Nursing IT: A Peer Assisted Learning Project for Nursing and IT Students

NORTCLIFFE, Anne <http://orcid.org/0000-0001-6972-6051>, STRINGER, Elaine, COGILL, Peter and WINWOOD, Bridget

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Case Study

Nursing IT: A Peer Assisted Learning Project for Nursing and IT Students

This was a Sheffield Hallam University collaborative project, between staff and students in ACES and HWB.

Abstract

Previous research indicated that nursing students lack IT competence, Fetter (2009), but have strong social skills. Equally observations by the Placement Employability Experience Unit in the Faculty of ACES have identified that IT students are technically able, but weaker in social skills. Employers are seeking graduate with a broad skill range in both subject specific and employability skills, (Ehiyazaryan and Baraclough 2009).

Therefore this project aimed to address these issues through a peer learning activity. It is recognised that peer assisted learners can communicate to one another in a language that both understand, Smith et al, (2007). The symbiotic activity was offered as a venture opportunity for level 5 computing students to manage in the Venture Matrix at Sheffield Hallam University. The Venture Matrix is a managed risk enterprise and entrepreneurial environment open to all students, and offers a framework in which students can operate micro-businesses to develop and apply their subject knowledge and employability skills to support real business opportunities/activities offered in the Venture Matrix, Laughton (2010). The Nursing IT venture was offered as business activity with the aims of providing an opportunity;

- for computing students to apply their IT skills and develop their employability skills
- to meet the individualised IT learning needs of the Level 4 nursing students.

The value of the learning in the venture was evaluated by both sets of students. This IT service was offered by the computing students to all level 4 student nurses who commenced their course September 2009 and January 2010.

Analysis of post project student questionnaires, evaluations and staff discussions showed that all stakeholders recognised the potential and sustainability of this service. The key learning point are that the project:-·created good cross-faculty communication and sharing of expertises both staff and students: although only a small number of nursing students took the opportunity to use the service they valued the support they received: the computing students enjoyed the opportunity to disseminate their IT skills.

Background

The key focus of this symbiotic project was to improve the employability and professional skills of students in HWB and ACES. In particular to improve level 4 nursing students skills in digital fluency, particularly their computing technology skills, ability to literature search, and overall IT competence and confidence. While at the same time provide the computing students the opportunity to develop their employability skills, through the engagement in a venture opportunity offered in the Venture Matrix (VM). The benefits for the nursing staff included:- the opportunity for cross faculty collaboration: an opportunity to provide a non-modular student managed project:

promote learner autonomy from an early stage in the programme: to equip the students with skills which are essential to clinical and academic practice.

Business & Enterprise students in Computing need to improve their employability skills to assist in their development of their CV and preparation for employment on their placement year. These skills are developed through engagement in venture opportunities in the SHU Venture Matrix..

.**Rationale**

The project objectives were to:

- develop, and implement a sustainable peer-assisted learning framework that benefits both sets of students and will continue beyond duration of CPLA of the project.
- develop and implement a mechanism that enables both sets of students to identify and evaluate their skill sets deficiencies and strategies for improvement
- provide a learning opportunity for both sets of students through peer-assisted learning and to the mutual benefit of all stakeholders
- provide opportunity for computing students to apply their technical skills to support non-technical students and to develop their behaviour, attitude and interpersonal skills
- provide opportunity for nursing students to develop practical IT technical skills, self awareness, IT competence, confidence and apply their nurturing skills to support computing students personal skills development
- increase student learning autonomy of each of these groups of students in skills learning and development

This project aimed to promote peer assisted learning, develop learner autonomy, meet student employability needs, and encourage collaboration between staff and students. The rationale for using peer assisted learning (PAL) approach is that it has been shown to have benefits for both the junior and senior student. Smith et al (2007) highlight the key benefits for the junior student as being increased confidence, an increased understanding of the course, improved study skills and improved problem-solving methods. With reference to the long experience of PAL at Bournemouth University, it is clear that peer assisted learning empowers students by encouraging them to take more responsibility for their own learning. It enhances the first year experience of Higher Education by improving integration into university life and giving a sense of belonging. Wallace (1997) suggests that it helps the senior students reflect upon and manage their own learning as well as improving their self confidence. Other benefits include improvement in their communication and presentation skills, as well as development of leadership skills. The focus is upon collaboration to facilitate learning rather than teaching.

The development of learner autonomy is of increasing important aspect of the student development in readiness to meet the challenges of the workplace. Throughout this project the students were encouraged to self evaluate their skills, identify goals, identify strategies for achieving these goals, give and receive feedback, develop confidence and competence in transferrable skills.

The PAL sessions were optional to the main curriculum for all the students involved in particularly for the nursing students. However, level 4 nursing students in the Faculty of Health and Wellbeing (HWB) initially needed to recognise their IT competence,

deficiencies and the need for personal IT development. The need for digital fluency in nursing is becoming more evident in response to Government initiatives to digitalise the NHS, Osbourne (2009) Therefore digital fluency is essential to nursing practice if nurses are to meet patient care and organisational targets, demonstrate evidence based practice and coordinate the interprofessional team of carers. In addition the academic learning within the University involves a blended approach of taught sessions and e-learning opportunities through University Virtual Learning Experience (VLE) using Web 2.0 technology.; This provides the facilities and tools for staff to adopt, develop and apply e-learning resources, for example: e-assessment submission as used by Radiotherapy and Oncology, (Bridge and Appleyard, 2007): podcast audio approach as used by Nortcliffe and Middleton, (2007) with engineers: assessment feedback tool as developed by Hepplestone (2008). Consequently the ability to be effective and efficient in the use of technology is an essential skill for nursing students both academically and professionally.

However, there is no dedicated IT module and furthermore the inclusion of this into a crowded curriculum would be difficult to achieve. As a result there is no formal assessment of computer skills, or a strategy for incremental learning in information technology throughout the programme. Nursing students are expected to self evaluate and seek out appropriate support in skills deficienies. .

Computing and IT students in the Faculty of Arts, Computing, Engineering and Science (ACES) are required to evaluate their employability skills competences, and deficiencies, in the embedded career management elements of a level 5 module designed to prepare all computing students for placement employment. All computing

students are encouraged to gain or further their employability skills experiences to enhance and rectify deficiencies in their curriculum vita. Observations made by the placement team in the Faculty of ACES computing, IT and Business & Enterprise identify that students in Computing have high IT literacy, but are often weaker in employability skills experience and application. Thus by providing this opportunity for them to assist other students it should enable them to develop these skills, and improve their employability skills, in addition there is the opportunity to apply their technical skills to support others.

The Nursing IT project gave all students the opportunity to take control of their learning and also gain experience of working with students from another faculty. By offering the PAL venture within the Venture Matrix and employing , level 5 computing students to act as project managers of the venture, they were able to take ownership and responsibility for the venture and employ level 4 students as well to support IT service desk, in effect operating as first line IT service desk roles. Consequently this venture provides opportunities for;

- level 4 students gain experience of using their IT skills into practice and develop their communication skills, working with others and being employee skills
- level 5 students to develop project planning, organisation, organisational management, venture promotion and marketing and IT service desk management and delivery.

Therefore this opportunity for level 5 computing students not only provides a peer assisted learning opportunity of learning social skills from nurses, but it is also an enquiry based learning approach for their personal development. As enquiry based learning approach has been found to be an inspirational approach to developing student professional and personal skills and the development of student attitude to take responsibility for their learning and actions it therefore increases their learner autonomy, Moore and Bramall (2010). Both level 4 and 5 students were overseen and facilitated by staff from Sheffield Hallam University, Faculty of ACES and Faculty of HWB who collaborated on the development and management of the project.

The Implementation

Nursing IT is advertised as an opportunity within the Venture Matrix. Therefore enabling Level 5 students, enrolled on BSc (Honours) Information Technology with Business Studies degree and in fulfilment of the learning outcomes of Managing a Growing Business Module, are invited to form a micro-business venture and apply to run this opportunity or are selected by the staff facilitator to run this opportunity. Two groups of students applied and were allocated to this opportunity and each group operated a service desk at the Robert Winston Building one day a week. . Each micro-business was required to plan and organise their service desk venture in terms of identifying resources, marketing, staffing required; this requires negotiating with both facilitators and technical staff, and the other level 5 ventures, and recruiting the level 4 students registered in the venture matrix as part of of their New Venture Creation Module to man

the service desk. The level 5 managers also plan, and prepare the questionnaires, feedback, service desk systems, determine and manage the reporting requirements of the venture.

The level 4 nursing students were informed of the project during their induction to the undergraduate programme by their personal tutors. This was to ensure that all students received the information: to encourage the students to self evaluate their IT skills and to promote the opportunity for students to be proactive in their learning. In addition a plasma screen presentation was repeatedly shown throughout the day in the foyer close to the cafe. In semester 2 posters were also distributed throughout the Robert Winston Building.

In semester 1 the sessions were offered in an open access area in the Robert Winston Building cafe area and used Faculty of HWB laptop computers.. The reason for the location was clear visibility of the service and large student 'foot fall'. However, student feedback indicated that this was unsuitable location as the area was extremely cold in the winter and noisy. In semester 2 a designated computer laboratory was made available. The nursing students completed a proforma which enabled them to self assess their IT skills and identify learning outcomes for the session to enable the computing students to meet their specific IT skills deficit. At the end of each session both students completed an evaluation form to promote and develop feedback skills and also to provide documented evidence of the service provision and satisfaction.

The academic staff accessed relevant equipment: liaised with the Timetabling Department and Level Managers: oversaw the project and acted as facilitators of the

project; supported and guided the level 4 and level 5 computing students in the management of the project; encouraged participation from the nursing students. In particular the academic facilitation was of the business and enterprise in computing students in how to overcome all the issues of starting and running a new venture. These students operated the venture in partial fulfilment of assessments for a Managing a Growing Business module at Level 5 and New Venture Creation module at Level 4. In fulfilment of the assessments the students were regularly monitored on the progress they made in operating the opportunity. Regular meetings with academics (once a month to once a fortnight), provided opportunity for the computing students to demonstrate their efforts and practices through regular meetings with academics (once a month to once a fortnight), in particular reporting on and their review of their venture strategy, marketing, realisation and finance; and through a final oral presentation justifying any further investment and growth of the venture.

Evaluation

It is difficult to quantify the evaluation of this project. All participants recognise the potential of this project, and the student evaluations received clearly demonstrate satisfaction with the project. However, it must be recognised that the number of nursing students have accessed this service, but numbers were extremely low in proportion to number students enrolled on nursing programs, therefore we lack quantifiable evidence. This was for a number of reasons; the delayed start to the Venture matrix programme severely impacted upon the project in semester 1. The nursing students commenced their programme in the third week of September but unfortunately the Business and Enterprise students were not recruited and ready to operate the service desk until

November. This resulted in student nurses wanting to attend when the service was not available and then losing the impetus to attend due to other constraints on their time. The computing students were frustrated by some technical issues, and then by the lack of response from the nurses. In addition the nurses where only in University for 10 weeks before starting a 10 week clinical placement therefore, the delayed start shortened their opportunity to attend. In semester 2 the venture was operational at the start of level 4 enrolment and the marketing material was improved and collaboration and coordination between the two groups operating service desk on two different days improved; in addition a designated room was allocated for this project room however it was difficult to locate, away from the key student 'footfall' in the Robert Winston Building and there was insufficient signposting.

It was also recognised that the computing students required more support from the facilitators. To address this, the computer students were asked to provide regular feedback on attendance and the type of problems encountered and whether these matched academic perceptions of IT skill deficiencies observed in nursing students Staff monitored the attendance of both the IT and nursing students, and greater cross faculty communication and liaison between the academics was initiated. The students identified a number of enhancements i.e. need for increase academic staff facilitation and marketing of the service to the nursing students.

Development

We have collaborated with the Module Leader of the interprofessional module 'Using Knowledge and Evidence to Support Study and Practice' to embed the initial student

self assessment of IT competency and skills in this module. This module is studied by level 4 nursing students, but also wide range of health professional students from occupational therapy to physiotherapy. The module aims to; emphasise the importance of IT skills in all health care settings; create environment that enables students to be self evaluate IT abilities and deficiencies; heighten health professional student awareness and availability to IT support to the range of health professionals service; demonstrate the development of IT skills (i.e. rectification of IT deficiencies through self learning and accessing support via the peer IT support service) through a possible assignment in fulfilment of this module.

Students who will manage the project at level 5 in the academic year 2010/2011 need to be recruited to the Venture Matrix before the end of semester 2 . This will give them sufficient time to plan and implement the project in September/early October, when the next 'Using Knowledge and Evidence to Support Study and Practice' is delivered.

The service documentation regarding the self assessment, attendance, content of the Peer IT sessions, feedback for both sets of students, and service questionnaires have been developed throughout this project by the level 5 students. Through these the students and the academics will be able to conduct a more robust evaluation and will be able to evolve and enhance the service further. The project is also planning to collaborate with the Learning and Information and Technology Service (LITS) to provide this service in a designated room in the Learning Centre. This will provide an area that is easily accessible to all students, frequently visited by all students and where LITS personnel are available to provide LITS appropriate support for IT activities the computing students cannot resolve, i.e. forgotten passwords, disabled accounts, etc.

The evaluation has highlighted the need to publicise the service more robustly and effectively. Consequently we have purchased two roller posters which give full details of the service and which will be placed in the foyer of the Robert Winston Building and Learning Centre. Students will receive information in their induction packs, this information will be repeated on Blackboard sites, screen savers and plasma screens.

Cross faculty projects on two sites create difficulties for staff who are monitoring the progress of a project. While there are many ways of communication, regular meetings need to be incorporated into the planning to ensure that all project goals are being addressed and documented and to maintain the momentum of the project.

Reference List.

Bournemouth University , Peer assisted learning (PAL): an overview. http://pal.bournemouth.ac.uk last accessed 29th June 2010

Bridge P[1] and Appleyard, R.(2007) "A comparison of electronic and paper-based assignment submission and feedback" **British Journal of Educational Technology** Vol. 39 Iss. 4, 644 - 650

Creedy, D. K. Mitchell, M. Seaton-Sykes, P. Cooke, M. Patterson, Purcell, C. Weeks P (2007) 'Evaluating an enhanced Batchelor of Nursing Curriculum: perpectives of third year students', Journal of Nursing Education, vol 46, no 10, 460-467

Ehiyazaryan, E. and Barraclough, N.(2008) "Student-Initiated and Student Led Ventures: The Challenges of Enterprise within the Taught Curriculum" Integrating Work and Learning, http://www.asetonline.org/documents/R4.1-EsterEhiyazaryan.pdf, last accessed March 2010

Fetter, M.S., (2009) "Graduating Nurses' Self-Evaluation of Information Technology Competencies". Journal of Nursing Education. Thorofare: Feb 2009. Vol. 48, Iss. 2; pg. 86, 5 pg

Hepplestone, S. (2008) "Masking marks: Encouraging student engagement with useful feedback", HEA Annual Conference, Harrogate, accessed on line on 16th July at http://www.heacademy.ac.uk/assets/York/documents/events/annualconference/2008/Stuart_Hepplestone.doc

Laughton, D. (2010) "Work-Based Learning versus Work-Related Learning - an exploration of the possibilities of work-related learning through a review of the Venture Matrix at Sheffield Hallam University, UK" 17th EDiNEB (Educational Innovation in Economics and Business) Conference, London, UK

Moore, I. And Bramall, M. (2010) "Enquiry Based Learning, what's that then? How to inspire your students, develop their professional skills and enjoy yourself." Engineering Educators Conference 2010, University of Aston, Birmingham, UK

Nortcliffe, A. and Middleton, A. (2007) "Audio Feedback for the iPod Generation", International Conference on Engineering Education, Coimbra, Portugal

Osbourne, S. (2009) "How IT is shaping up' *Nursing Standard"* vol 21 accessed on line on 28th June at http://nursingstandard.rcnpublishing.co.ul.lcproxy.shu.ac.uk

Smith, J. May, S. Burke, L. (2007) "Peer Assisted Learning: a case study into the value to student mentors and mentees". *Practice and Evidence of Teaching and Learning in Higher Education. Vol 2, No2 80-109*

Wallace, J. (1997) "Student as Mentor and Role Model to Support Effective Learning", cited in Stephenson, J. (ed*) Mentoring-the new panacea?* Norfolk*:* Peter Francis, 78-92