

## Introducing the Navigator, the Juggler, and the Analyst: A Q Profile of Undergraduate Psychology Students within an Australian University

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*Much of the existing literature investigating non-completion in the university sector focuses on the demographic characteristics of the students while failing to adequately apply the same degree of scrutiny to the institution itself. In this paper we present the findings from the final stage of a three phase investigation into retention in a Western Australian university that utilises Q Method to understand the subjective interpretation and meaning of the student experience and how this relates to retention. The sample of 45 undergraduates was drawn from each of the four years of the psychology programme at Edith Cowan University and so provides an opportunity to examine how the student experience might change over time. This approach also offers some insight into the experience of the contemporary student in relation to the diversity of the student population, and the multiplicity of demands he or she might manage in the course of completing an undergraduate degree. Findings from this research identify three distinct profiles among the cohort: The Navigator, The Juggler, and The Analyst. Each of these profiles describes a different type of student in relation to the external demands he or she might face in addition to the role of student, and the strategies they develop to assist them in achieving their goal(s). Identifying these profiles provides the school of Psychology with the opportunity to tailor their student support systems more closely to the needs of their specific students and therefore increase overall retention rates within the programme. The findings also offer the opportunity to other schools and departments to engage in similar domain specific research in order to identify and remove potential barriers to retention within their own learning contexts.*

The literature examining non-completion among university students is diverse, and in many cases contradictory. Previous research, both overseas and within Australia, has identified various factors that impact on non-completion rates, including the background characteristics of the students (Dobson, 1999; Dobson & Sharma, 1995; McInnis, James, & Hartley, 2000b; Shields, 1995) as well as external and institutional factors (Long, Faust, Harris, King, Knight, & Taylor, 1994; Tinto, 1993; Tinto, Goodsell-Love, & Russo, 1993). For example, the disposition of the student on entry, his or her goal commitment, and individual university experiences after entry (both social and academic) have been said to contribute to the decision to withdraw. The size of the institution, and the type and nature of the course can also influence whether or not the student remains at university (Tinto, 1993). Coupled with these factors are the needs of specific student groups and the difficulties they

might encounter as a result of their academic, social, cultural background, and personality characteristics (Evans & Farley, 1998; Evans & Peel, 1999; Evelynh, 1998; Lewis, D., 1994; Long et al., 1994; McJamerson, 1992; Scott, Burns, & Cooney, 1996; Strage, 2000; Terenzini, Rendon, Upcraft, Millar, Allison, Gregg, & Jalomo, 1994; West, 1985; Western, McMillan, & Durrington, 1998).

In addition to this evidence, there is also a growing body of literature that suggests students are not well informed as to the nature of the course they have chosen for future employment opportunities (McInnis, Hartley, Polesel, & Teese, 2000a; McInnis et al., 2000b; Pargetter, 1999; Peel, 2000a, 2000b) making it difficult for them to see the relevance of the curriculum. Many students are also unaware of the demands of higher education in terms of workload, independent learning, and access to resources (Pargetter, 1999, 2000; Peel, 2000a, 2000b; Yorke, 2000). This applies to mature students as

well as school leavers and in many respects is understandable as they are likely to base their expectations of university on their high school experience. To further complicate the retention issue, the profile of both students and universities has changed over the past few decades as a result of the shift towards mass higher education and equity access (Abbott-Chapman, Hughes, & Wyld, 1992; Anderson, Singh, Stehbins, & Ryerson, 1998; Astin, 1993) and this change creates a range of challenges for the student and the institution which often leads to premature withdrawal.

Student withdrawal rates are often skewed because they include all 'drop outs', even temporary ones, and those transferring to other courses at other institutions (Evans, 2000; McInnis et al., 2000a; Tinto, 1993) and so the application of 'input/output' analysis offers little clarity or understanding to the issue of attrition. In Australia the figures from both the vocational training (Technical and Further Education [TAFE] Colleges) and university sectors (McInnis et al. 2000) are combined. In the USA and UK figures from two, three, and four year colleges are often combined without consideration of the diverse nature of the student population or the different demands placed on them by these different institutions (Yorke, 1999). This aggregation of data leads to confusion and conflicting interpretations over non-completion and what might be relevant to one setting might not apply to another.

In relation to the issue of non-completion these facts are a major concern because without accurate data the interpretations drawn become unreliable and it then becomes difficult to develop meaningful responses to the issue. For this reason it has been suggested that universities should be encouraged to collect their own completion data and develop a detailed understanding of their particular student body and on the basis of this information initiate a programme aimed at improving the student experience and maximising retention (McInnis et al., 2000a). In response to this call, a three stage study investigating the experiences of undergraduate students in a School of Psychology in Western Australia was conducted; this paper reports on the final stage of that project.

In terms of higher education research it is this focus on the student as a 'whole being' that has been missing, with researchers focusing their attention on individual demographic aspects or characteristics. In Q methodology the researcher is able to explore all aspects of the student experience and present each of these as part of the body of information for the respondent to deliberate and interrogate. That is, the Q set incorporates issues relating to the on campus and off campus aspects of a students life and allows the student to respond to these diverse demands to create a more complete picture of the 'experience' he or she has. The individual is then in a position to present his or her subjective reality via the sorting process which in turn allows the researcher to objectively analyse this individual perspective (Capdevilla & Stainton-Rogers, 2000; Smith, 2001). With this possibility there is the opportunity of identifying and understanding reality as it occurs for each informant and for that reality to be valued and respected in relation to the contribution it makes to our overall understanding of the phenomenon. While the intention here is to examine issues around the concept of 'retention' we recognise that this term is not unproblematic in that it assumes all enrolling students should be retained by the university; that any form of non-completion is undesirable. This is not how the authors view the issue of retention, indeed for some students university is not the right course of action and so a deliberate decision to leave is in fact a positive change of direction. However, the focus for us, (in our teaching, the pastoral care we offer, and of this paper) is the student who has a desire and capacity to succeed but for whom the university experience is so unsatisfying that he or she feels compelled to leave in order to removes him/herself from a negative environment.

#### *Objectives of this study*

The Q study had three main objectives, the first of which was to examine in a structural manner the diversity of experiences among the student cohort in relation to the factors effecting retention. Using Q allowed the commonalities between informants to be explicitly identified as well as examining the

divergence among student experiences. The second aim was to examine whether the policies and teaching and learning practices within the institution affected student retention. Finally, it was anticipated that the resulting factors would provide some clarity to the complex issue of retention and provide a foundation that could contribute to the development of more appropriate policies and services to assist students in achieving their goals.

### Method

#### *Informants*

The total sample comprised 44 students with seven men and 37 women, which is representative of the gender ratio among psychology students at ECU. Two informants were international students (1 in second year and 1 in fourth year) and one student had English as a second language (ESL) (second year).

#### *Procedure*

The two earlier stages of the research comprised a series of focus groups and individual in-depth interviews. From these transcripts a list of statements was developed that were representative of the range of views and opinions relative to retention as expressed by these students. These responses were analysed and collapsed to 120 statements with further reduction by means of thematic analysis resulting in a final Q-sample of 45 statements (Appendix A). The Q-sample was presented to informants in the form of a set of small printed laminated cards about the size of a credit card. Each card was numbered and included one of the 45 statements.

The Q-Sort was conducted with each informant individually and lasted approximately 30 – 45 minutes. Informants were asked to sort and rank the 45 statement cards according to the instruction “most important to me” to “most unimportant to me”. To aid informants in the sorting activity an array chart in the form of a large, printed sheet was provided. The array was designed as a basic rectangle of nine columns and five rows totalling 45 squares with one square for each statement of the Q-sample. The columns of the array chart were arranged as a Likert-type scale, numbered from –4 (most unimportant), through zero, to +4 (most important), which allowed the informants to prioritise the statements in terms of the issues that were most

important to the individual in relation to his or her experience of being a student.

Comments or observations made by the informants during the sorting process were noted. In addition, a brief interview was conducted following completion of the Q-sort to clarify the reasons for the placement of the cards. This allowed issues that emerged during the sorting process to be explored as well as to discuss the relevance of themes.

### Results

Using PQMethod software the data were analysed using Principle Components Analysis (PCA) and Varimax rotation. A three factor solution offered the greatest clarity of interpretation and this was ultimately selected as the ‘best fit’ for the data. These factors were named *The Navigator, Juggler & Analyst*, to reflect the characteristics of the students who loaded onto them. Three statements failed to discriminate between the three factors and in Q terms these are described as ‘consensus items’. These are presented in Table 1 and this is followed by an interpretation of each factor.

#### *Interpretation*

Interpretation of the factors was conducted in accordance with the process outlined by Kitzinger (1999). In analysing the Q Sort, both the factor loadings and the interviews with each student are considered, thus providing a deeper insight into and explanation of the factor outcomes. All three factors comprised students from each of the four year levels, both genders, and full and part-time study. There were no significant differences between the profiles in relation to hours in paid employment or personal contexts that might be regarded as constraints to university success. This indicates that individual demographic characteristics are not associated with the issues that students identified as being important to them, because for this to be true each factor would be identified by similar types of students. For example, if age were a significant factor in its own right then we would have expected that all the school leavers would load onto a single factor with the mature age students loading onto a separate and different factor. This was not the case in this study with each factor being defined by a mix of ages, genders, and mode of study.

Table 1  
*Consensus items showing factor rankings and scores*

Statement and identification number		Factors					
		1		2		3	
		rank	score	rank	score	rank	score
8*	There are no barriers between students and teaching staff	0	0.02	-1	-0.32	-1	0.01
23*	There is not much of an atmosphere on campus, people come to class and then go, no-one seems to stay and chat.	-4	-1.03	-3	-1.06	-3	-1.20
41	The departmental secretaries are a valuable resource; they either know the answer or know where I can find it.	0	-0.24	-1	-0.35	-2	-0.72

NB: all items are non-significant at .01 and items marked ‘\*’ are also non-significant at .05

### *Factor 1: The Navigator*

Seventeen students loaded onto this factor and it was the largest of the three factors. It was defined by 7 first year students, 3 second year, 4 third year, and 3 fourth year students. Their ages ranged from under twenty to fifty years, both the international students loaded onto this factor and there were 4 men represented. All the students were enrolled full-time. Defining statements for this factor are shown in Table 2.

The students who loaded onto this factor can be described as being highly self-motivated and independent, they are committed to succeeding at university and they are prepared to do whatever is necessary to achieve their goals. The most important statement for this group was number 5. *“To succeed you need a goal – it can be just to get the best marks you can or it can be to go all the way to a PhD – but you need a goal.”* This statement typifies the types of responses students gave when asked what helps them to continue. While these students all described a number of highly negative experiences related to their student role during the interview process, they sought to identify the lesson inherent in the situation and move on from it rather than allow it to affect their progress. To illustrate this, one student described her response to receiving a lower than expected mark for an assignment in which she had expected to do well. Although her initial response to her result was shock, she quickly

turned this into an opportunity to learn and made an appointment with the coordinator to discuss the issue. The outcome of that interview was a much clearer understanding not only of the content of the assessment but of the course as a whole. Hence the selection of the term *Navigator* to describe this group of students; they sought to navigate their way through university by overcoming, mediating, or avoiding difficulties that might distract them from their goal of completion.

One of the other statements to be ranked very highly (+4) by these students was number 18. *“I can cope because I have the unconditional support of someone close to me.”* When asked to elaborate on this issue, students described a person who was prepared to do anything in order to enable the student to concentrate on study. The support person (or persons) was most often a partner or parent but could also be a friend. One student described her unconditional support as coming from a network consisting of her parents, her partner with whom she lived, and her best friend who was also studying the same course. Having access to such a range of supports that were unconditional enabled this student to cope with the demands of university study, paid employment, and a serious medical condition. Another student described how her partner encouraged her to resign from her job so that she could study full-time, even though this would require him to work longer hours in order to meet their financial needs.

Table 2

*Defining Statements for Factor 1*

Statement	Factors					
	1		2		3	
	Rank	Score	Rank	Score	Rank	Score
5. To succeed you need a goal - it can be just	4	<b>2.01*</b>	4	1.34	3	0.87
3. University has been a positive experience	4	<b>1.76*</b>	1	0.29	3	0.83
18. I can cope because I have the	4	<b>1.76*</b>	0	-0.06	3	0.91
26. My friends on campus are equally	3	<b>1.26*</b>	2	0.44	-3	-1.59
24. It requires good time management to	2	<b>0.67</b>	4	1.84	3	1.07
37. I access all the support services I need to	2	<b>0.29*</b>	-2	-0.58	-2	-0.48
19. Computer access is easy, I never have	1	<b>0.22*</b>	-3	-0.91	3	1.02
7. There is a strong collegial feeling on	1	<b>0.12*</b>	-3	-1.11	-4	-1.64
15. the admin staff in psychology are very	1	<b>0.11</b>	2	0.51	-2	-0.65
44. For me to be able to cope with the	0	<b>0.05*</b>	4	2.03	-3	-0.78
30. It is my study buddies on campus that	0	<b>-0.11*</b>	2	0.62	-4	-1.91
11. I find it easy to access advice and	0	<b>-0.22</b>	-2	-0.69	4	1.17
38. The support services on campus are	-1	<b>-0.28*</b>	-2	-0.87	1	0.44
29. Learning how the use the library was a	-1	<b>-0.45</b>	0	0.00	2	0.69
	-2	<b>-0.59*</b>	0	-0.03	1	0.41
39. There is a need for the university to offer	-2	<b>-0.70</b>	-4	-1.13	0	0.32
34. the lecturers have no time for students,	-2	<b>-0.71*</b>	-4	-1.60	-3	-1.60
25. I don't need a social element to						
4. I feel as if I am a role model for others by	-3	<b>-0.83*</b>	-4	-1.37	-4	-1.74
9. I found it easy to make friends with other	-3	<b>-0.91*</b>	-4	-1.99	-4	-1.66
1. I feel overwhelmed by the demands of	-4	<b>-1.05*</b>	1	0.22	0	0.39
43. Constantly worrying about money is a	-4	<b>-1.84*</b>	3	1.02	0	0.23
31. I have to work to support myself, this	-4	<b>-1.86*</b>	3	1.28	-1	-0.07
20. Financial difficulties make studying	-4	<b>-2.15*</b>	1	0.09	-2	-0.54

$P < .05$  ; Asterisk (\*) Indicates Significance at  $P < .01$  Both the Factor Q-Sort Value and the Normalized Score are Shown.

It is the unconditional nature of this support that makes it important. There is much literature on the benefits of social support (Astin, 1993; Lafreniere, Ledgerwood, & Docherty, 1997; West, Hore, Bennie, Browne, & Kermond, 1986) but none that discusses the issue of

conditionality. There is often an expectation of reciprocity in the provision of social support even if this is implied rather than stated. What these students are describing however is quite different to that presented in the literature. There is an explicit unconditional status to the support they receive.

The students who loaded onto factor one identified the specific roles that different groups of friends played into their lives by ranking the following statement (number 26.) at +3 “My friends on campus are equally as important to me as my friends off campus but they fulfil different roles.” This is an indication of how the students manage their role as a student and the relationships they have on and off campus. On campus friends tend to take the form of a study group such that they work together on assignments, help each other in gaining research materials, sit together in class and engage in informal and formal discussions related largely to their course of study. Off campus friends are likely to be longer term relationships from different stages of the person’s life and fulfil the role of social interaction and emotional support. That is not to say that these role boundaries are absolute or that a student might not discuss study issues with a friend who was not also a fellow student but as a general rule these Navigator students made a clear distinction regarding roles and boundaries. It would appear that this is a mechanism for maintaining established relationships by not contaminating them with the person’s new role of ‘student’.

The amount of time students spend in paid employment was an additional demand that reduced the time available to students but with 40% of full-time students in Australia working a minimum of 14 hours a week (McInnis & Hartley, 2002; McInnis et al., 2000a; McInnis et al., 2000b) it is becoming an important issue in the lives of undergraduates. Given that all but two of the students who loaded onto factor one were engaged in some paid employment it is interesting that the statements relating to financial pressures were all placed at the -4 position. On face value this appears somewhat contradictory as logic would dictate the student was working due to need rather than desire and if this were true it must impact negatively on the amount of time available for study and other activities. In raising this apparent contradiction with students it appears that while paid employment is a necessary fact of life for these students it was accepted as something that needed to be managed. Therefore, rather than seeing it as a

barrier to success, the students accepted and managed it as it as part of their schedule in the same way as they scheduled their classes.

Students also mentioned the benefits associated with paid employment even if they were not currently employed in an area related to psychology. For example, one student who worked in the retail sector described the time spent at the store as an opportunity to ‘tune out’ from psychology and studying and to engage in something completely unrelated to university. For this particular student, while paid employment encroached into study time he was able to reframe it into a positive and used his employment hours as a form of mental relaxation. In ranking the financial statements as unimportant, these students are stating that they have found the means of converting a potential barrier into a positive, which reinforces the image of the motivated goal driven achiever that characterises the Navigator.

In summary, the students who characterise the Navigator are very different individually, they are not all of a similar age or background and they do not all have similar needs or goals. However, they are similar in that they have a goal and they are prepared to make whatever sacrifice is necessary to achieve it. They all share the unconditional support of at least one person in their lives, and they have the ability to reframe a barrier as an opportunity to overcome a challenge.

#### *Factor 2: The Juggler*

This factor comprised twelve informants: Four 1st year students, 3 in each of second and third year and 2 fourth year students. They ranged in age from under 20 to 50 years and there were two men in this group. Three students were studying part time and there were no international students represented in this group. The defining statements for this factor are presented in Table 3.

The most important issue for this group of students was the difficulty associated with balancing the conflicting demands on their time. The statement with the highest factor score ranked at 4 was number 2 “It is difficult to juggle the demands of work, university, and family and friends” and this was separated from statement number 44 “For me to be able

to cope with the demands of uni, work and family, I need flexibility in my learning environment” by only .01 which indicates both the problem and the solution for these students. Juggling competing demands is the problem and flexibility on the part of the administration and/or lecturing staff was seen as the solution.

Scrutiny of the personal context of the students who loaded onto this factor identified individuals with limited or non-existent personal support systems. For example, there are two students who while in long term stable relationships have no extended family to draw on for assistance with child care. This results in each couple relying on each other and expensive casual child care centres for help. If the child becomes unwell and unable to attend the child care centre it means that one of the parents has to adjust an already tight schedule to accommodate the additional task of caring for a sick child. This might result in the student having to miss class or requesting an extension for submission of an assessment, and unless the lecturer is willing to accept the reason as legitimate it can result in penalties being applied to the student. With an extended support network of grandparents, aunts, uncles, or friends who might be able to help in an emergency this would not necessarily be such an issue for the student.

Another example drawn from the students in this profile is the single student who engages in paid employment to support herself. This student reported that many of the difficulties she experienced during her degree arose as a result of conflict between class times and paid employment. The necessity of paid work becomes paramount if you are relying on a single income and work commitments might require the student to miss classes or request extensions on assignment deadlines or it might be that an evening class time would be more convenient as it would allow the student to be employed during the day and study at night. Some staff members understand and recognise the reality of these circumstances and will accept employment related excuses as valid reasons for absence or extension requests but some do not partly due to the fact that the relevant university policy requires documentary evidence in support of such requests. Few students would be willing to approach employers for a note for their teachers

explaining the need for an absence and I would imagine that few employers would readily comply even if the request were made. Consequently, the policy creates a belief among some academics that the only legitimate reason for class absence is medical. This particular student reported that she was advised by a lecturer to assess her commitment to studying and if she is unable to commit the required time to attending class and meeting deadlines then perhaps university study is not a valid option. This response from the lecturer illustrates Opatow's (1990) arguments regarding moral exclusion in that by reflecting the responsibility for success solely onto the student the mechanism is created for denying our own responsibility as educators. In effect the student is removed from our scope of justice (Opatow, 1996) and therefore our role in assisting the student to achieve his or her goals is abrogated. While there is of course the need for the student to commit to his or her studies there also needs to be a realistic response to student absences and requests for extensions. This is especially relevant given the economic reality that most students need to engage in some form of paid employment while studying, and many have family responsibilities that cannot be ignored in order to meet university deadlines.

By not accommodating reasonable requests for flexibility the lecturer/administrator is contributing to a climate of systemic oppression. Failure to recognise that social and economic disadvantage impacts on a student's performance at university reinforces the marginalisation of that student (Darlaston-Jones, 2003; Darlaston-Jones, Cohen, & Pike, 2002; Freire, 1998; Wink, 1997) and can result in psychological oppression (Prilleltensky & Gonick, 1996). The net result of this lack of flexibility is that the student can become disillusioned with study, ridden with self-doubt, and internalise the failure as a lack of ability, and in extreme cases this can ultimately lead to non-completion. These responses were reflected by some of the students in this study as they talked about their reactions to situations and circumstances.

The students who loaded onto factor two were all committed students evidenced by the

Table 3  
Defining statements for Factor 2

Statement	Factors					
	1		2		3	
	Rank	Score	Rank	Score	Rank	Score
2. It is difficult to juggle the demands of	-2	-0.63	<b>4</b>	<b>2.04*</b>	-1	-0.42
44. For me to be able to juggle the demands	0	0.05	<b>4</b>	<b>2.03*</b>	-3	-0.78
24. It requires good time management to	2	0.67	<b>4</b>	<b>1.84*</b>	3	1.07
5. To succeed you need a goal – it can be	4	2.01	<b>4</b>	<b>1.34</b>	3	0.87
31. I have to work to support myself, this	-4	-1.86	<b>3</b>	<b>1.28*</b>	-1	-0.07
13. Teaching staff are very supportive and	2	0.79	<b>3</b>	<b>1.18</b>	1	0.51
22. Getting a good grade is a real motivator,	4	1.85	<b>3</b>	<b>1.13*</b>	4	2.08
43. Constantly worrying about money is a	-4	-1.84	<b>3</b>	<b>1.02*</b>	0	0.23
30. It is my study buddies on campus that	0	-0.11	<b>2</b>	<b>0.62*</b>	-4	-1.91
15. The admin staff in psychology are very	1	0.11	<b>2</b>	<b>0.51</b>	-2	-0.65
26. My friends on campus are equally as	3	1.26	<b>2</b>	<b>0.44*</b>	-3	-1.59
42. The quality of the teaching is a	3	1.14	<b>1</b>	<b>0.43*</b>	4	1.15
3. University has been a positive experience	4	1.76	<b>1</b>	<b>0.29</b>	3	0.83
20. financial difficulties make studying	-4	-2.15	<b>1</b>	<b>0.09*</b>	-2	-0.54
29. Learning how to use the library was a	-1	-0.45	<b>0</b>	<b>0.00</b>	2	0.69
39. there is a need for the university to offer	-2	-0.59	<b>0</b>	<b>-0.03</b>	1	0.41
21. Once I learnt the ropes or understood the	3	1.16	<b>0</b>	<b>-0.04*</b>	4	1.08
18. I can cope because I have the	4	1.76	<b>0</b>	<b>-0.06*</b>	3	0.91
11. I find it easy to access advice and	0	-0.22	<b>-2</b>	<b>-0.69</b>	4	1.17
38. The support services on campus are	-1	-0.28	<b>-2</b>	<b>-0.87*</b>	1	0.44
19. Computer access is easy, I never have	1	0.22	<b>-3</b>	<b>-0.91*</b>	3	1.02
7. There is a strong collegial feeling on	1	0.12	<b>-3</b>	<b>-1.11</b>	-4	-1.64
34. The lecturers have no time for students,	-2	-0.70	<b>-4</b>	<b>-1.13</b>	0	0.32
12. there are plenty of support structures on	1	0.11	<b>-4</b>	<b>-1.25*</b>	0	0.27

P < .05 ; Asterisk (\*) Indicates Significance at P < .01 Both the Factor Q-Sort Value and the Normalized Score are Shown.

fact that statement number 5 “To succeed you need a goal - it can be just to get the best mark you can or it can be to go all the way to a PhD – but you need a goal” and statement number 22 “Getting a good grade is a real motivator it helps you to stay on track” were ranked +4 and +3 respectively. The fact that these statements were ranked as highly as they were indicates that these students are no less committed to achievement than those students who loaded on the Navigator factor. So the call for flexibility is not an attempt on their part to abrogate their responsibilities as a

student, rather it is a request for the university to recognise the realities currently facing students. The student body has changed dramatically in a relatively short period of time and while universities are adjusting to the changing demographic this is occurring far more slowly resulting in a lack of fit (Chevaillier, 2002; Wapner & Demick, 2000) between the university and its client base.

This lack of fit is also reflected in the teaching and learning expectation of students and staff. Students ranked statement 13 “Teaching



staff are very supportive and understanding if students have difficulties” at +3 and this has relevance to the discussion above. On first reading it appears to negate the earlier argument for if staff are already “supportive and understanding” then where is the problem? On discussing this issue with students it became clear that being supportive and understanding did not always translate into action. So while the staff member concerned might empathise with the situation the student faced it did not necessarily follow that he/she would take any action (e.g. grant the extension request) to assist the student.

Extension and deferral of assessment is only one aspect of flexibility of course although often it is the biggest issue for students who are trying to manage very difficult situations. Other important issues include scheduling of classes; student consultation times; access to services and resources; and university opening times. Scheduling classes in the evenings and arranging for on-line payment options or offering early morning or late night services to accommodate students who cannot attend campus during office hours would all contribute to greater flexibility in the learning environment and help students to meet their goals. There is a move to schedule some classes in the evenings but this is often, understandably, met with resistance from staff who feel disadvantaged in terms of the security aspects of working late and in relation to pay and conditions not to mention their own ability to juggle their personal and professional lives. This aspect emphasises the need to view the issue of retention holistically because arbitrary changes to the system can have negative outcomes for other sectors of the university community.

In conclusion, the students who loaded onto factor two are characterised by a high level of motivation and commitment to their study but who require a greater degree of flexibility on the part of the university and teaching staff. It is likely that these students have limited access to support networks and are highly self-reliant. They are constantly reassessing and re-prioritising the many demands they are faced with and this reassessment might occur on a daily basis depending on the circumstances. This means that at any given time the student needs to restructure his or her plans in order to deal with

an unforeseen event such as a sick child or the employer who insists he/she work late. Often this shift in emphasis will result in study taking a lower priority to other events for a period of time, but this does not translate into a lack of commitment on the part of the student and no negative inference regarding the quality of the student should be made. In fact it is possible that juggling these conflicting demands contributes to these students becoming even more committed and motivated to succeed in spite of the personal circumstances they face.

#### *Factor 3: The Analyst*

This factor was defined by 9 students and was the smallest of the three factors. Significant statements for this factor are presented in Table 4. Four of the students who loaded onto this factor were in first year, there was 1 in each of 2nd and 4th year and 3 students were in their third year of study. All the students in this group were women and they ranged in age from under 20 to fifty years. Only one student in this group was studying part-time and there were no international students represented. The second year student was from a Non-English speaking background (NESB).

The students who loaded onto this factor are characterised by a willingness to actively seek external supports to assist them achieving their goals. They actively engage with their tutors and lecturing staff and are not afraid to ask for help. The only two statements to be ranked at +4 were number 40 “I can ask my tutor anything, he/she is always willing to offer assistance” and number 11 “I find it easy to access advice and assistance in choosing my course and/or units” both of which clearly illustrate a willingness to seek help. Statements 24 “It requires good time management to successfully manage the different roles in my life” and 5 “To succeed you need a goal - it can be just to get the best mark you can or it can be to go all the way to a PhD – but you need a goal” were ranked at +3 and both attest to the commitment of these students so once again there is a determination to achieve and to succeed in pursuing their degree. This is reinforced by the placing of statement 3 “University has been a positive experience for me” at the +3 position. Like the students in factor one, these students too receive unconditional support from someone close to them with the statement referring to this

aspect (# 18) being ranked at +3. This again emphasises the importance of the unconditional

nature of this support and its role in retention cannot be overstated.

Table 4  
*Defining Statements for Factor Three*

Statement	Factors					
	1		2		3	
	Rank	Score	Rank	Score	Rank	Score
41. I can ask my tutor anything he/she is	2	0.86	2	0.52	4	<b>1.43*</b>
11. I find it easy to access advice and	0	-0.22	-2	-0.69	4	<b>1.17*</b>
24. It requires good time management to	2	0.67	4	1.84	3	<b>1.07</b>
19. Computer access is easy, I never have	1	0.22	-3	-0.91	3	<b>1.02*</b>
18. I can cope because I have the	4	1.76	0	-0.06	3	<b>0.91*</b>
5. To succeed you need a goal – it can be	4	2.01	4	1.34	3	<b>0.87</b>
3. University has been a positive experience	4	1.76	1	0.29	3	<b>0.83</b>
45. Not being able to access services when I	-2	-0.66	-2	0.79	2	<b>0.78*</b>
36. I feel I was unprepared for university, I	-3	-0.98	-3	-1.00	2	<b>0.69*</b>
29. Learning how to use the library was a	-1	-0.45	0	0.00	2	<b>0.69*</b>
32. There is a lack of consistency in the	-1	-0.30	-1	-0.25	2	<b>0.67*</b>
33. I have no idea where my degree will take	-3	-0.72	-1	-0.55	1	<b>0.58*</b>
28. We need a one-stop-shop where we can	-1	-0.26	-1	-0.33	1	<b>0.48*</b>
38. The support services on campus are	-1	-0.28	-2	-0.87	1	<b>0.44*</b>
39. There is a need for the university to offer	-2	-0.59	0	-0.03	1	<b>0.41</b>
34. The lecturers have no time for students	-2	-0.70	-4	-1.13	0	<b>0.32*</b>
43. Constantly worrying about money is a	-4	-1.84	3	1.02	0	<b>0.23*</b>
17. Student Central (campus admin) is very	-1	-0.56	-2	-0.86	0	<b>0.14*</b>
31. I have to work to support myself, this	-4	-1.86	3	1.28	-1	<b>-0.07*</b>
6. Learning is more than just sitting in a	4	1.36	4	1.32	-1	<b>-0.15*</b>
20. Financial difficulties make studying	-4	-2.15	1	0.09	-2	<b>-0.54*</b>
15. The admin staff in psychology are very	1	0.11	2	0.51	-2	<b>-0.65*</b>
10. I develop a timetable each semester that	2	0.23	2	0.59	-2	<b>-0.74*</b>
44. For me to be able to cope with the	0	0.05	4	2.03	-3	<b>-0.78*</b>
27. you need a support network on campus,	3	0.98	3	1.07	-3	<b>-0.94*</b>
26. My friends on campus are equally	3	1.26	2	0.44	-3	<b>-1.59*</b>
7. There is a strong collegial feeling on	1	0.12	-3	-1.11	-4	<b>-1.64</b>
14. As soon as a staff member called me by	1	0.06	0	-0.14	-4	<b>-1.66*</b>
30. It is my study buddies on campus that	0	-0.11	2	0.62	-4	<b>-1.91*</b>

P < .05 ; Asterisk (\*) Indicates Significance at P < .01 Both the Factor Q-Sort Value and the Normalized Score are Shown

Essentially it appears that these students demonstrate a high level of personal insight and self-awareness; they are willing and able to critically reflect on their abilities and to seek support or guidance in the areas they perceive to be weak. This ability to critically assess self is the key for this group in achieving their goals. Once an issue is identified the student seeks assistance from the appropriate person or department and engages in action to rectify the problem. Therefore the term 'Analyst' illustrates their ability to reflect on their abilities identify their needs and explore opportunities for these to be met. These students are also inclined to double check their interpretation and understanding of course content, even when convinced they are right, in order to ensure accuracy and so they are the ones most likely to seek consultation times with their teaching staff and to ask questions in class. In this way, the support seeking nature of the student is a positive for both the student and the staff members with whom they have contact. It would be inaccurate to interpret the outcomes from these students as 'needy' or 'dependent' because this fails to do justice to the degree of self-awareness and critique that characterises this group.

It is interesting to note the statements that define the negative end of the scale for this factor. In the -3 position there are 3 statements, numbers 44, 27 and 26 which refer to the functionality of the library, the need for a study group as a support mechanism on campus, and the role played by friends on and off campus respectively. The role of the library would normally be seen as integral to the success of university students but given the proximity of the four public universities in Perth to each other, and the availability of on-line access to full text journal articles, difficulties with the on-site library were viewed as a problem to be solved rather than as a major barrier. Given that this group of students can be described as 'support seeking' it seems surprising that the notion of a study group is rejected by them. Speaking with this group it seems that they view the idea of a study group with suspicion, feeling others might not share their commitment to study and therefore the 'study' session might

deteriorate into socialising. The following quotes from these students illustrate the point:

*I came here to study not to make new friends.*

*I'm not here to party.*

*I prefer to study alone.*

The statements placed at -4 (7, 14, & 30) relate to the collegial atmosphere on campus, staff members calling students by name and the support provided by 'study buddies'. Given the comments above it is not surprising that this group of students rejects the need for a collegial atmosphere of the need for staff to know them by name. However, this is contrary to much of the literature around student retention, almost all of which regards a friendly supportive environment and informal interactions with staff to be essential to student success (see for example, Pascarella & Terenzini, 1978; see for example, Tinto, 1988; Tinto, 1993, 1995, 1997). The results from this group of students emphasise the need for a more detailed contextual examination of retention in higher education. If universities exert time and resources into developing a collegial environment for students who do not require it, or worse still mandate participation in study groups such as Tinto's model of Learning Communities it is likely to trigger exactly what such a strategy is intending to avoid, namely non-completion.

In summary, although this group of students is numerically the smallest in the study they could arguably be the strongest in their determination to succeed. They demonstrate high levels of commitment to their studies to the extent that they resist any involvement in on-campus roles that might lead to social interaction that could distract them from their goal. They employ critical self reflection in an effort to identify their strengths and weaknesses and are proactive in remediation of these perceived deficits. Finally these students also have at least one person close to them from whom they receive unconditional support. It might be that the combination of unconditional support and the ability for critical self reflection is the key to success for this group. Having someone on whom the students can rely totally is likely to contribute to the confidence required to engage in self reflection and critique.

*Non-Significant Sorts*

There were six students who failed to load significantly on any of the factors and factor scores for these students are presented in Table 5. Three of these students were in their third year of study and there was one student in each of 1st 2nd and 4th years. Their ages ranged from under 20 to fifty years, all were full-time domestic students and all but one were women. While none of these sorts reached significance on any of the three factors they share some of the characteristics of each of the other three groups. For example, two of the students ranked statement 18 (unconditional support) at +4, two ranked it at +3 and two ranked it at +1, which seems to support the importance of the role of unconditional support for this group as well as for factors 1 and 3.

All these students appeared to be highly motivated to succeed and were extremely structured in their time management. Half of the students with non-significant sorts referred to the need for a strong collegial environment while the others preferred to study alone and had no desire to mix with other students outside of class time even for study purposes. While the personal circumstances of all six of these students were very different, there were some similarities in terms of the complexity of their lives. Four of the six were in paid employment working an average of 20 hours per week each and one of these four was also a single parent. Such demands on time must create a difficult workload even for the most organised and motivated student.

### Conclusion

While the characteristics that defined each factor were very different there were some similarities across the three factors and also those students who failed to load significantly on a single factor. First, being in receipt of unconditional support from at least one source seems to play a crucial role in retention and it is the unconditional nature of this support that makes it so important. Most support structures that students have access to require some degree of reciprocity either at an implicit or explicit level. For example, fellow students will often willingly assist a peer but there is an unspoken expectation that the favour will be returned should the need arise. Unconditional support however, is a unique relationship because there is no expectation of pay back.

The second issue to note is that all the students demonstrated a very high commitment to their study and were determined to succeed. While the mechanisms employed by each group to achieve their goals might differ, the level of commitment was consistent for all students in the informant cohort. There is a great deal of literature that emphasises the roles and responsibilities of the students in retention and often this literature suggests that non-completion is the result of a failure on the part of the student to meet the standards required (Etter, Burmeister, & Elder, 2000; Evans, 2000; Evans & Peel, 1999; Lewis, I., 1984; Long, Carpenter, & Hayden, 1995; McClelland & Kruger, 1989; McInnis, 1998; McInnis et al., 2000a; McInnis & James, 1999; McInnis et al., 2000b). The results from this study suggest that there also needs to be a

Table 5  
*Non-defining sorts by factor*

Informant ID #	Factors		
	1 Score	2 Score	3 Score
7	0.2199	0.2336	0.3085
11	0.3203	0.4390	0.4354
18	0.0955	0.0617	-0.1277
25	0.3749	0.3985	0.1516
30	0.0242	0.2900	0.0185
34	0.4168	0.4164	0.0497

level of commitment from the university to the students to assist him or her to achieve.

There also needs to be a recognition that students vary in their needs and so a 'one-size-fits-all' approach will only satisfy a certain sector of the student body and fail to meet the needs of others. Naturally it is not possible to tailor services to each individual student either. The results from this study though indicate that it might be possible to profile the student body to identify key characteristics which in turn could be used to build some degree of flexibility into existing structures. In this way it should be possible to better meet the needs of the student while still ensuring fiscal responsibility on the part of the university. It is also important to recognise the degree of change that has occurred in recent times in terms of the types of students accessing higher education. Their lives and circumstances are far more varied and complex than previous generations and it is inevitable that university structures and policies have not moved as quickly as they might have done in reflecting the demographic shift of the student population.

The problem with any form of categorisation arises when the members of a group are viewed as homogenous. While each of the profiles identified here have a number of internal consistencies there remains the need to remember that each factor is constituted by individuals and so each factor is also heterogeneous. Herein lays the tension: for policy and educational practice to be effective for the students they are designed to serve, researchers and educators must recognise the individuality and difference within categories in addition to acknowledging the central claim of difference between groups (Nozaki, 2000).

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