course. There is a plethora of issues to be addressed here, for it should not be assumed that tighter integration with course curricula is necessarily desirable, nor is it clear how this might be achieved in a widespread systematic fashion.

# Improving teaching and learning

Despite the wide range of activities in place across the system, and at all levels, a wider set of issues persist and require attention. Enhancing the quality of teaching and learning requires more than tinkering around the edges, or relying on cycles of novelty and experiment to raise performance. The survey responses indicate that two practical issues for teaching staff are central: the need for early and clear communication of expected learning outcomes; and the provision of timely, diagnostic feedback. These, and other problems at the level of the university classroom, can partly be remedied by ensuring that the teaching fundamentals criticised by students in this study are improved. Specifically, that means ensuring that academics are enthusiastic about teaching in the first year, capable of making their subjects interesting to students, and simply good at explaining things. These are staffing issues that need to be faced at the institutional level. At the same time, unless expansion policies are matched by curriculum reform, innovative course design and effective student support policies, academics can hardly be held personally responsible for the tensions between themselves and first year students if good will and high expectations are undermined so early in the student experience.

We encountered many efforts to rethink the teaching and learning experience in the first year. While we did not attempt to evaluate the effectiveness of these initiatives and innovations, they nonetheless indicate attempts to confront some of the challenges we have identified. There are many innovative approaches to first year teaching and learning in various stages of implementation. The CAUT Teaching Development Grants have seeded a large number of teaching innovations targeted at first year programs: among these are problem-based learning approaches, peer-assisted study, mentoring, self-paced study materials and computer-based learning in its various forms.

We could not hope to document even a fraction of the developments occurring in the use of computers in teaching and learning. While programs aimed at first year students using computer-based learning are efforts to capitalise on the potential of technological advances, they are also responses to the pressures of delivering material to large classes and the ranges of abilities within them. We found evidence of computers used to tackle some perennial problems of first year teaching. As we have stressed, good feedback is a vital ingredient of good teaching, and many first year students are particularly concerned about what they perceive as an absence of helpful feedback in the first semester. New technologies offer one means of providing detailed feedback (of a kind) to large numbers of students. Computer simulations are also being used to solve the problem of providing practical experiences for large numbers of students.

#### **Enhancing the learning climate**

The view of Little (1975) that the 'climate' of learning in a university transcends disciplinary and individual effects has not been tested in this study, but, as we noted. considerably less than half the students surveyed felt there was a positive attitude towards learning amongst their peers. There is some support in the data for the view that successful learning and a positive view of the university experience does not occur in a social vacuum. We noted differences in academic performance between those students who interact with other students for study purposes, and those who do not (McInnis and James 1994b). This may strike many educators as a somewhat banal observation, but we suggest that innovations aimed at enhancing teaching and learning — especially, but not only, the use of technology — too readily overlook the importance of the social context. The presence of substantial numbers in any one subgroup can have a compounding and cumulative effect on the shared values, aspirations and expectations of both academics and students. Homogeneity can be a problem as can diversity. For example, in circumstances where the bulk of students are poorly prepared for, or cynical about higher education, the shared negative sentiments can contaminate the aspirations and performance of all students.

There are two aspects to the learning climate relevant to attempts to improve teaching and learning in the first year: the extent to which students share positive study goals and behaviours (academic application and orientation), and the extent to which the group share broader social and background experiences (the social mix). Both can add value to, or subtract value from, the learning experience. The first has fairly obvious consequences — students studying in a group with high achievement goals are more likely to follow suit. The role of the social mix is a little more complex, but suffice to say that in many courses a broader range of student social and educational backgrounds can enhance the teaching and learning experience for all. The quality of the learning climate at the first year level is probably more important than at any other time: but it also requires more work from the university and academics than in later years, when a certain amount of self-selection creates stronger shared values amongst student groups.

Large classes can obviously work against attempts to develop a sense of integration and a positive social climate. One solution is to break large groups down into smaller units to simulate the learning climates often found in relatively small vocational courses. While there are many advantages to small groups, we sound a warning that students can be 'oversocialised' into the values and outlooks of professional or academic groups. Learning with a small group of like-minded students (with similar backgrounds) can be intellectually suffocating, and has the potential for

undermining one fundamental goal of university education: promoting independent and critical approaches to learning beyond the demands of the immediate subject matter or vocational preparation.

The lack of attention to the social climate of student learning in universities is perhaps due to an over-emphasis on studies of teaching and learning that work from the assumption that learning is mainly about the interaction between the student and the subject matter in some kind of social vacuum. At the other extreme are the broad studies that demonstrate with consistent regularity the relationship between socioeconomic status and academic performance. Neither perspective gives enough weight to the social nature of teaching and learning at university. First year university students' orientations towards learning are in a formative stage and inextricably linked to the pursuit of identity and self-efficacy developed in the peer group context.

Providing environments in which students are encouraged to mix socially is a start. We do not mean that universities should encourage social interaction for its own sake; social experiences ought not to be confused with minor entertainments as ends in themselves. We refer more particularly to the informal learning opportunities that emerge in unstructured conversations with peers or teachers. The power of incidental learning in social settings has long been acknowledged in other spheres of education, yet remains seriously underestimated in current thinking about course delivery in higher education. When, for example, excursions to a court of law, or an engineering plant, are replaced by simulated experiences, there is a distinct loss of opportunity for informal learning.

Giving attention to the social climate of learning means thinking about such matters as timetables, assessment and physical arrangements. It also means actively structuring opportunities for students to communicate with one another — and with their teachers — about their academic work outside the classroom. Small, vocationally oriented courses have generally worked hard and successfully at this: the challenge for large generalist courses is to take on board the importance of developing a life outside the classroom that supports and reinforces academic goals.

# Chapter 11

# Enhancing the experiences of first year students

It is in the first year that students are most likely to form lasting outlooks, values and patterns of behaviour with respect to higher education and lifelong learning. Alternatively, they may conclude that university is not for them. The amount of time and energy invested by both students and universities in this formative period is likely to increase in the more competitive market environment that has emerged since the higher education reforms of the 1980s. Universities will be concerned to protect their investment in the students selected, and students will be more selective and demanding of quality in their initial undergraduate years. In this respect, the first year is becoming pivotal for the major stakeholders.

The first year induction period is the first and main chance for universities to encourage students to embrace the total university experience. Universities need to review the process of transition to higher education. This includes examining strategies for improving the induction process and encouraging the integration of students into university life, and programs for raising the level of involvement and commitment of students to the academic life of the university. Universities also need to raise the status of teaching at the first year level and appropriately reward academics who have taken up the work of providing the foundations for effective learning in subsequent years of the first degree and beyond.

### **Teaching and learning**

The first year experience has always been considered problematic, even when higher education was limited to the select few. Making improvements at this level is especially challenging, not least because first year teaching has often been considered a routine task, and one not highly sought after. We have no illusions about this. Anyone who has covered the same ground teaching prerequisite or service subjects, year after year, and marked hundreds or even thousands of assessment tasks on basic subject matter, knows that enthusiastic teaching under these circumstances requires a special interest in teaching for its own sake.

Given the discussion of institutional and field of study variations in Chapter Nine, we are deliberately general in the suggestions that follow. This is a far cry from the elite period when similar reports on the first year experience could assume a high level of homogeneity across the system, and therefore provide detailed prescriptions for action. The differentiation within the system — reflected in the distinctive student populations of the case study universities— requires diverse responses to an increasingly wider variety of student interests and needs.

There are perennial problems in the first year (or any year) which we do not pretend can be resolved with a few handy tips: the lack of student preparation for

classes and lack of consistency in application are hardly new. Nevertheless, on the basis of the data gathered in this study, we have identified key problems associated with the first year experience — many of which are familiar to most academics — for further consideration, investigation and action at the local level.

- Most students want to study in a field that interests them. The task for academics is to make the field interesting. The skill of course design does not come readily to all academics who have not been trained or do not have a natural inclination for imaginative or creative teaching. Strong institutional support needs to be given to using experts in course design and the production of teaching materials. This occurs frequently in courses where technology is employed, but should become normal practice in mainstream courses.
- Likewise, the assumption that most students expect to develop their talents and creative abilities at university, invites a positive approach to course design, and encourages the use of imaginative teaching strategies. Deciding how best to capture the curiosity of students and engage them in the learning process has seldom been problematic in many courses; for others, however, it is increasingly central to the task of improving the learning experience.
- Since clarity of purpose is directly related to the likelihood of students persisting with their courses, universities should structure activities to reinforce the positive motives of students early in the transition process. These efforts could be along similar lines to those currently favoured for creating an alumni culture after graduation.
- Evidence should be gathered of student motives, attitudes and skills beyond the anecdotal. Almost universal student evaluation of teaching is one valuable outcome of system-wide concern for quality and quality assurance. This is a positive development, but there is a risk that in focussing attention almost exclusively on student perceptions of the classroom experience, the nature of the broader university experience is overlooked. Information on students' attitudes and experiences beyond the narrow parameters covered by course and subject evaluation questionnaires should be routinely collected, analysed and disseminated.
- The lack of enthusiasm of staff for teaching perceived by students is not simply a problem of individual academics: it must be countered by institutional policies including staff deployment strategies, programs for professional development and efforts to raise the status given to the leadership of teaching and learning at the first year level.
- Improving teaching at the first year also requires an honest assessment of the value placed on co-ordinating first year teaching and curricula by universities, faculties, and departments particularly the rewards and compensations *vis-a-vis* more prestigious activities such as research and postgraduate teaching.

- It is particularly important in any course to set and convey clear goals, standards and expectations. Students cannot be expected to be committed to study or perform to their best if they have only a vague notion of what is required of them.
- The quality and frequency of feedback on academic progress is probably more important during the initial period of transition into university than at any other time. Feedback involves more than written comments or results on assignments, for students also respond positively to informal interest shown in their progress. If the academics with whom students are most likely to come into personal contact are tutors or demonstrators then some targeting of such groups for some basic training in group management and interpersonal skills is essential.
- Finally, the overloaded curriculum is responsible for many of the poor teaching and learning practices reported to us in this study. There needs to be close examination of the quantity of curriculum content which students encounter and the extent to which it supports or undermines the broader goals of university education, especially the promotion of independence in learning.

#### The changing context

Forces outside the mainstream first year programs are set to significantly influence teaching and learning strategies in the classroom. There are some suggestions that Australian university students are likely to become more mobile across state borders in the future. As yet there is no clear evidence that students are moving as a result of local shortages of places, or that there is a change towards the United Kingdom or United States patterns of choosing courses outside the neighbourhood. In contrast, there is plenty of evidence that universities are becoming more 'mobile', with multiple sites and flexible subject configurations, as well as employing leading edge developments in teaching technology.

The impact of these arrangements on the major elements of the first year experience that we have described is not known. Nor is it particularly clear how these flexible market-driven approaches are affecting the on-campus experience. We do know that student support services for Open Learning students, for instance, are a central concern for course providers (Atkinson et al 1995). We also know that distance learning strategies are being applied widely to cope with large group teaching for oncampus students. The routine use of instructional designers in these contexts should increasingly influence the quality of curriculum planning, course design and teaching materials for on-campus students. As more on-campus students take mixed mode subjects, contrasts in the quality of teaching across the modes will become an issue. For example, one positive feature of Open Learning units which is identified by both staff and students is the capacity to draw on a wide range of materials from various sources. This choice and diversity in content, if combined with attention to the needs of learners through the use of computer assisted learning and computer based technologies, will offer a strong contrast for first year on-campus students as they make their course and subject choices.

While universities may expect academics to make the necessary compromises, academics may in turn feel that adapting teaching to meet the immediate needs of

students can lead down the path of lower demands, reduced challenges and an undermining of the higher order goals of higher education. Such strategies ultimately dilute the value of the course to students, and reduce the worth of the effort and the credibility of the credential suffers. There is no ready formula for the appropriate level of challenge for first year students, but it does require judgements based on a clear articulation of the purposes of higher education, set against a strong understanding of the motives, skills and abilities of specific student groups. We believe that much of the frustration and dissatisfaction of academics with the quality of the diverse clientele of mass higher education students can be linked to a notion of an ideal 'client' that bears little relationship to current reality. Academics need to assert their professional judgement in these matters, wary, however, of simply supporting tradition for its own sake and recognising that adjustments to the realities of a mass higher education system are inevitable.

The shape of the first year, and indeed the first degree, will continue to change in the next decade with shifts in practice driving policy rather than the reverse. The structures and assumptions of more generalist and flexible degrees offered to a more discriminating and increasingly international higher education marketplace, will influence traditional approaches. Longer term rethinking of the role of the first year will also be influenced by the recognition that higher education should provide the foundations for lifelong learning. As a consequence of these and other pressures, the shape of the first year is far more open to innovation — and considerably more likely to address the needs of a more diverse population.

Students are partners in learning and they have a responsibility to contribute to their university experience. Most realise this and want to take charge of their learning. In some instances, however, they are denied the opportunity by the structures of courses, restrictive assessment schemes and the 'firehose' approach to teaching taken in some courses — which seems to operate on the principle that teaching involves the transmission of vast amounts of information. The overloaded curriculum is a particularly insidious obstacle to independent learning. A frustratingly negative cycle can occur — for both academics and students — when academics try to make up for the perceived gaps or gulfs in student knowledge by adding additional classes or background material exercises. If students then spend most of their time simply keeping up with large volumes of subject matter it is not surprising that they do not develop the skills and attitudes appropriate to independent learning.

Putting more energy, resources and thinking into the first year is a worthwhile investment. We understand the organisational realities facing those with responsibilities to change teaching and learning cultures: How can attempts to improve quality learning take account of both institutional imperatives and the powerful preference of individual academics for autonomy and control? However, the entrepreneurial and competitive environment of higher education has opened up opportunities for making changes that were previously difficult to contemplate or implement. Accountability and quality assurance mechanisms have provided powerful support for academics intent on improving teaching and learning. Innovations at the first year are problematic but have the potential to be the most rewarding — students are generally positive, they want to learn, and most appreciate the challenge of independence. This is surely a good starting point from which to begin the process of advancing first year teaching.

Appendices

## Appendix A

# Comprehensive monitoring of the first year experience

We make the point in this report that one means of enhancing the first year experience lies in systematic inquiry into student goals, attitudes, habits and perceptions. To this end, this appendix offers guidelines for comprehensive monitoring of the experiences of undergraduates, particularly first year students.

We have avoided being too prescriptive since we are conscious of the importance of approaches being developed within particular contexts. The information which we believe will be useful can be gathered with student surveys or focus group interviews, ideally by both. Good surveys require detailed planning and attention to the well-known principles of survey method and questionnaire design: questionnaires of simple layout and good length, the piloting of instruments, good sampling procedures, and so on. Interviews have the great advantage that unanticipated issues which emerge can be pursued.

The ideas here are based heavily on Australian research of the student experience since the 1960s. The principal sources are Anderson (1975), Beed (1977), Beswick (1980), Walker (1980), Williams (1982), Ramsden (1989, 1992) and McInnis (1993). We have added ideas of contemporary importance and have included specific items which we asked of students in our survey. The discussion is divided into six conceptually distinct areas:

- Backgrounds
- Daily lives: social and economic contexts
- · Goals and commitment
- The university experience
- Teaching and courses
- Issues for identifiable groups: school-leavers, part-time and mature age students

#### **Backgrounds**

What are the backgrounds of students? What are the characteristics of the student mix? Students bring attitudes and outlooks which are associated with their socio-economic, cultural, and ethnic background. Accurate information on these factors, as well sex and age obviously, provides important insights into the student mix and allows correlations with attitudes and perceptions. Analysis of this kind of information has the potential to bring into question the stereotypes of student subgroups which are often adopted.

Simple indicators of socio-economic background are the type of secondary school attended, parental educational levels, and parental occupations. With regard to ethnicity, students' country of birth (and their year of migration), their parents' place of birth, and the languages spoken in the home are appropriate indicators. Information of

this kind can obviously be sensitive and should be collected and used with appropriate care.

### Daily lives: Social and economic contexts

What are the financial and residential arrangements of students while at university?

The means by which students support themselves financially and their residential arrangements when they begin university are associated with their experiences of university and their satisfaction with their courses. Important issues here are students' main sources of financial support (how much paid employment are they undertaking?), their domestic commitments (how many are married? how many have dependents? of what age?) and the nature of their accommodation (is it satisfactory? how often have they moved?) Daily travelling times for students who commute provide insights into the obstacles to full involvement in the university life faced by certain students.

#### Goals and commitment

Why did students choose to study at university?

In our 1994 survey we asked students about their reasons for enrolling in university. We invited them to indicate the importance of a number of possible reasons, including vocational, such as 'To improve my job prospects' and 'To get training for a specific job', those associated with intrinsic interest, 'To study in a field that really interests me', 'To develop my talents and creative abilities', and a range of additional possibilities, including 'Being with my friends', 'Few other opportunities because of the poor job market' and 'The expectations of my parents or family'. Was the course in which students are enrolled their first course preference? How many students hope to change to a different course at some stage?

How strong is their sense of purpose?

Students' educational goals and values are important indicators of the nature and strength of their sense of purpose. The key item which we used to examine sense of purpose was 'I am clear about the reasons I came to university'. Do students:

- Feel confident that they made the right decision to come to university?
- Believe they are at university for the wrong reasons?
- Believe that university will help them to get what they want in life?
- Know exactly the kind of occupation they want?

How strong is the academic orientation of students?

The extent to which students get satisfaction from studying is a measure of their academic orientation, defined in our 1994 survey by the item 'I really enjoy the intellectual challenge of the subjects I am studying'. Are students motivated by getting a degree more than by the content of their courses? Are they enjoying the theoretical content of their subjects? Do they get satisfaction from studying?

How do students approach their study? What approaches to learning do students find valuable?

The ways in which students study and study together offer insight into their goals and their perceptions of what is important at university. For instance, do students:

- Swap notes with friends in the same course?
- Use the time between classes for studying?
- Work with other students on areas with which they have problems?
- Get together with other students to discuss the course?
- Read material required for the lectures and other classes?

More particularly, what do students believe are the most valuable ways to learn? Propositions which can be put to students to investigate this question include:

- 'Talking about the subject is a waste of time, I just to need to know the facts'
- 'I really don't see the point of being expected to participate in class discussions'
- 'I only seriously study what's given out in class or in the course outlines'
- 'I regularly seek the advice and assistance of the teachers'
- 'I regularly browse in the library to find relevant material that has not been prescribed'
- 'My main aim in lectures is to copy down as much information as possible'
- 'I find I can do reasonably well in most subjects without attending classes regularly'

*Are there obstacles to effective study?* 

The way in which students approach their study and arrange their time offers insights into their motivation and the obstacles which can be in the way of success.

- How much time do students spend on campus?
- How do they spend their time on campus?
- Do they have a quiet place at home, in college, or elsewhere, where they can do private study?
- Do they have adequate and easy access to any equipment which might be needed?

*Are students thinking of deferring?* 

Acknowledging that many first year students consider deferring or dropping-out, especially in the early stages of the year, an important question is how many students have thought seriously about discontinuing and for what reasons. Are students aware of the student support services which are available to assist them? Which of these services have they used?

Finally, on the issue of the goals and commitment, it is useful to simply ask students at various stages about how they think they are going. In their own eyes, how do they rate their progress relative to other students? Are they doing as well as they expected? Are they satisfied with their achievements? Do they expect their grades will be higher or lower as their course proceeds?

#### The university experience

Student satisfaction with their university experience is influenced by the extent to which they think of themselves as university students, feel integrated into the university environment and have made social contacts.

Do students feel a strong sense of identity as a university student?

We believe that the development of a sense of student identity is an important element in ongoing success and satisfaction. Students with a sense of student identity feel they belong at university and feel university life suits them. The key item in our study was 'I really like being a university student'. Items which might reveal the extent to which students have yet to develop a sense of student identity include 'University just hasn't lived up to my expectations' and 'I feel out of place at university'.

How well integrated into the university are students? Have they developed social contacts? During the first few months of the year, first year students are prone to experiencing integration difficulties. Are students finding that:

- worrying about money is making it difficult to study?
- their academic performance has not been good because of commitments outside the university?
- it is difficult to change their study habits since coming to university?
- the material is more difficult than they expected?
- it is difficult to keep up with the work?
- they like the atmosphere of the campus?
- it is difficult to participate in classes in which they are supposed to talk to the group?
- they like the physical environment at the campus?
- it is difficult to comprehend the material?

Social involvement can be a factor in student satisfaction with university. Particularly in the first year, students can feel alienated. Are students disappointed with university? Have they joined clubs and societies? Are they interested in the extra-curricula activities or facilities which are provided? Do students:

- Believe it is important for them to make friends?
- Believe they have real friends at university?

Or do they keep to themselves?

How well have they applied themselves to their studies?

In this report we have described the extent to students have applied themselves to their studies as their academic application. Do students:

- Study only those things that are essential?
- Find it difficult to get motivated?

- Dislike attending lectures?
- Leave doing essays and assignments to the last minute?

The key question is, have they worked consistently throughout the year?

How do students perceive their relationships with staff?

How many students believe that lecturers and tutors take an interest in their progress? Do students have opportunities to meet and get acquainted with the academic staff? Are lecturers and tutors willing to talk with students outside of class time? Do students feel that the staff are available to discuss their work? Do they believe the academic staff are approachable?

### **Teaching and courses**

The Course Experience Questionnaire (Ramsden 1992) has a series of items from which scales can be developed to show student perception of key aspects of teaching: the clarity of goals and expectations ('You usually have a clear idea of where you are going and what's expected of you in this course'), the extent and nature of feedback on progress ('Teaching staff normally give helpful feedback on how you are going'), the appropriateness of the workload ('The workload is too heavy'), the interest which staff show in student progress ('Most academic staff in my subjects take an interest in my progress').

Are the goals and standards made clear?

Many first year students have difficulty being sure of what is expected of them. Items which investigate student perception of the clarity of goals and expectations might include:

- 'The aims and objectives of this course are not made very clear'
- 'Staff here make it clear right from the start what they expect from students'
- 'It's always easy here to know the standard of work expected of you'
- 'I have a clear idea of where my course is going'

*Is the workload appropriate?* 

How challenging is the workload? Do students believe that:

- the syllabus tries to cover too many topics?
- the volume of work to be got through means it cannot be comprehended thoroughly?
- the course workload is too heavy?
- the number of contact hours makes it difficult to complete the tasks set for classes?

How appropriate is the assessment? What do students say about the feedback they have received on their progress?

Do students believe the teaching staff usually give helpful feedback on their progress? Are they satisfied with the comments and advice they receive on their work?

Do students think they can pass just by memorised facts? Or do they believe they need to demonstrate understanding? Do they think it would be possible to get through the course just by working hard around exam times?

What do students think of the teaching overall? How satisfied are they with their course as a whole?

In the 1994 survey the key teaching item was 'The teaching staff are good at explaining things', and other items included:

- 'Staff try hard to make the subjects interesting'
- 'The quality of teaching in my course is generally good'
- 'Staff are enthusiastic about the subjects they teach'
- 'I have been encouraged to be an independent learner'
- 'The staff make a real effort to understand difficulties students may be having with their work'
- 'Staff here show no real interest in what students have to say'

We used three items to determine students' overall levels of satisfaction:

- 'I am finding my course intellectually stimulating'
- 'Overall, I am really enjoying my course'
- 'Overall, I am very satisfied with my university experience so far'

It is also valuable to ask students context specific questions around issues such as credit transfer and recognition of prior learning, access to computers and other facilities, the teaching environments and class sizes, the range of subject choices in selecting courses, the usefulness of handouts, materials and reading lists, and so on. Did the timetable allow students to choose the subjects which they wanted? What are their experiences of computer-based learning, interactive multimedia, and other innovations in teaching?

#### Issues for identifiable groups: School-leavers, part-time and mature age students

There are many specific issues which pertain to the needs, expectations and experiences of students who belong to identifiable subgroups. Which particular subgroupings are of importance is very much dependent on the nature of each institution, course and subject. We have limited our discussion here to questions which are relevant to the major subgroups of school-leavers, part-time and mature age students.

The transition for school-leavers: How do school-leavers compare Year 12 to university?

The main issues of importance here are related to the comparisons which students make between Year 12 and university. These are indicators of the smoothness or otherwise of the transition to higher education. Useful items might be:

- 'The content of the work at university clearly builds on my Year 12 study'
- 'My workload at university is heavier than it was in Year 12'

- 'Studying at university is more demanding than it was at school'
- 'I find the study I'm doing at university more fulfilling than the study I did for Year 12'
- 'My final school year was a very good preparation for the study I am now doing'
- 'There has there been significant duplication of the content in the subjects I studied last year and this year'
- 'The standard of work expected at university is much higher than I expected'
- 'I was not really ready to choose a university course on leaving secondary school'

*The transition for school-leavers: What is the extent of their family support?* 

Practical and emotional support from families is one element in the transition to university for school-leavers. Do the school-leavers:

- discuss their university work with members of their family?
- believe their parents are supportive of their study?
- feel pressured by the financial commitment made by parents to send them to university?
- believe their parents give them strong moral support?
- feel that their family has very little understanding of what they do at university?
- believe their parents assist them with their academic work?
- believe their family no longer seems interested in their studies?

#### Part-time and mature-age students

Part-time students and mature-age students have needs and expectations which can be quite different to those of full-time students and school-leavers.

How well are the needs of part-time students being met? Are the timetabling arrangements satisfactory? Do part-timers have adequate access to facilities and services? Are academic staff available at times which suit? How do work and family commitments outside university influence their approaches to study?

'Mature-age' defines a broad category of students, some who are returning to study after a long break, others who are not so long out of school. What expectations do these students have of university? What are their anxieties? How do their commitments outside university impinge on their study? Do they believe staff acknowledge their experiences?

## Appendix B

## Survey method and data analysis

When the study commenced there were around 34 000 first year students in the seven universities which were used for case study. Within the project's budget, we elected to sample 20 per cent of this group, a sample of the order of 6800 students. To obtain a sample representative of the general student population, the total target number was first divided according to the size of each university. This procedure yielded sample estimates for each institution. Each preliminary university sample was then divided proportionately according to the 10 field of study categories used by DEET. Where the sample selected for a field of study was less than 50 students it was increased to 50. If there were less than 50 students enrolled in a field of study then all the students in that field were included. These requirements raised the total number of students for the initial mailout from the projected 6800 to 7122 students (See Table B.1).

Table B.1 Sample numbers by university by field of study

	Established	International	Regional	Suburban	Applied	Consolidated	New	TOTAL
Agriculture	58	13	50	43	0	38	0	202
Architecture/Buildin	50	61	0	0	71	50	0	232
g								
Arts/Social Sciences	377	254	148	406	102	213	135	1635
Business/Admin/Eco	128	124	138	157	330	199	207	1283
Education	221	64	50	57	215	151	50	808
Engineering/Survey.	111	161	23	55	123	94	74	641
Health	79	50	50	290	198	214	67	948
Law/Legal Studies	42	62	50	50	90	0	0	294
Science	159	199	128	180	185	73	105	1029
Veterinary Science	50	0	0	0	0	0	0	50
Total sample	1275	988	637	1238	1314	1032	638	7122

To ensure confidentiality, the selection of students and the mailing of the survey was carried out individually by each institution. The project relied heavily on the sampling procedures of each participating institution. A small number of returns indicated difficulties here, such as students who had already withdrawn and students who were not enrolled in first year programs. These instances were few and returns were excluded wherever there was doubt.

Three weeks after the initial mailout a reminder was sent to students whose questionnaires had not been returned. The reminder contained another questionnaire and a covering letter. This was sent to 4633 students. This approach resulted in an overall response of 4028, a response rate of 57 per cent (useable returns). There was considerable variation in the response rates of each institution (Table B.2).

The overall response rate was slightly less than the 60 per cent we had set as our target. First year university students are a commonly surveyed group and survey fatigue, an increasing consideration for researchers today, may have been a factor. The poor response rate at *Consolidated University* could be related to the institution's larger proportion of part-time and mature age students. These students may have been less likely to have the time to complete the survey.

**Table B.2** Final response rates by institution

	Total mailed	Returns	Response rate (%)
Established	1275	830	65.1
International	988	562	56.9
Regional	637	364	57.1
Suburban	1238	705	56.9
Applied	1314	822	62.6
Consolidated	1032	400	38.8
New	638	345	54.1
Overall	7122	4028	56.6

### The 1994 sample compared to national undergraduate commencers

In 1994, 159 076 students commenced undergraduate education, a growth of 4.6 per cent over 1993 enrolments (DEET 1995). The majority (96 per cent) entered courses for the award of bachelor's degrees, the remainder enrolling in associate diplomas, diplomas and other forms of undergraduate education. Of the 1994 commencers, 54 per cent were aged 19 years or under and 56 per cent were female. These figures include first time students and students who may have attended university previously but were commencing new undergraduate studies.

On these broad measures, our sample of first-timers differed somewhat from the national population. Of the 4028 first year students who responded, 71 per cent were students aged 19 years or younger and 63 per cent were female (Table B.3). The discrepancy between the survey's respondents and the national mean with regard to age can be attributed in part to the project's sampling of three universities with school-leaver intakes above the national average. The reasons for the apparent over-representation of female respondents are not as clear, but are probably related to the well-observed tendency of females to respond to surveys of this kind. There was a consistent pattern of higher female response across the seven universities, with a maximum of 68 per cent from *Suburban University*, and a minimum of 56 per cent from *International University*. The strongest female response was in the 30 years and above age group (68 per cent).

Table B.3 Respondents by age and sex (%)

Age as of 1 July 1994	Female	Male	All students
19 years and under	63.5	36.5	70.9
20 to 24 years	58.0	42.0	16.9
25 to 29 years	58.2	41.8	5.1
30 years and over	67.8	32.2	7.2
All respondents	62.6	37.4	100.0

While there is no single accepted definition of a mature age student, about one-third of the respondents could reasonably be considered as mature age. Using the DEET definition — students who have commenced higher education other than directly or one year after completing Year 12 — 33 per cent were mature age students. Taking 20 years of age as an alternative measure, 29 per cent of the sample were mature age; 17 per cent aged 20 to 24 years, 12 per cent older than 25 years. In the report we have used this second measure, 20 years of age, as our definition of mature age.

Table B.4 shows characteristics of respondents compared with the means for 1994 undergraduate commencers which were provided by each participating institution.

Table B.4 Selected characteristics of survey respondents compared with 1994 data for first year students reported by institutions\* (%)

	Fen	Females		19 years and under		ime
	Sample	Institution	Sample	Institution	Sample	Institution
Established <sup>#</sup>	62	56	86	84	2	4
Suburban	68	64	74	51	8	27
New	66	N/A	70	N/A	8	N/A
International	60	47	77	51	4	11
Regional	66	58	64	35	2	48
Applied	61	56	66	53	9	25
Consolidated	61	57	43	44	27	22

<sup>\*</sup> This study was of *first time* first year commencers. Available statistics tend not to distinguish first time undergraduate commencers and include students who attended university previously and were commencing a new course of study. Unless otherwise indicated, data pertains to all undergraduate commencers.

### Notes relating to the data collection and analysis

- Any study of this kind faces a set of difficulties associated with imprecise definitions. For this project, 'first year' students were taken to be students commencing university for the very first time. This definition led to some statistical and survey difficulties because universities do not as a matter of routine divide undergraduate commencers into first-timers and others. Though we clearly specified first time commencers in the questionnaire's covering letter, it can be expected that a small number of students who responded to the survey were commencing second degrees or had changed course before completing a degree.
- While changing demographic patterns in Australian higher education provided the impetus for this study, the study itself was not an investigation of enrolment trends nor of participation rates in higher education. Trends in participation that is, the proportion of age cohorts and their sub populations which have enrolled in higher education by a certain age have been documented by a series of studies (for example, Anderson and Vervoon 1983, Williams et al 1993). Because this study was concerned with a snapshot of the first year enrollers of one year, its findings are not directly comparable to the statistics associated with participation studies.

<sup>#</sup> Established University provided their most reliable estimate of data pertaining to first time undergraduate commencers (except in the age category where these data was unavailable).

<sup>^</sup> Regional University also provided data on first time commencers. However these data also include external students (only internal students were surveyed).

- The annual DEET statistics provide useful comparisons with our sample, though certain problems arise here too. DEET routinely report statistics of undergraduate commencers, thus including students who have attended university previously and are commencing a new course of study. This study, as we have stressed, was specifically of first time first year commencers. Furthermore, DEET do not routinely distinguish between on-campus and off-campus students, whereas our focus was on on-campus students at the request of the Committee for the Advancement of University Teaching. Nevertheless, the two sets of figures allow for some general patterns to be established.
- The courses in which students were enrolled were coded according to the ten groupings of the DEET Academic Organisational Unit classification.
- There were four discipline areas in which there were low numbers of students and where large proportions of respondents were from particular institutions:

  Architecture/Building, Agriculture/Forestry/Animal Husbandry, Law/Legal Studies and Veterinary Science, (3.2, 2.1, 1.9 and 0.8 per cent of the sample overall respectively).

  These fields of study were believed inappropriate for individual analysis.
- Due to the small number of students who were studying for combined degrees (eight per cent of the sample) and the diversity of disciplines represented, combined degrees were not analysed as a discrete unit.
- Students were divided into three age groups 19 years and under, 20-24 years, and 25 years and over for comparison in the analyses. These groupings correspond with those used by DEET.
- Nearly a quarter of the students in the sample were born overseas. For analyses, students from Hong Kong, Indonesia, Malaysia, Singapore and Vietnam were treated as one group, which we have referred to as South East Asia.
- Students were asked to indicate their main type of accommodation for semester one using the following categories— college/hall of residence, family/guardians, renting with co-tenants not known before, renting with friends, private board, living alone, own house/unit/flat and other. Students who were renting were treated as one group, as were students living alone, in private board, in their own house or in other forms of accommodation. Subsequently, the following four groups were used for analysis—college, family, renting and other accommodation.

- Students indicated the type of school they had attended in their final year of secondary schooling catholic, government, independent/private, or overseas. These four categories were subsequently used for analyses.
- In terms of the study's limitations, it is possible that students who are less engaged with the university experience might be less likely to respond to a survey of this kind. While the data suggests that we have picked up students who appear less affiliated and less involved with their universities and courses, we are conscious that the sample might be biased towards students who are well integrated with university life.
- The usual caveats need to be placed on the qualitative findings of this study. The experience of this research reinforced our view that when it comes to teaching and learning in higher education there are many myths and stereotypes. We have treated the findings with caution.

**Statistical analyses**Scales of academic orientation, student identity, sense of purpose, and academic application

Thirty-one items from the questionnaire related to students' goals, expectations, and perceptions of the academic and social aspects of university life. It was believed that these items could be grouped together to describe a number of underlying constructs. A principal component analysis was performed in which nine factors were extracted explaining 57.5 per cent of the variance across items. A standard loading cut-off of 0.4 was used to decide which items to include. The factors were clearly defined with no items loading on more than one factor.

It was decided to use only four of the nine factors. The remaining factors either did not make conceptual sense or consisted of less than three items and thus could not be used to construct reliable scales. The four factors which remained explained 38.5 per cent of the variance. Items from the factors were summed to create scales of academic orientation, social identity, goal direction and academic application (Table B.5).

For ease of understanding, items were recoded, as necessary, to produce scales in which higher scores indicated positive response. Reliability analysis of the scales revealed strong alphas ranging from 0.6 through to 0.8. One item was removed from the academic application scale, and one item from the student identity scale, as the reliabilities of these scales were improved by their removal.

Table B.5 Rotated factor matrix A with communality values  $(h^2)$ 

	Factor 1	Factor 2	Factor 3	Factor 4	h <sup>2</sup>
Academic Orientation					
The lectures often stimulate my interest in the subjects	.72412				.62
I really enjoy the theoretical content of my subjects	.70121				.54
So far I have found most of my subjects really interesting	.64814				.56
I enjoy the intellectual challenge of subjects I am studying#	.67273				.64
Lectures are a valuable source of learning for me	.54720				.62
I get a lot of satisfaction from studying	.54388				.54
Student Identity					
I really like being a university student		.75743			.69
I think university life really suits me		.74675			.67
I really like the atmosphere at this campus		.72074			.56
University just hasn't lived up to my expectations		68011			.63
*I have not made close friends at university		53781			.54
Sense of Purpose					
I know the type of occupation I want			.78729		.66
I am clear about the reasons I came to university			.69792		.63
Being at university will really help me get what I want in life			.58453		.50
Studying at university is just marking time while I decide my			70389		.61
future					
Academic Application					
I worked consistently throughout first semester				.66449	.59
I find it difficult to get myself motivated to study				55717	.60
I regularly seek the advice and assistance of the teaching staff				.60427	.51
I have a strong desire to do well in all my subjects				.45234	.44
That a strong desire to do wen in an my subjects				.10201	
*One of the most important considerations in choosing my subjects is whether I will be able to get top marks in them				.52938	.52

<sup>#</sup> Items in bold are the defining items for each scale.
\* Items in italics were removed from scales because the reliability of the scale increased when the item was removed.

Table B.6 Rotated factor matrix B with communality values  $(h^2)$ 

	Factor 1	Factor 2	Factor 3	h <sup>2</sup>
	1		3	
Teaching				
The staff make a real effort to understand difficulties students may be having with their work	.68720			.50
Teaching staff here usually give helpful feedback on my progress	.64025			.42
The teaching staff are good at explaining things#	.63854			.51
Most academic staff in my subjects take an interest in my progress	.63300			.42
Most of the academic staff are approachable	.62820			.44
The quality of teaching in my course is generally good	.62589			.50
Staff are usually available to discuss my work	.59896			.37
Staff are enthusiastic about the subjects they teach	.59128			.42
Staff try hard to make the subjects interesting	.56996			.38
*Staff made it clear from the start what they expect from students	.39390			.18
Course				
Overall, I am really enjoying my course		.75801		.72
I am finding my course intellectually stimulating		.63506		.49
Overall, I am very satisfied with university experience so far		.61552		.54
*I have a clear idea where my course is going		.39132		.27
Workload				
My course workload is too heavy			.77960	.61
The volume of work to be got through in this course means that I can't comprehend it all thoroughly			70741	.53
The number of contact hours make it difficult for me to complete the tasks set for classes			54060	.31
It seems to me that the syllabus tries to cover too many topics			.47738	.30
The workload is not challenging enough			42447	.27
The mermiona is not chancinging chough			. 1 4 1 1 /	,
*I have had difficulty adjusting to the different style of teaching at university			.33381	.19
*It would be possible to get through this course just by working hard around assessment times				.14

<sup>#</sup> Items in bold are the defining items for each scale.

<sup>\*</sup> Items in italics were removed from scales because the factor loading was less than 0.4.

*The teaching, course and workload scales* 

Twenty-one items on the questionnaire related to students' perceptions of various aspects of their courses. It was hypothesised that these items could be explained by four underlying dimensions. Consequently, a factor analysis specifying four factors was performed on the items (using an alpha extraction with varimax rotation). However, the fourth factor consisted of only two items and contributed little to the explained variance. Therefore a second factor analysis was conducted, specifying three factors (using an alpha extraction and varimax rotation). The resulting three factors were consistent with prior hypotheses and explained 39 per cent of the variance. Items with factor loadings below 0.4 were excluded. The factors were clearly defined with no items loading on more than one factor (Table B.6). Three scales were then created by summing the items in each factor. As before, items were recoded, as necessary, to produce scales in which higher scores indicated positive response. Reliability analysis indicated good alpha coefficients for the scales, all above 0.7.

## *Group differences on the scales*

A series of multivariate analyses of variance (MANOVAs) were performed using the seven scales as dependent variables. These analyses determined whether mean differences between subgroups of students were significant for a combination of the seven scales. The independent variables used were: age, sex, birthplace, course load, accommodation type, type of secondary school attended, number of parents with a degree, number of paid working hours, institution attending, and field of study.

For each independent variable, different subgroups were compared or contrasted. The following types of contrasts were used;

- Deviation the mean of each subgroup (except one) was compared to the mean of the total sample or the grand mean.
- Repeated the mean of each subgroup (except the first) was compared to the mean of the previous subgroup.
- Helmert the mean of each subgroup (except the last) was compared to the mean of subsequent subgroups.
- Simple the mean of a specified subgroup was compared with the means of each of the remaining subgroups.
- Special subgroups were compared as defined by the researchers.

When the influence of a grouping variable was found to be significant, each scale was examined separately to determine which of the scales were affected.

Cell by cell evaluation of assumptions of multivariate normality and linearity, and tests for the presence of outliers, were not performed since it was impractical with such a large number of cells and dependent variables. Furthermore, the sample size was large and thus reductions in the power or the robustness of the analyses were unlikely. The presence of widely discrepant cell sizes, threatened the assumption of homogeneity of variance-covariance matrices. However, with very small differences in variances and covariances between cells the discrepancy in sample sizes did not invalidate the use of MANOVA. In addition, larger sample sizes generally produced larger variances and

covariances. Consequently, the  $\alpha$  level was conservative so that null hypotheses could be rejected with confidence. Pillai's criterion was used to test significance of main effects and interactions for increased robustness. Due to the large number of analyses performed a significance level of p < .01 was chosen. Tables B.7 and B.8 (to follow) summarise the means and standard deviations for each subgroup on each of the seven scales.

## Summary of the differences

#### Age

The combined scales were significantly affected by age, [ $\underline{F}$  (14, 7388) = 32.89,  $\underline{p}$  < .001]. Using a Repeated contrast, 19 year olds were found to be significantly lower than 20 to 24 year olds on the scales of academic orientation, academic application, sense of purpose, teaching and course. Furthermore, 20 to 24 year olds were significantly lower than students 25 years and over on each of these scales, with the exception of the teaching scale.

#### Sex

The combined scales were significantly affected by sex,  $[\underline{F}(7, 3689) = 10.39, \underline{p} < .001]$ . Using a Helmert contrast, female students were found to be significantly higher than males on the scales of academic orientation, academic application, sense of purpose, and course.

### **Birthplace**

The combined scales were significantly affected by birthplace, [ $\underline{F}$  (14, 7452) = 7.61,  $\underline{p}$  < .001]. Using a Simple contrast with Australian-born students as the reference group, Australian-born students were found to be significantly higher than South-East Asianborn students on the academic orientation, sense of purpose, course and workload scales.

#### Course Load

The combined scales were significantly affected by course load, [ $\underline{F}$  (7, 3733) = 17.86,  $\underline{p}$  < .001]. Using a Helmert contrast, full-time students were found to be significantly lower than part-time students on the scales of academic orientation, academic application, sense of purpose and workload, but significantly higher on the student identity scale.

Table B.7 Means and standard deviations for the academic orientation, academic application, student identity and sense of purpose scales

Independent variable	n	Academic orientation	Academic application	Student identity	Sense of purpose
19 yrs/ less	263 5	Range 1-5, M(SD) 3.34 (0.74)	3.04 (0.76)	3.68 (0.90)	3.79 (0.88)
20-24 yrs 25+yrs	628 439	3.60 (0.72) 3.87 (0.74)	3.34 (0.74) 3.62 (0.70)	3.62 (0.81) 3.63 (0.82)	3.97 (0.78) 4.22 (0.66)
Male	139 0	3.33 (0.77)	3.06 (0.76)	3.63 (0.85)	3.80 (0.85)
Female	230 7	3.52 (0.74)	3.21 (0.77)	3.69 (0.89)	3.92 (0.85)
Full-time	346 8	3.43 (0.75)	3.14 (0.77)	3.68 (0.88)	3.86 (0.86)
Part-time	273	3.69 (0.80)	3.41 (0.81)	3.43 (0.82)	4.03 (0.77)
<u>Birthplace</u> Australia	291 6	3.45 (0.76)	3.14 (0.78)	3.68 (0.89)	3.89 (0.87)
S.E. Asia Other	377 441	3.34 (0.72) 3.52 (0.75)	3.20 (0.70) 3.22 (0.79)	3.53 (0.80) 3.68 (0.84)	3.69 (0.73) 3.90 (0.79)
Accommodation College	543	3.46 (0.72)	3.13 (0.75)	3.97 (0.77)	3.94 (0.85)
Family	204 4	3.35 (0.76)	3.08 (0.77)	3.60 (0.90)	3.79 (0.87)
Renting Other	593 556	3.57 (0.73) 3.64 (0.78)	3.23 (0.76) 3.39 (0.79)	3.64 (0.85) 3.64 (0.85)	3.94 (0.82) 4.04 (0.78)
Secondary school Catholic	735	3.39 (0.76)	3.11 (0.78)	3.66 (0.85)	3.81 (0.84)
Government	200 1	3.49 (0.75)	3.22 (0.76)	3.67 (0.88)	3.93 (0.84)
Ind./ Private Overseas	888 114	3.38 (0.75) 3.69 (0.78)	3.01 (0.77) 3.56 (0.72)	3.66 (0.90) 3.71 (0.80)	3.78 (0.89) 4.04 (0.73)
Parents holding a degree					
Both	574	3.46 (0.74)	3.02 (0.77)	3.72 (0.85)	3.75 (0.86)
One only Neither	756 230	3.41 (0.73) 3.45 (0.77)	3.09 (0.78)	3.70 (0.89)	3.83 (0.86) 3.92 (0.84)
Neither	4	3.45 (0.77)	3.22 (0.77)	3.64 (0.88)	3.92 (0.04)
Paid working hours None	193 6	3.45 (0.76)	3.16 (0.77)	3.71 (0.87)	3.87 (0.86)
1 to 10 hours per week 11 hours or more a week	907 812	3.40 (0.75) 3.49 (0.76)	3.07 (0.77) 3.22 (0.79)	3.67 (0.90) 3.56 (0.89)	3.86 (0.86) 3.89 (0.84)
University A University B University C		3.47 (0.70) 3.52 (0.74) 3.45 (0.74)	3.20 (0.72) 3.34 (0.74) 3.01 (0.79)	3.65 (0.82) 3.48 (0.80) 3.66 (0.91)	3.95 (0.83) 4.01 (0.83) 3.77 (0.91)

University D	_	3.53 (0.77)	3.24 (0.77)	3.96 (0.82)	4.02 (0.81)
University E	_	3.33 (0.75)	3.10 (0.76)	3.68 (0.85)	3.77 (0.82)
University F	_	3.36 (0.79)	3.20 (0.78)	3.58 (0.88)	3.87 (0.79)
University G	_	3.47 (0.83)	3.15 (0.82)	3.68 (0.94)	3.84 (0.88)
Arts Business/Admin. Education Engineering Health Science Other	708	3.63 (0.81)	3.18 (0.84)	3.71 (0.93)	3.65 (0.94)
	603	3.17 (0.73)	3.08 (0.76)	3.49 (0.85)	3.78 (0.80)
	369	3.36 (0.71)	3.33 (0.72)	3.68 (0.88)	4.02 (0.88)
	239	3.25 (0.72)	3.09 (0.75)	3.59 (0.83)	3.82 (0.78)
	537	3.55 (0.70)	3.21 (0.71)	3.69 (0.85)	4.16 (0.78)
	593	3.47 (0.75)	3.10 (0.77)	3.69 (0.90)	3.80 (0.82)
	685	3.52 (0.73)	3.14 (0.78)	3.74 (0.85)	3.95 (0.81)
Overall means		3.45 (0.76)	3.16 (0.77)	3.67 (0.87)	3.87 (0.85)

Table B.8 Means and standard deviations for the teaching, course, and workload scales

Independent variable	n	Teaching	Course	Workload
		Range 1-5, M(SD)		
19 yrs/ less	263 5	3.24 (0.71)	3.61 (0.96)	2.76 (0.77)
20-24 yrs	628	3.39 (0.73)	3.78 (0.90)	2.84 (0.76)
		. ,		
25+yrs	439	3.44 (0.77)	3.96 (0.93)	2.90 (0.77)
Male	139 0	3.27 (0.71)	3.61 (0.94)	2.76 (0.78)
Female	230 7	3.30 (0.73)	3.72 (0.96)	2.81 (0.77)
Full-time	346 8	3.28 (0.72)	3.67 (0.95)	2.78 (0.77)
Part-time	273	3.37 (0.77)	3.75 (1.01)	2.95 (0.76)
<u>Birthplace</u>				
Australia	291 6	3.31 (0.74)	3.69 (0.97)	2.83 (0.78)
S.E Asia	377	3.20 (0.62)	3.52 (0.87)	2.50 (0.67)
Other	441	3.27 (0.71)	3.69 (0.93)	2.76 (0.77)
other	111	3.27 (0.71)	3.07 (0.73)	2.70 (0.77)
<u>Accommodation</u>				
	E 42	2 20 (0 72)	2.70 (0.01)	2.07 (0.77)
College	543	3.28 (0.72)	3.78 (0.91)	2.86 (0.77)
Family	204	3.25 (0.71)	3.59 (0.97)	2.75 (0.77)
	4			
Renting	593	3.34 (0.73)	3.75 (0.91)	2.83 (0.77)
Other	556	3.40 (0.77)	3.82 (0.97)	2.83 (0.77)
Secondary school				
Catholic	735	3.26 (0.70)	3.67 (0.91)	2.76 (0.76)
Government	200	3.33 (0.74)	3.71 (0.97)	2.78 (0.77)
dovermment	1	0.00 (0.7 1)	01/1 (01//)	2170 (0177)
Independent / Private	888	3.22 (0.70)	3.60 (0.96)	2.82 (0.80)
Overseas	114	3.38 (0.67)	3.81 (0.92)	2.79 (0.71)
Parents holding a degree				
Both	574	3.23 (0.68)	3.72 (0.92)	2.84 (0.82)
One only	756	3.31 (0.69)	3.68 (0.93)	2.79 (0.75)
Neither	230	3.30 (0.74)	3.67 (0.97)	2.78 (0.77)
Weither	4	3.30 (0.74)	3.07 (0.77)	2.70 (0.77)
Daidaulsis - la				
Paid working hours	400	0.04 (0.70)	0 = 0 (0 0 1)	0 == (0 =0)
None	193	3.31 (0.72)	3.70 (0.94)	2.77 (0.78)
	6			
1 to 10 hours per week	907	3.26 (0.71)	3.66 (0.97)	2.78 (0.76)
11 hours or more a	812	3.28 (0.73)	3.66 (0.98)	2.86 (0.77)
week		` ,	` ,	,
University A	_	3.32 (0.65)	3.74 (0.87)	2.83 (0.75)
University B		3.35 (0.74)	3.73 (0.91)	2.84 (0.76)
	_			
University C	_	3.23 (0.68)	3.67 (0.95)	2.72 (0.75)
University D	_	3.37 (0.77)	3.82 (0.97)	2.95 (0.75)
University E	_	3.20 (0.71)	3.61 (0.92)	2.65 (0.79)

University F University G	_	3.23 (0.75) 3.37 (0.80)	3.56 (1.01) 3.62 (1.06)	2.70 (0.77) 2.86 (0.80)
Arts Business/Admin.	708 603	3.39 (0.76) 3.08 (0.71)	3.72 (1.07) 3.39 (0.92)	3.14 (0.75) 2.79 (0.67)
Education	369	3.45 (0.67)	3.69 (0.94)	2.94 (0.69)
Engineering	239	3.14 (0.65)	3.54 (0.90)	2.31 (0.75)
Health	537	3.34 (0.69)	3.86 (0.88)	2.75 (0.77)
Science	593	3.27 (0.71)	3.63 (0.93)	2.65 (0.75)
Other	685	3.32 (0.74)	3.83 (0.90)	2.67 (0.79)
Overall means		3.29 (0.72)	3.69 (0.95)	2.79 (0.77)

#### Accommodation

The combined scales were significantly affected by accommodation type, [ $\underline{F}$  (21,11184) = 11.99,  $\underline{p}$  <.001]. Using a Deviation contrast, students living with their families were found to be significantly lower on each of the seven scales when compared with the grand mean. Students living at college were found to be significantly higher on the student identity scale, but significantly lower on the academic application scale.

#### Secondary School

The combined scales were significantly affected by type of secondary school attended,  $[\underline{F}(21,11190)=5.08,\underline{p}<.001]$ . Using a Deviation contrast, students from Catholic schools were found to be significantly lower on the academic application scale, but significantly higher on the academic orientation and teaching scales when compared with the grand mean. Students from Independent Private schools were significantly lower on the scales of academic orientation, academic application, sense of purpose, and teaching.

#### Parents holding a degree

The combined scales were significantly affected by whether parents held a degree,  $[\underline{F}]$  (14, 7252) = 6.64, p < .001). Two comparisons were made using a Special contrast. Students whose parents held a degree (either both parents or one parent only) were found to be significantly lower on the academic application and sense of purpose scales when compared to students with neither parent holding a degree. There were no significant differences between students with both parents holding degrees and students with only one parent holding a degree.

### Paid working hours

The combined scales were significantly affected by students' paid working hours, [ $\underline{F}(14, 7294) = 4.37$ ,  $\underline{p} < .001$ ]. A Simple contrast was used with students who did not work as a reference group. Students who worked 1 to 10 hours a week were found to be significantly lower on the academic application scale compared to those that did not work. Students who worked 11 or more hours a week were significantly lower on the student identity scale compared to those that did not work.

#### Institution

The combined scales were significantly affected by institution [ $\underline{F}$  (42, 22446) = 6.79,  $\underline{p}$  < .001]. Using a Deviation contrast it was found that, compared with the overall mean, students of University C were significantly lower on the scales of academic application, sense of purpose, teaching, and workload. Students of University E were significantly lower on the academic orientation, sense of purpose, teaching, and workload scales. Students of University D were significantly higher on the student identity, sense of purpose, course, and workload scales. Finally, students of University B were significantly higher on the academic application and sense of purpose scales but lower on the student identity scale.

Field of study differences after controlling for institution

Due to the sampling technique and the range of courses offered by institutions, the size of the samples in fields of study varied substantially from institution to institution, suggesting that the analyses by course need to be interpreted with some caution — patterns of contrasts reflect institutional variations as well as field of study variations. Consequently, the effects of fields of study were re-examined, controlling for institution using a sequential multivariate analysis of variance. Deviation contrasts were used for both field of study and institution. The combined scales were still significantly affected by field of study  $[\underline{F}(42, 22110) = 18.46, p < .001]$ . However, after controlling for institution type, Arts students no longer differed significantly on the teaching scale. Furthermore, Business Administration students no longer differed significantly on the sense of purpose scale. Education students no longer differed significantly on the workload scale. Engineering students no longer differed significantly on the academic orientation scale.

## Relationships between the seven scales

The scale scores were subjected to a canonical correlation analysis. The two sets of variables were (1) the teaching, workload and course scales and (2) the academic orientation, academic application, sense of purpose, and student identity scales. Results of the analyses are summarised in Table B.9.

Three variates were computed explaining 65.6, 1.4, and 0.4 per cent of the shared variance respectively. All three were significant, p < .01. Ninety-seven per cent of the variance in the course scale was explained by the first variate. Moreover, 75 per cent of the academic orientation scale and 67 per cent of the student identity scale were explained by the first variate. Therefore, the first canonical variate indicates that students who had a higher academic orientation and stronger student identity were more satisfied with their course. It should be noted that the teaching scale also moderately correlates with the first variate, with 47 per cent of the variance in the teaching scale explained. This indicates that students who were more satisfied with their course also tended to be more satisfied with the teaching.

Fifty-one per cent of the variance in the teaching scale was explained by the second variate. Fifty-one per cent of the variance in the academic application scale was explained by the first variate. Subsequently, the second canonical variate suggests that students who had more academic application tended to be more satisfied with the teaching.

Table B.9 Canonical analysis of two sets of scales

	Vari	ate 1	Vari	ate 2	Variate 3	
	Correlation	Coefficient	Correlation	Coefficient	Correlation	Coefficient
First set						
Teaching	.683	.178	711	-1.199	170	155
Workload	.266	.041	.162	.277	950	994
Course	.987	.878	.136	.754	.079	.375
Second set						
Academic orientation	.868	.541	276	262	229	839
Academic application	.534	.073	716	914	.420	.509
Sense of purpose	.572	.134	.172	.468	.691	.859
Student identity	.820	.506	.352	.546	001	042
Canonical correlation	.823		.119		.062	
F value	448.0		11.3		7.1	
Probability > F	.000		.000		.001	

Ninety per cent of the variance in the workload scale was explained by the third variate. Fifty-two per cent of the variance in the sense of purpose scale was explained by the third variate. This indicates that students who had a greater sense of purpose were more comfortable with the workload.

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