University of Salford
A Greater Manchester University

ILIA
Innovative Learning in Action

Issue Three: Employability, Enterprise & Entrepreneurship

March 2005

Education Development Unit

Introduction

Dear Colleagues,

The theme of the 3rd issue of ILIA is Employability, Enterprise and Entrepreneurship, reflecting the University of Salford's Learning and Teaching Strategy and our Goal

"To produce graduates with the skills, creativity, confidence and adaptability to succeed in the labour market and make a meaningful contribution to society".

The creativity, problem solving and change orientation this implies recognizes Salford's distinctive strengths in this regard, and provides us with a conceptualization of employability which embraces enterprise and entrepreneurship, manifest in the form of self-employment, but equally relevant to those working within organizations i.e. to intrapreneurship.

The contributions to this edition provide us with examples of excellent practice demonstrating how practitioners at Salford have responded to the challenge of providing a quality learning experience for our students. Consideration of the papers and snapshots reveal how colleagues have embedded employability into teaching and learning and assessment strategies, and into frameworks of student support, in differing and innovative ways, across the institution. As this edition of ILIA goes to print work is underway to develop an Employability Policy and Strategy for the University. Designed to provide a coherent and progressive approach to Employability, Enterprise and Careers Education and Guidance, this Strategy will be able to build on the good practice evident both in this edition of ILIA and across the institution.

ILIA therefore has once again provided us with a range of perspectives on a key area of curriculum design and development.

It also has provided an opportunity to reflect on practice and student learning, to share experience and hopefully to identify future areas for collaboration. I would like to take this opportunity to thank all those concerned, the authors for devoting their time and effort to contribute to ILIA, the Editorial Board and importantly to thank the Editor, Dr. Viv Caruana whose skills of persuasion, enthusiasm and leadership make the bi-annual publication of ILIA possible.

Dorothy Oakey

Head of Staff and Curriculum Development

Education Development Unit

Contents

Notes for contributors

Submission details (for papers and 'snapshots')

We will be pleased to receive papers, case studies and 'snapshots' which demonstrate innovation in learning and teaching at the University of Salford. Potential contributors new to writing might find the following article 'Writing Academic Papers: the *Clinical Effectiveness in Nursing* experience' useful:

http://www.harcourt-international.com/journals/suppfile/flat/cein-writing.pdf

Length

Papers and case studies should be a maximum of 3,500-4,000 words without references.

'Snapshots' should be a maximum of 600 words without references.

For both papers and 'Snapshots' authors should include a full word count, (preferably with and without references) with submission.

Page size

All submissions should be left-right justified on an A4 page with 3.5cm margin on the left and 2.54 margins at the top, bottom and on the right

Text formatting

Normal text: 11 point Arial font

Title and Authors:

Title: Arial 14 point bold centred across the full width of the page

Author(s) name(s): Arial 12 point non-bold. We also recommend you add your e-mail address using the standard house style.

Sections: headings in Arial 12 point bold with only the initial letters of significant words capitalised (Note: determiners such as 'the' 'or' 'a' are not capitalised unless they are the first word of the heading).

Subsections: headings in Arial 11 point bold (Note: determiners such as 'the' 'or' 'a' are not capitalised unless they are the first word of the heading).

Sub-subsections: headings in Arial 11 point italic (Note: determiners such as 'the' 'or' 'a' are not capitalised unless they are the first word of the heading).

Page numbers, headers and footers, footnotes

DO NOT include page numbers and headers/footers in your submission. These will be added when the publication is assembled. Footnotes should be in Arial 8 point.

Abstract

Papers and case studies: an abstract of a maximum of 200 words summarising the context should be included.

'Snapshots' do not require an Abstract.

Figures

Figures or tables should be inserted at the appropriate point in your text and have a figure caption in normal Arial 11 point font, at the bottom and left justified.

Quotations

Use single quotation marks throughout unless quoting within a quotation. Substantive quotes should be indented with no quotation marks.

Keywords

Include three or four key words to increase the likelihood of potential readers searching the literature accessing your article.

Language, style and content

Please make sure that your paper is in clear, readable and proper English. Please make consistent use of British dialect of English. Please write for a cross-disciplinary and international audience.

- Write in a straightforward style. Use simple sentence structure. Try to avoid long sentences and complex sentence structure
- Use common and basic vocabulary and avoid jargon
- Briefly explain or define all technical terms
- Explain all acronyms the first time they are used in your text
- Be careful not to use gender specific pronouns (he, she) and other gendered words or phrases ('chairman', 'manpower', 'the man in the street') where reference to both sexes is intended. Use language that is gender neutral ('chairperson', 'workforce', 'people in general'). For further advice and examples regarding gender and other personal attributes please visit the British Sociological Association website (http://www.britsoc.org.uk)

Acknowledgements

Acknowledgements should be included under a separate heading before the references at the end of the paper. For example,

We thank Dr. Joe Bloggs and Prof. Joanne Bloggs of the University of Salford for their comments on earlier versions of this paper. This project was made possible by funding from the University of Salford TLQIS.

References and Citations

Within the text, references should be indicated using (author, year). If several papers by the same author and from the same year are cited, a, b, c, etc. should be put after the year of publication.

If the reference is to a piece by two authors, both should be cited, for example (Reynolds and Trehan, 2000). If there are more than two authors, et al should be used. The full list of authors should appear under References at the end of the paper.

The references should be listed in full at the end of the paper in the following standard form:

For Books: Barnett, R. (1992) *Improving Higher Education: Total Quality Care* (Buckingham, SRHE & OU)

For Articles: Reynolds, M. and Trehan,

K. (2000) Assessment: a critical perspective, *Studies in Higher Education,* 25, pp.267-278

For Chapters: Walker, R. (1987) Techniques for Research, in: R.Murphy & H.Torrance (Eds) *Evaluating Education: Issues and Methods*

For Websites: http://www.shef.ac.uk/alt/call/research.htm ALT-C 2003 *Research Paper Format Template*

References should be published materials accessible to the public. Internal reports may be cited if they are easily accessible.

Permission to reproduce borrowed material

Written permission to reproduce borrowed material (illustrations and tables) must be obtained from the *original publishers and authors,* and submitted with the typescript. Borrowed materials should be acknowledged in the caption in this style: *Reproduced by kind permission of…(publishers)…from…(reference)*

Copyright

Submitting an article to this journal will not affect copyright. The copyright will remain with the author who will be able to publish the article elsewhere.

Contributions are accepted for publication on condition that the contributor has obtained any necessary permissions and paid any fees for the use of other materials already subject to copyright. Contributors therefore undertake that their material is not a violation of any copyright and undertake to indemnify the University of Salford for any loss occasioned to the university in consequence of any breach of this undertaking.

References for this document

http://www.harcourt-international.com/journals/nepr/

http://www.edu.salford.ac.uk

What University Students Think About Peer Assessment – Developing Employability Skills

Simon Cassidy
s.cassidy@salford.ac.uk
Ashley Weinberg
a.weinberg@salford.ac.uk
Directorate of Psychology

Abstract

Reports examining graduate employment issues suggest that employers are concerned by the lack of employability skills exhibited by entry-level job applications. It is also suggested that employers consider it the responsibility of educational institutions to develop such skills. The current study identifies peer assessment as a potential strategy for developing employability skills and examines—from a students' perspective—the process of introducing peer assessment in higher education programmes.The focus was on the assessment of students' attitudes towards both being assessed by and assessing other students' work. In line with previous work, students expressed a positive attitude towards peer assessment but had concerns relating to capability and responsibility. Results suggest that whilst students would accept peer assessment as an element of their course, its introduction should focus on the development of evaluative skills (i.e. learning rather than assessment) and provide support to alleviate an onerous sense of responsibility. It is concluded that if the value of peer assessment—in terms of employability skill development—is accepted, then it should be adopted as regular practice on undergraduate programmes wishing to equip students with a complete repertoire of employment relevant skills.

Student Peer Assessment – educational practice to support the development of employability skills?

The skills learned by students during their academic career can be placed into the two broad skill categories of technical and non-technical. Technical skill refers to subject-specific or content-specific knowledge and competence relevant to, or within, a particular discipline such as information technology or psychology. Technical skills then are those skills necessary for competent functioning within a particular discipline while non-technical skills are those skills which can be deemed relevant across many different jobs or professions (Sherer & Eadie, 1987). Because of their relevance to professional functioning, non-technical skills are commonly referred to as employability skills and include basic skills such as oral communication, reading, writing and arithmetic, higher order skills such as learning skills and strategies, problem solving, decision making, and affective skills and traits such as dependability and responsibility, a positive attitude, interpersonal skills (cooperation, team work), self-discipline and self-management and ability to work without supervision (Cotton, 2001). Cotton (2001) reports that the literature surrounding employability indicates that whilst employers may be satisfied in general with the level of technical skill of new graduates, they are not convinced by their competency in non-technical abilities or employability skills. In her extensive review of key issues in employability, Cotton (2001) found that: employers want employees to possess employability skills; that employers value generic employability skills over specific occupational (technical) skills; and that employers consider many entry-level job applications to lack the required employability skills and express deep concerns regarding this deficiency. It is a fair conclusion then that those skills bracketed within the term 'employability skills' are fast becoming a requirement for employment rather than desirable and that employers see the responsibility for the development of such skills lying with educational institutions. With this in mind then, and given that a primary aim of many undergraduate—if not all—programmes is employability, course development, delivery and assessment should include the development of employability skills as a major focus.

There are a number of factors reported in the literature which might contribute to the successful teaching of employability skills. These include instructional method, teacher attributes, the inclusion of skill acquisition as an explicit learning goal, student involvement and activity, relevant context and student responsibility and autonomy. There is a need then to identify and implement specific educational practices which directly address the issue of employability skill development—which may not be completely straightforward given the diversity of constraints governing many educational settings.

Student peer assessment is one example of educational practice which is likely to contribute positively towards the development employability skills. It is associated with the development of the ability to make judgements, to supervise own work and to encourage responsibility for learning (Gibbs, 1995) As such, the current study considers both the potential of peer assessment for developing skills relevant to employability and the potential problems of introducing it in undergraduate programmes.

It is generally accepted that a programme of assessment which incorporates an element of peer

assessment—in some form—is beneficial to learning. Specific benefits cited include: increased student responsibility and autonomy; evaluative skill development; insight into assessment procedures and expectations for high quality work; students work harder with the knowledge that they will be assessed by their peers; potential for providing increased levels of feedback without increasing demands on tutors (Walker, 2001); and encourages deep rather than surface learning (Brown, Rust & Gibbs, 1994).

In addition, there is both empirical and anecdotal evidence which suggests that students often fail to attend to assessment criteria, do not fully understand the requirements of the assessment, do not know what a good or bad piece of work looks like and are interested in the absolute mark and, as such, fail to read or adequately process tutor's feedback comments. This is further reason for the inclusion of peer assessment given its reputed benefits in terms of skill development and improved learning and performance on assessed work (Brown et. al., 1994).

Despite such justification, it is still the case that many courses fail to include peer assessment for either formative or summative work. The reason for this is likely to be due, in part at least, to reports that the introduction and successful implementation of peer assessment is notoriously problematic, particularly in terms of resistance from students.

Studies examining peer assessment have raised issues relating to the reliability of marks, the potential for group and gender bias and acceptance by students. The current study focuses on students' attitudes towards peer assessment. Reports suggest that while students welcome peer assessment in some form, they are uncomfortable taking on the responsibility of assessment. Concerns expressed include: lack capability and high levels of subjectivity; too much responsibility and uncomfortable with the feeling of "power"; lack of formal training; and the opportunity for other students to use their ideas.

The study reports responses from students taking part in a peer assessment exercise and examines, independently, their responses to both being assessed by and assessing other students.

Method

A group (N=13) of 2nd year undergraduate students taking an applied social psychology module took part in the peer assessment exercise. This particular group were selected on the bases that firstly, as 2nd year students, they had experience of the assessment system and secondly, the module assignment had a familiar and well structured format. Students were asked to bring a completed draft of their assignment to a timetabled teaching session when they would have the opportunity to receive feedback on their work from other students. At the beginning of the session students were briefed on the purpose of the session and given guidelines for feedback (see Appendix). Draft assignments and blank feedback sheets were distributed to students. Both assignments and feedback sheets were anonymous. Once feedback had been given students completed a two-part 20-item questionnaire measuring opinion towards peer assessment (see Tables 1 & 2). At the end of the session, a more general open discussion relating to the peer assessment exercise took place and students' comments were recorded (see Table 3).

Results

N=13	Agree %	Disagree %
Felt uncomfortable	**54**	46
Felt capable	**54**	47
Enjoyed it	**61**	39
Helped own work	**84**	16
Hard to give useful feedback	23	**77**
Was surprised at quality of work	15	**85**
Want more of it	**70**	30
Improved understanding of tutor's expectations	**69**	31
Able to understand assessment criteria	**85**	15
Used assessment criteria to give feedback	**85**	15

Table 1. Students' Opinions regarding Assessing Other Students' Work

Despite the concerns of some students relating to their capability and feelings of unease when assessing other students' work, the majority enjoyed it, felt it would benefit their work and wanted more peer assessment. The suggestion that students fail to understand or utilise assessment criteria also seems unfounded, with 85% of students reporting both understanding and use of assessment criteria.

N=13	Agree %	Disagree %
Unhappy being assessed by other students	23	**77**
Excuse for tutors to do less work	15	**85**
Worried that my ideas might be stolen	23	**77**
Felt other students were capable of giving useful feedback	**62**	38
I agreed with the feedback which was given	**69**	**31**
I will make changes according to feedback	**61**	39
Feedback related to assessment criteria	**61**	39
Would like regular peer assessment	**54**	46
Happy for peer assessment of summative work	**54**	46
Assessment was harsher than if tutor had done it	31	**69**

Table 2. Students' Opinions regarding Being Peer Assessed

Only a minority of students expressed concerns about being assessed by their peers and about the potential for their ideas to be stolen. In the main, students felt that feedback was of some value, was no harsher than tutors' feedback and were prepared to make changes to their work according to feedback. The majority felt that they were in favour of regular as well as summative peer assessment.

Concern regarding the risk of copying, especially for less prescriptive work such as essays
Would like support from tutors
Students who fail to submit draft work but take part in peer assessment sessions may benefit unfairly from others' work Regular sessions would improve ability to peer assess
Suggested a 'dummy' submission date for work to ensure that all students took part fully in peer assessment exercises Students do already focus on assessment criteria for completion of assessed work
Felt that the assessment of other students' work was more beneficial to their work than the feedback they received from being assessed
Some were uncomfortable at having their work seen by other students
Enjoyed the experience and would like to see peer assessment introduced to the course
Many students (around half) failed to attend the peer assessment session and it was felt that this was largely to do with them being pre-warned and feeling either apprehensive about the exercise or not having work prepared
Students noted that a lot of the work they assessed was only partially completed which made it difficult to assess and give feedback

Table 3. Summary of Students' Comments (recorded from open discussion and written comments)

Comments largely reflected and elaborated upon the results from the questionnaire data.

Summary and Conclusions

Results of the study indicate that students are more positively disposed towards peer assessment than may previously have been thought. The value and potential benefits of peer assessment were recognised by students, with the majority in favour of its introduction on a more frequent basis for both formative and summative assessment. Students reported that they were happy being assessed by other students, with only a minority expressing concerns about having their ideas stolen—previously considered to be a major cause of student resistance to peer assessment. They felt that peer assessment had improved their work and increased their understanding of tutors' expectations. Importantly—and contrary to earlier suggestion—, students also reported that they both understood assessment criteria and that they could focus on them as a basis for the completion of and assessment of work. As such, tutors should continue their efforts to provide adequate guidance in this respect.

Students did however continue to express concerns regarding their and others capability to assess as well as feeling uncomfortable with the responsibility of assessing others' work. This is a common theme reported in studies of students' attitude towards peer assessment which was further reflected during group discussion when students expressed the need for regular sessions to improve their familiarity with, and ability to, assess. That students felt more comfortable being assessed than assessing—despite reporting assessing others as more beneficial—is another indication of their acute awareness of the responsibility of assessing. Increasing students' familiarity and improving their sense of ability is likely to help alleviate the onerous sense of responsibility.

It is important to note that responses were gathered from students following completion of a peer assessment exercise and that students with no experience of peer assessment have been reported as holding less positive views (Venables & Summit, 2003). In addition, the sample includes only half of the targeted group and it is possible that those students who failed to take part did so because their attitudes towards peer assessment are distinct from those providing questionnaire responses.

Non-technical or employability skills have been identified as being of critical importance to employers who express concerns over the lack of such skills in entry-level job applications (Cotton, 2001). It can be argued that peer assessment contributes positively towards the development of employability skills and should therefore be a commonly employed educational practice for undergraduate teaching. Findings of the current study indicate that such a move should not be resisted any longer on the premise that students are not in favour of and would

strongly resist peer assessment. Tutors must however accept that students are likely to be unfamiliar with this form of assessment and that students are conscious of both their inexperience and the responsibilities of peer assessment. As such, there is a need for support and reassurance from tutors while students develop the necessary evaluative skills to perform peer assessment and to help them accept the responsibility of an assessor. Given the current levels of awareness of employability issues and the need for graduates to add 'special' employability skills to their repertoire of traditional technical skills and knowledge, the provision of adequate opportunity to practice and develop these skills must be a requirement of all undergraduate programmes which profess to develop 'capable graduates'.

References and Further Reading

Brown, S., Rust, C. & Gibbs, G. (1994). Strategies for diversifying assessment in higher education. Oxford, Oxford Centre for Staff Development.

Cotton, K. (2001). Developing employability skills. Northwest Regional Educational Research Laboratory. Retrieved online January 2005 from: www.nwrel.org/scpd/sirs/8/c015.html

Dyck, B. (2002). Peer assessment teaches students how to think. Education World. Retrieved online from: www.education-world.com.

Gibbs, G. (1995). Assessing student centred courses. Oxford, Oxford Centre for Staff Development.

Platt, J. (2002). Self and peer assessment. Retrieved online from: www.bathspa.ac.uk/socassoss/section2.htm.

Sherer, M & Eadie, R. (1987). Employability skills: key to success. Thrust 17(2), 16-17.

Venables. A. & Summit R. (2003). Enhancing scientific essay writing using peer assessment. Innovations in Education & Teaching International, 40(3), 281-290.

Walker, A. (2001). British psychology students' perceptions of group work and peer assessment. Psychology Learning and Teaching, 1(1), 28-36.

Appendix

General Guidance for Providing Formative Peer Assessment Feedback

- All assessment and feedback must be anonymous.
- Feedback can obviously be critical but must be framed in a positive manner, e.g. 'the work could be improved by …'
- Suggestions for feedback must be feasible, i.e. achievable in a week for example.
- Marking criteria, guidelines and/or feedback sheet must be made available to students giving feedback.
- Students are at liberty to utilise or ignore feedback as they wish.

SONIC: Developing Nurses as 'knowledge workers' through e-learning supported PBL

Moira McLoughlin
m.mcloughlin@salford.ac.uk
School of Nursing

Introduction

Information technology is an important part of contemporary health care delivery and it is argued that current nursing curricula must aim to prepare nursing students who are 'knowledge workers' – able to manage information and technology on the one hand and complicated clinical judgements on the other, (Kenny 2002). Students leaving courses of education leading to registered nurse status must have the skills and knowledge to function successfully in this workplace. This is imperative because of the diverse and complex clinical practice environment that nurses face as part of their everyday practice. Learning is no longer regarded as a classroom activity; instead it is increasingly seen as a continuous work based activity, necessary to cope with the changing demands of the organisational environment (Sambrook & Stewart 2000).

The arguments within the literature continue to suggest that learning settings should provide a means for learners to construct knowledge rather than being exposed to transmission modes, (Boud 1985, Blais 1988, McLoughlin et al, Savin-Baden 2003). Therefore, there is a growing recognition of the need for teachers to think laterally and to employ teaching materials in ways which use unique opportunities to provide engaging settings for learners, for example, experiential and self-directed tasks involving learner collaboration. Web-based learning environments, such as Blackboard and WebCT extend the opportunities they afford learners as it is argued that they encourage students of nursing to develop confidence and skill with computer technology.

The Fund for the Development of Teaching and Learning (FDTL) was set up by the Higher Education Funding Council for England (HEFCE) with one of the main aims being to 'secure the widest possible involvement in institutions in the take up and implementation of good practice', (Baume et al 2002). Problem-based learning (PBL) was considered an area of good practice in the phase 4 bidding round and bidders were encouraged to examine this as part of collaborative projects. PBL is also a way of constructing and teaching courses in Higher Education Institutions using problems, or triggers, as the stimulus and focus for the student activity, (Boud, 1985). It is also a curriculum development and instructional system that places students in the active role of problem solvers confronted with real world problems, (Finkle and Torp 1995). If the advantages for students using PBL have been identified as being placed in an active role, allowing them to reflect and identify their limitations, when given 'real world' situations to explore, then it could be argued that this enables them to be responsive to the needs of the business they have chosen to work in.

Educational development is about change and the changes taking place should somehow enhance the employability of the students leaving Higher Education Institutions in order to take their place in the workplace. There is sufficient evidence in the literature that most students learn better when they are collaborating, providing and receiving information, supporting and encouraging, resolving conflicts and communicating with others. The classical problem-based learning model is organised using facilitated groups of students, (Barrows and Tamblyn 1980). Students usually perform individual research, teach each other and apply their shared learning to solve the problem in the trigger or scenario. However, this raises a number of issues related to the following process elements of learning:-

- what should be the ideal group size,
- how is the facilitation taking place,
- what resources are available and
- what research or evidence do the students use to inform their debate and discussion?

One of the attractive features overall for nursing educators of using PBL is the reflexive relationship that is developed between the process of learning and the learning outcomes generated. In other words, the ability of student and facilitator to make links between the theory and practice of nursing. The role of the facilitator and the group work, then, can enhance student learning. Placing students in groups and expecting nature to take its course however, will not work. Group members require the knowledge and skills to work their way through the group process. According to Meyers and Jones (1993), the criteria for successful group work requires the focus for the group activity to foster a sense of interdependence among the group members, encourage individual student's accountability to the other group members and the facilitator, to provide frequent face-to-face interaction for promotion of team

goals and allow for the development of social skills needed for collaboration. This process should also take into account the need to complete the cycle with critical analysis of the group process (Risdon, Braley & Gordon, 2002). These factors are already in place within the nursing curriculum here at Salford; see Salford Process and the 'Onion Model' for further structural information, http://www.uclan.ac.uk/sonic

The Students Online in Nursing Integrated Curricula (SONIC) is a three year project, which has developed web-based resources to support students using PBL as a teaching and learning methodology. The technology focuses on the development and use of animations and photographs amongst others. When considering the application of on-line technologies to PBL the question arises as to whether the technology would somehow undermine either the process of learning and/or diminish the quality of learning outcomes. This paper will describe how the SONIC project, where on-line learning technologies are used to frame both the process of learning (how students conceptualise and make decisions related to the problem/trigger) and the outcomes (what students learn) can help to make the link between the two more explicit to both the learner and the facilitator. The focus will be on the technological and pedagogical issues that have emerged around using web-based resource enriched scenarios in conventional face-to-face teaching and learning. Whilst the project was not intended to be PBL online, an 'e-learning meets PBL' scenario has arisen.

Background

The SONIC project is part of the Higher Education Funding Council for England (HEFCE) Fund for the Development of Teaching and Learning phase 4 (FDTL-4) and commenced in November 2002; it is due to complete in October 2005. Nursing departments or schools in four universities (University of Salford, University of Northumbria, (UNN) John Moores University, (JMU) Liverpool and the University of Central Lancashire (UCLan)) are running it jointly, thereby allowing the opportunity for partner institutions to develop resources. Before the bid was submitted, a number of commonalities were in place, such as all the partners were experienced in using PBL or Enquiry based learning as a methodology; all were using a pre-registration nursing curriculum based on the recommendations of the 'Making a Difference' (Department of Health 1999) document; and all had developed e-learning to a greater or lesser degree in their modules using the platforms of either WebCT or Blackboard as part of the teaching and learning strategy. In July 2001 one of the lecturers at Salford had implemented a problem-based learning/special interest group and the germ of an idea had begun to grow about collaborating on a project that would enhance learning with PBL.

The module that the students are involved in here at Salford is the 'Essentials of Children's Nursing' which sits in semester two of year two for the Diploma in Nursing. The module facilitators are using Blackboard 6 as the platform for some of the additional resources. The resources produced would therefore need to be meaningful to the student and provide a value-added experience to their learning.

Infrastructural and Cultural Issues

Support for the project has come from the four institutions with their commitment to an inclusive higher education environment. There is a steering committee attached to this project, with membership of Deans and Heads of School, which has been instrumental in offering constructive and guiding criticism to the operational committee in order to enhance future developments. Each institution has widening participation strategies in place to encourage the recruitment of a more diverse range of students.

Experience has demonstrated that nowadays, students are increasingly choosing to learn in a number of diverse settings apart from the classroom such as computer laboratories, informal groups and their own homes. This requires a learning strategy that is more flexible and less time-bound i.e. by providing information that is accessible from any 24/7 networked computer, students can choose times to suit themselves and they can return to the site as often as they like. PBL encourages a student centred approach to learning and the SONIC project team would argue that this has 'added value' to their learning through the web-based resource enriched learning environment, as evidenced by the student evaluations. For example, aspects that students reported on favourably were the growth in confidence in using web-based resources, particularly if they had not been in an education environment for some time; they also liked being able to control their learning in terms of time and space; and also that it was 'fast click' information but related to what they were exploring as part of the trigger.

Technological Issues

However, as problem-based learning is a student-centred pedagogy the production of resources for students to use is contentious within the literature, with many authors arguing that students should locate their own resource material, instead of having ready access to sites and material that

may enhance their learning, (Woods 1994). However, certain factors needed to be taken into consideration with students undertaking the 'Making a Difference' curriculum, (DoH 1999). The amount of contact time had been halved, with 50% of the student time being spent in the practice arena, (UKCC 1999). Anatomy and physiology was notoriously an area that needed greater allowance for student understanding and depth of knowledge to take place in order to apply this in the clinical setting. A balance therefore was struck in the project team that it would be important to provide resources as an on-line facility, but these would not necessarily be tailored to a particular curriculum nor would they be utilisable without facilitation or further independent study. Two key factors, learning capabilities and diverse backgrounds of the students entering higher education in the 21st century, were instrumental in deciding to provide resources and the style of the resources.

Nursing represents one of the largest subject areas in Higher Education and current health policy is forcing curriculum planners to look for innovative and flexible approaches to delivery of pre-registration and post-registration programmes. There are in excess of 70,000 students enrolled on nursing programmes in over 70 universities and colleges (QAA, 2001). Nursing courses traditionally take place over three forty-five week years in order to meet the 50% practice component laid down by the professional body i.e. the Nursing and Midwifery Council (NMC). However this does reduce the amount of theory time for students in the Higher Education Institution. Many students already used web-based resources and the project aimed to exploit this by providing a ready made resource which would enable them to meet their learning outcomes. Nursing students are now more commonly sharing their learning with health care professional colleagues and the five scenarios used have also been designed to meet the multiprofessional agenda, (Barr 1994). However, whilst the resources would support their learning, it was deemed important that the students would continue to engage in face-to-face meetings in their PBL groups and carry on meeting their facilitators in order to discuss any issues raised through the involvement in this online learning.

The technical support for the project was provided by a physiology animator and a web developer situated in the lead university's Learning Development Unit at UCLAN. Colleagues are able to advise when required, including a Student Disability advisor; technical knowledge colleagues are also available on partner sites and there is an External Evaluator, who is a Learning Developer.

Early in the project, the decision was taken by the Steering Committee as to which scenarios to use and to create some form of parity across the institutions. Currently all the scenarios form part of the first module in the second year of the programme at level two. This choice is one of convenience and the scenarios are suitable for study at any level and by a number of different students. The learning outcomes can be changed and modified to reflect the level that students may be at in the programme.

Scenarios

The modules within which the scenarios are situated are specific to the institution and all module information is posted within the VLE (Virtual Learning Environment - WebCT at UCLAN and Blackboard in the other partner institutions). Each VLE contains a link to the project website www.uclan.ac.uk/sonic , where the resources attached to the scenario can be accessed.

The resources are designed specifically to try to encourage the students in their learning, by seeking further information through the strategic questions attached to each scenario. Animations, accessed through Flash Player 6™ are included, as well as video clips, photographs and self-assessment tools. The development of these resources has sometimes been the cause of intense discussion and demonstrates the need for academics and technologists to have an understanding of the requirements of either party involved in such joint ventures. In particular, the project highlighted a number of novel challenges facing the developer and academic when specialist knowledge is being reproduced in the form of an animation. There was an overarching need to ensure that the information was factual and this led to outside specialist input being sought from a paediatric physiologist and radiologist.

Bobby Braithwaite	Child Health	Newborn with cardiac problems	University of Salford
Daniel Makepeace	Learning Disability	Teenager with epilepsy	University of Northumbria
Roger Gascoigne	Mental Health	Young man with schizophrenia	University of Northumbria
Janice Battersby	Adult	Woman requiring surgery	Liverpool John Moores University
Peter Murphy	Adult	Elderly man with nutritional issues	University of Central Lancashire

Pedagogical issues

Evidence to support our approach for developing this particular resource came from the notion that students are required to gain information from a variety of sources when engaged in PBL and there is a need to explore the 'lived experience' of PBL. This experience often involves downloading information from web pages frequently leading to surface as opposed to deep learning (Marton and Saljo 1976). To encourage the latter Biggs (2003) states that there must be a judicial use of appropriate educational technology, rather than information technology, a similar sentiment previously expressed by Watson (2001). Reproducing lecturers' notes can sometimes be meaningless and using educational technology enables students 'to be engaged in a variety of relevant learning activities, sometimes more easily than conventional teaching' (Biggs 2003:215). At the same time student assessment and its alignment with PBL processes needs refining (Murray and Savin-Baden 2000). Thus the provision of some form of formative assessment was viewed as crucial to engaging the student in this particular type of learning.

The uses of web-based materials are particularly congruent with PBL, but Savin-Baden (2003:97) identifies a number of pertinent issues around this notion. For example, combining e-learning and PBL requires a model of computer-mediated collaborative problem-based learning, with its focus on scenarios and depth of understanding, open-knowledge building and the inclusion of all participants in the broader knowledge community. Research undertaken by Savin-Baden (2004) exploring the underlying pedagogy associated with the project, demonstrated that a content and support model had been employed, with descriptive knowledge being generated. The report has been instrumental for all project members, in the continuing development and evaluation of the resources in order to assist the students in their development of procedural and personal knowledge too (Savin-Baden 2003).

Conclusion

Information technology can promote success in PBL courses and the integration of PBL and instructional technology is important for student learning. Students need to hone their skills as problem solvers in readiness for the workplace; and PBL is an excellent tool for developing those skills. In addition, students must develop a facility in using information technology tools in solving those problems. When students leave classrooms for the real world, most will find themselves in workplaces where information technology is embraced as an essential tool. PBL provides an excellent context for the development of problem solving and technology skills that will serve them well in their careers.

The possibilities and benefits of the integration of PBL and technology expand each semester as technology advances and ideas for integrating it with PBL evolve. Many lecturers have adopted course Web sites and Web pages to organize their courses and to deliver course materials to their students. Web authoring tools have become easier to use and growing numbers of technology support staff and centres on campuses have made it easier to publish materials on the Web. The use of the Web in PBL courses plays a critical role in their success in two major areas: (a) the organisation of the PBL course and (b) the use of online resources to support a PBL course.

Looking beyond traditional content objectives, PBL and information technology together provide exciting new contexts for achieving active learning and technology objectives associated with higher education. Integrating technology and problem-based learning is a winning strategy and is well worth the investment of time and energy to benefit student learning in our classrooms and courses

The resources for SONIC have already made an impact on student learning, with positive evaluative comments about how much they have learned. Ongoing developments as a result of these evaluations include the addition of audio and student 'snapshots' about how they used the resource. The global use of the resources has also been demonstrated through e-mails and conference presentations. Discussions currently centre on sustaining the resources and exploring ways of extending the funding to continue to support students in this form of learning.

References

Baume, C., Martin, P. Yorke, M. (eds.) (2002) Managing Educational Development Projects. London. Kogan Page.

Barr, H. (1994) Perspectives on shared learning. London: CAIPE

Biggs, J. (2003) Teaching for Quality Learning at University. 2nd ed. Buckingham: The Society for Research into Higher Education and Open University Press.

Blais, D. (1988). Constructivism--A theoretical revolution in teaching. Journal of Developmental Education, 11(3), 2-7. (ERIC Document Reproduction Service No. EJ 365 130)

Boud, D. (1985). Problem based learning in education for the professions. Sydney, HERDSA

Department of Health (1999) Making a Difference: Strengthening the Nursing, Midwifery and Health Visiting Contribution to Health and Health Care. London: HMSO

Marton, F. & Saljo, R. (1976) On qualitative differences in learning I: Outcome and Process. British Journal of Educational Psychology 46, 4-11

Murray, I. & Savin-Baden, M. (2000) Staff development problem-based learning. Teaching in Higher Education. 5, (1), 107 – 127

QAA (2001) Subject Overview report: Nursing [online] http://www.qaa.ac.uk/revreps/subjrev/All/QO11 2000.pdf [2 May 2002]

Savin-Baden, M. (2003) Facilitating Problem-based Learning: Illuminating Perspectives. Buckingham: Open University Press/SRHE.

Sambrook, S. and Stewart, J. (2000). "Factors influencing learning in European learning orientated organisations: issues for management." Journal of European Industrial Training 24. (2/3/4) http://www.emerald-library.com/brev 324bm1.htm.

Savin-Baden, M. (2004) Pedagogical evaluation of Students on-line in Nursing Integrated Curricula (SONIC) (unpublished report)

United Kingdom Central Council (1999) Fitness for Practice. The UKCC Commission for Nursing and Midwifery Education. London. UKCC

Watson, G.H. (2001) Problem based learning and the three C's of technology. Duch, B. J., Groh, S.E. & Allen, D. E. (eds.) The Power of Problem – Based Learning. Sterling Virginia: Stylus

Woods, D. R. (1994) Problem-based learning: How to gain the most from PBL.

Donald R Woods. McMaster University Bookstore.

Enterprise and Entrepreneurship: What and Where are the skills?

Jane A K Silver
j.a.k.silver@salford.ac.uk
Business Creation Unit

Claire MacLean
c.maclean@salford.ac.uk
Academic Enterprise

Introduction

This paper scopes the background to, and outlines ongoing work being undertaken in the University of Salford, in relation to the development of graduate skills and attributes in the field of enterprise and entrepreneurship.

The enterprise and entrepreneurship skills agenda is driven by European and national initiatives. The Department for Trade and Industry (DTI) spear-headed the recent formation of the National Council for Graduate Entrepreneurship (NCGE), regionally initiatives are led by the Regional Development Agencies (RDAs), and pan-regionally in the north of England, by the development of the 'NorthernWay' enterprise strand.

The pressing demands of learners coupled with UK and European supported projects (ENTLEARN, Salford Enterprise Learning Project) for community, business and future entrepreneurs have led to the conclusion that the enterprise skills that our students and learners require need to be identified and evidenced. Furthermore, these skills or attributes should contribute to learners' employability at the outset of their career, whilst encouraging entrepreneurial venture founding and innovation and promoting business growth and "intrapreneurship" in the labour market.

Methodology

The paper is divided into two parts:

- the first looks back in some detail at skills agendas, employer needs surveys and studies which have informed the evolution of thinking regarding enterprise attributes and learning;
- the second section briefly describes how the authors have begun to apply existing skills maps to enterprise in the curriculum at the University of Salford in two stages: firstly, to undergraduate and postgraduate enterprise modules and secondly, to non award-bearing programmes, specifically addressing the needs of employers, new business start-up and future entrepreneurs.

Once these two stages have been completed the two sets of maps will be cross-referenced to explore the potential of, and to develop a framework for entrepreneurial teaching and learning. Ultimately, our aim is to develop a more focused tool for mapping programmes of study against appropriate criteria.

Part One – Contextualising Enterprise and Entrepreneurship

The Policy Perspective

In the White Paper 'The Future of Higher Education' published in 2003 Charles Clarke the then Secretary of State for Education commented that as the pace of global change was accelerating universities needed to '…mobilize even more effectively the imagination, creativity, skills and talents of all our people…' thereby '…using knowledge and understanding to build economic strength and social harmony…' (DfES 2003). He also urged that universities make '…better progress in harnessing knowledge to wealth creation…' and '…help turn ideas into successful businesses…' (DfES 2003).

In the light of these national objectives institutions were encouraged to develop work focused foundation degrees whilst it was argued that graduates studying in traditional academic disciplines equally needed to develop the 'right skills to equip them for a lifetime in a fast changing work environment'. Thus continued encouragement was given to efforts to 'integrate the skills and attributes which employers need, such as communication, enterprise and working with others, into higher education courses, on a subject-by-subject basis' (DfES 2003, Sections 3.22, 3.23).

The government established a Skills Alliance comprising of representatives from the Confederation of British Industry, Trade Union Congress, Small Business Council and the Learning and Skills Council with the remit of overseeing the implementation of a National Skills Strategy. Its aim was and continues to be '…to ensure that employers have the right skills to support the success of their businesses, and individuals have the skills they need to be employable and personally fulfilled…' (Skills Alliance, 2004). Evidence emanating from the Alliance suggests an '…expanded flow of young people and adults…' gaining various levels of skills and qualifications through colleges and other training providers. Under the auspices of the Alliance employers are supported by a reformed business support network, by the governments' Innovation Strategy and by new leadership and management programmes targeted at SME Managing Directors (Skills Alliance 2004).

The Evolution of the 'Skills' agenda

BTEC Common Skills (1986)

The Business and Technology Education Council (BTEC) was originally formed to 'advance and promote the quality and availability of work-related education for all those in, or preparing for, employment. The Councils fundamental aim is that students on BTEC programmes of study should develop the skills, knowledge and understanding necessary for their careers, in their own, employers' and the national interest' (BTEC, 1992).

In the autumn of 1986 'common skills' including self development, interpersonal and communication skills, problem tackling, quantitative/numeric, IT skills and skills related to design and visual discrimination became an integral part of BTEC First, National and Higher National qualifications. In total some forty-five individual skill objectives were identified for assessment across the curriculum and students had to be provided with a comprehensive record of their skills acquisition as evidence of employability. At this time the majority of BTEC Higher National courses were delivered by the former Polytechnic sector, rather than universities. However, the 'Enterprise in Higher Education' initiative extended the principles of BTEC to every individual seeking higher education qualifications.

Enterprise in Higher Education (EHE) 1987

The EHE, launched in 1987 by the Secretary of State for Employment, articulated two broad aims:

- Every person seeking a higher education qualification should be able to develop competencies and aptitudes relevant to enterprise.
- These competencies and aptitudes should be acquired at least through project based work, designed to be undertaken in a real economic setting, which should be jointly assessed by employers and students' higher education institutions. (Training Agency, 1990)

On the face of it these aims were relatively interventionist in prescribing the fundamental mechanism by which enterprise should be embedded in the HE curriculum. Whilst universities were advised to incorporate these aims into their academic programmes the problem was that they were not accustomed to having agendas imposed upon them by external agency and this in itself raised fears that academic and intellectual competencies might be compromised. Arguably such fears were unwarranted since enterprise skills had not been defined for university undergraduates unlike their BTEC counterparts despite the fact that both groups were required to evidence acquisition of such skills. Nonetheless, the climate for change in universities may well have been influenced by the gap between perception and reality.

According to Bridge et al (2003), in the absence of prescribed definitions universities generally adopted a relatively broad characterisation of enterprise based on the fundamental notion of personal transferable skills. These were articulated by one university as:

- Communication Skills written reports, oral presentation, media awareness
- Group Work Skills – leadership, teamwork, group dynamics
- Personal Skills – self-awareness and self-appraisal
- Organisation Skills – time management, task management
- Interpersonal Skills – listening, negotiation and persuasion, mutual confidence and respect.
- Problem Solving Skills – problem analysis, creative thinking and decision making
- Social and Community Awareness – sensitivity to others, moral and ethical bases of decision making
- Resource Management Skills – economic awareness, costing and budgeting. (Bridge et al, 2003)

It is clear that whilst encompassing largely the same areas and delivering the same outcomes as the BTEC skills identified in 1986 the definition of enterprise skills articulated by the HE sector was far more detailed and comprehensive.

BTEC Common Skills (1992)

In 1992 BTEC revised their skills definition in response to 'a number of ideas and initiatives from different sources which had been focussing on the skills essential to the future of industry'. These sources included the Training Agency Technical Advisory Group Notes 1-6 and the CBI Task Force Report 'Towards a Skills Revolution a Youth Charter' published in November 1989.

The revised BTEC skills included:
- Managing and Developing Self
- Working with and Relating to Others
- Communicating
- Managing Tasks and Solving Problems
- Applying Numeracy
- Applying Technology
- Applying Design and Creativity.

These revised skill definitions were more meaningful than their predecessors in the sense that the inclusion of indicative verbs clarified understanding regarding the level of cognitive engagement involved in the acquisition of graduate attributes. These skills were in turn, broken down into eighteen competencies and seventy-nine performance criteria, against which students were to be assessed. As before, the student at the end of their period of study, was to be provided with a record of their skill achievements which when presented to prospective employers evidenced graduate attainments relevant to the world of work.

Key Skills in Higher Education (1997)

In the light of accelerated globalisation and economic and social change the Dearing Committee (NCIHE 1997) anticipated a rising demand for highly trained graduates in the workplace who could demonstrate a wide range of skills associated with lifelong learning. Four skill areas were considered to be 'key to the future success of graduates, whatever they intend to do in later life'. These were articulated as:

- Managing Own Learning: set targets, criteria, plan, monitor, record, reflect
- Working with Others: plan, agree objectives; maintain relationships, review
- Communication: discuss, present, read, collate, synthesise and summarise
- Problem Solving: identify, generate solutions, select, implement, evaluate
- Numeracy: multi-stage calculations, present, interpret, explain results
- Information Technology: collect: record; obtain; present; exchange; evaluate uses of IT.

(NCIHE, 1997:9.17)

The 'Skills gap': alternative perspectives and inconsistencies

Despite the developments outlined above employers have continued to voice their concern that graduate skills should be 'better fitted for work' (DfES 2003:5.13) and addressing the issue of 'fit' the DfEE in 2000 set up The National Skills Task Force (NSTF) which identified three main types of skills necessary to functioning effectively in the workplace:

- Generic skills – transferable employability skills used across a large number of different occupations.

- Vocational skills – occupational or technical skills needed to work within an occupation or occupational group.

- Personal attributes– the characteristics employers say they most often look for in an applicant, when recruiting (eg. Motivation, judgement, leadership)'

(Skills for all: Research Report from the National Skills Task Force 2000).

On its establishment the NSTF embarked upon a comprehensive review of the incidence, scale and commercial impact of different kinds of skill problems experienced by employers. A telephone survey of 23,000 employers was undertaken and approximately 4000 employers were interviewed. These two surveys presented a nationally representative sample of all establishments in England with 5 or more employees. In addition, intensive case studies were carried out in 95 workplaces in seven different industries (banking and finance, telecommunications, hotels, food processing, engineering, health and social care, local and central government) (NSTF, 2000:85). The Task Force found that those organisations reporting skill gaps said that their employees lacked a mixture of generic and vocational skills and that the generic skills most in demand, were those of communication, team-working and problem solving (NSTF, 2000:14).

Meager (1986) has noted that in similar surveys conducted in the 1970's and 1980's, two very different approaches to articulating the 'skills gap' were adopted by employers. These were:

- An 'employer perspective' which defines shortages in terms of recruitment difficulties experienced by individual employers (even if the causes of difficulty are purely internal to the firm, e.g. unwillingness to pay competitive salaries); and

- A 'market perspective' which recognises shortages only if there are insufficient 'appropriate people in the market, to fill existing posts at going wages'.

However there may be inconsistency in the ways terms are used in relation to skill deficiencies. For example, Green and Ashton (1992) note that skill shortages might manifest themselves in external recruitment difficulties but these are often conflated with internal skill deficiencies, that is, gaps between firms' current skills levels and some perceived optimum. Similarly, market-based definitions of shortages which date back to early studies expect 'true' shortages to manifest themselves – eventually, if not immediately - in upward adjustments of relative salary levels, for the skill or occupation in question (Blank and Stiggler, 1959; Arrow and Capron, 1959). Other problems in the analysis of skill shortages are discussed by Hart (1990) who distinguishes

between ex ante (anticipated) skill shortages – which employers may seek to counteract in a variety of ways – and ex post (actual) skill shortages, which may have adverse effects on company output and performance.

Given the potential for ambiguity and inconsistency in any discussion of skill deficiencies the Task Force sought to define the parameters of the debate in concise and fairly unequivocal terms, defining external skill shortages as recruitment difficulties arising from an excess of demand over supply of required skills in the external labour market and internal skills gaps as a divergence between firms' current skill levels and those which are required to meet firms' business objectives.

The main occupations found to be associated with external skills shortages were those where relatively long periods of education and on-the-job training are required in order to acquire requisite skills and knowledge, notably craft and skilled occupations (22% of all external skill shortages) and associated professional occupations (17%). The next most prominent occupations where external skill shortages were reported, were sales (13%) and personal service occupations (11%) (NSTF, 2000:98).

One in five employers recognised that there were internal skill gaps in their operations characterising them in terms of a lack of 'desired mix of generic and vocational skills'. Almost half of the establishments with skill gaps acknowledged that these were partly due to their own failure to train and develop staff (NSTF, 2000:120). The development of new products, adoption of new technologies and working practices were all identified as factors driving up the skills gap. This was in turn, to lead to difficulties in 'meeting customer service objectives and required quality standards along with increased operating costs' (NSTF, 2000:120). The Report stated that:

'a key factor driving up skill requirements in a range of manufacturing and service industries is the intensity of product market competition which forces many companies to make strategic changes in product mix and/or their use of technology and work organisation in order to survive' (NSTF, 2000:120).

The findings of case study research suggested that human resource strategies tended to lag behind product strategies and organisations seeking to move to higher value added product strategies, confirmed that it was the 'generic skills that were of growing importance for business performance, principally team-working, customer-handling and communication skills'. Significantly, about four in ten respondents who were looking to upgrade product or service quality in some way, said that new or additional literacy and numeracy skills would be required. This evidence was seen to confirm the continuing prevalence of deficiencies in basic skills' (NSTF, 2000:121).

Concurrent with these findings the Centre for Research into Quality (CRQ) at the University of Central England in Birmingham published a report entitled: 'What skills and attributes do employers want? – Graduates' Work'. This report suggests that for employers possession of a range of skills and personal and interactive attributes are at least as important, if not more so than the possession of qualifications. Personal attributes include the following:

- Intellect – Analyse, criticise and synthesise information in order to solve problems
- Knowledge – Basic principles rather than specialist knowledge
- Commercial awareness – Appreciation of workplace culture
- Willingness to learn – Ability to learn throughout life
- Flexibility and adaptability – To respond to change, pre-empt and lead change
- Self-regulatory skills - Self-discipline, timekeeping, ability to deal with stress, to plan, prioritise workload and to juggle many tasks at once
- Self-motivation – self-starter, tenacious , determined
- Self-assurance – Self-confidence, self-awareness, self-belief, self-direction and self-promotion.

The Interactive attributes most employers want include:

- Communication skills – Formally and informally, verbally and in written format with a wide range of people, both internal and external to the organisation
- Interpersonal skills – Ability to relate to and feel comfortable with people at all levels and to be able to make, maintain relationships as circumstances change
- Team working – Ability to work effectively in teams, often more than one team at once, and to be able to re-adjust roles from one project situation to another, in an ever-shifting work situation.

The report of the Centre for Research into Quality concluded that 'innumerable studies have shown that a set of transferable skills or competencies including communication, team working, problem solving, leadership, numeracy, self-confidence, willingness to learn and flexibility are widely required by employers generally – with little change in the list over time.' The report noted that whilst historically there had been a slight shift in emphasis, reflecting preferred

ways of working, essentially very little had changed since the 1970s and '80s.
(undated,http://www.uce.ac.uk/crq/publications/gws/gwsskills.html)

The NSTF and CRQ reports taken together may be regarded as representing the 'establishment view' of the skills that graduates require in order to perform effectively in the workplace and to some degree this view has been reinforced by subsequent research involving graduates themselves. For example, Zsuzsa Blasko (2002) analysed the opinions of 3,500 UK graduates regarding skills acquisition during their course of study. Students were asked to identify the skills they thought they had acquired during their course of study and the skills they felt they still needed to gain. The views of the graduates were then set against the views of employers. Generally, the picture presented by graduates mirrored positively that of employers. Higher Education seemed to be equipping graduates with skills for employment, which 'might lead one to applaud the Dearing Report and the effectiveness of the initiatives on graduate employability that followed its publication'. However, the graduates in the study reported by Blasko, left higher education in 1995, two years before Dearing reported thus '…rather than indicating the success of recent employability initiatives, the results of this study suggest that they might not have been needed…' (Blasko 2002).

The conclusion of the research work undertaken by Blasko was that by 'Concentrating on potential 'skill gaps' no major discrepancies between skills possessed and skills required are evident in the UK. Although a perfect match between skill-level at the time of graduation and the extent to which the skill is required in the job done four years later is relatively rare, there seems to be no reason for major and general concerns about the key skill development of higher education students. (Blasko, 2002).

A.J Hesketh (2000) had two years earlier come to similar conclusions arguing that 'there are some striking findings, not least the problematic status in the eyes of employers, of the skills Dearing describes as 'key' and whilst… the skill requirements of employers are clearly changing, one might even say converging…the claim of an emerging 'skills gap' in highly qualified personnel was far from borne out from the data collated in the survey…' Hesketh also notes that 'The policy rhetoric has been powerful: continued investment in the expansion of higher education is seen as essential, if the economic well being of both individuals and the nation is to be maintained.' He suggests that the changes in the modern economy have led to an equivalent change in the 'nature, scope and skill requirements of labour markets' and whilst all these problems cannot be placed at the door of higher education, 'employer dissatisfaction with the attributes of the individuals they recruit from our universities cannot be ignored'. The development of Foundation Degrees which are more vocationally (employer) orientated may be regarded as a response to this dissatisfaction on the part of the university sector as a whole.

Finally the most recent work of the Learning and Skills Council (2004) which conducted a National Employers Skills Survey (NESS) in 2003 is instructive. The survey 'was the largest of its kind ever commissioned, involving 72,100 interviews with a representative sample of employers in England'. It gives estimates of 'skills deficiencies and workforce development for each of forty-seven local Learning and Skills Councils and for twenty-seven industries'. The survey found that at any one time there were a quarter of a million job vacancies that were hard-to-fill and 135,000 that cannot be filled due to skill-shortages in the labour market. The two sectors with the largest skill gaps were sales and customer service occupations and elementary occupations. By comparison the professional occupations stood out as having disproportionately few skill gaps relative to the number of people employed in this category (Learning and Skills Council, 2004:Section 47). One would expect university graduates to enter many of these professional occupations. Section 50 of the Report identified a number of causes of skill gaps including lack of experience and motivation, failure to train staff, employees not keeping up with change, recruitment problems and high staff turn-over. The specific skills that employers said were lacking were communication (61% of responses), customer handling (55% of responses), team-working (52% of responses) and problem-solving (47% of responses).

Internally, the impact of these reported skill shortages, were likely to result in loss of business and delays in introducing new products. Externally skill gaps in the labour market presented the organisation with different problems. Many employers did not know how to react to an external skill shortage.

Locating Enterprise Skills?

Enterprise skills are implicit in published documents - as evidenced above but no clear single definition is given of these skills. Bridge et al (2003) discuss the overlapping of enterprise competencies and entrepreneurial traits.

The list of skills and qualities that they provide is as follows:

- Dedication • Creativity
- Technical competence
- Decision-making
- Confidence • Sensitivity to changes
- Goal-setting • Innovation
- Networking and contacts
- Planning • Risk-taking
- Developing relationships
- Responsibility • Insight
- Project management.

(Bridge et al, 2003:80)

It can be seen that the list provided by Bridge et al (2003) combines 'personal qualities, set alongside skills and individual orientations' and this list differs greatly from the skills lists that are currently being used in the development of programmes at the University of Salford.

Allan Gibb (2004) provides an alternative perspective arguing that there needs to be a new paradigm for the basis of entrepreneurship education. He comments that this approach is unlikely to come from university business schools and that there needs to be an 'organisational revolution' which can be managed in the university as a whole. The approach adopted needs to be broadened from 'a focus on entrepreneurship towards a wider concept of enterprise'. He agrees that there is 'no absolute list of behaviours' that can be described as entrepreneurial and comments that the available lists usually include behaviours (which can be observed), attributes (which are deemed to be part of the personality) and skills (which can be developed). The table below illustrates each of these categories.

Behaviours	Attributes	Skills
Seeking Opportunities	Motivation to Achieve	Negotiation
Grasping Opportunities	Self confidence and self-belief	Persuasion
Fixing Things	Creativity	Selling
Bringing Networks Together Effectively	Autonomy and High focus of control	Proposing
Taking Initiatives	Hark Work	Project Management
Ability to take reasoned risks	Commitment	Time Management
Goal Perserverance	Determination	Strategising
Strategic Thinking		Creative Problem Solving

Adapted from Allan Gibb, 2004:25

Gibb also provides a guide as to how these entrepreneurial behaviours, skills and attributes can be aligned with appropriate teaching methods. We argue that the model for enterprise skills, behaviours and attributes presented by Allan Gibb (2004) meets the challenges of the employability agenda in higher education and can be readily adapted to develop an enterprise skills map against which course provision can be evaluated.

Summarising the context

In response to the need to develop a graduate labour force that embodies the requisite 'intellectual capabilities, and the flexible and adaptable skills and qualities which were once only associated with a small graduate elite' the government expanded higher education provision in the 1990s and the Enterprise in Higher Education initiative provided funding to a number of universities to develop transferable skills in course curricula (Hesketh, 2000; DES, 1990).

There is, however a fundamental problem with the definitions of what employers want to see in their graduates. Various sectors of employment require different skills and there is a lack of clarity in the language that is used to define the skills (Hesketh 2000).

While, on the basis of Hesketh's data, it is true that employers are keenly interested in graduates with good communication skills and the ability to learn new material, they are less concerned with the numerical and information technology (IT) skills of graduates, (the other two Dearing key skills). He suggests that 'Dearing may have been better advised to emphasise the development of teamwork and self-management skills', rather than the skills of numeracy and information technology. The NESS (2004) findings tend to support those of Hesketh.

Part Two: The University of Salford's response

A Universities UK and CSU (2002) report recommended that inter-alia institutions should:

- Develop an holistic approach, facilitating the linking together of different aspects of employability
- Continue the excellent work to embed employability enhancement in curricula. This might be facilitated through revising course structures, curricula content and teaching methods, and ensuring staff are supported through this process.

We argue that it is through the combination of a pedagogical approach to enterprise learning supported by relevant theory, and the interaction with business and the community through initiatives, that the Higher Education sector as a whole has had various levels of success in providing a unique service to all its staff, students and external partners. In this respect the University of Salford is striving to offer enterprise learning not only within the curriculum in support of employability as outlined above, but also through practical enterprise initiatives that address real issues in the commercial environment. Salford offers many services to local businesses including training and consultancy by tapping into the expertise of its leading academics. It is through these initiatives that strong links with local SME's have been created. This in turn has benefited the university by bringing in real life experience and expertise, reflecting the UUK recommendations above.

Local businesses also provide mentoring to students and offer practical advice on all aspects of managing an organisation. Businesses are provided with a bespoke learning programme equipping them with the necessary techniques and skills to manage innovation, creativity and enterprise in their organisations.

At the initiation of the HEIF funded Enterprise Learning Project, an audit of Enterprise activity at the University of Salford yielded an astonishing variety of teaching methods and assessment techniques, which contribute to the enterprise and employability agenda. However, closer assessment demonstrated the core attributes to be related or even replicated under different initiatives. As a result, a further exercise was undertaken to map undergraduate and postgraduate entrepreneurship modules using the existing Key Skills maps, which had been developed under the Salford Key Skills Project and its Implementation Strategy. This alone has resulted in a number of developments in entrepreneurship provision. A new skills map for masters level programmes was generated, drawn from the subject benchmark statement for business related courses. In addition, the learning outcomes for award bearing activity have been cross-referenced against a number of non-award bearing programmes, for employers, new business start-up and future entrepreneurs. These range from funded business training and development programmes to academic and student support schemes.

A table comparing the various skill initiatives was constructed to draw out commonality of skills. The employers' skill requirements are tabulated in the same format so that a total comparison can be made of the skills that have been included in university programmes of study with the requirements of employers. The challenge for Salford now is to look closely at the evolution of the skills agenda, reflected in the needs of our students, their future employers and the attributes required for innovation and venture founding and formulate a skills map to facilitate and influence future provision – award and non-award bearing.

Making a significant intervention into how enterprise skills are developed will not be without its challenges. Although the stand-alone accredited modules have been integrated into certain degree programmes it remains a challenge across some courses. The university has such a diverse range of disciplines and areas such as the Health Care Professions have very full and structured degree programmes, effectively it would be impossible to simply introduce a new module into an existing programme.

The aforementioned Enterprise Learning Project established a project steering group to review the audit of current enterprise activity and ascertain the best means to position enterprise into the core of programme provision in each faculty. Research is still being carried out within the four faculties to identify existing academic enterprise activity. There will have to be considerable co-ordination between the Science Enterprise centre, academic staff, Heads of Schools and Academic Enterprise if this is to prove successful.

The next phase of the work is to support this step change by constructing a combined enterprise skills map, using the work of Allan Gibb as a framework and reflecting the requirements of future entrepreneurs, employers, students and the university.

References

Arrow, K. and Capron, W. (1959), Dynamic shortages and price rises: the engineer-scientist case, Quarterly Journal of Economics, Vol.73: 292-308.

Blank, D. and Stiggler, G. (1959) The Demand and Supply of Scientific Personnel, New York: National Bureau of Economic Research.

Blasko, Z. (2002) Key Skills: The Graduate Perspective, Centre for Higher Education Research and Information, Digest Supplement. The Open University.

Bridge, S.,O'Neill, K., Cromie, S. (2003) Understanding Enterprise, Entrepreneurship and Small Business. Basingstoke. Palgrave.

Business and Technology Council (BTEC) (May 1992) Common Skills and Core Themes. London: Business and Technology Council.

Centre for Research into Quality at UCE, Birmingham. Graduates Work

(http://www.uce.ac.uk/crq/publications/gws/gwsskills.html)

Department of Education and Employment (DfEE) (2000) Skills for all: Research Report from the National Skills Task Force

Department of Education and Science (DES) (1990) Demand for Highly Qualified People. London: HMSO

Department for Education and Skills (DfES) (2003) The future of higher education, Crown Copyright. Cm 5735.

Department for Education and Skills (DfES) (2004) Skills Alliance: Skills Strategy Progress Report, Executive Summary .Crown Copyright.

Gibb, A (2004) Creative Destruction, New Values, New Ways of Doing Things and New Combinations of Knowledge: In pursuit of new 'Enterprise' and 'Entrepreneurship' Paradigm for Learning. 14th Annual IntEnt Conference- Proceedings. Naples.

Green, F. and Ashton, D. (1992), Skill shortage and skill deficiency – a critique, Work, Employment and Society, Vol. 6, No. 2: 287-301

Hart , P. (1990), Skill shortages in the United Kingdom, NIESR Discussion Paper (Old Series), No.169.

Hesketh, A.J. (2000) Recruiting an Elite? Employers' perceptions of graduate education and training. Journal of Education and Work, Vol.13, No.3: 245-271

Learning and Skills Council (2004) National Employers Skills Survey 2003(NESS): Key Findings. Institute of Employment Research. University of Warwick.

Meager, N. (1986), Skills shortages again and the UK economy, Industrial Relations Journal, Vol.17, No.3.

MacLean, C. Farrall, N. and Semmens, M, Enterprise & Entrepreneurship: A Case Study – Introducing Enterprise Learning and Entrepreneurship in an HE Environment, in line with Individual Needs, Regional and Economic Strategy, National and International Developments,. Internationalizing Entrepreneurship. IntEnt 2004

NCIHE (1997) Higher Education in the Learning Society. Report of the National Committee of Inquiry into Higher Education. (also known as the Dearing Report)

National Council for Graduate Enterpreneurship, www.NCGE.org

Skills Alliance (2004) Skills Strategy Progress Report. Executive Summary

Training Agency (1990) Enterprise for HE Initiative. London: TA.

Universities UK, (2002) Enhancing employability, recognising diversity. Universities UK.

Shaping the Future for Primary Care Education and Training

Karen Holland
k.holland@salford.ac.uk
Salford Centre for Nursing, Midwifery and Collaborative Research, Faculty of Health and Social Care.

The health and social care workforce requires a set of skills and a knowledge base to ensure that their employment results in the delivery of effective integrated services. To this end the 'Shaping the Future' project has set itself the task of determining what the evidence base is to be able to deliver on this agenda .

The three year project (2002-2005), led by the University of Salford and funded by the North West Development Agency (NWDA) arose as a result of a collaborative initiative between seven higher education providers within the north west region. The main intention was to develop, and gain a better understanding of, collaborative working in order to contribute to the north west region's knowledge base. This is also in keeping with the agreement between the Department of Health and the Higher Education Funding Council to work closely on developing collaborative partnerships. Defining collaboration however was not an easy task but for the purpose of the project Sullivan's (1998) definition was considered appropriate:

Collaboration is defined as a dynamic transforming process of creating a power sharing partnership for pervasive application in health care practice, education, research and organisational settings for the purposeful attention to needs and problems in order to achieve likely successful outcomes

(Sullivan 1998: 6)

To ensure successful outcomes the project is divided into a series of 'Work Packages'.

- Work Package 1 : Overall project management
- Work Package 2 : Systematic review of the literature
- Work Package 3 : Development of an evidence base tool for identifying best practice in education and training to deliver integrated health and social care
- Work Package 4: Developing a course finder tool and mapping of education and training provision in the North West to deliver integrated health and social care
- Work Package 5 : Primary care workforce views of education and training to deliver integrated health and social care
- Work Package 6 : Service users and carers views of education and training to deliver integrated health and social care
- Work Package 7 & 8 : Development and testing of an Education and Training Needs Analysis (ETNA) tool for integrated health and social care services
- Work Package 9: Dissemination of project development, delivery and outcomes

The project has already brought about many changes in partnership working, not only between the project team but also in the creation of the different learning communities. It has also provided the opportunity for enhancing the knowledge and skills of the project team itself and developing a better understanding of the way in which NHS Trusts and social services are coping with the plethora of changes to the management and development of the workforce. The outcome of the evidence from the systematic review highlighted six key areas that employers will need to be considering to deliver effective integrated services : team working, communication, partnership working, personal and professional development, practice development and leadership and, most importantly, role awareness. The recommendation is that all these need to be taken into consideration to provide a skilled and knowledgeable workforce to deliver effective integrated health and social care services.

Ensuring a future workforce that is employable as well as being employed, with the right skills and knowledge to deliver services, is also dependent on how these organisations work collaboratively for the benefit of the local communities.

References

Howarth, Grant and Holland (2004) Shaping the Future for Primary Care Education and Training project: as systematic review of the literature, University of Salford report.

Sullivan T J (1998) Collaboration – a health care imperative, McGraw Hill, New York

Reflections on the Power of Context: Engaging Authenticity and Active Participation in Workplace Mentoring

Leigh O'Regan
L.O'Regan@salford.ac.uk

Access Development, EDU

The Context

This enquiry initially bubbled to the surface in late 2003. It was fuelled by the need to engage with people, in organisations, represented in a series of in-depth case studies I have been required to collate and investigate, for the completion of my MBA. It has been informed by my own teaching, training, learning, counselling and mentoring practices. The findings resulting from this research have lead to the publication of two individual manuscripts, both currently 'in print' and due to be published in late 2005.

The Framework

A cross-disciplinary approach that: explores the conscious practice of workplace mentoring; addresses the difference between 'active participation' and authentic engagement with the practice of mentoring; and analyses of the longitudinal effects and influences of the embedding of an interdependent model of mentoring, within a broader organisational culture of the lifelong learning organisation.

The Exploration

Participation in the mentoring process is a journey in which we hop aboard and hope, not to reach our destination, but to explore the heart and soul of all that is on offer to us, for the duration. Authentic engagement is then the grease that oils the tracks, ensuring a smoother ride. The process of authentic engagement can be represented in three stages:

1. Creating common ground

- Deconstructing assumptions
- Engendering commitment

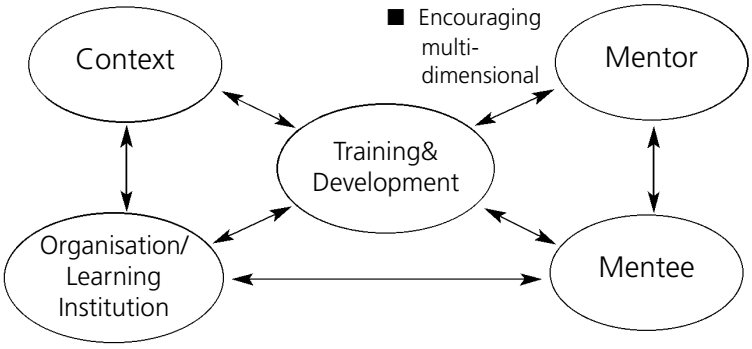

Figure 1: One conceptual representation of an interdependent model of mentoring

- Developing mutually beneficial models of practice

2. Initiating sustainable process

- Mentoring currently exists in a vacuum
- Maxi time and resource consumptive practice of continually training up cohorts of mentors, and then, when they move on, needing to train more.
- New innovation at hand
- Development of an interdependent model of mentoring practice- leading to the internal transformation of business structures; interconnection and integrity between the individual and the broader community, interior and external dynamics; the socio-cultural framework; and between the objective outcomes of the mentoring process, and the subjective experiential process of engagement

3. Optimising mentors and the mentoring process as an invaluable resource

- Innovative approach- 'train up' all employees to become mentors
- Embedded this process at the very beginning, before adulthood
- Ripple effect flows of developing culture of commitment and care
- Encouraging multi-dimensional models of interaction and engagement that highlight leadership and role model heightened levels of co-operation and innovation within the organisation
- Valuing and celebrating mentors as a powerful and dynamic organisational resource

The Findings: Uncovered Gems and Nuggets

- Everyone deserves to be a mentor!
- Mentoring is not a passive process- it is the co-creation of a dynamic dance between two people, supported by environment, internal and external systems and structures
- For participants, the experience of the mentoring process IS the engagement
- Proactively contextualising the mentoring process provides understanding of needs and potential benefits, both objective and subjective
- The mentoring process must be embedded into the organisational culture and actively nurtured in order for it to maximise its full potential
- Engendering mentoring as transformational experience, rather than an aspirational or progression-

based mentoring process, (that is, one of interaction between the 'experienced' to 'inexperienced' individual) is suspending mentoring within a more authentic and conscious process that generates interdependent benefit

- Creating sustainability through the implementation of the interdependent model is the key

New Horizons

- The Evolution of Mentoring within a broader context of organisational change and transformation
- Mentoring as an organisational leadership model
- Embedding systematic relational thinking into the organisational and strategic management
- Developing the concept of an interdependent model of mentoring
- The evolution of mentoring into an even more powerful and evocative whole systems approach to strategic and human resource management

Employability in the Learning Society: the Challenge of Personal Development Planning (PDP)

Harriet Richmond

h.richmond@salford.ac.uk

Staff and Curriculum Development, EDU

Since the publication of the National Committee of Inquiry into Higher Education (NCIHE) report in 1997, the higher education (HE) sector has undergone a period of significant change. Dearing described the purpose of the Inquiry as being the formulation of a strategy for higher education that contributes to the "development of our people, our society and our economy". The inquiry's vision of the future centred upon the development of a "learning society" where higher education, working in partnership with business and industry would provide education and training that is responsive to the needs of a knowledge economy (NCIHE, 1997:7).

More recently Universities UK and HECSU have suggested that the needs of a knowledge economy go "…beyond compiling lists of desirable attributes". Whereas employers in the past might have asked potential employees about the knowledge they had acquired today they are more likely to ask what it is that students have learned from their experiences and how well equipped they are to learn and to continue learning (Universities UK, 2002:13).

The concept of the Progress File, of which personal development planning is an element, emerged from the NCIHE report, which proposed the introduction of:

"…a means by which students can monitor, build and reflect upon their personal development." (NCIHE, 1997:372)

QAA et al (2001:para.28) define PDP as:

"…a structured and supported process undertaken by an individual to reflect upon their own learning, performance and / or achievement and to plan for their personal, educational, and career development.'

The ethos of personal development planning is therefore to equip learners, both undergraduate and postgraduate, with the knowledge of not just 'what' they are learning but 'how' they are learning enabling them to recognise their own learning needs and to plan, review, reflect on and evidence learning experiences.

Universities are expected to provide opportunities for PDP by 2005/06 (QAA et al. 2001:para. 34) In response to this requirement the University of Salford (UoS) has adopted a 'partially-devolved' approach which aims to create an environment in which individual schools have a large degree of autonomy in the way in which PDP is implemented, who is responsible for supporting it (and to what degree) and the primary focus of the scheme (Brennan and Shah, 2003). For example schools determine:

- whether PDP is embedded within the curriculum or supported through a pastoral support system (or both)
- when the support is provided within particular programmes
- the focus of PDP at particular points of development, e.g. supporting study skills development, work-based learning, professional development, enhancing employability etc.
- the degree to which PDP (or aspects of PDP, such as reflective learning) are subject to assessment and accreditation

The introduction of PDP in the current climate raises challenges because it is a formative process which involves a holistic view of learners' experiences and goals, both within the curriculum and beyond. PDP may also transcend the immediate learning experience providing a framework to prepare for life after graduation - whether in pursuit of employment or further study. Thus in a general sense, PDP works within and across particular tensions in higher education often confronting entrenched distinctions between for example, 'education as self-improvement' (the academic) and 'education for the economy' (the vocational) and between 'student support and skills development' and 'academic learning'.

A fundamental challenge is to encourage learners to 'value' the whole HE experience through engagement with PDP as a process of reflection on their learning, where the concept of 'value' is in itself, closely aligned to assessment and accreditation in a modular framework. The conception of PDP as holistic reflection on the learning experience might suggest that an existing personal tutor system would provide the ideal mechanism by which students could engage with the process. However, in practice, many students only approach their personal tutors when they are experiencing difficulties (unless attendance at personal tutorials is a requirement within a school) and the problem-based orientation of personal tutoring might not provide the most effective environment in which to embed a systematic process of planning, review and reflection. Furthermore, the improved accessibility of higher education which has in part derived from increased opportunities to access learning through part-time modes of study, distance or open learning and work-based learning has resulted in a more diverse student profile. Diversity

is manifested in greater numbers of learners who are likely to be in part-time employment, with care or family responsibilities and choose to prioritise those commitments within programmes of study that are compulsory and credit-bearing.

The School of Art and Design has addressed this challenge by embedding reflection and review in the learning and assessment process although engagement in PDP is not formally credited. The School has adopted a set of generic criteria against which students assess their progress on an interim basis. The peer mentoring scheme allows individuals to be supported by those studying at the next level when completing a self-assessment proforma. This approach has been particularly successful when combined with processes of group reflection and review on progress and development.

Students also have the opportunity to engage with a similar process as part of the personal tutor scheme. Here the student completes a self-assessment proforma, the personal tutor completes the same assessment of the student and the comparison of the two assessments provides the basis for discussion and planning in the tutorial.

Other Schools have adopted a more diverse approach to delivery, initiating engagement with PDP as part of assessment within a level 1 module, supported thereafter by opportunities for further engagement through the personal tutor system, work-based learning and residence abroad programmes. For example, the School of Management has introduced a Personal Development Journal in a common level 1 Business Skills module, in the School of Construction and Property Management PDP is encountered in a level 1 Professional Skills module, the School of ESPaCH has embedded PDP in a level 1 Applied Study Skills module and the School of Languages has provided opportunities for engagement with PDP in a level 1 Developing Independent Language Learning (DILL) module.

The Information Systems Institute has adopted a particularly innovative approach in embedding PDP in a project that involves students from different levels of the programme, working together in teams for an external client. Here PDP facilitated by the Team Tutor, provides the mechanism by which students may reflect on and plan for the development of skills and knowledge appropriate to their anticipated future careers.

A further tension in the provision of PDP is that of ensuring that 'structured' and 'supported' processes are made available to all students at a time when increasing student numbers press on limited resources and some schools have adopted alternative strategies to address this challenge. For example, the School of Environment and Life Sciences have adopted a wholly group tutorial approach to PDP, with the ultimate aim of creating an environment of peer support for engagement with the process and this model has been adopted across the Faculty. ICT has provided the fundamental solution in other areas such as the School of Leisure, Hospitality and Food Management where an e-Portfolio tool has been developed to facilitate PDP processes. Learners are able to use the portfolio to self-assess, evidence and plan for the development of key skills.

The third tension in implementing PDP is the potential difficulty of providing equal access to, and experience of PDP, (both within HEI's and across the sector as a whole), whilst ensuring that processes are owned by, and relevant to, local contexts. The definition of PDP provided by the QAA Guidelines (QAA. et. al., 2001: para. 28) is deliberately broad so as to embrace both long standing practice, such as that developed to support professional development in Nursing, Healthcare Professions and some branches within Community, Health Sciences and Social Care, and new practice designed to improve student learning and progression. Nonetheless, it is at the institutional level that issues of equality of access and experience have to be squared with issues of ownership and relevance. In this respect the University has developed the PDP Framework which identifies a range of outcomes that Schools should address in the initial implementation and on-going facilitation of PDP. In a broader context, the University is also exploring ways in which engagement with PDP might be recognised through inclusion on the student transcript.

This snapshot has provided some insights to the diversity of response to the challenge of implementation of PDP across the University of Salford. Whilst existing practices are yet to be subjected to the rigours of evaluation, further developments are anticipated. What remains certain is that the drive towards a common understanding of PDP will continue to provoke debate and discussion across the University, reflecting a much wider debate across the sector about what PDP 'really is' (Brennan & Shah, para. 3.2.2).

References

Brennan, J and Shah, T (2003) Report on the Implementation of Progress Files, [online], London, QAA, Universities UK, Universities Scotland, SCOP & the LTSN Available from: http://www.universitiesuk.ac.uk/progressfiles/downloads/ProgressFiles.pdf [Accessed 18 March 2005].

NCIHE (1997). Higher Education in the Learning Society. Report of the National Committee of Inquiry into Higher Education. [online] London: HMSO. Available from: http://www.leeds.ac.uk/educol/ncihe/ [Accessed 18 March 2005].

The QAA, Universities UK, Universities Scotland, SCOP & the LTSN (2001) Guidelines for the HE Progress File [online], London. Available from: http://www.qaa.ac.uk/academicinfrastructure/progressFiles/guidelines/progfile2001.asp#pdppract [Accessed 1st March 2005].

The University of Salford Progress Files Implementation Strategy, [online] Available from: http://www.edu.salford.ac.uk/scd/documents/docs/pfstrategy03.pdf [Accessed 1st March 2005].

Universities UK (2002) Enhancing Employability, Recognising Diversity, [online], London. Available from: http://bookshop.universitiesuk.ac.uk/downloads/employability.pdf [Accessed 1st March 2005].

Distance Support on a Short Course for Advanced Clinical Practitioners using a VLE: Observations Following First Delivery

Leslie Robinson
L.Robinson@salford.ac.uk

Ann Newton-Hughes
A.Newton-Hughes@salford.ac.uk

School of Health Care Professions

Introduction

A short course was designed to support and develop advanced clinical practice skills for radiographers working within the specialist field of Magnetic Resonance Imaging (MRI).The aim was to produce an MRI practitioner capable of clinical decision making previously the remit of the consultant radiologist (medic).

Rationale for VLE Support

Market research, undertaken by the course leader, confirmed a growing need for radiographers practicing within MRI to develop advanced clinical skills. However, there were significant barriers which would need to be overcome. These included radiographers' own anxieties regarding their medical knowledge base and, more importantly, resistance from the consultant radiologists who would be expected to delegate a role that was traditionally theirs. Additional considerations for the course team were that the cohort would include mature learners in full time employment and who may be from outside the region.

It was very important, therefore, that students embarking on the course were provided with tutor and peer support which was flexible and accessible remotely. Course design and delivery would need to support students who would be:

- studying and developing skills on a pioneering course in a contentious area and likely to be:
- out of practice in terms of study (therefore requiring study skills support)
- living outside the region and needing support when on clinical placement
- required to share information across areas of clinical specialty
- working full time
- mature learners with dependents and/or other commitments

Use of a Virtual Learning Environment (VLE) has been shown to address these issues (Mason 1998, Kenwright 2003) and had also been used successfully on a programme with similar aims within the School of Health Care Professions (Hogg and Holmes 2000).

Course Structure

Students were sent detailed instructions for the use of the VLE and encouraged to interact via the VLE from the outset. Delivery included sandwiched blocks of University attendance (3 days and 2 days) and clinical experience (10 months) which was supported with on-line VLE support and learning.

Course Evaluation

A triangulated approach to evaluation was used:

i) Student opinions using a Nominal Group Technique (NGT) (Delbecq et al 1975). NGTs have the benefit of enabling all students' opinions to be given consideration and weighting, and delivered through the VLE, allowed respondent anonymity.

ii) A thematic analysis (Aronson 1994, Calverley, 1999) of the discussion boards to identify which of Mason's (1998) three models best described the course.

We looked for evidence of collaborative activities, learning resources and assignments 'on line' which are indicative of Mason's 'integrated' approach.

We subdivided these into:

- Shared learning
- Student support
- Tutor support

iii) A quantitative analysis of the use of the VLE carried out using the statistical tools available on 'Blackboard'.

Results

NGT (all 5 students who completed the course)

Students appreciated

- The principles underpinning the course rationale
- Discussion boards
- Shared learning and support (Full results are in table 1)

Negative features included a requirement for

- Further assessment support
- Mid-term visit to the university
- Some components to be delivered earlier (Full results are in table 2)

Strengths	Score	Rank
the course, great for us, great for mri depts, great for the profession, great for the patient	21	1st
structure of the course contrast, reporting, safety, fb orbits	0	
fellow students - nice people, interesting to learn from their experience/depts, their support...	10	3rd
blackboard great	0	
Idea for the course in the first instance. Looking ahead etc	4	
Tutors - Information given out great	0	
Course material etc	0	
Billy boy..he was sent from heaven	0	
well thought out course	6	5th
Course leaders who were prepared to listen and adapt the course accordingly	3	
the vists to salford were a must	1	
Tutor input	0	
Shared articles and case studies from tutors and group members	10	3rd
Blackboard discussion board - would have been lost without this	20	2nd
Only 2 trips to Manchester - less time away from home/dept		

Table 1. Course Strengths Identified at NGT Evaluation comments ranked in top 5 are highlighted

Weaknesses	Score	Rank
ideal stage to attempt to standardise reporting, particular the nomenclatue involved, partially I spine imaging. ie acr guideline we need a basic outline	1	
poor cd's for reporting - poor image quality. they took days to look through	5	
the reports for the lumbar spines from the radiologists were poor. we all dissagreed with them at some point. but who was right WE WERE	0	
osce, a mock exam would be useful	15	1st
Osce. not enough viewing boxes for the films	0	
Too short a course for amount of work to get through	5	
Plain film reporting needed for knees and Lumbar spine at beginning of course	7	4th
Need to have agreement form workplace of protected time to do assignments. Maybe as we discussed in April say we need to be on Blackboard every Wednesday?	3	
Poor structure to the orbit reporting	0	
OSCE time was too short for full report	5	
A mid term Salford visit to make sure we all still exist	11	2nd
Do orbit reporting and related plain film viewing at an earlier stage	10	3rd
Course could be slightly longer to allow for our heavy work schedules in MRI	5	
A guarantee of course recognition (eg PG cert/M point) would be an incentive	0	
Original plan to have assignments at regular intervals might have been more helpful as far as feedback goes. We had no idea how we were getting on until the end	0	
A bit more radiology input during our uni visits. e.g. some pitfalls of reporting MRI, and things to be aware of	3	

Table 2. Course Weaknesses Identified at NGT Evaluation – comments ranked in top 4 are highlighted

Thematic Analysis (all nine students registered on the course)

Comments were identified under all the themes identified and an additional 'social' theme was found. Allocating all the discussions (total number of discussion forum entries = 284) into the themes provides the following breakdown

- Shared learning 47.4%
- Student support 18%
- Tutor support 13.3%
- Social 21.3%

Quantitative Analysis (all nine students registered on the course)

Students accessed the VLE every day of the week, the number of 'hits' being at their highest during the standard working week. A 24-hour hits analysis indicated that the VLE was accessed throughout the hours between 2.30am and 4.30am.

The discussion boards were accessed 52.9% of the time and the main course content pages 40.9% of the time, the remainder of the hits were targeted at the group and student only areas.

Discussion

The findings suggest these students felt the course satisfied their needs and was good for the profession (rank 1) thus supporting the market research. More importantly, findings confirmed that the use of VLE satisfied our aims to provide an effective and flexible learning environment.

The negative comments tended to concentrate on subject- and assessment-specific issues rather than features of the VLE. However, although the students appreciated VLE support, they would have liked additional face- to-face support which is a mirrored in work by Kenwright (2003) and Mason (1998).

Mason (1998) proposes three models of VLE course design 'content and support', 'wrap-around' and 'integrated'. It is suggested that the latter model is the more difficult to achieve, requiring extensive experience of on-line learning environments and requiring the tutor to facilitate the students to become a 'self-sustaining learning community'. Although our aim was initially to provide VLE as a distance support facility, (Mason's 'content and support'), as the collaborative, discussion-based components of the course increased, so the content of the course became increasingly determined by the group. Resources were provided at the outset, but as the selection of materials, interpretation of the tasks, student reflection and shared learning took over, the features of the VLE more closely resembled an integrated model.

Conclusion

A detailed, triangulated approach to course evaluation has confirmed that VLE delivery has been appreciated by these learners and has enabled the course team to better understand the nature of usage of the Blackboard facilities.

We have identified that the discussion board is the most appreciated facility and a potential tool for moving towards a more integrated approach enabling peer support and shared learning.

References

- Aronson, J. (1994) A Pragmatic View of Thematic Analysis. The Qualitative Report, Volume 2, Number 1, Spring, 1994 (http://www.nova.edu/ssss/QR/BackIssues/QR2-1/aronson.html)
- Calverley, G. (1999) Evaluation Studies. Learning Technology Dissemination Initiative,. Heriot-Watt University. (http://www.icbl.hw.ac.uk/ltdi/cookbook/supplemental_observation/index.html#endhead)
- Delbecq et al (1971) A Group Process Model for Problem Identification and Program Planning. Journal of Applied Behavioural Science 7:46, 7-92
- Hogg, P. Holmes, K. (2000). The Interpretation of Nuclear Medicine Data by Non-medical Health Care Professionals: Developments in the United Kingdom. JRDI 3:2 77-85
- Kenwright, H. 2003. The Analysis of Epidemiological Data – Online Learning: An Evaluation. Draft Report. York College Learning Development Unit
- Mason, R. (1998) Models of Online Courses', ALN Magazine, vol. 2, no. 2. Available from: http://www.aln.org/alnweb/magazine/vol2_issue2/Masonfinal.htm .

'Developing student employability skills': a generic toolkit for curriculum innovation

Jean Smith
p.j.smith@salford.ac.uk

Staff and Curriculum Development, EDU

"To be employed is to be at risk, to be employable is to be secure" (Hawkins, 1999)

The University of Salford's Employability Task Group, in its final report, agreed a working definition of graduate employability as:

"having the potential to add value to a business and being able to articulate that value, characterised by self knowledge, practical knowledge of the working environment and the lifelong learning and career management skills which enable employment to be sustained" (Oakey, 2004)

Yorke (2004) writing in the Learning and Teaching Support Network (LTSN) Generic Centre materials 'Learning and Employability' discusses employability from three 'superordinates': employability is not the same as employment, employability as curricular process and employability as achievement (and potential) (p.7) concluding that 'employability is a (multi-faceted) characteristic of the individual. It is, after all, the individual whose suitability for a post is appraised'.

In this context, higher education can offer a range of experiences to support the future employability of students: discipline based skills and knowledge, work/placement experience and personal development planning are just three examples on offer in this University. Although Yorke (2004) argues that the curricular process does not guarantee 'employability', a well designed curriculum based on sound principles with a specific focus on employability should, at the very least, make a positive contribution. This was the starting point for the University of Salford staff development pack: Developing Student Employability Skills. The pack, funded through the Teaching Quality Enhancement Fund, developed jointly by the Staff and Curriculum Development Section, Education Development Unit (EDU) and the Careers Service, is designed as a toolkit for use across all subject areas.

Using Biggs' (1999) model of curriculum alignment, and building on the earlier Enterprise in Higher Education and Salford Key Skills Project work in the University, the pack provides a range of generic ideas and resources to enable curriculum change to enhance student development of the skills of: communication, application of number, information and communication technology, problem solving, team working, managing self and own learning and operating effectively in the work environment, skills generally acknowledged to be essentials for employability.

Staff attending the February 2005 event to launch the materials were challenged to prioritise a number of factors involved in curriculum development – a task which generated discussion and debate and concluded in agreement that this is not a linear but an iterative process. The five sections in the pack are designed to reflect this, to provide materials which support the curriculum development process, rather than providing a step-by-step approach to 'developing your curriculum'.

To illustrate the approach - the pack begins with a section which contains the basics such as learning and teaching definitions, skills mapping tools and sample 'employability skills' modules which are succeeding at Salford. Section Two gives sample aims, learning outcomes and assessment criteria for each of the seven skills while Section Three provides tables which map learning, teaching and assessment methods against each of the skills with specific ideas to enhance the employability focus in their use. The last two sections list resources (books, handouts videos etc.) which can be used with individual skills or generally for all skills.

The full pack will shortly be available on the EDU website in the Staff and Curriculum Development Section but paper copies are obtainable from Jean Smith, Staff and Curriculum Development, Crescent House.

References

Hawkins, P. (1999) The Art of Building Windmills: Career Tactics for the 21st Century. Liverpool: GIEU
Yorke, M. (2004) Employability in higher education: what it is – what it is not. York: LTSN
Biggs, J. (1999) Teaching for Quality Learning, SRHE/OUP: Buckingham

Enhancing Student Employability through 'Enquiry-based Learning'

Aled Williams
a.w.williams@salford.ac.uk

School of Construction
& Property Management

This Enquiry-based learning project involved the development of 'live' projects within the final year, for students in the School of Built Environment, Liverpool John Moores University. The 'live projects' were designed to simulate a real situation and allow integration of discrete areas of study. A student centred approach for the Integrated Project required students to exploit a wide range of transferable skills, including communication, negotiation and teamwork. Examples of projects carried out for partners include those with the National Trust and British Waterways. Feedback from students via the Board of Studies and external examiner comments was positive. When questioned on the match between his degree subject and the demands of the job, a graduate indicated that "There were a lot of feasibility studies - which fits in well with the job that I'm doing now. We treated the lecturers as 'clients' - going to them with our proposals. This all happens in professional practice!". Thus, experiential learning represents an effective means of engaging students' interest and deepens their learning (Fallows 1999).

An authentic experiential learning approach involves allowing students to take some responsibility for their own learning, where they apply their knowledge to practical problems. In this project, students were encouraged to 'take ownership' of their learning by deciding the criteria to be assessed within the module. Marking criteria were clarified through 'orienting students to the assessment product' (Gibbs 1990) so they knew the 'rules of the game' and understood the criteria to be applied (Knight 2001). Brown (1997) agrees with such an approach, saying: "when students have a sense of ownership of the criteria to be used in assessment, they go to greater lengths to demonstrate that they can meet these criteria."

The students were expected to reflect on the products of the team work, working from a common knowledge base (Stage 1), and follow up with an individual strategy (Stage 2). As a result, the students experienced a variant of the Kolb learning cycle, defined by Race (1998), which consists of wanting/needing, doing, feedback and digesting. One essential objective of this module centred around the self management and organisation of students whereby they took responsibility for allocating tasks within the separate teams. Throughout the project student support was given on-site via workshops and individual meetings. The students clarified the brief by consulting with the lecturers and, perhaps more importantly, the end users thereby receiving formative feedback as to their progress.

An appropriate balance of early formative assessment is a critical success factor as this enables students to learn more as it is 'low stakes / high gain' assessment. Whilst working towards summative assessment, students should work in a climate where they feel comfortable disclosing mistakes, so that lecturers can formatively assess their knowledge as it is being constructed (Biggs, 1999). This formative approach is supported by Rowntree (1987):

"Most teachers will recognise that, in order to claim they are teaching, they must assess not only at the end of a course… but also during the teaching continuously so that they can continuously adjust their teaching tactics according to how the student is developing".

In conclusion, university education should be diverse and develop transferable employability skills, such as the ability to 'think on your feet', in order to prepare students for working in a world of increasing complexity and change. As a result, the use of 'un-scaffolded' problems at higher levels of study is key to vocational disciplines. This instils a sense of pro-activity, rather than reactivity, and develops students who can tackle problems 'in the wild' when they enter the workplace.

Acknowledgements

This paper was developed as a result of a programme of professional development on 'Learning based on the process of Enquiry' for staff at Universities in the North West and is funded in part by the HE Academy Generic Centre.

The author was Module Leader for the Integrated Project whilst a lecturer at the School of the Built Environment, Liverpool John Moores University.

References

Brown, S, Race, P and Smith, B (1997) 500 Tips for Quality Enhancement in Universities & Colleges. Kogan Page, London. pp.67.

Biggs, J (1999) Teaching for Quality Learning at University. SRHE & Open University Press, Buckingham. p.75.

Rowntree, D (1987) Assessing Students: How shall we know them? Kogan Page, London. p.123.

Fallows, S and Ahmet, K (1999) In Fallows S & Ahmet K, eds, Inspiring Students: Case Studies in Motivating the Learner. Kogan Page, London. p.171.

Gibbs, G and Habeshaw, T (1990) An Introduction to Assessment, SCED Paper 57. Standing Conference on Educational Development, Birmingham. (From Preparing to Teach, Gibbs, G., Habeshaw T. Bristol: TES. 1989). pp4.

Knight, P (2001) Skills Plus: Employability and assessment. A paper prepared for the fourth Skills Plus Project colloquium, 3rd October 200. Lancaster University. p.9.

Race, P (1998) The lecturer's toolkit: A Practical Guide to Learning, Teaching & Assessment. Kogan Page, London. pp.13.

Notes

This journal is now available on-line at:
www.edu.salford.ac.uk/scd/ltprac/05

Education Development Unit
University of Salford
Salford, Greater Manchester
M5 4WT
United Kingdom

T +44 (0)161 295 2331
F +44 (0)161 295 2332

www.edu.salford.ac.uk

1743-5625