Indicators of Student Satisfaction in Postgraduate Blended Learning Programmes: Key Messages from a Survey Study

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Abstract

This study reports on an evaluation of student satisfaction after undertaking blended learning postgraduate programmes in a school of nursing and midwifery. There is little data available in Ireland that considers the student experience of online learning in this student cohort. An anonymous pre-validated survey was sent to students after completion of their respective programme of study. Satisfaction with undertaking a programme through blended learning revealed that students are most satisfied with the flexible nature of programme delivery, the communication processes between them and instructors and the overall learning achieved in relation to the development of their personal and professional skills. Students indicated that they are less satisfied with the communication associated with assessment and feedback procedures.

Keywords: Student Satisfaction, Postgraduate Education, Blended Learning, E-Learning.

1. Introduction

Recommendations in a number of National and European higher education literature consider the evaluation of educational programmes to be a significant component of academic practice (IQUB 2011, RCN 2012, National Forum for the Enhancement of Teaching and Learning in Higher Education 2014). Evaluating programmes aims to provide evidence to key stakeholders including students on the impact and outcomes of higher education and to ensure that quality is being provided to students. Concomitantly, recent sectoral consultations on 'Building Digital Capacity in Irish Higher Education' have recommended that the digital roadmap should aim to develop a "seamless and coherent digital experience" for students in Irish higher education as recommended by The National Forum for the Enhancement of Teaching and Learning in Higher Education (2014) which has prioritized ongoing appraisal in the provision of evidence for improving digital pedagogy. Professional nursing and midwifery education in Ireland has progressed from traditional modes of delivery to incorporate new ways of meeting the needs of current consumers as evidenced in the popularity of using e- learning. This restructuring is reflective of changes in higher education environments at large. Within that context, this paper reports on the findings of a postgraduate student satisfaction survey across a range of postgraduate programmes in nursing that were delivered through blended learning. Blended learning is defined as a combination of online learning and face to face contact in a traditional classroom setting with the online aspect taking precedence.

1. Methods

The aim of the survey was to explore postgraduate nursing and midwifery students' experiences of studying through a blended learning approach at an Irish University. Throughout the duration of the programme of study (one academic year) the students undertake 7 blended learning modules. Each module is facilitated by a team of on line instructors using an asynchronous blog and is assessed by coursework. There is a requirement that the students spend at least 4 hours per week engaged on the blog. The *Postgraduate Taught Experience Survey* (PTES) (Park and Kulej, 2009) was

identified as a suitable previously validated data collection tool and permission was obtained from the original authors for its use. The PTES survey instrument was devised by the Higher Education Academy (HEA) in the UK to explore students' satisfaction with their higher educational experience. PTES is based on a core set of questions seeking students' views on a range of aspects of their student experience. Questionnaire development was guided by an advisory group which consisted of members of the HEA and representatives from a variety of higher education UK institutions. Cognitive interviewing which is an amalgamation of cognitive psychology and survey methodology in the identification of questions that may elicit response error (Drennan, 2003; Dillman, 2000) was used to inform questionnaire development and involved student focus group interviews. The questionnaire (2009 version) explored nine key areas (motivations, quality of teaching and learning, assessment and feedback, dissertation, organisation and management, learning resources, skills and personal development, career and professional development and overall satisfaction). In addition there was a demographics section and questions specifically for campus based learners, international students and student support services and a number of free text boxes. Institutions can add their own specific questions to find out views on areas of particular interest. Factor analysis and internal consistency testing was performed on each section of the questionnaire. Cronbachs alpha for sections ranged from 0.79 (Engagement) to 0.90 (Skills development). Values of 0.8 and over indicate strong internal consistency. Seven of the scales in PTES have Cronbach's alphas exceeding 0.8. Cronbach's for the Engagement scale is 0.79, therefore while not as strong as the other sections it still is indicative of a good level of coherence.

All nursing and midwifery students enrolled on postgraduate programmes in one HE institution were sent a participant information leaflet outlining the study aims and details. All students received an invitation to participate and a link to access an online survey. Participation was voluntary and assurances of anonymity and confidentiality were given. No personal identifying

details were requested and responses were not identifiable. Participants were advised that completion of the questionnaire was taken as consent to participate in the study. Participants were allowed three weeks for questionnaire completion. A reminder email was sent to all students two weeks after the original distribution to encourage completion and maximise response. All questionnaires were completed by the students online and stored in a password protected online repository accessible only by the research team.

Data was analysed using the data analysis software package SPSS IBM Version 20 (SPSS Inc., Chicago, Il, USA). Descriptive statistics were used to summarise and interpret the data. Analysis included a variety of approaches, including descriptive analysis (describing the distribution and range of responses to each variable and examining the data for skewness). Recording of data into categories was also undertaken where appropriate, for example, to enable statistically meaningful comparison of sub-groups. Finally, bivariate analyses using simple cross-tabulations to identify trends and examine possible associations between one variable and another was also undertaken.

2.1 Demographic Characteristics

A total of 192 students were invited to participate in the survey and completed replies were received from 100, giving a 51% response rate. Table 1 displays the demographic profile of participants who responded to the survey. The majority of students (81%, n=81) were in the 26-45 years age group and most students were studying part time. Ninety seven percent were female, and this is congruent with the predominantly female profile in nursing and midwifery. The majority of students (85%) were in paid employment working over 30 hours a week. While 22% (n=22) self-funded the majority had external funding sources. The majority of students (92%, n=92) were studying on programmes that used a blended learning format.

Table 1: Demographic Profile (n=100)

Characteristic	n (%)	Characteristic	n (%)
Current programme of study		**No. of hours of paid employment/week term time**	
Part time PG diploma	78 (78%)		
Part time Masters	19 (19%)	11-20	3 (3.1%)
Higher Diploma	3 (3%)	21-30	10 (10.2%)
		>30	76 (77.6 %)
Age Group		sponsorship	9 (9.1%)
21-25	8 (8.0%)		
26-35	49 (49.0%)	**Main source of funding for programme**	
36-45	32 (32%)	Self-Funded	22 (22%)
46-55	11 (11%)	Charity	1 (1%)
56+	00 (0%)	Scholarship	1 (1%)
		Employer	11 (11%)
Gender		Dept. of Health and Children	1 (1%)
Male	3 (3%)	HSE	58 (58%)
Female	97 (97%)	Overseas govt.	0 (0%)
		Other	6 (6%)
Course delivery			
Face to face	8 (8%)	**Highest Educational qualifications on entry**	
Distance	72 (72%)		
Combination	20 (20%)	Below undergrad	16 (16%)
		Undergrad degree or equiv.	42 (42%)
Currently in paid employment		Post Grad Diploma Masters	37 (37%)
Yes	90 (90%)	Higher Diploma	1 (1%)
No	1	Other	3 (3%)
Sponsorship	9 (9%)	No academic qualification	1 (1%)

2. Results and Discussion

3.1 Motivation to Engage in Postgraduate Programmes

The decision to pursue postgraduate study is influenced by a combination of personal and professional factors. These factors can include feelings of achievement and perceived personal success (Delaney and Piscopo, 2004), self-esteem and increased competency (Mangubat, 2005), professional commitment and career and/or professional advancement. Participants were asked about their main motivations for taking their postgraduate programme, and their reasons for choosing to study at the institution surveyed (Table 2).

Table 2: Students main motivations for taking postgraduate programmes.

Students Main Motivations: (n=100)	% students citing this as main motivator
To progress in my current career path (i.e. a professional qualification)	79 (n=79)
For personal interest	43 (n=43)
To improve my employment prospects	39 (n=39)
To enable me to progress to a higher level qualification	25 (n=25)
To meet requirements of my current job	24 (n=24)
To change my current career	12 (n=12)
As a requirement to enter a particular profession	7 (n=7)
Other	3 (n=3)

Participants were asked to rank the three most applicable from a list of eight possible motivations. The three main motivational factors reported were career progression (79%), personal interest (43%) and improving employment prospects (39%). Similar key motivational factors have been highlighted by Wells (2011) in the PTES UK results consistently from 2009-2011, although the rank order is marginally different with improving employment prospects the top motivator followed by career progression and

then personal interest. The rank of choices in the Irish context could be influenced by the moratorium in the health sector for the last several years and subsequent narrowing of employment prospects. Participants were asked to indicate why they chose to study at the institution surveyed. The top four reasons for choice were location (51%), flexibility in mode of delivery (40%), institution reputation (34%) and funding availability (27%). These motivational factors are somewhat similar in PTES UK (Wells, 2011) results with location, institution reputation and programme flexibility the top three choices. Funding availability has consistently rated in the lower priorities in the UK from 2009-2011.

Participants were asked to indicate the extent to which their experience reflected their expectations, using a seven-point scale from -3 to +3, with 0 indicating that their expectations have been met. Table 3 presents a summary of these findings with results detailed according to participants ratings: 'below my expectations' (-3 to -1|), 'met my expectations' (0) and 'exceeded my expectations' (+1 to +3). Learning resources was the area where most participants (83.6%) rated their expectations as having been exceeded, followed by the overall experience of their programme (80.6%) followed by skills and personal development (79.6%) and then career and professional development (75.5%).

Table 3: Experience against expectations (n=98: figures reflect both number and %)

	Below my Expectations (-3 to -1)	Met my Expectations (0)	Exceeded my Expectations (+1 to +3)
Learning resources	6 (6.1%)	10 (10.2%)	82 (83.7%)
Overall experience of my course	7(7.2%)	12 (12.2%)	79 (80.6%)
Skills and personal development	4(4.1%)	16 (16.3%)	78 (79.6%)
Career and professional development	4 (4.1%)	20 (20.4%)	74 (75.5%)
Quality of teaching and learning	11(11.2%)	17 (17.4%)	70 (71.4%)
Organisation and management	10(10.2%)	18 (18.4%)	70 (71.4%)
Assessment and feedback	16(16.3%)	18 (18.4%)	64 (65.3%

The lowest-ranking area where the highest percentage of participants (16.3%) reported their experience as being below their expectations was assessment and feedback. These results reflect those reported in the PTES UK (Wells, 2011) where the highest area that exceeded student expectations was the overall experience of their course, followed by skills and personal development. Similarly, the lowest ranking area was assessment and feedback.

3.2 The Importance of Flexible Learning in Postgraduate Contexts.

Flexible learning has developed as a contemporary approach to teaching and learning that utilises the benefits of technology and can be understood as a continuum, from fully online or web-based courses, to those that are on-campus and supported by technology. Blended learning is a flexible approach to e-learning and is widely used in varied educational contexts (Green et al., 2006; Jonas and Burns, 2010). Wu et al., (2010 p.155) noted that it is characterized by maximizing the advantages of face to face interaction with asynchronous (through blogs or discussion boards) and or synchronous (in real time) online learning. In a blended learning environment students are provided with access to learning resources in the form of course materials online and they also attend face to face classroom sessions intermittently throughout the duration of the programme.

Internationally, the rise and increasing popularity of flexible learning in the form of online delivery has been influenced by increased demand for more higher education and competition among providers within the context of reduced education funding especially in professional disciplines such as nursing and midwifery and a requirement to provide access, flexibility and convenience in the delivery of programmes, (Pittinsky, 2003; Lewis-Honey, 2007). Campbell et al., (2008) outline the potential benefits of flexibility to individuals and employers, and for international access to education. One of the key advantages of online education is that participants are able to customise their own programme of study to fit into the structure of their lives in order to study when and where they want, and not be confined to a specified venue and/or rigid timetable. Sun et al., (2008 p. 1187) provide a definition of ‘flexibility’ as relating to “learners perception of the efficiency and effects of adopting e-learning in their working,

learning and commuting hours". Providing flexibility in accessing higher education addresses the difficulty postgraduate students' often encounter when they endeavour to secure study leave which is common to many professional disciplines. Research has highlighted the problems of combining full time work, home and study and how these may inhibit successful learning, (Cooley, 2008). From an employers' perspective lack of fiscal resources primarily affects the ability to grant study leave. The advantages of the flexibility of blended learning in postgraduate nursing have been highlighted by Mc Veigh (2009) and Smyth et al., (2012). Sun et al., (2008) research supported a hypothesis that the flexibility afforded in blended learning amongst postgraduate business students was a significant indicator of satisfaction. The flexible nature of the blended learning programmes was one of the main motivational factors in participants' choice of course and institution in which to study with 40% of participants indicating flexibility to fit around one's life as important in the decision to undertake post graduate study. This is comparable to the findings of Sun et al., (2008 p.1183) as self-paced opportunities and balancing work and family are especially important for post graduate student cohorts. Pertinent amongst a professional body such as nursing participants often have competing demands on their time including a full time job and family commitments given their demographic profile.

3.3 Indicators of Satisfaction with Communication in Blended Learning.

Maintaining the human element and a sense of a community of learning in teaching online can be challenging (Cobb, 2011). Due to the hybrid nature of blended learning it is imperative to build into the design sufficient help-seeking paths to prevent students developing a sense of social isolation. In the post graduate programmes the main source of communication is maintained through the use of a blog and this is checked daily by the instructors. Students can post queries for clarification and all of the enrolled students have access to this. Students can communicate with each other and the learning activities are designed to maximise student teamwork. If a student needs to communicate in private this is facilitated via email directly with the instructor. The aim of the teaching and learning relationship within the context of blended learning is to

facilitate meaningful communication and collaborative working between students and academic staff (Garrison and Kanuka, 2004). The literature suggests that interactivity is most effective where an active learning environment is promoted as this will encourage student engagement and sustain motivation (Markett et al., 2006). While the autonomous aspects of self-directed learning are promoted in blended learning this should not preclude instructors from constantly engaging with the students. Activities in blended learning should not only support and guide social interaction towards critical thinking, argumentation or socially constructed knowledge but also sociable environments that foster social presence and a feeling of connectedness, (Kreijns et al., 2003). So and Brush (2008 p. 331) recommend using a variety of 'getting to know' activities to scaffold the level of social presence and this can be done by maintaining regular contact with the students. Diekelmann and Mendias (2005) stress the importance of being a supportive presence for students online by connecting with them in a personal manner. Participants indicated satisfaction with staff/instructors' communicative component of their role as outlined in Table 4.

Table 4: Satisfaction with on line communication with Instructors.

	Disagree	Neutral	Agree
Staff were good at explaining things	3	10	86
Staff made the subject interesting	3	8	88
Staff are enthusiastic about what they are teaching	3	7	89
Staff were available when I needed them	11	16	72

Communication about what was expected in relation to assessment including the marking criteria is made available very early into the programmes and this was rated positively. Analysis of the assessment and feedback section (Table 5) highlighted that over 80% of participants reported satisfaction with the detailed nature of feedback, clarity of marking criteria and fairness of assessment arrangements. Areas where

satisfaction was lower (<64%) were promptness of feedback, and the ability of using the feedback to improve future work. These results are reflective and marginally better than those in UK PTES 2011 (Wells, 2011) where students' agreement responses to the questions on the assessment and feedback scale ranged between 56% and 72%.

Table 5: Satisfaction with communication relating to coursework (n=100: figures reflect both number and %)

	Disagree	Neutral	Agree
I have received detailed comments (written or oral) on my work	8	10	81
The criteria used in marking have been made clear in advance	13	6	80
Assessment arrangements and marking have been fair	6	15	78
I received feedback in time to allow me to improve my next assignment	18	18	63
Feedback on my work has helped me clarify things I did not understand	13	23	63
Feedback on my work has been prompt	15	23	61

Sun et al., (2008) emphasize the importance of timely feedback as a key indicator of satisfaction in e –learning. Communication was also viewed as important to help participants clarify issues that they may not understand. This aspect of communication processes in blended learning were found to be a prominent indicators of satisfaction in studies by Chen et al., (2008) Ginns and Ellis (2007) and Paechter et al., (2010). Wu et al., (2010 p. 158) describe the communication processes in the social environment in blended learning within the context of 'an emotional learning climate' and recommend that instructors should actively promote interaction as it has a significant effect on learning. As the literature has highlighted satisfaction with the learning experience is dependent on successful facilitation of learning and on the relationship between the instructor and the learner with staff accessibility being rated as an important indicator of satisfaction. Lessing and Schulze (2003) claim that successful experiences of

postgraduate studies occur only through significant efforts by both the instructor and student and problems that arise within this relationship are attributed to both parties. Postgraduate facilitation should be understood as a nurturing relationship where students, particularly novices to online learning, should be provided with structured support. The quality of facilitation is measured by the extent to which the needs and expectations of postgraduate students are met. Thompson et al., (2005) maintain that expectations, roles and responsibilities of both the students and supervisors should be clarified early in the partnership, which should operate in an atmosphere of respect, commitment collegiality and maturity. Challenges emerge when roles are not clarified and expectations are not met. Role clarification is one of the most important requirements for enhancing supervisory and facilitation practices, (Lekalakala-Mokgele, 2008). It is of particular importance that educators understand there is an imbalance between students' expectations of the learning environment and what they find in colleges and universities (Oblinger, 2003; Vaughan, 2007; Tabor, 2007) and this was shown to be prominent in this survey with over half of participants (63%, n=63) reporting that the programme workload was higher/much higher than expected. To be academically successful in blended learning, students must transition from a teacher-directed learning environment to a student managed learning environment (Heffner and Cohen, 2005). Students should be informed at the outset that learning in online environments will require self-directed learning and significant time management and some research has shown that managing programme workload in online learning can be 'invasive' on home life and that finding a balance can be a challenge (Smyth et al., 2012).

3.4 Satisfaction with the Development of Personal and Professional Learning Skills.

As a professional body nurses have a responsibility to undertake continuing professional development to enable them to keep pace with rapid changes in health care delivery, (The Report of The Commission on Nursing; 1998, The Nurse Education Forum Report; 2000 and An Bord Altranais; 2010). Acquiring new knowledge and skills facilitates nurses to practice safely by using up to date knowledge and take on new and extended roles which are required by an ever changing clinical environment (Drey et al., 2009). A relationship exists between the opportunity to undertake continuing professional development and increased staff retention in the workplace (Gould et al., 2006). However, a 'one size fits all' approach to learning and an obsession to accredit learning may be used to argue the case for more skills-based courses and a renewed emphasis on work-based learning. To this end, the key to life-long, effective learning is not to be found in advice about how to learn but rather in how to manage the learning process (Grant and Stanton, 1988). The privilege of self-regulation that a profession is given entails an absolute obligation to guarantee the competence of its members. In life-long professional learning it is also necessary to consider progression beyond competence toward proficiency and/or expertise (Eraut, 1994). These principles underpin the spirit and function of continuing professional education in nursing. The skills and values that graduate level study brings have been shown to enhance critical thinking, problem-solving and reflection. These skills serve to enable nurses to meet the challenges of contemporary healthcare (Stacey et al., 2010). Table 6 outlines the degree of satisfaction with these aspects of personal and professional development after undertaking the programme.

Table 6: Development of Personal and Professional Learning Skills (n=100: figures reflect both number and %)

	Disagree	Neutral	Agree
The programme has developed my research skills	8	11	80
The programme has improved my clinical skills	11	9	78
The programme has increased my confidence in independent learning	4	8	86
The programme has increased my confidence	6	11	81
My communication skills have improved	8	20	70
I feel more confident in tackling unfamiliar problems	7	17	73
I am more willing to embrace life-long learning	10	12	76
I feel encouraged to reflect on my professional development needs	3	5	90
I feel better prepared for future employment	2	9	87
My future employment prospects are better.	3	9	86

Postgraduate education is an important and influential vessel in facilitating personal and professional growth (Hardcastle, 2008) and the findings here may suggest that if students are satisfied with these aspect of the wider educational experience they may consider education at every stage of their career and with each change of work environment. Career motivation in nurses is no longer simply a desire to care. The opportunity for self-development is perceived to be as important as altruism. It is important to make explicit what exactly nursing is, and the diversity and career opportunities on offer so that those interested can make informed decisions in their subsequent career paths (McLaughlin et al., 2010).

Experiential and distance learning are models of continuous professional development which aid the development of artistry (Stanton and Grant, 1999). It is therefore important to consider innovative methods of programme delivery which enable, motivate and promote students to engage in personal and professional learning. Educationalists now have opportunities using emerging technologies to move beyond the confines of a restrictive curriculum and consider

new methods and platforms of learning, such as blended learning and its potential to provide satisfaction to students.

3. Limitations and Conclusion

The findings in this descriptive survey cannot be generalised as it reports on a small sample of postgraduate students undertaking blended learning programmes of study in one higher education institution and was confined to one professional discipline. While grouped into themes the data addresses overall components of satisfaction with blended learning highlighting flexibility of delivery, communication processes and development of personal and professional skills are the main indicators of student satisfaction in this survey. There is the potential to investigate more statistically significant correlational relationships and their association with satisfaction in more detail such as those conducted by Sun et al., (2008) through hypothesis testing. Isolating and measuring specific pedagogical categories common to blended learning environments such as administration, functionality, instruction and social interaction can generate in depth correlational data as evidenced in Chen, et al., (2008). Ginns and Ellis (2007 p.63) correlated key aspects of the e-learning environment with deep approaches to learning and their findings point to the recommendation that there is an argument for an organised approach to evaluating e-learning that considers the links between 'parts' and the 'whole' and the significance of those relationships in providing satisfaction to students. Bluic et al., (2007 p.242) have also advocated that methodological decisions in researching blended learning "would benefit from considering the tension between understanding parts and understanding wholes".

However the survey findings presented here highlight some points of interest. In the volatile market economy making postgraduate education attractive is challenging and with post graduate student numbers dropping due to the lack of funding especially in professional disciplines such as nursing and midwifery, making the case to support post graduate education is important for longevity in the higher education sector.

Postgraduate recruitment and marketing of blended learning programmes should consider emphasising the flexible nature of educational attainment and promote the advantages of life-long learning not as an esoteric aspiration but based on the development of personal and professional skills. These could be advertised as specifically related to the profession educators' aim to target in recruitment campaigns. The survey findings highlight the competing priorities of students as the majority manage full time work and the requirements of educational programmes that contain a higher workload than generally expected. Incorporating maximum flexibility (in terms of student workload and staff accessibility to support learning) into the programme is important to attempt to offset this. Online communication was proven to be a vital indicator of student satisfaction and educators considering the development of online programmes are encouraged to build into pedagogical design focused scaffolding techniques (Salmon, 2000) that ensure communication is upfront and consistent to prevent students feeling isolated. The accessibility of instructors in the online environment is also crucial to student perceptions of satisfaction.

The overall educational experience was positively evaluated by participants and the quality of teaching and learning was rated as consistently/generally good by 99% of participants which is encouraging. The area that was less positively evaluated was assessment and feedback. Timing of feedback and ability to utilise instructor feedback for future assignments were the main areas that require review based on the participants reports. This is related to the sequencing of coursework and the associated turnaround time for feedback across multiple modules on a programme of study and the findings suggest that this needs to be managed carefully to allow students receive timely feedback in order to improve for upcoming assessment. Staff should be required to be competent in managing their time in the on-line environment to ensure that they are clear in communication to the students about expectations and

support and should aim to identify when students are struggling (Hughes, 2007). Students require unambiguous information in their feedback to assist them in scaffolding their learning as they progress throughout the programme of study.

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