Title: Institutional factors and the postgraduate student experience

Abstract

Purpose- Few studies have evaluated the satisfaction of mature aged postgraduate students. This research aims to determine postgraduate coursework students service expectations in regard to academic course quality; university services; and industry links.

Methodology- A case study of fifty-one taught postgraduate students enrolled in School of Public Health nested postgraduate courses was conducted. Students completed an online self-complete survey (response rate of 58%). Descriptive statistics and uni-variate analysis (chi-square) were used to explore associations between variables.

Findings- Postgraduate taught students come from a variety of career backgrounds. They place a great deal of importance on their educational experience, especially in regard to academic factors: reputable degree; skilled engaging teachers; access to online resources; ready contact with academics; and supportive enrolment processes.

Practical implications-A greater awareness of student expectations equips universities to provide a more meaningful pedagogical experience and to better address the unique needs of postgraduate students. This is likely to enhance lifelong learning and support retention and progression rates.

Originality value – This research provides a case study of a specific group of postgraduate students and helps understand some of the unique requirements of this postgraduate group which is largely older, female, domestic students.

Keywords: Institutional factors; service quality; higher education; postgraduate students

Introduction

The Australian university environment is very competitive (Bradmore and Smyrnios, 2009), and with the increasing demand and provision of fully online courses this has intensified. Student satisfaction plays a significant role in attracting new students and retaining existing students. Universities in Australia promote positive graduate satisfaction with data such as the Course Experience Questionnaire (Graduate Careers Australia, 2011). Government funding models incorporate student retention as a key performance indicator when allocating funds. Student attrition has significant implications for providers of higher education, impacting on their reputation and income, in addition to the personal impact and loss of opportunity for students, financial repercussions, and loss of potential for the community and workforce (Crosling et al 2009). High student satisfaction is likely to contribute

to retention and progression rates and will potentially benefit universities in terms of overall performance and income, increase the employability of students and enhance the reputation of the institution.

Reasons for student non-completion of courses are classified within a framework which highlights three groups of factors: situational, dispositional and institutional (Carroll et al., 2009). Situational factors encompass circumstances within a student's life; dispositional (or attitudinal) factors incorporate individually or collectively held beliefs, values and attitudes that may inhibit a student's participation; and institutional factors include those factors that arise from policies, procedures and structures of the university itself (Carroll et al., 2009).

Historically, retention of students or lack thereof was thought to be an indication of the students themselves; their individual attributes, skills and motivation (Tinto, 2006). However, in most cases the reason for student dissatisfaction and non-completion is a complex web of factors (Wright, 2003, Carroll et al., 2009, Khoa and Tam, 2008, Thomas et al., 2010, Crosley 2009); with research suggesting a range of interacting personal, social and environmental influences (Thomas, 2002). Currently, there is a focus on the role of the environment, particularly the student's institution which is now recognised as a crucial factor in a student's decision to continue or withdraw from study (Tinto, 2006).

Research conducted in the United Kingdom (UK) on institutional factors, reported the quality of teaching and learning to be a major factor in postgraduate student satisfaction and retention (Park and Wells, 2010). The effectiveness of teaching and learning activities, intellectual stimulation, relevance to employment and appropriate levels of feedback all rate highly as reasons to progress through a degree (Park and Wells, 2010, National Audit Office (NAO), 2007, Carroll et al., 2009). The move to greater online availability of courses places further challenges on universities who now engage with a large proportion of students who do not come to campus. Service quality for online education is broad and includes not only the curricular but online course selection and enrolment, technical support services and online student service coordinators (Lee, 2010). Online learning also expands the traditional classroom boundaries and places more responsibility on the student. In this environment, students are provided with greater responsibility for interaction, developing concepts and ideas and reflecting on the work of their peers (Dziuban et al. 2012). Student satisfaction has been found to be related to the functions and capacity of Learning Management System (LMS), however, this can also be influenced by how the LMS is used by the students and the instructor (Rubin et al 2012).

It is widely acknowledged that support for students should be holistic and include academic, social and financial support, and student in-class and out-of class engagement with campus life (Bradley, 2008).The establishment of student support systems is challenging for all institutions but these support systems are as important as the delivery of courses (Hallett, 2010). Universities must

examine how postgraduate students can be supported in order to succeed in higher education (Thomas, 2002).

For many Australian universities the demographics of postgraduate students differ considerably from undergraduate students (Council of Australian Postgraduate Association Inc., 2011). The diversity of the postgraduate student population in terms of age, cultural background, technological expertise and time since their last enrolment at a tertiary institution poses challenges for university academics. Australian data suggests that postgraduate students are predominantly female, study part time and are aged between 20 and 39 years (Council of Australian Postgraduate Association Inc., 2011) and many juggle work and family commitments.

Given that higher education provision is a service and Australian postgraduate students mostly fund their own tuition, it is not unreasonable to think of students as the 'customer' and for universities to adopt a more customer-led approach rather than just relying on their 'product' to sell itself (Eagle and Brennan, 2007, Angell et al., 2008, Navarro et al., 2005). It has been suggested that higher education is similar to commercial industry in that it is cheaper to keep existing 'customers' than recruit new ones, therefore, the needs of students must be sort and integrated into broad strategic planning and the development of courses (Eagle and Brennan, 2007, Navarro et al., 2005, Angell et al., 2008). In addition to the obvious financial benefits universities have a duty of care to offer the best possible experience for students.

There are potential benefits for higher education institutions to identify, understand and act upon, the particular service requirements of taught postgraduate students. Satisfying the needs of students will assist in their retention and progression, along with supporting a positive image of a university (Eagle and Brennan, 2007). Despite this, few studies have evaluated the satisfaction of mature aged postgraduate students (Carroll et al., 2009). Therefore this research aims to determine what coursework public health postgraduate student service expectations are, and establish if these are being met by the university. This study will focus on institutional factors that include academic quality of the course; the provision of industry links; and the provision of university services.

Methodology

This exploratory study provides a case study of students enrolled in nested public health/health promotion postgraduate courses at a Western Australian University. A case study enables the study of contemporary phenomena in a real-life situation. A single –case study was selected to describe this group of students as although they are reasonably representative of postgraduate students these courses attract a large proportion of external, part time, female students which differs from some other courses within the Faculty and the University (Yin, 2009).

Participants

An online survey was sent to 98 postgraduate students currently enrolled in a taught course in a School of Public Health (Master of Public Health, Postgraduate Diploma Health Promotion/Public

Health and the Graduate Certificate in Public Health). Students enrolled in Higher Degree by Research courses were not included in this study.

Procedure

An introductory email was sent to potential participants explaining the objectives of the study, the procedure, confidentiality, anonymity, their right to withdraw at any stage, and that they would be receiving a request to be involved in the research (Human Research Ethics Committee approval - SPH 48 2010). A follow up email was sent reiterating the purpose of the study, and an explanation of the research procedure together with a link to the questionnaire using Survey Monkey. Non-respondents were followed up at two weeks.

Questionnaire

The questionnaire was adapted from a previous instrument measuring service quality in universities (Angell et al., 2008). The internal consistency for each of the factors ranged from 0.91 (academic) and 0.60 (industry links) meeting the internal consistency requirements for an exploratory study. The first section of the questionnaire elicited information about participant demographics (age, gender, course of study, type of study). The second section comprised two parts. Part one asked students about the importance of institutional factors (8 academic items, 2 industry links items and 4 service items) using a likert scale of 1-5 ('1' not important to '5' very important) (see Table II). For analysis purposes items were collapsed into three categories ('1' not important, '2' moderate importance, '3' very important). Student responses categorised as 'highly important' were used to describe importance. Part two asked about whether respondents agreed or disagreed that the expected service provided by the university for each factor was met, using a likert scale of 1-5 ('1' strongly disagree to '5' strongly agree). For the purpose of analysis items were collapsed into three categories ('1' disagree, '2'neither agree nor disagree, '3' agree). To meet the category of 'university agreement' students must have indicated they agree with the statement. Students who were neutral (neither agree nor disagree) were considered to not agree with the statement. There were a number of perceived performance questions for 'overall helpful enrolment advice' as this was considered to be of particular interest. Participants were asked a final question, 'Why did you choose to study at this university'.

Data Analysis

Descriptive statistics were used to summarise participants' demographics. Frequencies and uni-variates analysis (Chi-square) were used to explore associations between variables. All data were analysed using the SPSS for windows package version 17.0

Results

Fifty-one students responded to the survey, providing a response rate of 52%. Students were completing a Graduate Certificate of Public Health (n = 10); Postgraduate Diploma in Public Health or Health Promotion (n = 13); and Master of Public Health (n = 28). The majority of the participants were female (92.2%) aged less than 40 (74.5%), Australian citizens (84.3%) and studying externally (fully online) (62.7%). Most of the students were employed at the time of the survey (80.3%) (See Table I).

Employment varied and included health professionals (doctor, nurses, speech pathologists, optometrist, dietician); school teachers and tertiary lecturers; researchers and administration workers.

Table I Demographic characteristics (n=51)

(Insert about here)

The responses to the institutional factors investigated in this paper include eight academic factors; two industry link factors; and four service factors (Table II). Of the academic factors measured, students reported having 'a reputable degree program' (98%); 'easy access to journals and books online' (98%); 'skilled engaging teachers' (94.1%); 'academic enquiries responded to within 72 hours' (94.1%); and 'practical skills taught' (90.2%); overall helpful enrolment advice' (90.2%) to be of 'high importance'. In response to these factors respondents indicated their agreement as to the whether the expected service provided by the university was met. Agreement levels of above 70% were achieved for only two of these factors, 'a reputable degree program' and 'easy access to journals and books online' (See Table II). However for most items a proportion of students responded as 'neither agree nor disagree'.

The responses for internal (n=19) and external (n=32) students were compared using chi-square test (see Table III). Significant differences were found between internal and external student responses in the following services factors: Importance of sport and recreation facilities (p = 0.001); attractive campus layout (p=0.000); recreational and sports facilities (p= 0.000); and opportunities to interact with other students (p=0.002). External students placed very low importance on these factors in comparison to the internal students. Significant differences between the two groups in their agreement of expectations being met were found in two factors: the university has good recreational facilities (p=0.017) and the teachers are highly skilled (p= 0.016). In both instances the external students reported lower levels of agreement.

Table II Level of importance reported for factors and level of agreement that the expected performance for factor was met

(Insert table about here)

An opened ended question asking students about why they chose the university generated four main responses. Firstly, they believed the university and course to be reputable; secondly, the course was recommended to them by a respected person; thirdly the course structure and content was attractive; and finally the course could be studied full or part time and was available either internally or externally.

Table III Level of importance reported for factors and level of agreement that the expected performance for factor was met for internal and external students

(Insert table about here)

Discussion

The demographic data describing Australian postgraduate students suggests that they are predominantly female, study part-time and within the ages of 20-39 years (Council of Australian Postgraduate Association Inc., 2011). Similarly, participants in this survey were predominantly female (92.2%), were aged less than 40 (74.5%) and the majority were domestic students (86.3%). Comparatively, enrolment data for the University in 2011 shows 82.5% of students enrolled in these courses were female and 71% were domestic students. The majority of respondents were currently in the workforce (80.3%) and were employed in a range of roles, revealing the diversity of the cohort and the challenges universities face in meeting individual student needs. Of those who responded to the survey just over half (62%) were studying externally (online). This is reasonably representative of the students enrolled in these coursework postgraduate courses and reflects the popularity of online learning in recent years (Dziuban 2012). The overall response rate was 52%, which is considered reasonable for a cross-sectional study; with most falling within the 45-75% range (Merkle , 2002).

Academic factors

This research highlighted many academic factors that students' consider to be important as part of their university study. Students placed a high level of importance on 'easy to access reference material' (98%); 'skilled engaging teachers' (94.1%); 'academics responses to emails" (94.1%); and 'taught practical skills' (90.2%).These findings highlight the importance of universities supporting academics to regularly update content areas and keep up-to-date with pedagogical skills. The quality and effectiveness of teaching and learning is a major factor in postgraduate student satisfaction and retention (Park and Wells, 2010, National Audit Office (NAO), 2007, Carroll et al., 2009).The perceived need for a quality education is reflected in the high level of importance placed on a reputable degree (98%). A reputable course was also the main reason reported by students as to why they chose to study at this university.

Approximately 65% of students agreed that the lecturers were skilled and engaging, with external students being more likely to respond neutrally to this question (43.7% of external students indicated they did not agree or disagree with this statement). In addition, internal students were significantly more likely to agree with this statement compared to external students.   Traditionally learning has been acknowledged to be a social and interactive activity. While this can be fostered in an online environment not all students recognise these attempts as engagement (Phelan, 2012). Although external students are provided with a range of interactive online activities, they may feel as they are

not attending face-to-face lectures they are not able to comment on this question. Intellectual stimulation through appropriate teaching methods and suitable feedback are all factors that are rated highly as reasons to progress through a degree (Park and Wells, 2010, National Audit Office (NAO), 2007, Carroll et al., 2009). It is essential that external students feel connected, so that they receive a similar learning experience to internal student. In the past few years significant innovations in online pedagogy have enabled students to engage more actively as online students (Phelan 2012). Despite the availability of a range of strategies to engage students not all feel confident to become involved. Research suggests the online environment needs to focus on student-student interaction, student-teachers and student-content interactions (Nandi 2012). It is important academics are provided the time and resources to update their own skills in addition to enhancing skills to engage students, especially students who may have limited application with some technologies.

This study found the majority of students agreed being taught practical skills was of high importance; however, it was not universally agreed that it was achieved. Mature postgraduate students have very different needs and motivations to undergraduate students (O'Donnell et al., 2009), The majority of participants in this study were employed (80.3%) at the time of the survey in a diverse range of employment types. The need to develop and enhance skills relevant to student's career progression and future employment is essential (Department for Business Innovation & Skills, 2010). Different challenges are posed for postgraduate students most of whom have already a range of work-related skills but often lack specific discipline related skills. The online environment should also work to engage students to ensure skills are developed and enhanced.

Students agreed that they had regular access to teaching staff via email, phone or face-to-face (70.6%). Electronic communication provides an excellent means to engage with both internal and external students, providing opportunities to personalise advice and feedback. Electronic communication enables less confident students to ask questions, whilst providing staff with an opportunity to give a non-judgemental and timely response. It has been suggested that the engagement of students is in part the responsibility of the academic (Errey, 2011) and although this can be time consuming, it is an effective means of connecting with students. Yet, a little over half of the student respondents (58.8%) agreed that their enquiries were responded to within the university's required 72 hour period. This area should be investigated further, to determine if the response time by staff is less than optimal or whether students are not aware that this 72 hour time period does not include non-working days.

 The enrolment process is one of the first contacts students have with a university. Nine out of ten students (90.2%) placed a high priority on enrolment advice, yet overall, only 41% of respondents reported that they found the experience to be satisfactory. This may reflect changes to online university enrolment procedures which significantly reduce contact with academic and student service staff.

Industry factors

Students from this case study did not rate industry factors such as helpful career advice (64.7%) and industry contacts (60.8%) to be as important as academic factors to their educational experience. However, respondents reported very low agreement that helpful career advice 19.6% and industry contacts 21.6% were provided. These findings may reflect the structure of these courses which include professional practicum units as optional units due to the proportion of students already engaged with industry. Similarly in their study Angell et al (2008) found postgraduate students in the United Kingdom (UK) considered their university had a responsibility to provide links to industry however did not meet these expectations. Despite this the UK students, like the students in this case study rated industry links to be less important when compared to academic factors. Carroll (2008) suggests that an ongoing dialogue between academics, students and industry must be maintained, so that sound up-to-date career advice is provided and students are supported in achieving their desired career goals. Opportunities to embed assessments which require industry involvement should be considered. Students can be encouraged to study practicum units, to participate in volunteer work with industry and to make contact with university career advisors.   Establishing how students feel about particular aspects of their course of study and the culture and amenities offered in the institution needs to be a university priority (National Audit Office (NAO), 2007).

Service factors

Similar to other research (Angell et al., 2008) service factors had a lower priority for internal and external postgraduate students than academic factors, with only 7.8% of participants placing importance on recreational and sporting facilities; and 17.6% placing importance on cafes/meeting places and an attractive campus layout. Not surprisingly there was a significant difference between external and internal students level of importance for interaction with fellow students ($p = 0.002$), cafes and social meeting places ($p = 0.000$), attractive campus layout ($p = 0.000$) and recreational and sporting facilities ($p = 0.000$) with internal students rating all factors more to be of greater importance.

Limitations

This study provides a case study of nested programs from one university hence is not generalisable. Although only half (52%) of potential respondents completed the survey when compared to other cross-sectional studies the response rate was reasonable (Merkle , 2002). The questions were restrictive however due to an increasing number of online surveys to students' subject burden was a major consideration for the researchers. A mixed methods approach including focus groups and one-on-one interviews would have enabled researchers to explore the key issues at a greater depth.

Conclusion

This case study supports other research that shows postgraduate students place a great deal of importance on their educational experience, especially in regard to academic factors such as a reputable degree; skilled engaging teachers; access to online resources; ready contact with academics; and a supportive enrolment process. The increased demand for online courses worldwide is reflected in the proportion of students in this study who select to study via this mode. Online

education provides significant advantages for this cohort of students who may not be able to attend campus for face-to-face lectures. The interactive nature of technology provides some exciting opportunities for student learning, however, academic staff need to be provided time and resources to embrace these rapid changes. Higher education institutions do however need to acknowledge that postgraduate students may have different needs to undergraduate students. Postgraduate courses must be specifically tailored to ensure students are provided relevant support, information, knowledge and skills from their educational experience to ensure career progression. Further research to explore the specific needs of mature online postgraduate students would provide greater insight into the needs of this important student body.

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Table I. Demographics Characteristics (n=51

Demographics	%	N
Gender		
Female	92.2%	47
Male	7.8%	4
Age		
< 30	43.1%	22
30-39	31.4%	16
40-49	17.6%	9
50 plus	7.8%	4
Nationality		
Australian	84.3%	43
Other	15.7%	8
Employment		
Currently employed	80.3%	41
Not currently employed	19.7%	10
Type of student		
Domestic	86.3%	44
International	13.7%	7
Course		
Master	54.9%	28
Postgraduate Diploma	25.5%	13
Graduate Certificate	19.6%	10
Mode of study		
External	62.7%	32
Internal	37.3%	19

Table II. Level of importance reported for Factors and level of agreement that the expected performance for Factor was met

	Factor reported as important			Agreement university met expected factor performance		
Academic Factors						
Easy access to journals and books online	98%	(n=50)		74.5%	(n=38)	
A reputable degree	98%	(n=50)		72.5%	(n=37)	
Skilled engaging teachers	94.1%	(n=48)		64.7%	(n=33)	# P=.016
Academic enquiries responded to within 72hrs	94.1%	(n=48)		58.8%	(n=30)	
Have practical skills taught	90.2%	(n=46)		39.2%	(n=20)	
Access to iLectures/online learning resources	88.2%	(n=45)		70.6%	(n=36)	
Regular access to teaching staff (via phone; email; face-to-face)	88.2%	(n=45)		70.6%	(n=36)	
Overall helpful enrolment advice	90.2 %	(n=46)		49%	(n=25)	
Industry Link Factors						
Helpful career advice	64.7%	(n=33)		19.6%	(n=10)	
Industry contacts provided by staff	60.8%	(n=31)		21.6%	(n=11)	
Service Factors						
Opportunities for interacting with fellow students	50.9%	(n=26)	# P=.002	25.5%	(n=13)	
Cafes and social meeting places	17.6%	(n=9)	# P=.000	27.5%	(n=14)	
Attractive campus layout	17.6%	(n=9)	# P=.000	25.5%	(n=13)	
Recreational and sports facilities	7.8%	(n=4)	# P= .001	21.6%	(n=10)	# P=.017

significant difference between internal &

external student responses

Table III. Level of importance reported for Factors and level of agreement that the expected performance for Factor was met for internal and external students

	Factor reported as highly important		Agreement university met expected factor performance	
	Internal	**External**	**Internal**	**External**
Academic Factors				
Easy access to journals and books online	100% (n=19)	97% (n = 31)	73.7% (n=14)	75% (n = 24)
A reputable degree	100% (n=19)	97% (n = 31)	78.9% (n=15)	68.7% (n = 22)
Skilled engaging teachers	100% (n=19)	97% (n= 31)	89.5% (n=17)	50% (n = 16) **# P=.016**
Academic enquiries responded to within 72hrs	94.7% (n=18)	93.7% (n = 30)	52.6% (n=10)	62.5% (n = 20)
Have practical skills taught	94.7% (n=18)	87.5% (n = 28)	57.9% (n=11)	28% (n = 9)
Access to iLectures/online learning resources	80% (n=15)	93.7% (n = 30)	68.4% (n=13)	72% (n = 23)
Regular access to teaching staff (via phone; email; face-to-face)	89 % (n=17)	87.5% (n = 28)	73.7% (n=14)	68.7% (n = 22)
Overall helpful enrolment advice	89% (n=17)	90.6% (n = 29)	78.9% (n=15)	56.3% (n =18)
Industry Link Factors				
Helpful career advice	79% (n=15)	56.3% (n = 18)	10.5% (n=2)	25% (n = 8)
Industry contacts provided by staff	79 % (n=15)	50% (n = 16)	21% (n=4)	21.8% (n = 7)
Service Factors				
Opportunities for interacting with fellow students	79% (n=15)	34.4% (n=11) **# P=.002**	36.7% (n=7)	18.7% (n = 6)
Cafes and social meeting places	42.1% (n=8)	3.1% (n = 1) **# P=.000**	42% (n=8)	18.7% (n = 6)
Attractive campus layout	17.6%(n=9)	0% (n = 0) **# P=.000**	31.5% (n=6)	21.8% (n = 7)
Recreational and sports facilities	15.8% (n=3)	3.1% (n = 1) **# P= .001**	42% (n=8)	9.4% (n = 3) **# P=.017**

significant difference between internal &
external student responses

Table II. Level of importance reported for Factors and level of agreement that the expected performance for Factor was met

	Factor reported as important			Agreement university met expected factor performance		
Academic Factors						
Easy access to journals and books online	98%	(n=50)		74.5% (n=38)		
A reputable degree	98%	(n=50)		72.5% (n=37)		
Skilled engaging teachers	94.1%	(n=48)		64.7% (n=33)		# P=.016
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significant difference between internal &

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	Factor reported as highly important		Agreement university met expected factor performance	
	Internal	**External**	**Internal**	**External**
Academic Factors				
Easy access to journals and books online	100% (n=19)	97% (n = 31)	73.7% (n=14)	75% (n = 24)
A reputable degree	100% (n=19)	97% (n = 31)	78.9% (n=15)	68.7% (n = 22)
Skilled engaging teachers	100% (n=19)	97% (n= 31)	89.5% (n=17)	50% (n = 16) **# P=.016**
Academic enquiries responded to within 72hrs	94.7% (n=18)	93.7% (n = 30)	52.6% (n=10)	62.5% (n = 20)
Have practical skills taught	94.7% (n=18)	87.5% (n = 28)	57.9% (n=11)	28% (n = 9)
Access to iLectures/online learning resources	80% (n=15)	93.7% (n = 30)	68.4% (n=13)	72% (n = 23)
Regular access to teaching staff (via phone; email; face-to-face)	89 % (n=17)	87.5% (n = 28)	73.7% (n=14)	68.7% (n = 22)
Overall helpful enrolment advice	89% (n=17)	90.6% (n = 29)	78.9% (n=15)	56.3% (n =18)
Industry Link Factors				
Helpful career advice	79% (n=15)	56.3% (n = 18)	10.5% (n=2)	25% (n = 8)
Industry contacts provided by staff	79 % (n=15)	50% (n = 16)	21% (n=4)	21.8% (n = 7)
Service Factors				
Opportunities for interacting with fellow students	79% (n=15)	34.4% (n=11) **# P=.002**	36.7% (n=7)	18.7% (n = 6)
Cafes and social meeting places	42.1% (n=8)	3.1% (n = 1) **# P=.000**	42% (n=8)	18.7% (n = 6)
Attractive campus layout	17.6%(n=9)	0% (n = 0) **# P=.000**	31.5% (n=6)	21.8% (n = 7)
Recreational and sports facilities	15.8% (n=3)	3.1% (n = 1) **# P= .001**	42% (n=8)	9.4% (n = 3) **# P=.017**

significant difference between internal & external student responses