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Mind the Gap: are students prepared for higher education?

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ABSTRACT *A pilot survey of science students conducted by Cook & Leckey confirmed that student study habits formed in secondary school persist to the end of the first semester of university life. Such a conclusion indicates that students are not bridging the gap between school and university quickly and effectively. The study reported here is based on surveys of first year students across the University of Ulster and compares their prior perceptions with their experiences after one term. We consider the literature relating to preparedness and student retention and present the results of these surveys in this broad context. Most students appear to have managed the transition into university life successfully since they do not experience the academic, personal and practical difficulties they expected. There is, however, a considerable minority (20–30%) who consistently experience academic and personal problems and for whom coming to university has been a negative experience. These students are at risk, if not from drop-out, then from under-performance and lack of fulfilment.*

Introduction

Going to university is a challenging hurdle for most students but for others it is an intimidating leap into the unknown (McInnis *et al.*, 1995). The abrupt shift from the controlled environment of school or college and family to an environment in which students are expected to accept personal responsibility for both academic and social aspects of their lives will create anxiety and distress, undermining their normal coping mechanisms. Some students will eventually cope simply by avoiding the challenge (Rickinson & Rutherford, 1995). When students fail to make a satisfactory transition to the new academic and social demands of university life, the results are manifested in drop-out and under-achievement.

Drop-out is only one indicator of a lack of success in the first year. Johnston (1994), for instance, suggested that drop-out statistics are less important than the general lack of interest in academic work that is associated with a disengagement from the educational and social processes of university life. Thus a considerable proportion of those who complete their studies may have under-performed since, like some non-completers, they too may have been poorly prepared for university life

and found managing the transition an obstacle to personal fulfilment (Ozga & Sukhnandan, 1998; Johnes, 1990). It is those students who struggle quietly with the changes involved in entering higher education who present the biggest and most subtle challenge for universities.

Lack of Preparation for Higher Education

The manner in which pupils are prepared in school obviously contributes to students' expectations of higher education (Billington, 1984; Clark & Ramsey, 1990). There is a concern that A-levels are too narrow a preparation for the demands of higher education, with little or no emphasis on teamwork or independence of approach (Roberts & Higgins, 1992). These authors' survey of students in English universities and polytechnics found that those who had previously attended schools or colleges with regimes similar to those at university found the transition into higher education relatively easy.

The teaching and assessment styles in many secondary schools lend themselves to the development of a particular set of study skills and learning strategies. These are, however, no longer entirely relevant to the more independent styles of learning expected in higher education but have nevertheless been shown to persist (Cook & Leckey, 1999). A-level students tend to consider themselves ill-prepared for higher education in terms of coping with both teaching styles, such as the formal lecture, and study skills, such as private reading, note taking, time management, asking questions in large groups, team/project work and IT competence. These cultural aspects of higher education are often taken for granted by staff (Roberts & Higgins, 1992), assuming that this development will take place through subject teaching.

The Perceptions of Academic Staff

The problem of a lack of preparation for higher education provided by previous educational backgrounds is compounded by a lack of understanding on the part of academic staff (Clark & Ramsey, 1990). Although Boud (1988) suggests that most educators see the central purpose of education as producing autonomous learners for whom learning is a life long process, many higher education syllabi remain anchored in traditional assumptions about the dominance of content. Many tertiary level teachers have not changed their teaching strategies or approaches to reflect an emphasis on the development of skills or self-directed enquiry.

These problems may not be confined to the first year. Students who are carefully and intensively guided by their teachers through an A-level course and experience an inadequate university induction may enter later years of their course still affected by a lack of experience in carrying out intellectual tasks such as analysis and critical evaluation (Harris & Palmer, 1995).

Many students enter a higher education environment with little preparation, having little idea of what to expect and little understanding of how the university environment can affect their lives (Upcraft & Gardner, 1989). This can result in an inability to make the necessary academic, social and personal adjustments to life at

university in general and inhibit them from making commitments to their course and institution. In practice, many incoming students adopt a 'wait and see' attitude to their forthcoming university experience (Astin, 1975). When universities do not help incoming students form realistic expectations of themselves and of their institution, the demands of the new environment can be overwhelming (Levitz & Noel, 1989). Many students who withdraw from courses express a desire to stay in higher education, indicating that they may have benefited from appropriate, early academic and personal support (Rickinson & Rutherford, 1995).

Reasons for Coming to University

Perceptions of higher education tend to revolve around stereotypical assumptions such as moderate academic demands and an exciting social life (Billington, 1984; Ozga & Sukhnandan, 1998). Billington (1984) has described some of the vague, reactive reasons put forward for going to university. These ranged from 'escaping from reality' through 'going to a holiday camp' and 'gaining a place in society' to simply getting away from family and friends. There were also institution-specific factors, such as the proximity to home. The choice of a degree subject was often determined by prior school performance, not being too much hard work and a university degree being more prestigious than an alternative form of higher education. Mismatches between expectations and reality are dysfunctional in nature (McInnis *et al.*, 1995). They involve confusion of purpose, unrealistic and inappropriate expectations of performance and a lack of genuine commitment to teaching and learning by both students and academics. Indeed, many students still measure their first year success by the extent to which their ill-found expectations, such as a rich social life, have been met. Other inaccurate prior perceptions relate to the amount of time spent in lectures and study and the belief that the nature of learning would not differ too much from that experienced in secondary school (Cook & Leckey, 1999).

Personal Characteristics

Success is also dependent on the individual attributes of new students. Of value to those planning induction programmes, therefore, will be information about the groups of students that have been shown to be susceptible to particular types of problems. Academic ability is probably the single most important determinant of success, but Yorke (1998) has shown that gender is also an important factor, with males more likely than females to report having more difficulty with aspects of study. Such difficulties concern a lack of study skills, a poor commitment to study, difficulty with academic study and a consequent lack of academic progress. Additionally, age has been shown to have a bearing on the nature of problems experienced (Power *et al.*, 1987; Johnston, 1994; Ozga & Sukhnandan, 1998; Yorke, 1998). In general, older students tend to make better choices and be more focused than younger students, but are more likely to be adversely affected by domestic

commitments (Farr, 1994; Ozga & Sukhnandan, 1998). Younger students tend to be more dissatisfied with the quality of teaching and with aspects of the study environment (Yorke, 1998). School leavers have been found to be less diligent in their study habits and less academically orientated than older students (Power *et al.*, 1987). Youth and inexperience characterise those students who leave through academic failure (Johnston, 1994).

The initial preference expressed in applying through the University and College Admissions Scheme (UCAS) is a further influence on the level of personal commitment felt by an individual to the institution in which they are studying. Johnes (1990) found a negative relationship between drop-out and ranking the university first in applying through UCAS. It is also clear that the expectations about institutional facilities of those who obtained a place through 'clearing' (late entry) were less likely to be met (Yorke, 1998). Students who live at home also find it more difficult to integrate into campus life (Woodward & Bradshaw, 1989).

The Present Study

The purpose of the study reported here was to elicit the expectations of pre-enrolment first-year students regarding social and academic aspects of university life and to compare these with their experiences after their first two months at the university. This was done through a repetition of questions in surveys conducted prior to enrolment and after two months at university. The study was aimed not only at assessing the degree to which students accurately predicted the issues and experiences they would face at university but also their perceptions of probable difficulties. These difficulties were divided into three main clusters relating to academic difficulties, social and personal difficulties and practical difficulties. They were selected as those that research had shown to be related to drop-out.

Methods

The University of Ulster

In 2000 the University of Ulster had about 12 000 full-time and 4000 part-time undergraduate students enrolled on a wide variety of courses, many of them vocational in nature. The University has four campuses, Belfast (7% of the student population), Jordanstown, (49%) Coleraine, (30%) and Magee, in Londonderry (14%). Each student is enrolled into a faculty that represents a set of cognate subjects and each student works on a single campus. Despite there being some differences in the subject mix on each campus, there were no consistent differences in the responses of students between the campuses other than those associated with campus location (e.g. more students enrolled in city campuses live at home). Thus all students were treated together for the purposes of analysis. The slight variations between faculties are detailed in the results. The distribution of respondents between faculties is shown in Table I.

TABLE I. The distribution of respondents to both questionnaires between faculties

Faculty	Subject mix	No. of respondents	Percentage of sample
Business and management	Business, management, sports, tourism, economics	268	39
Arts	Languages, history, art and design, media studies, theatre	76	11
Engineering	Electrical, mechanical, building, environmental health	12	2
Informatics	Mathematics, statistics, computing science, software engineering	110	16
Science	Applied biological sciences, geography, radiography, optometry	49	7
Social and health science	Sociology, nursing, physiotherapy, psychology, education	170	25

N.B. Seven students did not give the faculty in which they were enrolled.

The differences between faculties correspond to the size of the faculties, the vigour with which faculty administrators were able to pursue their students for the pre-enrolment questionnaire and the ease of locating students in class in December to complete the second questionnaire.

The Survey

In the year 2000, incoming students to the University of Ulster were surveyed prior to enrolment for their expectations of social and academic aspects of university. There were 2519 responses from undergraduate students. This survey was followed in December 2000 by a second questionnaire administered during classes. This was designed to reveal students' actual experiences regarding their social and academic integration during their first two months of study. One thousand, five hundred and fifty-six students responded to the second questionnaire. Individual students were identified by registration number but, in the absence of this information, some were identified by combinations of birth dates, subjects being studied, gender, etc. There were a total of 691 students who definitely responded to both questionnaires. All results reported here are drawn from these 691 students who were from all campuses and all subjects. Where comparisons are made between the results for similar questions in the two surveys, then the response of the same individual student to survey 2 was subtracted from the response to survey 1.

Results

Preparation for Higher Education

In the first survey students were asked how much they knew about the course on which they had accepted a place. They were invited to select their responses on a scale of a lot, a little and nothing at all. It was found that 17% of the cohort knew

TABLE II. The responses to questions relating to the importance of reactive reasons for coming to university by incoming students (percentages)

	SA	A	U	D	DS	Average
Like the idea of going to university	20	58	15	6	1	2.1
Better than the dole	25	33	11	16	16	2.7
To enjoy myself before starting work	4	27	20	34	15	3.3
Seems like the normal thing to do	4	21	13	47	15	3.5
Parental expectations	3	19	11	45	21	3.6
To get away from home	3	16	16	45	21	3.6
Friends are going to university	2	15	11	51	22	3.8
Postpone career decision	1	9	15	52	23	3.9
To find a partner	1	3	15	38	44	4.2
Postpone the need to work	1	5	6	39	49	4.3

SA (strongly agree), 1; A (agree), 2; U (undecided), 3; D (disagree), 4; DS (disagree strongly), 5. The average score is an indication of the importance placed on each reason by incoming students derived from averaging the responses on the Likert scale. Items are ranked in order of the importance attributed to them by students

nothing at all about the options to be selected in the first year and only 14% knew a lot about them. 18% knew nothing of how they would be assessed, 26% knew nothing about whether the course would involve a placement and well over half (57%) knew nothing of the number of hours of classes per week.

Reasons for Coming to University

Incoming students were presented with a list of reasons (academic, vocational and personal) why people go to university. The personal reasons for going are considered as reactive, e.g. parental pressure and social norms, because friends are going, to postpone the need to make career decisions and the need to enter the employment market and so on.

The detailed results for those items representing these reactive reasons for coming to university are given in Table II. In general, most students agreed with statements relating to enhancing their academic and vocational prospects and relatively few expressed strong agreement with the reactive reasons. Substantial minorities of students recognised parental pressure, enjoying themselves and getting away from home as factors with which they identified.

Those items indicating reactive reasons for coming to university were found to be sufficiently related using α reliability analysis ($\alpha = 0.80$) to permit them to be combined together as a single variable. The mean scores arising from the Likert scale were compared for various groupings of students. The results are presented in Table III.

It is clear that males are more likely to make reactive decisions related to entering higher education than females. Those students coming straight from school are also more likely to make choices for these personal and social reasons rather than for

TABLE III. Mean scores for each group of students for the combined items representing reactive decision making for the reasons for entering higher education

Background variable		Mean score	P
Gender	Male ($n = 242$)	3.37	< 0.001*
	Female ($n = 448$)	3.55	
Age	18–20 ($n = 575$)	3.44	< 0.001*
	Over 20 ($n = 86$)	3.81	
Background	Straight from school ($n = 401$)	3.40	< 0.001*
	Non-school background ($n = 258$)	3.63	
Preference	First choice ($n = 467$)	3.49	ns
	Clearing house ($n = 61$)	3.48	

The lower the score the greater the level of agreement with reactive items (detailed in Table II).
 * t -test comparing the mean score within each category.

vocational ones. Furthermore, older students are less likely to base their decisions to come to university on reactive reasoning.

There were some Faculty differences in the strength of reactive reasons for coming to university measured as differences in the mean score for questions related to reactive reasons. Students in the Faculty of Social and Health Sciences showed significantly less strong reactive reasoning than those from the Faculties of Business and Management ($P < 0.01$), Informatics (Computing and Mathematics) ($P < 0.001$), Engineering ($P < 0.001$) and Humanities ($P < 0.001$). The difference between the Faculty of Social and Health Science and the Faculty of Science showed a similar, though not significant, trend ($P = 0.066$). The Faculty of Social and Health Science contains programmes such as sociology, the caring professions and psychology.

Reasons for Choosing the University of Ulster

Students were presented with a range of possible reasons why they chose to come to the University of Ulster and were invited to respond on a five point scale of agreement. The reasons are detailed in Table IV. The second survey asked students the extent of their agreement (on an identical scale) that these prior reasons for coming had been fulfilled by their experience within the first two months of semester one.

The majority of questions were answered more positively in the second survey than in the first, indicating that for most students their reasons for coming to the university had been reinforced. These changes are statistically highly significant. A substantial majority of students (80%) cited the good reputation of the course as a reason for coming to the university. Almost all of them agreed that their course deserved that good reputation after the first two months, with a third of students indicating more positive perceptions of their courses through their experiences.

TABLE IV. The rationale for coming to the University of Ulster prior to enrolment and the extent to which these expectations have been met

Statement	Survey 1–survey 2				<i>P</i>
	Expected (%) (survey 1)	Experienced (%) (survey 2)	More positive response (%)	More negative response (%)	
I have chosen to/am pleased to be attending the University of Ulster because:					
The course has a good reputation	80	96	33	15	<0.001
The university has a good reputation	98	99	18	20	ns
I particularly liked the course	98	90	6	45	<0.001
To study elsewhere too costly	38	54	40	16	<0.001
I want to stay in Northern Ireland	81	92	31	18	<0.001
I have friends at the university	32	59	48	14	<0.001
For its good social life	73	82	37	15	<0.001
For its good student facilities	74	76	21	28	<0.05
For its good sporting facilities	77	89	33	14	<0.001

The data represent the percentage of the respondents in each survey who replied ‘agree strongly’ and ‘agree’ and the percentage of individuals who responded differently to the two surveys. Differences were detected using the sign test.

TABLE V. Changes in the extent to which students expected to integrate into aspects of the life of the campus compared with their subsequent experience of life on that campus

Statement	Positive expectation (%) (survey 1)	Positive experience (%) (survey 2)	Survey 1–survey 2		P
			More positive opinion (%)	More negative opinion (%)	
My campus at Ulster University:					
Has very good facilities	96	76	10	43	< 0.001
Is a great place to study	91	80	8	39	< 0.001
Is a great place to make friends	92	89	16	29	< 0.001
Has helpful, friendly teaching staff	90	81	15	35	< 0.001
Is sympathetic and reassuring	79	57	14	41	< 0.001
Provides a high standard of education	98	92	7	38	< 0.001
Is the sort of place to meet people like myself	80	82	20	27	< 0.05
Gives students a say in their education	77	62	16	38	< 0.001

Changes in the extent to which students expected to integrate into aspects of the life of the campus compared with their subsequent experience of life on that campus. The data represent the percentage of the respondents in each survey who replied ‘agree strongly’ and ‘agree’ and the percentage of individuals who responded differently to the two surveys. Differences were detected using the sign test.

TABLE VI. The expectations of the physical facilities of the campus by mode of entry

	Expectation (%) (survey 1)	Experience (%) (survey 2)	<i>P</i>
Non-clearing students (<i>n</i> = 561)	96	76	< 0.05
Clearing students (<i>n</i> = 61)	95	69	

The percentage of students expressing positive expectations (survey 1) compared with the frequency of positive experiences (survey 2) for each campus. Positive opinion is the combined scores of those who indicated 'strongly agree' and 'agree' on a Likert scale. The data for individuals in survey 2 was subtracted from that in survey 1 and the mean differences between the two groups were compared (*t*-test).

There were, however, 15% of the students whose experiences led them to lower their opinion of the reputation of their course and 45% did not like their course as much as they had expected.

Opinions of the Campus Environment

Respondents were presented with eight items that referred to their perceptions of the campus environment and were invited to respond by agreement on a five point Likert scale. The second survey repeated this scale so that students' experience of the campus environment could be compared to these prior perceptions. Table V sets out these results.

A pattern emerges of a strong positive expectation of the campuses prior to entry, less strong positive opinions after two months and a substantial minority of students developing more negative opinions than developing positive ones about their campuses.

Students overwhelmingly (96%) expected the University of Ulster to have very good physical facilities (such as buildings, library and shops). Although three quarters of the sample still believed this to be the case after two months, 43% indicated more negative opinions than they had prior to enrolment. Again, most students (80%) believed the university to be a great place to study, but this leaves 20% of all students who did not concur with this statement. Indeed, 39% expressed more negative opinions after two months in the university compared with the 9% who had developed a more positive opinion of the university as a place to study. A similar, if less pronounced, pattern can be discerned for the perceptions of the suitability of the campus for making friends. There is also a dramatic negative shift in students' perceptions of the response of university staff to their problems, with 41% of students having their expectations of a sympathetic and reassuring response to their problems disappointed.

Table VI shows a tendency for students who entered the university through clearing to be less satisfied with these features of their campus than those students who came through the main UCAS scheme.

Style of Teaching

In the first survey, students were invited to indicate their expectations regarding aspects of teaching in the university. The second survey asked them to indicate their experiences using similar questions. The results are given in Table VII.

More students experienced receiving extensive written material in lectures than they had expected, but a substantial minority (almost one-third of the sample) found that this form of communication was less frequent than they had expected. There was a student expectation that lecturers would dictate notes and this was not borne out by experience. In each case, about one-third of the cohort appear to expect teaching styles associated with school. Even so, most students (89%) initially expected to take their own notes in lectures, but for many students (39%) not to the extent they experienced. For many students the relaxed and informal style of teaching at university was not what they had expected.

Concerns and Difficulties

In the first survey, students were presented with a list of concerns they might be having about going to university. These represented factors identified by previous research as contributing to student drop-out from courses. They were invited to indicate the extent to which each concern applied to them on a five-point Likert scale of agreement. The second survey presented the same difficulties experienced on the same Likert scale. Their anticipation of these difficulties was then linked to the extent to which they had been experienced. There were three broad clusters of issues: academic problems (dealing with course-related problems), personal problems (such as homesickness and family support) and practical problems (financial problems and other commitments).

Academic problems. The data relating to students' expectations and experiences of academic difficulties are presented in Table VIII.

In general, most students found their concern over all the aspects of academic difficulty largely unfounded. There are, however, about 15–20% of students who found academic difficulties to be worse than expected.

Two-thirds of the sample expressed concern about their ability to cope with the academic demands of their course prior to enrolment and about half this number actually experienced these problems. Over a third of students (39%), however, reported themselves as struggling with their workload, indicating to us that many of those who reported to be struggling less than expected were still nevertheless experiencing some difficulty. Students' perceived ability to keep up to the academic pace of their course is also better than they had expected, with almost twice as many students finding this less of a problem than they had anticipated. This still leaves 22% of students experiencing this problem more than they expected. Only 14% of students experienced more examination anxiety than they expected. The survey was, however, conducted prior to Christmas, with all the formal examinations occurring after this holiday.

TABLE VII. Differences in how the reality of teaching styles varied from those expected prior to entry

Statement	Expected (%) (survey 1)	Experienced (%) (survey 2)	Survey 1–survey 2		<i>P</i>
			Agreed more (%)	Agreed less (%)	
Lecturers give extensive written notes	32	54	44	30	0.001
Teaching style relaxed and informal	43	70	43	17	0.001
Lecturers dictate notes	43	44	29	38	0.01
Students take own notes in lecture	89	79	16	39	0.001
Expected to attend every class	92	87	18	27	0.01
Not too different from school/college	16	26	31	37	ns

The responses for expectations and experiences represent the percentage of the respondents in each survey who replied ‘agree strongly’ and ‘agree’. Differences were detected using the sign test after subtracting the second survey from the first survey for individual students.

TABLE VIII. Academic difficulties expected and experienced

Statement	Expected the problem (%) (survey 1)	Experienced the problem (%) (survey 2)	Survey 1–survey 2		P
			Affected more (%)	Affected less (%)	
I expect to experience/have experienced ...					
A struggle with academic level	65	34	15	55	<0.001
A struggle with workload	66	39	15	52	<0.001
Examination anxiety	69	39	14	57	<0.001
A lack of personal support from staff	34	16	17	47	<0.001
A pace which is too fast	48	35	22	42	<0.001
A lack of study skills	41	26	22	42	<0.001
Discomfort with self-directed study	47	31	21	43	<0.001
Chosen the wrong course	35	10	15	57	<0.001
A feeling that I have made the wrong decision in coming to university	13	7	19	39	<0.001

The responses for expectations and experiences represent the percentage of the respondents in each survey who replied ‘agree strongly’ and ‘agree’. Differences were detected using the sign test after subtracting the second survey from the first survey.

Although there were 42% of students who had over-estimated the negative impact of a lack of study skills on their academic performance, just over a fifth of the sample experienced greater difficulty than expected and one quarter unequivocally agreed that they were suffering from this problem. Furthermore, over a fifth (21%) of students found themselves to be experiencing more difficulty with self-directed study than expected and one third agreed that they were experiencing outright difficulty.

Prior to beginning their courses, 35% of students expressed some doubt that they had chosen the right course. 13% were unsure that they should even be at university. Subsequent experience has shown these to be ill-founded concerns, with 57% expressing greater confidence in their choice of course after two months. The results, however, do indicate a minority of students (15%) who expressed a greater degree of reservation about being on the right course and 19% of the cohort who expressed a greater doubt after two months that they should have come to university at all.

Differences between faculties are few. More students in the Faculties of Science (35%) and Informatics (34%), however, experienced more problems with the pace of work than they expected. This is compared with an overall average of 22% experiencing such difficulties. Similarly, students in the same faculties (Science, 21%; Informatics, 23%) experienced a greater lack of staff support than they expected. Only 16% of all students experienced more difficulties with staff support than they had anticipated.

The items representing academic difficulties were found to be sufficiently related after α reliability analysis ($\alpha = 0.84$) to permit them to be combined together as a single variable. Students were asked in the second survey about whether or not they considered dropping out at any stage during their first two months at the university. Following the classification of Rickinson & Rutherford (1995), those students who had not contemplated leaving at any stage during the first two months of starting university were classified as low risk. Those who had contemplated leaving at some point but were no longer doing so were classified as medium risk and those who were still considering leaving were classified as high risk. Table IX shows that those students at low risk expressed fewer academic concerns on entry and also showed the greater growth in confidence during the first two months. Students at medium or high risk on the other hand were more concerned on entry and were less marked in their improvement.

Personal problems. Personal concerns and difficulties are those that relate primarily to difficulties experienced in the early months at university following separation from the home environment. Typically they include homesickness, the degree of family support and level of confidence. These variables are not applicable to all students, in particular not to those who live at home. The results are presented in Table X.

In general, homesickness, the lack of personal support from family and a lack of confidence were problems more widely anticipated than experienced. Over a third of all students were affected less by these problems than they had anticipated. It should be noted, however, that a substantial minority (20%) perceived themselves to be more lacking in confidence than they had expected. It is significant to note that those who were missing their friends represented almost 50% of the sample, with 21%

TABLE IX. Academic difficulties expected and experienced by students at low and medium and high risk of dropping out

	Mean score (Likert scale)		Mean difference (survey 1–survey 2)	<i>P</i>
	Difficulty expected	Difficulty experienced		
Low risk	2.9	3.5	– 0.6	< 0.01
Medium and high risk	2.6	3.0	– 0.4	

The mean score is an indication of the extent to which academic difficulties (see Table VIII) were expected and experienced, derived from averaging the responses on the Likert scale. The lower scores indicate the greater concerns and actual difficulties. The mean difference refers to the score in survey 2 subtracted from that in survey 1 for individual students and then averaged.

affected by this more than they had anticipated. The same proportion felt that they lacked the support of their families relative to their expectations, but only 6% reported that this adversely affected them. There were between one-fifth and one-quarter of students who were affected more by these problems than they expected to be.

Practical problems. The third cluster of problems represents practical issues. These include poor accommodation, financial problems, coping with life away from home and balancing study and work commitments. These results are given in Table XI.

As with other aspects of this study, students tend to be less affected by such problems than they expected to be. It would appear that students are coping adequately with the demands of employment and balancing their studies better than they expected. This positive shift, however, tends to mask the 28% of students who were experiencing difficulty with this aspect of university life. Although almost half the cohort (47%) was less affected by financial problems than they had expected; a large minority (45%) was nevertheless still experiencing some financial problems.

Study skills. In order to assess the degree of help and support students require in those study skill areas essential for higher education, a list of nine skill areas was presented to students in survey 1. They were invited to indicate on a three point scale the level of support they thought they would require for each (extensive support, some support or no support). The same list was presented in survey 2 and students were again asked how much support they thought they still needed. The results are presented in Table XII.

For many aspects of study skills there were no notable changes between the two surveys in the perceptions of the level of support needed. Those students who perceived themselves to be competent on arrival still felt themselves to be competent and those who needed help still felt they needed help. There are some positive aspects arising from these results. Compared with the first survey, significantly fewer students in survey 2 expressed a desire for more support with regard to time

TABLE X. The responses for expectations and experiences represent the percentage of the respondents in each survey who replied ‘agree strongly’ and ‘agree’

Question	Expected the problem (%) (survey 1)	Experienced the problem (%) (survey 2)	Survey 1–survey 2		P
			Affected more (%)	Affected less (%)	
Missing family ^a (<i>n</i> = 400)	51	35	18	44	<0.001
Missing friends ^a (<i>n</i> = 400)	58	47	21	40	<0.001
Lack of personal support from family	10	6	21	34	<0.001
Lack of confidence	37	23	20	43	<0.001

^a Results confined to those students living away from home in term time
Differences were detected using the sign test by subtracting the second survey from the first survey.

TABLE XI. The difficulty students experienced living away from home

Difficulty	Expected the problem (%) (survey 1)	Experienced the problem (%) (survey 2)	Survey 1–survey 2		P
			Affected more (%)	Affected less (%)	
Coping away from home ^a (n = 400)	32	12	14	48	< 0.001
Unsatisfactory accommodation	15	11	24	38	< 0.001
Financial problems	64	45	19	47	< 0.001
Balancing study and work commitments	49	28	22	48	< 0.001

^a Results confined to those students living away from home in term time.
The responses for expectations and experiences represent the percentage of the students in each survey who replied ‘agree strongly’ and ‘agree’.
Differences were detected using the sign test by subtracting the second survey from the first survey.

TABLE XII. The extent of support needed for the development of academic skills required for university predicted on entry and experienced after two months

Skill area	Require support (survey 2) Average	Survey 1–survey 2		<i>P</i>
		Now required more support (%)	Now required less support (%)	
Giving a verbal presentation to other students	1.7	23	17	<0.05
Career planning	1.8	20	25	<0.05
Writing a practical report	1.9	19	23	ns
How to write essays	2.0	18	22	ns
Extracting most important information from texts	2.0	20	24	ns
Managing my time	2.1	14	23	<0.001
Taking good notes in lectures	2.1	28	13	<0.001
How to use computers	2.1	19	23	ns
Searching for information	2.2	19	28	<0.01

Average scores from the Likert scale are included from survey 2 (1, extensive support; 2, some support; 3, no support). The difference between the surveys shows the percentages of students who still required more or less support than they predicted.

TABLE XIII. The estimate made by incoming students of the time they would spend in lectures and private study in comparison with the time spent in reality (hours/week)

Mean estimates	Survey 1 (estimate) (hours)	Survey 2 (actual) (hours)	Difference	P
Class contact (hours/week)	20.1	15.1	– 5.0	< 0.001
Private study (hours/week)	15.7	11.9	– 3.8	< 0.001
Total	36.8	27	– 8.8	

management and seeking out the most appropriate sources of information in the library or on the Internet. Perhaps surprisingly, there was no significant increase in the need for support in essay writing. It should be noted, however that, the average score indicates that students still desire support in this area. Equally surprising was the lack of significant change in opinion on the need for computer skills and extracting the most important information from texts. Again, it is worth noting that this does not mean that the amount of support required has declined, only that students still require the support that they originally predicted.

Student Expectations of the Hours of Teaching and Study

In the first survey students were asked to estimate the number of hours per week they expected to spend in lectures and other classes and the hours per week they expected to spend in private study. The results are summarised in Table XIII.

Courses are designed to take up 40 hours/week of notional student effort hours (three modules taken simultaneously over 15 weeks at 200 student effort hours/module). The mean prediction from survey 1 falls just short of this (36 hours), but students report that they are actually spending even less time than this (27 hours). Almost half (45%) overestimated the demands and only 12% had underestimated it.

Students were also asked to estimate the size of their lecture classes. There is a tendency for students to underestimate the size of classes in which they would find themselves, with 68% of the sample estimating a lower figure than their actual class size. The mean class size estimated was 67, compared with a mean class size encountered of 92.

Discussion

Although these results suggest that most students have managed the process of transition successfully, they also show that there is a substantial minority of students (say up to 20%) who are failing to come to terms with the academic and social demands of university life. In the context of a study of students in transition and those at risk of failure and under-performance it is on this 20% that we must focus.

It is important to note that the samples of students in the survey are not random. Students completed the first survey prior to enrolment in September. Some students, however, especially those coming to the university through the UCAS clearing system, enrol late and these would not have been included. Thus, while

14% of the students returning survey 2 had come through clearing, only 10% had entered by this route in the first survey. The second survey was conducted in the last week of term before the Christmas vacation by distributing questionnaires in class. At this time some students, particularly the poorly motivated ones, might not have been attending classes. Thus the sample is biased in favour of students enrolling on time and still attending classes late in the term. Representation from the different Faculties and therefore different subjects is not even (Table I).

In considering the reasons that students came to the University of Ulster it is clear that a very high proportion hold the institution and its courses in very high esteem. Although incoming students expect to have a fulfilling social life and to enjoy themselves, this does not appear to be an important reason for attending the university. (Tables II–IV). Some of the expectations of new students are met and reinforced by their experience (e.g. that their course has a good reputation), but for most aspects examined more students score the university and their courses lower than they did on entry. This is only to be expected since the novelty and excitement of going to study in a new environment has worn off and the realities of study have been appreciated by the Christmas of Year 1. Students appear to have adapted well to these changing circumstances. Tinto (1987) suggested that students with their sights set on longer term career goals tended to manage the transition to university life better than those who may be studying for its own sake. This is in accord with the highly vocational courses in which the university specialises.

The generality of a reasonably satisfied student body conceals a substantial minority that expressed some negative opinions about some key aspects of university support. Thus the expectation that the university has ‘helpful, friendly teaching staff’ had not been met for 35% of the sample and a total of 41% did not see the staff as ‘sympathetic and reassuring’, as they had expected (Table V). Such information would indicate a general need for more staff–student interaction and mutual understanding (Clark & Ramsay, 1990). The involvement of staff in facilitating the academic and social integration of new students is seen as a key factor in the successful management of student transition (Pascarella & Terenzini, 1980; Grosset, 1991). A negative perception of academic staff is cited by previous research as being harmful to students’ chances of success (McInnis *et al.*, 1995; Maxwell, 1996).

Yorke (1998) found that students who come to university through the UCAS clearing system were less likely to be satisfied with their physical surroundings than those who had arrived through the UCAS main scheme. This study confirms this with clearing and non-clearing students having similar expectations of the university but with a significantly higher frequency of clearing students not having those expectations met (Table VI). An obvious interpretation of this is that clearing students had had their expectations set by their first choice institution and this university did not meet those expectations.

The gap between prior expectations and experiences is particularly wide regarding students’ predictions of the level of academic difficulty they would experience and the difficulty that they experienced. The results from Table VIII indicate that, in general, students have been successful in making the initial transition into the academic aspects of university life, since they are finding problems to be of

significantly less impact than they had anticipated. This generally positive picture masks some negative trends that clearly demonstrate that some students are experiencing academic difficulty. Two-thirds of the sample predicted problems in coping with the academic demands of their course and around half this number actually experienced those problems. This represents a very large minority of first-year students who appear to be marginalised from the academic process. Indeed, well over a third of students (39%) reported themselves as struggling with their workload, indicating to us that many of those who reported that they were struggling less than expected are still nevertheless experiencing some difficulty (Table VIII). Furthermore, almost a third (31%) of students reported difficulty with adapting to a more independent study style and being responsible for their own learning. The link between these inaccurate prior perceptions and drop-out is also established by this data, with students who are at higher risk of drop-out tending to report fewer encouraging experiences than prior perceptions (Table IX).

Such misconceptions apply also to the hours of class contact and private study as well as the size of the lecture groups in which students expected to find themselves (Table XIII). Students did not appear to have a realistic grasp of the size of groups in which they would be taught since about a quarter estimated larger class sizes than those that they encountered. Such a finding endorses those of Cook and Leckey (1999) and Roberts and Higgins (1992). Also, we can see that students not only overestimated the amount of time they spent in class contact time but also expected to spend considerably more time in private study than they actually did. Although it is to be expected that the time spent in academic work would increase towards the examination period after Christmas, the relatively low number of hours spent in academic work during term time might suggest that students are not managing their time as well as they perceive (Table XII).

As Yorke (1998) has found, younger, traditional age students are more likely to make reactive decisions based on social and personal stimuli than older students (Table III). There is a propensity for students experiencing academic difficulties to be more prone to drop-out, with those students at moderate and high risk of drop-out experiencing more academic difficulties than expected than those at low risk (Table IX).

With many more students being glad they had friends at the university after they arrived than before they came, this survey has underlined the importance of peers to whom incoming students can attach in their new environment. This not only emphasises the value of the reassuring presence of familiar faces in the new environment in helping first year students to settle in but also promotes the case for peer group interaction in the early stages of undergraduate life. Homesickness and a lack of confidence affected the majority of students less than they predicted (Table X). It should be noted, however, that the sign test only indicates the general direction of change and a considerable minority of the student body experienced the personal difficulties associated with transition. These results indicate to us that this substantial minority of students has been poorly prepared for the emotional aspects of separating from their previous environment and adjusting to their new environment at university (Rickinson & Rutherford, 1995).

Students tend to predict practical difficulties that are, for the most part, not realised (Table XI). Students were satisfied with their accommodation and their ability to cope away from home. As Cook and Leckey (1999) originally reported, financial issues were less of a problem for students than they had anticipated. Although almost half the sample (47%) was less affected by financial problems than they expected, a large minority (45%) was nevertheless experiencing financial problems. These were, however, less acute than they had originally feared. As the academic year proceeds, the issue of finance may well assume a more prominent position among those factors causing greatest difficulty.

In a survey reported by Cook and Leckey (1999), it was found that students were confident in their ability to perform most academic tasks on entry. This confidence grew with time with the exception of the confidence to work with minimal supervision. Similar questions in this survey give contrary results. Thus students felt that they required more support than expected in taking notes and giving verbal presentations (Table XII) and were discomforted less by self-directed study (Table VIII) than they expected. The questions in this survey were phrased in different ways and also this previous survey was confined to science students, whereas this one covered all academic disciplines in the university. Science students were a substantial minority in the current survey (Table I).

This study has largely reinforced the results gained by the pilot study of Cook and Leckey (1999) with regard to the gaps between the nature of teaching styles encountered at university and those anticipated prior to arrival at the university. The results have shown that many students expect that elements of university teaching would be of a similar nature to that encountered in school, with one-third of the sample appearing to expect teaching styles associated with school. The fact that significantly more students encountered such styles more often than they expected (Table VII) may testify to the varied styles of teaching in higher education as much as to the inaccurate perception on the part of students. Students also expected to be required to attend every class, an expectation that was not entirely met, indicating a degree of autonomy they have found at university but which they have not experienced previously. Indeed, the greater rigidity and formality of teaching in schools appear to have led to an expectation among students prior to arrival that university teaching would be the same, with only 43% of students expecting a relaxed and informal teaching style at university.

Conclusion

The problem associated with inaccurate prior perceptions is that it contributes to a disengagement from the educational (and social) aspects of university life. Such disengagement can have a detrimental effect on academic performance and the personal and social development of the individual. This, in turn, may have a direct impact on student retention. The key to facilitating an attachment of students to their institution is in large measure fulfilled by the elimination of unrealistic expectations of life at university. The solutions lie at both the pre-entry and post-entry stages.

The roots of many unrealistic expectations lie in the inappropriate preparation students receive before coming to university. Thus, as observed by Ozga and Sukhanadan (1998), the retention of students is not just a problem that can be tackled in tertiary institutions since the absence of university preparation and appropriate guidance in secondary education contributes to these problems of preparation in a significant way. In 1990 there was, according to Clark and Ramsey (1990), an urgent need for better communication between teachers and students and between secondary and tertiary educational institutions. There is no evidence that this has been addressed for the students entering the University of Ulster.

Institutions of higher education need to provide appropriate academic, attitudinal and social preparation for their new students. In this context induction should be seen as a process instead of as an event and should be designed to promote peer group and staff-student interaction as well as academic preparation. Grosset (1991) has suggested that academic staff should build bridges between the academic curriculum and student support systems for those students who are experiencing academic or personal difficulties. Much attention in the early part of the first year needs to be devoted to inducting students systematically so they clearly appreciate what is involved in studying at an advanced level (Power *et al.*, 1987). The most dependent learners are those at the point of entry into the institution. Academic and support services should thus be concentrated most heavily in the early part of the first year, with intrusive, proactive strategies being used to reach new students before they have an opportunity to experience feelings of fear, failure, disappointment and confusion (Upcraft & Gardner, 1989).

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