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**The Learning and
Teaching Institute**

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Blended Learning
in Practice

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Contents

Editorial

Welcome to the second edition of our e-journal, Blended Learning in Practice. As with our first issue (June 2009) we present a mix of research papers, case studies and our regular 'student voice section', all supported by a variety of multimedia formats. A technological theme runs through this issue of Blended Learning in Practice.

In our first research paper this issue, Julie Vuolo explores the experiences of mature learners (post-qualified nurses)

Phil Porter and Amanda Jefferies

using a managed learning environment (MLE) for the first time. These students do not belong to the so-called 'Net Generation' of those who have grown up with technology as a ubiquitous part of their lives and most of these students have not previously used online learning to support their studies. The importance of listening to the 'voice' of these students is emphasised. Julie then discusses practical ways of providing support through informal 'buddies', together with more formal training opportunities, to ensure that learning technologies can help rather than hinder student progress.

In the case study section of this issue of Blended Learning in Practice, Phil Porter continues his demonstration of advanced animation techniques in Microsoft PowerPoint, covering techniques such as rotation, colour fades and animation of multiple objects. Demonstration of these techniques is supported by video footage and associated audio commentary.

Felix Power then shares her experiences of teaching academic staff the use of a Managed Learning Environment (MLE) and provides suggestions as to how techniques such as problem-based learning and short quizzes may be integrated into training sessions to enhance learning.

In our final research paper this issue, Dominic Bygate and Mark Russell present and discuss early results from their JISC-funded ESCAPE project. This two year project is exploring ways to use technology more effectively for designing assessment and feedback opportunities into the curriculum. This work is particularly appropriate at a time when the drive from the outputs of the National Student Survey is for visible improvements to assessment and feedback provision across the Higher Education sector.

Finally, in our regular 'student voice section' Emma Obichukwu shares her experiences of working as a Technology Mentor to academic staff at the University of Hertfordshire, while Sally Graham concludes our technology themed issue by discussing with students how they use technology to support their teaching and learning.

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We hope that you enjoy exploring this technology themed issue of Blended Learning in Practice. We would welcome your comments and warmly welcome contributions for future editions. If you are interested in contributing then please contact us via Dr. Phil Porter: p.r.porter@herts.ac.uk. Alexander Bracq: a.bracq2@herts.ac.uk or Amanda Jefferies: a.l.jefferies@herts.ac.uk.

Phil Porter

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Phil Porter is a Senior Lecturer in Physical Geography and has been active in glaciological research since 1993. After completing a PhD (Leeds) in borehole instrumentation of fast flowing glaciers, Phil took up lectureships at Manchester and Leeds and joined the University of Hertfordshire in 2003. His current research interests concern the response of the cryosphere to environmental change. Phil is also a LTI teacher taking a lead on 'research informed teaching'. In this issue of Blended Learning in Practice Phil continues his demonstration of animation techniques using Microsoft PowerPoint.

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Amanda Jefferies is a University Teaching Fellow and a Principal Lecturer in the School of Computer Science at the University of Hertfordshire. She is seconded to the Blended Learning Unit (CETL), where she is Evaluation Coordinator and leads on Scholarship, Research and Evaluation. Her own research interests relate to students' experiences of using technology to support learning. Beyond the University she is a member of the JISC Learning and Teaching Experts group and supports the E-Learning Experiences Special Interest Group ELESIG.

Contributor Profiles

Julie Vuolo

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Julie Vuolo is a Senior Lecture in the School of Nursing, Midwifery and Social Work. Julie publishes regularly and earlier this year edited a Wound Care text book aimed at nurses and other novice healthcare practitioners. Julie also has an interest in the experiences of mature students in Higher Education and this interest forms the basis for her research paper in this issue of Blended Learning in Practice. Her current research concerns the views of students using Blogs as part of their summative assessment and development of a pressure ulcer training model.

Felix Power

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Felix Power joined the University of Hertfordshire in 1995 as an IT Support Officer. Setting up a faculty website led to a new position developing central University intranet and public website. In 2004 she moved to the Learning Technology Development Unit within Information Hertfordshire. This role includes development work on the University's MLE, StudyNet, as well as promotion and support of StudyNet use among University staff. Felix is a fellow of the Higher Education Academy and is currently working with other team members on a new assignments system which has been designed and developed in-house.

Dominic Bygate

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Dominic Bygate is on a two year secondment to the Learning and Teaching Institute, where he is project manager of the ESCAPE Project. He is a Physicist by training and has worked as a software developer in Industry. He has extensive experience of change management and curriculum design and delivery, gained over the last 10 years . His teaching experience spans over 20 years both in the HE and FE Sector. His interests lie in the field of increasing students' engagement with their learning through the use of technology within an aligned curriculum.

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Mark Russell is the Deputy Director of the Blended Learning Unit. His main areas of interest are in the area of assessment for learning, just in time teaching, technology-enhanced learning and curriculum design. Mark is the Project Director of the JISC funded Effecting Sustainable Change in Assessment Practice and Experience (ESCAPE) project and leads the University of Hertfordshire (Learning and Teaching Institute) strand on Curriculum Design and Innovation. Mark won the Times Higher Education Supplement e-tutor of the year (2003) and is a UK National Teaching Fellow (2005).

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Sally Graham is CPD Programme Director in the School of Education. She believes strongly in the importance of listening to students' views to   improve student participation. In this issue of Blended Learning in Practice Sally contributes to our regular 'student voice' section by exploring how students use technology in their learning.

An exploration of the experiences of mature learners (post-qualified nurses) using a managed learning environment for the first time

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Abstract

This mixed methods study aimed to explore the experiences of mature learners (post-qualified nurses) using a managed learning environment (MLE) for the first time. The experience of using MLEs in education is still relatively unexplored with research to date tending to focus on the experiences of technologically capable students whilst little attention has been given to the less confident, less competent users of technology. One group of learners who typically present with these characteristics are part-time, mature students who attend post-qualifying courses in nurse education. The quantitative (survey) findings of this study indicate that many of these students (41% of survey respondents) commence their Higher Education studies with no prior experience of using an MLE and with widely varying information and communication technology (ICT) skills, factors which impacted on their ability to use the MLE effectively, despite it being an integral part of their curriculum provision. Interview participants (5) described a variety of problems including a lack of pre-course preparation and limited organisational support; the feelings they expressed included anxiety, fear and frustration. Problems were further compounded by the complications of balancing family, work and study commitments. The difficulty of dealing with varying levels of ICT skill in a large class group and the consequential impact on core content was also evident in the discussions.

The key message from this piece of work is that MLEs may have a negative impact on the learning experience if students do not possess the skills to use them and do not receive ongoing support to cope with difficulties encountered.

The provision of pre-course preparation and early recognition of ICT skill level along with using ongoing support strategies such as 'buddy' systems are included in the recommendations. A need for large scale research into the student experience is required to determine the relevance of the findings to the general student population.

Introduction

Managed Learning Environments (MLEs), also sometimes known as learning platforms, first starting appearing in the UK in the mid-1990s (Stimson and Tompsett, 1997). They enable teachers to deliver learning resources in a variety of different ways allowing students' choice about how and when they learn as well as maximising the use of face to face teaching time. Benefits from the student perspective include ease of communication and 24 hour, off-campus access to teaching resources (Jefferies et al, 2007).

Although numerous higher education institutions have now implemented MLEs successfully (Sharpe *et. al*. 2006) they remain a relatively infant technology with a somewhat patchy evidence base to underpin their role in pedagogy. In particular, the experiences of the learners themselves are yet to be fully explored. Initial work in this area has focused

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on the perspective of technologically capable students (JISC, 2007); however the changing profile of learners in Higher Education (HE) calls for attention to be given to the less confident, less competent users of technology who now form a small but significant part of the student body.

The need to hear the 'voice' of these students, typified by the post-qualified nurse learner, provided the key impetus for the study described here, the aim of which was to *'explore the experiences of mature learners (post-qualified nurses) using a managed learning environment for the first time*'. This was achieved using a mixed methods approach comprising survey and interview elements. The findings presented here focus primarily on the interview (qualitative) component.

Post-qualified nurses in HE

HE student populations have changed significantly in the last 10 years, largely due to the Government's widening participation agenda (National Committee of Inquiry into Higher Education, 1997; Department for Education and Skills (DfES), 2003) which demands that students from a wide variety of ages, backgrounds, culture and abilities are given equal access to opportunities within HE. This diversity is particularly noticeable in post-qualifying nursing programmes where many recently qualified nurses will have come to nursing through the widening participation gateway, often as overseas or mature learners (Kevern and Webb, 2004).

MLEs offer students flexible delivery patterns, 24 hour accessibility, convenience and choice; significant benefits for students combining study with work and family responsibilities as many qualified nurses do. However, a significant number of these students will have been through schools before the widespread introduction of information and communication technology (ICT) and consequently possess varying degrees of ICT related skills and knowledge. Those they have acquired will usually have been gained as adults, often on a need-to-know basis rather than as part of a structured learning process, consequently leaving many gaps in their ICT skills set. For these students the prospect of learning how to use an MLE before they can learn anything else can not only be daunting, it can also detract substantially from their enjoyment of learning (Vuolo, 2007). It is important, then, to take account of the student perspective when planning the use of MLEs in curricula, as highlighted by Ruth Kelly in a UK Government report concerning the use of technology to support student learning: 'We need to listen to people's views and ensure that technology meets their needs.' (DfES, 2005).

Methodology

To gain insight into the student experience a qualitative approach was adopted (interviews with 5 students). The interview discussions were contextualised by the use of quantitative data (85 surveys in total).

Cohort and data collection

Survey participants were recruited from a stand-alone module for qualified nurses (age range 26-58, average age 35). Data was collected initially by use of a paper-based survey which incorporated a mix of descriptive multiple-choice and dichotomous questions plus a free text box for additional comments. A minimum sample size for the survey was determined to ensure findings were statistically representative; although not required for the purposes of this study the sample size would allow for further analysis at a later date if desired.

Surveys were given to participants with a verbal and written explanation and participants were asked to return them to a pre-arranged collection point with an indication of their willingness or otherwise to participate in the interview stage. Interviewees were then selected on the basis of their availability. Interviews were conducted on a 1-1 basis using an unstructured approach with an aide-memoire to ensure the research focus was maintained. Local and national ethics guidelines (BERA, 2004) were followed throughout the study period.

Generalisability, Credibility, Reliability and Confirmability

The means of sample selection and sample size were specified in order to allow for some cautious generalisation of the quantitative results. Whilst there was no intention to generalise the qualitative findings, sufficient circumstantial detail is available to allow consideration of whether thematic findings relate to other similar instances (Denscombe, 2007).

Basic between-methods triangulation was achieved using the three sets of data (tick box survey, free text written answers and interview transcripts) as sources of complementary data (Denscombe, 2007).

Reliability of the quantitative aspects should be self-evident through the choice and design of measurement tools and through the objectivity of analysis. For the qualitative aspect, the researcher themself is an integral part of the data collection and analysis processes, particularly in interview scenarios. Efforts were therefore made to ensure dependability was achieved by the use of a memo system to allow tracking of decision making processes retrospectively.

The process of arriving at constructs and themes and of their interpretation must be visible for qualitative findings to be confirmable (Holloway and Wheeler, 2002). As part of this process the personal perspective of the researcher was explored through the production of a reflexive account during the data analysis stage.

Data analysis

Quantitative data was collated and used for descriptive purposes. Interview transcription was undertaken by the researcher, re-read and subjected to a line-by-line analysis. A

category scheme based on emerging themes was then produced (Figure 1).

Category scheme with sub-categories

Theme 1. **People support: the influence of the support or otherwise of various people present in the student's life during the learning experience.**

1a: Family

1b: Student peers

1c: Work colleagues

1d: University staff (Learning Resources Centre staff and Teaching staff)

Theme 2: **Relationship with computer technology: the student's relationship with computers including their feelings about using computers generally and their willingness or otherwise for it to be part of their learning experience.**

2a: Feelings about using computers generally

2b: Feelings about using computer technology in learning

Theme 3: **Emotional consequences: the emotions and feelings described by students as a consequence of the learning experience.**

3a: Fear and stress

3b: Sense of helplessness

3c: Frustration, anger and dissatisfaction

3d: Diminished self worth

Theme 4: **Coping strategies: the coping strategies described or alluded to by students in relation to their use of MLEs**

4a: Avoidance

4b: Seeking help of others

4c: Blaming

4d: Self preservation

Figure 1. Category scheme with sub-categories.

Findings

A summary of the findings is presented here. The quantitative findings set the context for the qualitative and are therefore presented first.

Summary of quantitative findings

93 surveys were administered and 85 returned (91% response rate). Survey questions are given in Figure 2 for reference.

Survey questions

1) How would you rate your confidence when using a computer? (*not very confident, a little confident, quite confident, very confident, other)*

2) How would you describe your computer skills? (*novice, intermediate, competent, other*)

3) Which of the following computer related skills do you possess? (*word processing, naming/ saving files, sending email, sending attachment, using memory stick, using internet*)

4) How keen are you to use information technology (IT) in your studies? e.g. computers, discussion forums, DVDs, podcasts *(not keen, a little keen, quite keen, very keen, other)*

5) Do you have easy access to a computer with an internet connection? *(yes, no)*

6) Have you ever used a managed learning environment before? e.g. StudyNet, Blackboard, WebCT or similar *(yes, no)*

7) How do you feel about using StudyNet (the University's Managed Learning Environment) in your studies? (nervous, anxious, daunted, threatened, don't mind, willing to give it a go, interested, enthusiastic*, other, don't know)*

Figure 2. Survey questions.

Of the 85 respondents, 41% (n=35) had not used a MLE before. Of these 28% (n=10) reported being 'not very' or 'a little confident' when using computers with 62.5 % (n=22) describing themselves as having novice or intermediate skills (8%, n=3; 54% and n=19 respectively).

Despite their relative inexperience, the majority of first-time MLE users indicated that they were either 'quite keen' (42%, n=15) or 'very keen' (45%, n=16) to use IT in their studies. However, they also reported feeling anxious, daunted and threatened about using an MLE specifically.

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When the responses of both groups were compared, the overall trend was for the first-time users to be more anxious, daunted and threatened and less willing, interested and enthusiastic about using an MLE than the previous users. The responses of each group are illustrated in Figure 3.

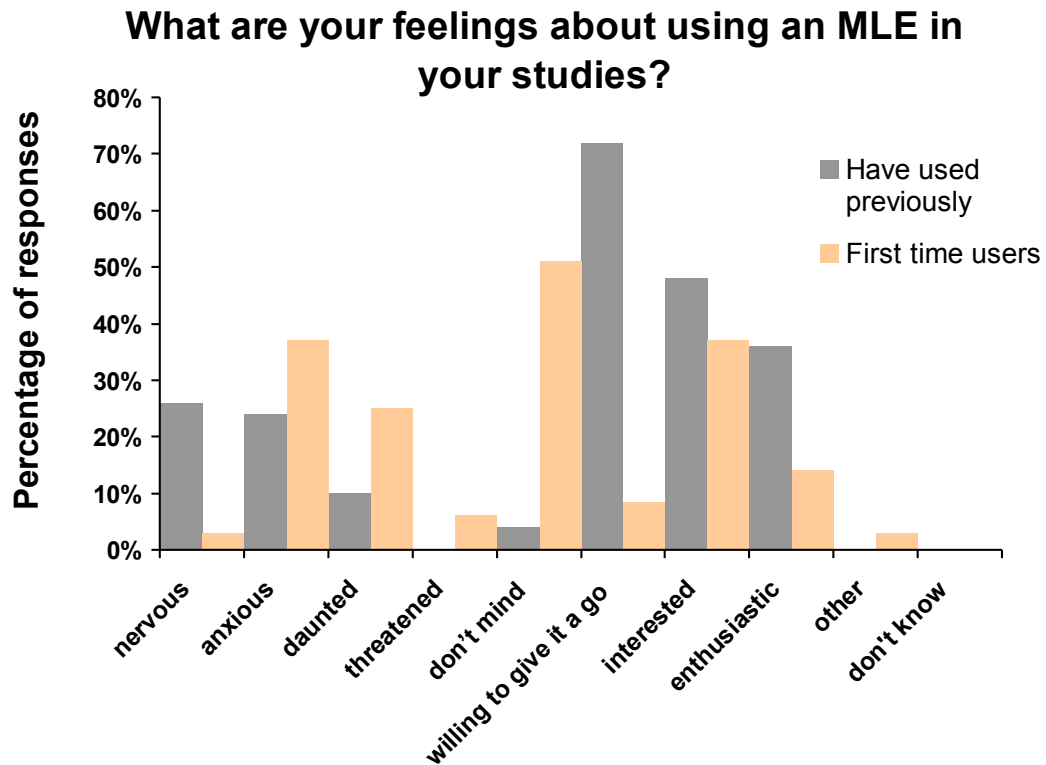**What are your feelings about using an MLE in your studies?**

Figure 3. Survey responses: How participants felt about using an MLE in their studies. Although the primary interest is in the first-time user's group it is important to note there were feelings of being daunted, anxious, nervous and threatened in both groups.

Summary of qualitative findings

5 interviews were conducted in total. Findings are presented according to the 4 themes identified in the category code (Figure 1). Interviewees are identified as Int1, Int2, etc.

> *Theme 1: People support: the support or otherwise of various people present in the student's life during the learning experience*

Interviewees reported using a variety of external sources of support (family, work colleagues and friends) but described problems when accessing internal (organisational) support.

1a: Family

Int2 described drawing on family support from her husband '*an IT consultant, so I know he would be able to help me*' and two young children. Int5 had also received help from her son who was, she said '*a computer whiz*'. Int3 said she was '*dependent on my colleagues, my sister and anyone else*' to find out how to do things whilst Int4 did not refer to any support saying 'I *can feed myself if you know what I mean*'.

1b: Student peers

Int3 described receiving support from two work colleagues who were also attending the course whilst Int5 said she shared some things with another girl in the group which helped although this girl was also struggling. Although a level of peer support was evident, other comments suggested that family commitments and distance made it difficult for peer support networks to develop easily. Int1 said '*only coming in a few times on a course means it's hard to help each-other, we all live in different areas and I've got children…*' Int4 said '*once you did access the MLE you were completely on your own at home rather than in a group…*'

1c: Work colleagues

Previous users were cited as a source of support by several interviewees. Int1 described having to ask a student nurse in her workplace for help with the MLE whilst Int3 and Int5 both reported relying for MLE help on a colleague who had attended the course previously.

1d: University staff

Int3 described the mixed abilities in the classroom as problematic for lecturing staff saying '*a*t *the end of the day there is (*are*) 50 students and what can she (*the tutor) do, you know she has to pitch it to everyone, I'm sure some people will be bored you know*.' Other interviewees concurred, for example Int4 said '*a lot of time in class was taken up with people saying how do you get this and how do you get that … I would say a lot of time was spent with problems on the MLE … it was very frustrating*'. Int5 also referred to the high number of questions in the class related to use of the MLE and the difficulty of '*sorting everyone out*'.

The problem of managing different levels of ICT skills in the classroom clearly impacted on some students although additional ICT support was made available as Int 3 commented, '*I've been to all the extra tutorials which M has put on*'.

A lack of preparation for MLE use was also noted by three of the interviewees as follows: Int3 '*I could have been identified in advance as needing additional support';* Int1 '*you just are sort of expected to know how to do it (*use the MLE*)';* Int5 '*we weren't really told what to do*'.

The need for access to face-to-face support in a supportive environment was also commented on. Int1 described going to the LRC helpdesk with a problem and being there for 10 minutes without making progress, she said '*you think oh stuff this I'm going home*'. Later she talked about there being '*no librarians to help you*'. Int4 indicated that she didn't feel comfortable asking for help in the LRC environment because of all the young people there who were '*typing on keyboards intently*'.

> *Theme 2:   Relationship with computer technology: the student's relationship with computers including their feelings about using computers generally and their willingness or otherwise for computer technology to be part of their learning experience.*

Interviewees expressed a range of emotions and feelings about computers, including fear, frustration, stupidity and a lack of confidence. They also expressed a desire to focus on course content rather than on using new learning technologies.

2a: Feeling about using computers generally

Int1 described herself in the survey as a 'novice user' who was 'not very confident at all'. In the interview she talked about her fear of computers saying '*I have a fear of pressing the wrong button and launching a missile and taking down the whole…nursing home*'. She also expressed frustration at the increasing prevalence of computer technology '*it does really bug you when everyone says it's on the computer, what would we do if it all goes down?...I think people will lose their social skills…we'll be emailing our patients to see how they are*'.

Other interviewees expressed a more comfortable relationship with computers although even those who were computer literate had frustrations with the requirement for a student email address: Int4: '*you only have limited time in the day you know.. I don't have time to faff about between two (*email) *systems*'.

2b: Feelings about using computer technology in learning

Concern about the use of computers in learning was expressed: '*I can see its benefits but don't like the idea of courses going computer-based*'. The possible '*loss of classroom contact time'* was mentioned as was the lack of ability to '*bounce ideas around*' with others. The difficulties of studying in an HE environment as well as learning to use computer technology left Int1 feeling '*stupid*', *'brain dead'* and like a *'rabbit in the headlights'.* She added '*…the hassle of getting to grips with the MLE and the LRC and all these other things have really put me off'.*' Whilst the high quality of some resources was acknowledged the amount of new information to absorb left one interviewee feeling she was '*drowning a lot of the time*'.

Several interviewees reported frustration about having to learn to use an MLE instead of their chosen subject: '*I don't really want to spend time learning computers, I would rather*

learn the course stuff'.' For part-time students, many of whom have significant commitments beyond their studies, the consequence of having to learn to use an MLE in addition to their chosen course content could be loss of motivation and disengagement with the whole learning experience.

Theme 3:   *Emotional consequences: the emotions and feelings described by students as a consequence of the learning experience.*

In this section the focus is on the lived experience of these students through the examination of their emotional language and descriptors. The anger, fear, helplessness and frustration described by interviewees links throughout to the requirement to use an MLE.

3a: Fear and stress

Fear was expressed by Int1 explicitly '*I have a fear of pressing the wrong button*' and implicitly '*oh this is all my worst nightmares'*. Int3 described her fear of failure '*My thought is I'm actually going to fail you know God forbid because that's going to do nothing for me whatsoever and I have to pass every single bit of work for the course...and God forbid because my confidence is you know...*'. She also commented on her stress levels saying '*To be fair if I didn't have the MLE I'd be far less stressed*'.

3b: Sense of helplessness

Int1 described feeling invisible '*If it's not on the computer you feel you are not really there*' and of feeling helpless when having to ask a student nurse for help. Int3 said she felt like '*a rabbit in the headlights,*' adding '*I'm still struggling on my own at home*'. Int5 described feeling '*out of her depth*' and adds '*actually I felt like I was drowning a lot of the time*'

3c: Frustration, anger and dissatisfaction

Int1 referred to her frustration and anger on several occasions for example '*oh sod it I'm going home if you can't get what you want*' and '*oh this is rubbish*'. Int3 expressed her frustration as '*aaaaaaggghhhh, what a waste of time…*'. Int4 also expressed frustration in relation to time pressures and wanting '*to get on*' as well as in relation to the less able students in the classroom '*a lot of time was spent with problems on the MLE and it was very frustrating*'.

3d: Diminished self worth

Int4, the most computer able of the five, described feeling like '*a plonker*' when she couldn't use the class discussion facility. Int1 described feeling '*stupid, really stupid*'. Int3 said '*my overall feeling is that my brain is totally dead and I'm stupid*'. Int5 said she felt '*pretty stupid at times'*. The words the interviewees used to describe their feelings suggested a loss of confidence as well as lowered self esteem. Coupled with the other feelings de-

scribed it is not difficult to see how the use of the MLE, for some people at least, could impact adversely on the whole learning experience.

Theme 4:   Coping strategies: the coping strategies described or alluded to by students in relation to their use of MLEs

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A variety of strategies were employed to cope with the use of the MLE. Some interviewees avoided it altogether although this sometimes provoked anxiety about missing things and about failing the course. Others articulated quite a strong sense of blame either against themselves or against others, but in neither case actually taking responsibility for or control of the situation i.e. another form of avoidance. The only participant who took control of the situation used a strategy which preserved her personal aims and objectives with minimal outside help.

4a: Avoidance

Int2 talked about not being bothered to fight her way through to getting to the bits she needed whilst both Int3 and Int 5 described how a former student of the course accessed materials for them and others because they couldn't get them off the MLE, thereby circumventing the problem altogether.

4b: Seeking help of others

As described in Theme 1 the interviewees sought the help of others on numerous occasions (see 4a).

 4c: Blaming

Int1 talked about self-blame, saying '*well it's partly my fault for not being up-to-date'* and *'I know I was my own worse enemy'.* Int3 blamed her workplace for sending her despite being ill-prepared to use the technology.

4d: Self preservation

Int4 talked about '*needing to get on with it'* (the course) and about her tendency to be very focused because of her limited time; she made a similar comment on the survey '*whilst working and running a family home time is at a premium…*' She made little mention of seeking support beyond the help sheets and on-line tutorials. Her responses suggested she had a good idea of what she wanted and focused her energy on doing what she had to do with minimal help from external sources. She was the only participant who used a strategy which preserved her personal aims and objectives with little outside help or distraction.

Discussion

Overall, the first time users of the MLE described themselves as less confident than their more experienced counterparts and more likely to be anxious or threatened by the need to use ICT in their learning. Some described the negative impact of using MLEs on their learning experience, illustrating through their stories their struggle to use the technology, the unwelcome diversion from core module content and the use of a variety of coping strategies such as avoidance and blame to get through the experience.

Common to each of the stories was the perceived lack of organisational support. Poor academic performance, attrition and absence have all been cited as possible consequences of this (Robinson, 1995). Many participants also described feelings of anxiety, fear and self doubt all of which are barriers to academic progress. Stone (1999) suggest women who are occupied with family and domestic commitments and who are new to studying, as typified by the post-qualified nurses in this study, are particularly prone to these feelings.

Peer support networks were developed on an ad-hoc basis and may have been of limited value as few students seemed equipped to offer practical help. The infrequent attendance in class and the geographical distance between students' work-places and homes appears to have hindered the development of useful support networks. Whilst MLEs can promote peer support through facilities such as 'class discussion', this is of limited use if the users are inexperienced with computers as many of the first time MLE users were. The provision of person to person support can be particularly important in these circumstance as frequent contact both in and out of class is thought to be a key factor in maintaining student motivation and in helping students through difficult times (Chickering and Gamson, 1987).

Some interviewees reflected on their lack of pre-course preparation in relation to using an MLE but most nurse employers (who fund post-qualifying courses) are reluctant to invest in ICT skills related courses preferring instead to focus on clinical knowledge and skills. This can leave teaching staff struggling to deliver in-classroom ICT support in addition to prescribed module content. Good teaching practice demands that respect is given to the diverse needs of students (Chickering and Gamson, 1987) but dealing with different levels of student need and differing learning styles in the classroom can be problematic (Lawrence, 1993; Sims, 1995). The difficulty of dealing with varying levels of ICT skill in a large class group and the consequential impact on core content was evident in the findings.

Limitations

Participants were mainly female and therefore the sample did not address gender differences

Respondents did not necessarily see MLEs as a type of information technology, a word-

ing ambiguity which may have affected the survey findings.

Time limitations made it impossible to achieve qualitative data saturation by re-interviewing and confirmation of interview findings after transcription.

Time and accessibility also limited the total number of interviews conducted.

Key messages and recommendations for practice

The key message from this piece of work is that MLEs may have a negative impact on the learning experience if:

a) students are not prepared for or sufficiently skilled to use them.
b) they do not receive ongoing support to cope with any difficulties encountered.

The following recommendations for practice arise from this message. Specific recommendations have been limited to those which are achievable by changes to practice with relatively little resource impact.

General recommendations

Strategies to support students should be available to both first-time and experienced users as both groups in the study expressed feelings of anxiety regarding MLE use. In addition learning resources within the MLE should be fully embedded in the course curriculum to ensure alignment with learning outcomes and assessment tasks (Biggs, 2003). This sends a clear message from the outset that the MLE is an integral part of the learning process and should focus students on the need to engage with it rather than avoid it.

The provision of ICT training is beyond the remit of most lecturing staff and requires further discussion as to what the resource implications are and as to where the responsibility for training lies. Discussions with key stakeholders (such as funding employers) would be an appropriate starting point.

Specific recommendations

Recommendation 1: Preparation: ensure students are prepared to use the MLE
For example:

- *Include information about the MLE in the pre-course pack and induction*
- *Demonstrate the MLE in class-room to familiarise students with layout and content*
- *Screen students on commencement to identify ICT skills levels and target available ICT skills support accordingly*

Recommendation 2: Support: Provide ongoing support whilst minimising impact on core content

- *Timetable MLE support for beginning or end of day so that experienced users can opt out*
- *Ask students to keep note of MLE related queries on a flip chart or post-it note and answer all questions together at end of session*
- *Encourage use of Class Discussion facility to ask and answer questions*
- *Use module feedback to generate support ideas for future students*
- *Set up peer support groups and timetable 10 minutes 'talk-time' per study day*
- *Consider using a buddy system to partner experienced and inexperienced users together for support*

Conclusion

The primary aim of this study was to explore the experiences of mature learners (post-qualified nurses) using an MLE for the first time. These experiences were captured by interview and contextualised by the findings of the survey.

Overall, many participants appeared to have had difficulty using the MLE, illustrated by the many negative feelings they expressed and the many problems they described. The cause of much of this appeared to be a lack of ICT skills, identified in the survey as predominant in this group despite good computer access and a willingness to 'give it a go'. A lack of pre-course preparation and a lack of organisational support compounded the poor experience with learners employing a range of coping strategies to deal with their situations as a result. The need to balance family, work and study commitments further complicated their situations. It would seem then, that whilst MLEs can offer many advantages to mature learners they do not always receive the benefit of them.

As this was a small study it is not possible to know whether the findings were representative of the wider population or not, although there is sufficient evidence from the combined sets of data to theorise that this may be the case. The interviewees' stories give at least an insight into the experience of being a mature part-time learner in a modern Higher Education Institute (HEI) and the range and depth of emotions and feelings expressed by the participants serve as a reminder that learners need continued understanding and support during what for many is a difficult and stressful time. Most importantly, by making some relatively simple changes to teaching practice, the quality of the learning experience they receive could be enhanced significantly, as could the chances of their returning to Higher Education in the future.

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Getting the best from PowerPoint: 2 and 3-dimensional animations

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The following discussion and examples of animation techniques within PowerPoint follows on directly from the article 'Getting the best from PowerPoint: 2 and 3-dimensional animations' that was published in the last edition of Blended Learning in Practice, pages 20 to 27. In that article I discussed basic animation of text and graphical objects and introduced the use of three-dimensional objects to add extra impact to PowerPoint presentations. The key benefits of utilising PowerPoint animations were discussed in detail in the June issue of Blended Learning in Practice, but to summarise, one of the key benefits of these techniques is to aid in the explanation of complex concepts and clearly animations are likely to be of particular use to visual learners.

In this edition of Blended Learning in Practice I will again use examples from my own teaching (glaciology and physical geography) to illustrate a variety of animation techniques, with an emphasis on some of the more subtle controls that can be employed to 'force' PowerPoint to produce the effects we desire. Although the examples relate to a specific subject area, the techniques can be deployed to a limitless number of topics and subject areas, and the overview animation (see below) provides a non-subject specific example of several techniques covered in this issue of Blended Learning in Practice.
**Each of the slides below can be viewed in animated form by clicking on the multi-media icon.**

An overview of all the techniques discussed and a step-by-step guide to producing an animation using a variety of the techniques discussed can be seen by clicking on this multi-media icon.

Adding rotational motion

This slide is a development of one that I demonstrated in the previous issue of Blended Learning in Practice (page 23). It shows a glacier moving across its bed from right to left, while trapped in the glacier ice are two clasts or pieces of rock that are rotated as the glacier moves. The blue glacier ice is a close up crop of a photograph, as is the subglacial sediment. The clasts are drawn using the 'scribble' tool from the PowerPoint drawing menu as shown below.
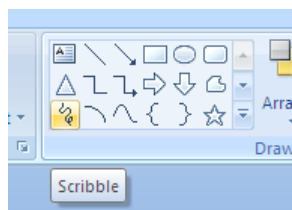
The image of the glacier ice is moved along a linear motion path from right left and at the same time the clasts also move from right to left and rotate using the 'spin' effect available in the custom animation menu of Powerpoint.

It might at first glance appear that this is a simple matter of grouping all the moving objects together as one object and moving them on a linear motion path from right to left. However, because we want our clasts to also spin as they move from left to right, we can't do this. Grouping will mean that PowerPoint will treat all the objects (glacier ice, pink arrow, text and clasts) as one object and if we tried to apply the 'spin' effect, PowerPoint would apply this effect to all objects in the group simultaneously, which would obviously not give us the effect we desire! We therefore have to move and spin our sub-elements (i.e. the clasts) separately and ensure that they move from left to right at the same speed (or as close as possible) as the blue glacier ice moves.

To enable this we need to pay attention to the specific timings of the animation. Firstly, the clasts need to be set to spin simultaneously. This is simply a matter of applying the spin effect and ensuring that the second clast is set to spin 'with previous' in the custom animation menu as shown below.
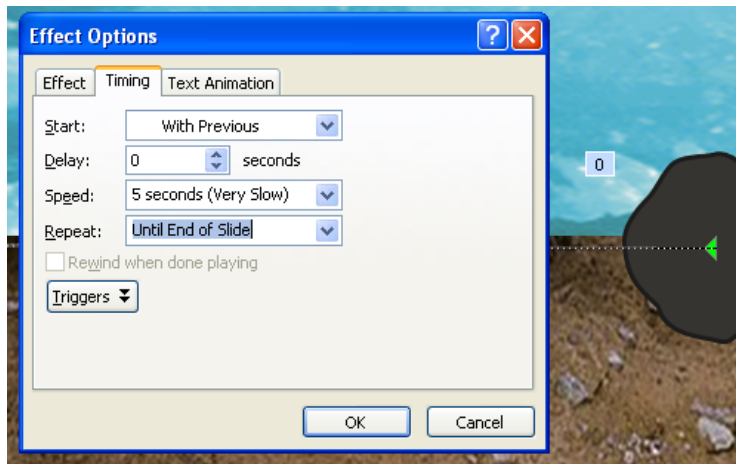
We must ensure that we select 'repeat until end of slide' in the options box associated with the spin effect; if we don't, the clasts may stop spinning before they reach the left hand edge of the slide. Then, linear motion paths can be applied to each clast separately and again, the second clast is set to move 'with previous'. We can't apply one motion path to both clasts because of the same grouping problems discussed earlier.

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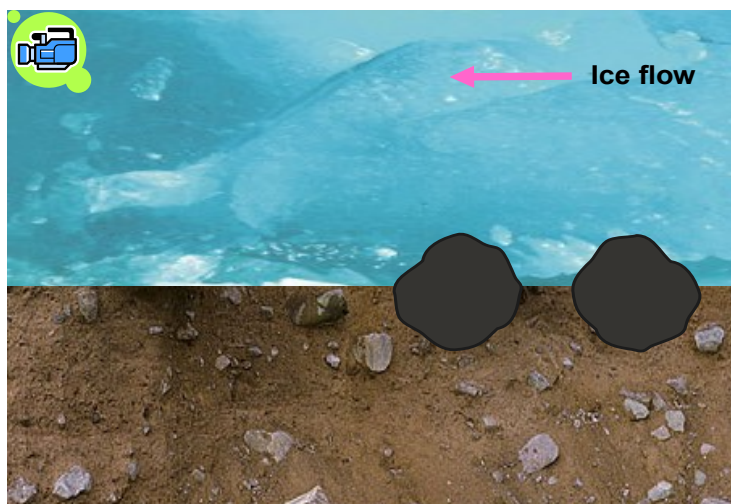
The next task is then to ensure that the clasts move right to left at the same speed (or as close as possible) as the blue glacier ice, pink arrow and associated text. When timings are set for animations in PowerPoint the default timing for 'very slow' is 5 seconds. Clearly for this animation we need something more akin to glacial speed! If you right-click on the relevant effect in the custom animation list that appears on the right hand side of the screen in PowerPoint you will see that the option 'Show advanced timeline' appears. You are then able to drag the slider right and left to set the desired end timing; in this example I chose 10 seconds for all left to right motion paths. Full details of the creation of the above slide can be found by accessing the multi-media icon.

Making elements enter and exit

The slide below shows meltwater flowpaths within and beneath an Arctic glacier. This slide was discussed in general terms in the last issue of Blended Learning in Practice (page 26). The slide contains multiple elements that enter, move and exit. Two full-screen photographs also enter and exit. In total there are nine elements that enter, move and exit, often at different speeds and this requires the timing of each effect to be tightly controlled to avoid chaos! The 'with previous', 'after previous', 'repeat until end of slide' options, together with use of the advanced timeline allow this control to be applied and the slide to run in a controlled and correct sequence.

Meltwater flowpaths

Snowpack

Glacier

Degraded permafrost
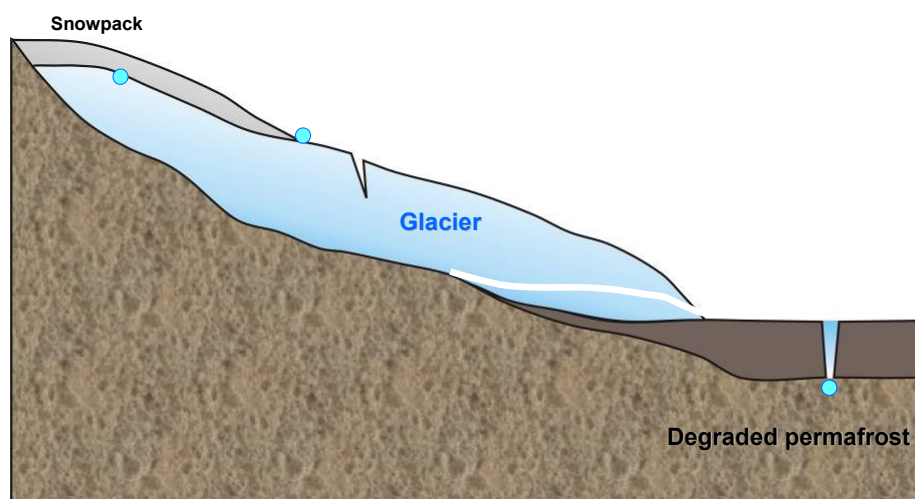
**Mixing two and three-dimensional objects**

The slide below makes use of animation of two- and three-dimensional objects and entrance and exit of an image, to illustrate the practice of dye-tracing whereby fluorescent dye is poured into channels at the base of a glacier and the return of dye at the front of

the glacier monitored using a fluorometer. To add a visual prompt I include an image of the fluorometer at the base of the slide. Again, this slide is rather more complex than the examples I presented in the last issue of Blended Learning in Practice. The three-dimensional 'bucket' has to enter; pour and exit; the image of dye being poured in the field has to enter and exit; the dye parcels have to split and flow in three different directions; they also fade from dark to light pink to illustrate dilution effects and three markers on the graph have to follow three different motion paths.

Interpreting dye returns
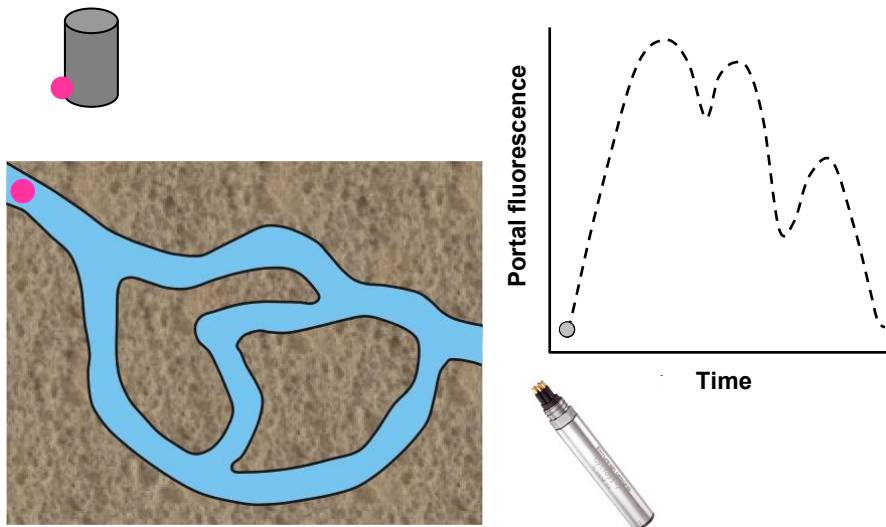
Enlarging and shrinking

Another useful and very simple animation technique is the ability to 'grow' and 'shrink' objects. This can be used to add emphasis and in the example below I am using these functions to 'grow' and 'shrink' a meltwater passage at the base of a glacier. This illustrates to students the competitive processes of frictional heat generation from flowing meltwater (that will tend to enlarge the passage) and creep closure from ice deformation (that will tend to reduce the size of the passage). The slide could be further enhanced with the addition of labels or annotated text and perhaps even symbols to denote summer (when the passage will grow) and winter (when the passage will shrink). The overview animation at the start of this article shows how to use the enter and exit functions for these types of graphical symbols.

Concluding remarks

It would be impossible to demonstrate all the animation techniques within PowerPoint in just two articles (there are over 50 entrance options alone!). However, I hope that this overview of some of the more commonly used animations demonstrates just how powerful these techniques can be to enhance the visual elements of our teaching and assist in the explanation of complex concepts. As discussed in the previous issue of Blended Learning in Practice, once the basics have been learned, these techniques are quick to implement and can be used on any computer that has the PowerPoint package installed. My own experience is that students engage with on-screen animations in a very positive way and this, combined with the enhanced explanatory power that animations can provide, makes their use a powerful educational tool.

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Innovations in MLE training at the University of Hertfordshire

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Abstract

In the past StudyNet training at the University of Hertfordshire has consisted of a teacher standing at the front of a classroom demonstrating the features of the system with opportunities for participants to try the features for themselves. It has been unclear if participants have learnt anything or if the materials covered have been relevant. The level of interactivity between teacher and participant and between participants has often been low. Recent changes to teaching methods have increased interactivity and provided feedback for use in aligning learning objectives with learner needs. The use of problem based group work based around real life examples has put the materials into context. This paper is a personal reflection on whether these changes have been successful and how the training might be improved in the future. It was found that sessions were more fun to teach and that participants appeared to engage more fully with the material, the trainer and each other. A brief experiment with StudyNet quizzes suggested this might be an area for future development. A series of short quizzes at key points throughout the session would give participants opportunity to reflect and let the trainer know if the participants have learnt the materials.

Introduction

The University of Hertfordshire uses a Managed Learning Environment (MLE) called StudyNet to manage the students' learning experience and to supplement the face to face learning experience offered by teaching staff with on-line teaching materials. The MLE has been written in-house using Lotus Notes as a development platform and has been in use by teaching, administrative and technical staff since 2000. It is developed further each year and now incorporates a huge number of different features. An important consideration is how University staff can be educated in the use of StudyNet. Tutorials and manuals are provided on-line but face to face training sessions on various aspects of the system have always been a key method of introducing new University staff to StudyNet and updating and improving the skills of existing staff. The participants in the sessions are all adult professionals with considerable experience and knowledge in their subject areas but with varying levels of comfort with computers. Teaching methods need to take this into account (Imel,1994). In this document I will discuss some of the challenges faced in these training sessions, the steps I have taken to overcome them, and how the sessions can be improved further.

Discovering participants' needs and prior knowledge

One of the three-hour sessions that has run regularly for about two years is aimed at administrators at the University who deal with student registration. It is entitled "StudyNet for Administrators". The aims of the session are to give these staff an introduction to StudyNet and to enable them to use StudyNet to support them in dealing with student

problems and queries. This is the only session run by my team that does not involve mainly academic staff and the needs of administrative staff are less well known to us. I find they are generally less communicative of their needs and appear far less confident in expressing themselves in stark contrast to academic staff who are generally very vocal.

The "StudyNet for Administrators" sessions have not always gone that well. The participants have tended to look blank, not ask many questions and it has been hard to tell at the end whether they have learnt anything. It is possible that a suitable atmosphere for adult learning where participants felt able to contribute (Fry, Ketteridge & Marshall, 1999, pp.10-11) was not being provided. After more successful sessions participants would say thank you as they left and might ask more questions while the session was in progress but it was not clear why these sessions had worked better. There may have been more experienced, confident staff present who were better able to interpret the information provided and fit it into their own experience. Moon (2004) refers to Kolb's theories of experiential learning highlighting the importance of prior knowledge. Moon (2004, p.71) describes how a person might view a new leaf differently depending on their prior knowledge. Someone with prior knowledge of autumn in a temperate deciduous woodland might see a red leaf differently to someone who had only experienced evergreen woodland. She states that "the process of learning involves the bringing to bear of relevant prior knowledge". Due to a lack of awareness of the prior knowledge of University administrative staff, the information was not being presented in a way which would link to the participants' previous experience making it harder for them to assimilate it.

It is unclear how the original learning objectives were chosen. They may have changed or perhaps were never identified in a way that would allow them to align with the participants' needs. Knowles (1973, p.109) states "responsibility for planning is assigned almost exclusively to an authority figure (teacher, programmer, trainer) … this practice is so glaringly in conflict with the adult's need to be self-directing that a cardinal principle of andragogy … is that a mechanism must be provided for involving all the parties concerned … in its planning." In an ideal world the session would be re-developed by a group including Faculty Registrars, the Procedures Unit and student-facing administrative staff. However this would take a long time to produce results. An alternative approach was taken and is described here, where the teaching methods were analysed and changed to involve the participants to a greater extent to see if they could provide the information needed to improve the session.

Teaching methods in the past have simply involved the trainer standing at the front talking and showing examples using a projector connected to StudyNet. As the current trainers felt unsure how the learning objectives aligned with what the participants were hoping to learn, they were unable to relate the tools to the participants' real working life experiences and the participants had no motivation to engage with the materials provided.

Without re-planning the session, the only people who could help were the participants themselves. By starting to interact with the participants, it should be possible to find out

what problems they were experiencing and how they could be solved using StudyNet. Initially the participants were asked at the beginning of each session to say what they were hoping to gain from the session. This provided some useful information but not all participants knew why they were there. Some were new members of staff and others had been booked on the course by their managers with no explanation why.

More of a dialogue was needed. Questions were introduced throughout the session. For example one learning objective is that the participants should be able to email all those enrolled on a particular module. The participants were asked if they had ever needed to send such an email and why. This helped both the trainer and the participants to understand the context of the task being taught, broke up the session (perhaps resetting attention spans) and gave the participants the opportunity to learn from each other. In a class made up of adults, the students' knowledge and experience will often be as valid as that of the teacher (Lindeman, 1926 cited in Smith 1997, 2004).

The value of student knowledge is an interesting, if challenging concept. Modern teachers are pulled between a desire to provide authority in the classroom and the desire to make the educational experience more informal, open, relevant and exciting by sharing the knowledge and experience of the students in the classroom. Teachers may feel they are not justifying their pay if they do not come across as more knowledgeable than their students. Preferable is a middle way where, if the teacher is confident in their own knowledge and their ability to facilitate a session well, student contributions can be valued and respected and used to enrich and even direct the content of a session without undermining the teacher. Each session can be informed by student contributions from previous sessions so the teacher learns from the students and acts as a conduit of information from past to future students.

Using problem centred group work to provide context and allow participants to learn from each other

One particular section of the session mentioned above, relating to a tool called the Module Problems Reporter, was particularly problematical due to the complex and dry nature of the content. In StudyNet, each student has access to a personal main page (portal) that contains links to all module websites that the student is registered on. The Module Problems Reporter allows University students to register problems with missing or incorrect module links in their StudyNet portals. It also automatically detects discrepancies between the modules that are running and the modules the students are registered on which would be likely to lead to students not having access to the correct module websites. This is a very important tool for the University because the student experience is adversely affected by missing module links and administrative staff need to use the Module Problems Reporter to help them fix the problems quickly. Staff agree that these problems are important but many say they do not know how to solve them. The tool looks quite intimidating. There are usually some session participants with more experience of resolving module link problems so it seemed like a good opportunity for participants to learn from each other. In the past there has been a tendency for trainers to

skip over this tool or to cover it in insufficient depth because it is considered hard to teach. This perception may be because a teaching method aligned to the learning objectives has not been used.

The tool needed to be put into a context that would be familiar to the session participants and so a realistic practical element was introduced. The participants would have the opportunity to use the Module Problem Reporter in the session to solve real problems supported by colleagues in a small group. This approach was inspired by problem based learning (PBL), a well aligned teaching method "where students solve professional problems, the assessment is judging how well they have solved them" (Biggs 2002, p.1). The class was split into small groups of three people. After seeing a demonstration of the Module Problem Reporter, each group was given one of three real life problems to solve. For example "A student comes to you saying they registered for module 1COM9876 but they cannot see a link to it in StudyNet. How could you solve this problem?". Or "A lecturer comes to you because none of the students can see the lecture materials. How could you solve this problem?". Each group had to consider the problem, use the Module Problems Reporter to find out more, and then suggest a solution. There was not time for all the groups to report back so each group shared the answer for one problem. Before trying this approach, participants looked very blank after the Module Problem Reporter section of the session and it was not clear that they would have been able to use the tool. Expectations of the groups' answers were not high. However the answers reported were of a good standard, indicating the participants had engaged with the materials. Participants took away all three problems and model answers so they could refer back to them.

The literature around problem based learning suggests that the students be left very much to their own devices but in practice it was necessary to demonstrate the tools before letting each group consider their scenario. The groups were monitored by the trainer and a couple of the groups did need some extra direction on how to find the tools or which aspects of the tools would be most suitable for the problem. In a one off session with participants using completely new tools it seems inevitable that some support would be needed but it is possible that the practical application of the problem based group work idea had been lacking in some way, causing the groups to need more support than is usual. Further research into the problem based learning concepts which had inspired our approach suggested that learners need support or "scaffolding" which is gradually withdrawn as learners develop their skills and that problem based learning should not be seen as a purely discovery driven approach (Hmelo-Silver *et al*, 2007). On reflection the amount of support given does not seem unreasonable, particularly for a first attempt. On the whole the groups did work independently and the help given was the minimum needed to get groups that were stuck working again.

The only negative point was that the exercise had taken some time to prepare. As real live problems were used involving real University student data, the exercise would need to be reworked for each session with suitable current real life problems being chosen. However as the exercise worked well I think the results would justify the time spent.

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Another experiment in this session involved the identification of groups. Each group selected a small object from a selection which mainly included small cuddly toys and the chosen item was used to identify their group e.g. the Lizards, the Kittens. If the groups were going to be together for longer, it would have been better to ask the groups to choose their own group name which has been shown by research to give a stronger group identity (Zander *et al*, 1960 cited in Brown, 1999, p.30) but in such a short session this would not have been practical. The cuddly toys livened up the proceedings, though some people seemed rather distracted by them; the group with the lizard in particular seemed more interested initially in stroking it than engaging with their problem. However the use of malleable toys like rubber stress toys or snow globes has been shown to relax participants (Elwyn *et al*, 2001, p.110). If resources allowed, it might be interesting to try providing identical toys for all the group members as only one group member was able to play with a particular group's toy at a time.

However it seemed to engage the participants far more successfully than calling the groups A, B, C etc. and participants knew which group they were in straight away. Research shows that as well as asking groups to come up with their own name, emphasising similarity between group members and seating group members close together also increases group cohesion (Zander *et al*, 1960 cited in Brown, 1999, p.30). In retrospect the groups could have been put in place earlier in the session and made use of throughout for a wider variety of exercises.

Overall this exercise gave participants the opportunity to consider a real live problem, apply the knowledge gained from the demonstration and to gain confidence in using the tools needed to fix the problem. They were also more relaxed, more vocal and had started to bond with the other members of their group.

To quote an anonymous feedback comment from the latest StudyNet for Administrators course: "This is a good course for Admin staff and I hope that it is run more frequently for new users and others like myself who have acquired knowledge through colleagues."

Expanding the use of group work to provide a safer, more stimulating environment

After the positive experience trying a problem based group work approach in the 'StudyNet for Administrators' session mentioned above, it was decided to try a similar approach in a different session aimed at academic staff and other content providers on StudyNet. The session's overall learning objective is that the staff should be able to put content onto a module website. The two trainers involved prepared a number of practical exercises, some to be carried out in groups and others individually.

It was hoped that the group work exercises would fulfil a particular role. In the past there has been a low level of participant interaction on this session which is 3 hours long with a 20 minute break about half way through. Participants rarely talked together in the break, usually sitting separately or staying at their computer to read email. In the session participants seemed reluctant to ask questions either of me or of each other. This

atmosphere could be expected to lead to less learning taking place as learning is generally considered to have a strong social component (Wenger, 1991). So my aim was to promote learning by creating a simple, short term learning community where participants felt safe to ask questions of the facilitators and each other.

The session started with two group exercises. There did appear to be some reluctance among participants to get into groups. Again cuddly toys were used to identify groups which did seem to help overcome the initial reluctance. The group membership was decided in advance which may explain some of the initial resistance as people may have been shy. However if people had chosen their own groups, they might not have had the opportunity to meet new people and the groups would have been less diverse.

The first exercise was a simple ice-breaker. For such a short term group both research and common sense suggests a simple exercise to be appropriate, which the participants would easily understand and which would not take up too much time (Elwyn et al, 2001, pp.105-109). The participants told each other their names and something interesting about their name. Two groups then got together to introduce their fellow group members to the other members of the other group. Participants appeared far more relaxed after the exercise so it seemed to be successful.

The second exercise was to post some module news. In previous sessions that exercise had been carried out individually but this time it was carried out in groups. The exercise was achieved more quickly, with less facilitator input than it would have been as an individual exercise. Very realistic messages were posted suggesting participants were imagining scenarios which had happened to them in the past. It seems likely participants will remember how to post news after engaging imaginatively with the exercise and it was felt the exercise was a success.

Posting a news article

There had not been time to consider making the next exercise a group exercise and the participants did appear disappointed to leave their groups and work alone, so perhaps in future more of the exercises should be in groups. However it is important for participants to be able to work independently so it is appropriate to have some individual tasks.

Brown (1999, p48) states that "successful cooperation on a joint task increases cohesion". It was noticeable that in the break the participants went off in groups together and could be seen chatting happily together. The only downside was that they came back 5 minutes later than they should have done but hopefully this was because they'd enjoyed talking together and found it useful.

A positive anonymous feedback comment left after the course was "Although I have been using StudyNet for several months, I did not know all its functions/features. I have found this training very useful - I will definitely use what I have learnt to make my StudyNet pages look smart - hopefully this will draw my students' attention a bit more... Thank you!"

Is anyone learning anything?

An important worry mentioned at the start of this paper is a lack of certainty about whether the course participants are learning anything. There is no formal summative assessment for any of the sessions discussed. There is a generic StudyNet feedback form made available to participants, the results of which generally indicate participants are reasonably happy with our courses. However the key question is whether participants go away with the knowledge to effectively use StudyNet. Asking in the session if participants understand, if there are any questions or if it's alright to move on to another topic never seems to get much reaction. It is generally thought that learners will either not know they do not understand without being tested in some way or feel reluctant to show they have not understood (Fisher & Frey, 2007, p1).

Assessment is generally held to drive learning. In the most recent session, the participants were presented with a very quick StudyNet quiz. Unfortunately there was not time to add in feedback to the quiz and another mistake was to run it at the end of the session. Essentially the quiz was a summative assessment as it only really showed the state of play at the end of the session, with no opportunities for participants to learn from the quiz. However it did show that some ideas that seemed to have been well understood when presented, clearly had not been understood by a significant number of participants.

This would be an interesting area to develop for future sessions with several short quizzes at key points during the session providing useful feedback for the students. If a question caused particular problems, it could be used as a prompt to revisit the relevant topic before continuing to further material. The quizzes would also allow participants the opportunity to reflect on the materials.

Conclusion

The incorporation of a variety of different teaching methods has made the sessions very much more interesting to teach. The classes have been very much more interactive and participants appear to have enjoyed the wider range of activities as well as the opportunities to interact with each other. The material covered and the teaching methods are better aligned with both the participant's and the University's needs, enabling participants to take away new skills and knowledge to better enable them to carry out their role. There is room to take this further by incorporating more group work exercises and by including more quizzes, so the participants can gain confidence in their skills and the teacher can be sure that key points are being understood.

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WORKING AS A STUDENT TECHNOLOGY MENTOR TO ACADEMIC STAFF

What course did you study?

BSc (Hons) Computing with Business and a year in North America

Emma Obichukwu

What project were you involved in?

The project I was involved in was mentoring lecturers in the area of technology. I was involved in this project from October 2006 until June 2009.

What did you do?

I worked as a Technology Mentor. This involved me helping to make improvements to the technical skills of lecturers in the Business School, by aiding them in the efficient utilisation of information technology (IT) to aid student learning.

Why did you apply to become a technology mentor?

I applied to become a technology mentor because it was something that I knew I could do well. Furthermore, use of technology is an area of my university work that I love and it provided an opportunity for me to gain valuable transferable skills in the area of IT consultancy.

What were some of the projects you worked on?

I worked on a range of projects. Some of these were: creating a spreadsheet that graded students' work, the creation of Learning Resources for all modules in the Business School and working with the Academic Skills Unit on various tasks, such as editing student academic guides.

Which projects were you most proud of and why?

The project that I was most proud of was one where I helped a lecturer to improve their module page by incorporating imagery. I could genuinely see how appreciative the lecturer was for the help I had provided and she then put into practice what I'd shown her which was especially gratifying.

How do you think you benefitted from the experience?

Through being a mentor I will now be able to draw upon a variety of different experiences and use them to help me forge a career in IT consultancy. Also, I have been able further develop my existing skills in communication and time-management.

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Assessment for learning: An introduction to the ESCAPE project

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Abstract

Assessment is a significant aspect of the student learning experience and good assessment engages students with the curriculum; it creates opportunities for dialogue and ultimately stimulates learning. In spite of the accepted significance of assessment within Higher Education, the National Student Survey has in the past few years highlighted assessment and feedback as the lowest scoring aspect of the student experience.

Working in partnership with the Business School and the School of Life Sciences the Effecting Sustainable Change in Assessment Practice and Experience (ESCAPE) project set out to support the development of assessment-for-learning initiatives. The ESCAPE project includes a range of curriculum development activities and change management processes.

Objectives of the project relate to improving the educational effectiveness and resource efficiency of the assessment practice. An Appreciative Inquiry approach was adopted to help module teams build on existing good assessment practice. Following the design, development and implementation of pilot assessment activities, module teachers are already reporting greater engagement from students in their studies.

Introduction and context

Assessment is a significant aspect of the student learning experience. Good assessment encourages appropriate study behaviours, provides a focus for multi-way dialogue and ultimately supports learning (Biggs, 2003; Race, 2001; Ramsden, 1994). Despite the formal curriculum described and set out to our students through module and programme documentation, assessment sends out additional messages about the curriculum. Assessment, for instance, sends out messages to students as to when they should pick up their books and when they don't need to. Assessment, consciously or otherwise, indicates which aspects of the curriculum are important and which are not. In addition, assessment has a significant influence on the students' approach to learning (Biggs, 2003; Ramsden, 1994). Assessment, therefore, has the potential to create an alternative view of the curriculum; the so-called hidden curriculum (Snyder, 1970). Although disappointing, it will be of little surprise that the hidden curriculum might be different from the formal curriculum.

Good curriculum design recognises the significant influence of assessment and purposely

sets out to embed assessment in the learning environment (Bransford, Brown, & Cocking, 2000). Good curriculum design aligns the assessment activity, and hence the anticipated student study behaviours, with the teaching and intended learning outcomes. Such an alignment is referred to as aligned teaching (Biggs, 2003) and is likely to reduce the difference between the formal curriculum and the hidden curriculum.

Given our understanding of the importance of assessment and its relationship to learning, it is disappointing to note the sector-wide challenges raised by the National Students Survey (NSS). Across the Higher Education sector the NSS has repeatedly shown Assessment and Feedback to be the poorest rated aspect of the student experience.

An opportunity

In 2008 the Joint Information Systems Committee (JISC) released a funding call to seek projects who 'wished to transform how they deliver and support learning across a curriculum area through the effective use of technology, in response to a particular challenge faced by the discipline(s), department(s) or institution(s)'. The JISC are a UK government funded organisation and describe themselves as an organisation to 'inspire UK colleges and universities in the innovative use of digital technologies, helping to maintain the UK's position as a global leader in education.'

Drawing together the expertise and experience of the Blended Learning Unit (BLU) at the University of Hertfordshire (UH), along with the growing institutional and sector-wide interest in assessment and feedback, we saw the JISC call as an opportunity to work with academic Schools within UH to help revisit their assessment and feedback practice with a view to creating more learning-oriented assessment (Black, Harrison, Lee, Marshall, & Wiliam, 2008; Black & Wiliam, 1998; Gardner, 2006; Knight, 1995).

Whilst the issues raised by the NSS were a consideration, we were particularly focused on growing the excellent examples of assessment practice that already existed within the institution. Pedagogically sound assessment activity presents challenges in a mass higher education system (Brown, Bull, & Pendlebury, 1997; Gosling, 2007), a mass higher education system being defined as access to higher education taken up by 15-50% of the age grade (Trow, 1973). Pedagogically sound assessment, for example, providing prompt feedback and detailed comments on student work, is not a trivial exercise for teachers of large classes. The provision of prompt feedback and detailed comments on student work are related to questions in the NSS that typically receive less favourable responses from students. Our response to the JISC funding call was the development and implementation of the Effecting Sustainable Change in Assessment Practice and Experience (ESCAPE) project.

The ESCAPE project

The ESCAPE project is a two year JISC funded project (September 2008 to October 2010) and is funded under the 'transforming curriculum delivery through technology'

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programme. The project, directed by the Blended Learning Unit (BLU), is a joint venture between the BLU, the School of Life Sciences and the Business School. Fundamentally, the ESCAPE project is concerned with meeting the challenges faced by the Schools in supporting assessment through the effective use of technology. Three strands of activity define the ESCAPE project:

- helping staff develop and deploy educationally effective and resource efficient assessment activity;
- helping staff make purposeful decisions about the use of technology to support their assessment activity;
- managing the partnership (between the BLU and the partner schools) and the assessment developments through appropriate change management techniques.

Whilst the funding period is constrained to two years, the expectation is that the three strands of activity combine to bring about sustainable change. That is, change that will endure, indeed grow, long after the funding period has ended.

A review of assessment practice at UH (Gillett & Hammond, 2009) highlighted a skew in the assessment profile of many modules. Although a wide range of assessment types were identified (e.g. practice-related assessments, oral assessments, case studies, role play etc.), there was a reliance on a small number of summative assessments. Summative assessments are typically high-stakes, undertaken towards the end of a topic or module and set out to measure student learning. High stakes assessment (or tests) are those in which the results of the assessment are important to the candidate and may affect their subsequent progress to the next phase of education (JISC, 2006). Summative assessment differs from formative assessment in that formative assessment is low-stakes, embedded within the learning activity and is used to stimulate, rather than measure learning (Rolfe, 1995).

Issues surrounding summative assessment include:

- Student activity is not necessarily stimulated across the semester or across topic areas. Time-on-task (distribution of student effort) is an important aspect of student learning (Chickering & Gamson, 1987; Karweit, 1983).
- Due to the high-stakes nature of summative assessments students may tend to hide, rather than show, their misconceptions (Knight, 2001) Being aware of, and acting on, student misconceptions is important for both learners and teachers (Biggs, 2003; Heywood, 2000).
- Students may have insufficient opportunities to demonstrate how they have learned in response to feedback. Good feedback corrects, motivates, is relational and highlights future student activity (Nicol & Macfarlane-Dick, 2006; Rust, 2002).
- Information flowing to teachers about their current students' understanding is likely to be too late to be of use in helping to shape the ongoing teaching and learning interactions. Good teaching sets out to establish the students (mis)conceptions and use them in the ongoing teaching sessions (Laurillard, 2002; Novak, Gavrin, Anderson, & Patterson, 1999).

Working with four modules from the Business School and five modules from the School of Life Sciences we are supporting the development and implementation of a greater degree of learning oriented assessment. Despite our willingness to support individual Schools, the practicalities of the project meant that we (the ESCAPE team) were only able to work with a sub-set of modules within each academic School. The nine modules were chosen on the basis that they were typical of modules within each School and that they comprised challenges commonly experienced within other modules that were not part of the ESCAPE project. It was also considered that the chosen modules and module leaders had the potential to support the growth of sustainable change within their Schools. In all instances our module teams were practicing teachers, understood much of what good teaching and learning looks like, but were not tasked with pedagogical research. This latter point is important, since it would have been naïve of us to assume that our partner Schools were immersed in the educational literature. Part of our role was to bring some of the findings of the literature to the Schools and present the findings in ways that are accessible, meaningful and have real-world applicability in the HE setting.

Change Management

Change management is a significant feature of the ESCAPE project. Related to this work we view change management as a supportive and systematic process that helps module teams evaluate their current practice and move to a practice that offers more benefits.

By definition, if the ESCAPE project is to be a success it is important that we understand our partner Schools and recognise they have agendas and pressures that are different to ours. To help develop and manage our relationship with our partner Schools we have drawn on guidance on embedding innovation (Lionberger, 1968; Rogers, 2003), change management (Dyer, 1984) and adopted Appreciative Inquiry as our evaluation approach.

Despite the interests of the originators of change or those wishing to embed innovation, such activity does not happen by chance. Indeed recognising the value and inevitability of the conservative impulse is vital when leading and dealing with change (Marris, 1975). Theories around embedding innovation and hence changing practice, suggest that four sequential phases can be identified (Lionberger, 1968) as follows:

- Raising awareness
- Stimulating interest
- Providing opportunities to try the innovation
- Adopting (embedding).

Examples of ESCAPE activity overlaid on the four phases are shown in figure 1:
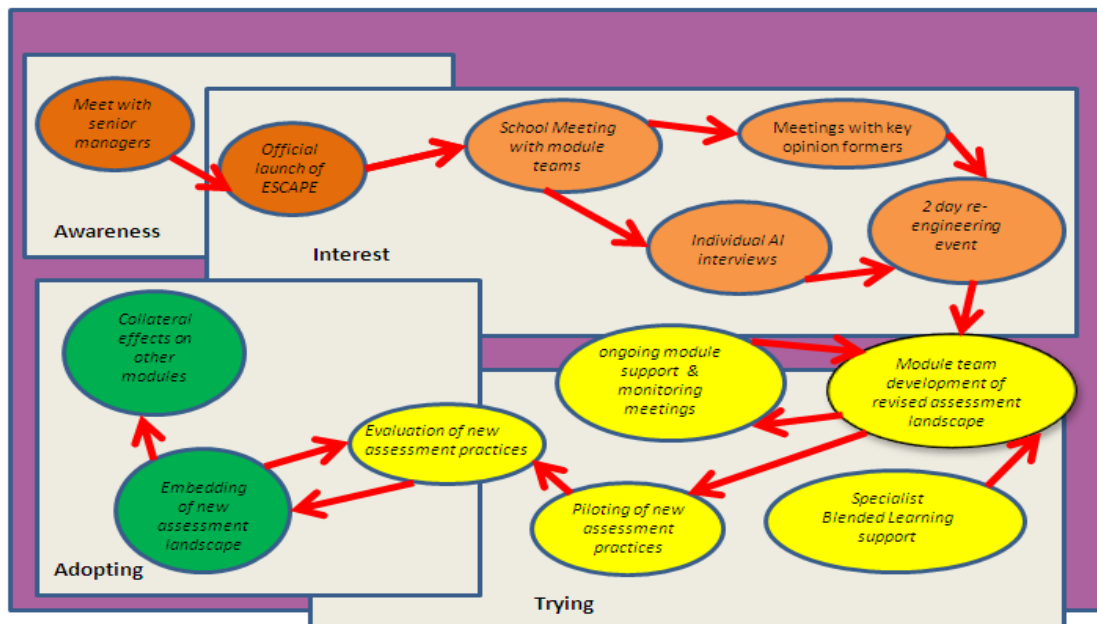
Figure 1. *Four phases of the 'diffusion of innovation' related to the ESCAPE project*

To help develop the partnership with our Schools we were particularly keen:

- not to disturb Schools and module leaders with activity that may have appeared irrelevant or trivial;
- not to seek information from the Schools that we were able to establish independently;
- to recognise, and work with, the different priorities of the Schools.

At the start of the project a baseline study established the current assessment practices in the Schools. The baseline study captured the assessment profile (i.e. the percentage in-course assessment and percentage examination for module for each year). To avoid disturbing module teams, data was drawn from the module documentation. The student voice was captured through the Assessment Experience Questionnaire (AEQ) and supplementary free-text questions. The AEQ was developed by Gibbs and Simpson (2004) to establish how well, or other, the assessment activity is aligned with their conditions of assessment that support learning.

Appreciative Inquiry

Appreciative Inquiry (AI) is a method of evaluation that purposely looks for the positives in the situation being evaluated. Hence AI builds upon, and tries to grow, the processes and activities that are perceived as being successful. This is in contrast to a 'traditional', deficit-oriented method of evaluation, where according to Annis-Hammond, '*the primary focus is on what is wrong or what is broken*' (1998, p. 6).

In the ESCAPE project, an AI approach offers a number of advantages. Specifically, it:

- starts with a positive intent;
- focuses the module teams on their practice;
- gets module teams engaged quickly;
- uncovers the existing good assessment practice within the module which is then open for exploration by other module teams;
- encourages individuals and module teams to implement change and hence make a positive difference.

Fundamentally, we believed a more useful and inclusive starting point to engaging our partner Schools was asking what interactions, situations and activities were working well in their Schools and identifying what their roles were in such interactions, rather than explore things that were not going so well. The challenges that the module teams experience are not ignored in an AI evaluation but they do not form the starting point or the focus of the discussions.

AI is a structured and sequenced process that includes four separate yet related stages. The sequential process starts with Inquire and moves through Imagine, Innovate and Implement. In many regards the process is not too dissimilar from other structured models of product or curriculum design and deployment. See, for example, the Conceive, Design, Implement and Operate (CDIO) approach to engineering curriculum (Crawley, Malmqvist, Ostlund, & Brodeur, 2007).

The starting stage of AI, Inquire, determines the area for study and establishes good features of current practice. The Imagine stage invites visions for the future and opens up opportunities for sharing the vision amongst the participants engaged in the process. Innovate starts to identify opportunities for meeting the shared vision and Implementation puts the innovations into practice. The stages of AI are shown in figure 2.
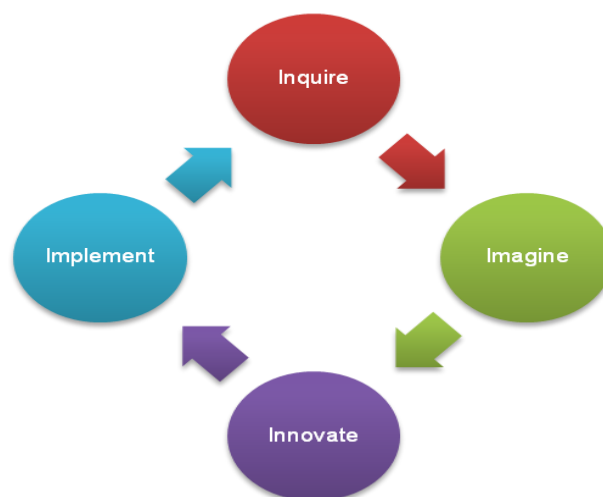

Figure 2. *The EnCompass model of Appreciative Inquiry (Preskill & Catsambas, 2006).*

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The initial stage, Inquire, was carried out through an AI interview with individual members of the module teams. This interview is at the heart of the AI process and has a number of purposes. Lasting about an hour, the semi-structured interview allowed the interviewee to reflect on the strengths and successes of their module. Looking for strengths and successes indicates the positive aspects of the module and helps establish the role of the interviewee in the positive features of the module. The interview also helps to build a relationship between the ESCAPE team and members of the module teams.

The AI interviews were written up as case studies. The case studies include commentary on the current teaching and assessment activity and provide a useful picture of pre-ESCAPE activity. The case studies, therefore, form an important part of the baseline data. The case studies will be developed during the course of the project and updated to reflect the changes made as a consequence of engaging with the ESCAPE project. The case studies will subsequently highlight assessment developments and will prove useful resources for others wishing to reflect on and develop their assessment practice.

The AI interviews were followed by a two day, off-site, event. The event presented an opportunity for the module teams to come together, share experiences of good assessment practice present in the Schools. The event comprised a designed mix of presentations, small and large group discussions and active planning. It was intended that the module teams would move through the Imagine and Innovate phases of the AI cycle during the two days. Underpinning this event was a desire to enable the module teams to re-engineer their assessment practice.

To support the module teams in their planning activity, relevant findings from the literature were presented and discussed. This included notions of aligned teaching and features of good assessment and feedback practice. Aspects of the baselining study were explored and the best parts of the assessment experience identified. Teams started to imagine what the module assessment would be like if they were to extend and expand the good assessment practice already present within their modules.

Fishbone analysis was used to help module teams develop their thinking and map into abstraction their vision of the future assessment practice. Fishbone Analysis is a technique used to identify factors impacting on the topic or inquiry. It helps to structure brainstorming and sort ideas into useful categories (Tague, 2005). It is a visual technique, with a backbone relating to the topic of inquiry and connecting spines identifying areas of influences. Fishbone Analysis was also used to help the module teams see the consequences of their plans, establish the resources needed and the consequent timeline associated with their vision.

As a result of the two day event the teams were starting to develop their plans for re-engineered assessment activity. Examples of the re-engineered assessment include:

- use of blogs and student generated videos (short rationale: to develop improved student reflection and to establish student to student and student to teacher dialogue);

- extended use of electronic voting systems (short rationale: to check student understanding in class, provide more student-centred teaching sessions and improve lecture attendance and engagement with lecture material);
- use of group areas and wikis within virtual learning environments (short rationale: to establish opportunities for collaboration and co-creation);
- introduction of student generated summary lecture notes (short rationale: to distribute student effort across both the semester and topics areas, and to improve attendance and use of reading groups [organised along book-group lines] to facilitate student engagement with research literature).

Following the event we continued to work with the module teams, further developing their plans for changes in their assessment practice The module teams are now at the Implement stage, piloting the new assessment strategies.

Current position (January 2010)

Four of the nine ESCAPE modules have just finished piloting their new assessment practices. We are re-issuing the Assessment Experience Questionnaire to the students and so will look to identify changes in experience. This will be followed by an analysis of the effect that the new assessment regime has had on the module. The analysis will include comparison of the student experience, as measured by the AEQ, student performance and engagement and staff workload. The other five modules are due to complete at the end of semester B. This will allow us to investigate the effects of the project on all of the ESCAPE modules.

Conclusions and emerging findings

Sustaining change is not a trivial exercise. Supporting change needs to be systematic and recognise different attitudes towards change. Indeed good change management acknowledges that reluctance is a useful feature of change, since facilitators of change, quite rightly, need to marshal the evidence for change and show how, and what, benefits are likely to accrue (Dyer, 1984). Presenting aspects of the literature that are relevant to the project, understandable and have face-validity have proven to be useful in supporting continued engagement with the assessment agenda.

AI has helped the ESCAPE team build relationships with our partner Schools such that we can support the development and deployment of assessment activity that is relevant for the various modules. Our partner Schools are the subject matter experts and already engaging in good assessment practice. AI helps us uncover such practices for wider dissemination.

Sustainable change does not happen overnight nor will it necessarily be stimulated by a few encounters between the partner Schools and the ESCAPE team. The module teams are at different stages of change and with further encouragement we hope will continue with their assessment development work long after the ESCAPE project has finished.

Following the development of new assessment strategies, members of our partner Schools are indicating the positive effect the new assessment is having on student study behaviours. For example, Hazel Wagner, (Department of Accounting, Finance and Economics), comments that "*students are now preparing notes following each lecture and in some instances her students are doing more than was expected*". James Johnstone (Sport, Health and Exercise Sciences) comments that his students *"are now actively engaging with the feedback to improve follow-up submissions"*. Both note also that the re-engineered activity saved them time in marking and providing feedback. Hence both staff are now providing a more learning-oriented assessment experience for their students whilst also reaping efficiency gains.

In addition to the immediate gains we are already seeing some beneficial collateral effects of the ESCAPE project. These include ESCAPE module coordinators positively influencing the assessment activities on other (non-ESCAPE) modules and other non-ESCAPE modules wanting to work with the ESCAPE team. The collateral effects are important since they will help sustain and propagate good assessment and feedback practice.

If you want to find out more about the ESCAPE project or hear how we might be able to support your assessment activity please contact

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Student Voice

Hello I'm Sally Graham and I work in the School of Education. Here at the University of Hertfordshire we believe in putting students first. That means finding ways to involve students by giving them a voice so they can help to shape their learning and teaching experiences. My own interest is in finding better, more innovative ways for learners to communicate. Digital technology is growing rapidly and new methods of research, using digital cameras or video, are becoming commonplace. For this edition of BLIP I have asked students across the whole campus to respond to an opening statement: 'I use technology to...'.

This simple technique invites students to reflect on their learning and in particular how they use ICT to support their studies. To give their voice more prominence, I have taken photographs of the students with their statements in order to raise their visibility. I hope these photographs will provoke conversations across the campus about how students' experiences in using technology can be enhanced so that they continue to enjoy stimulating learning experiences at UH.

I use technology to...
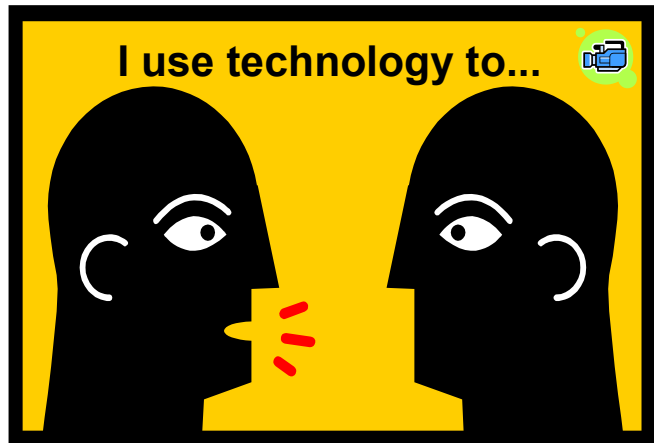
Hello my name is Alexander Bracq and I am an undergraduate studying Business Studies Marketing.

Currently I am on a compulsory work placement, working as a marketing assistant for the LTI/BLU. Part of my job description is to develop resources, such as posters, videos and audio files as well as work with LTI/BLU staff on Blended Learning related projects. One of these projects included this edition of BLIP.

One of the contribution in this journal included my designing and implementation of the 'Student Voice' section.
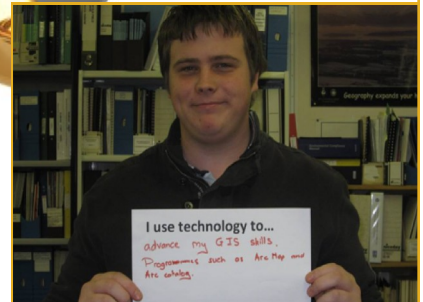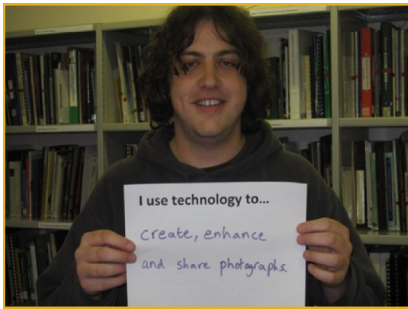
Student Voice

I use technology to...
chat my friends on Facebook!

I use technology to...
Study net to help study for my course (classnotes)

I use technology to...
find Language tips on website
语言津道

I use technology to...
Contact Family for moral Support

I use technology to...
Make resources (videos, photos and PowerPoints)

I use technology to...
Camera for analysis for example in range of motion (football pass)

I use technology to...
ACCESS INFO ON GOOGLE SCHOLAR
USE HOTMAIL FOR MY FINAL YEAR PROJECT.

I use technology to...
connect with my friends in Thailand by Windows Live Messenger.

I use technology to...
www.Google.co.uk

I use technology to...
Access my email and find journal articles.

I use technology to... create, enhance and share photographs.

I use technology to... record all of my achievements. (using photos to

I use technology to... FACEBOOK (Reuben onefive)

I use technology to... help with studying via Studynet. (My courses Journals, Docum

I use technology to... advance my GIS skills. Programmes such as Arc Map and Arc catalog.

Blended Learning In Practice March 2010

The photo collage features students holding signs that read "I use technology to...":

- Support My Learning & my assignments :)
- (facebook) swap uni photos, learning support and networking
- access Placement info on memory sticks.
- help with my assignments
- Do everything! My favourites are CANVAS and STUDYNET & MSN / FACEBOOK
- communicate with others. (email, studynet.
- Access Voyager to search for books /electronic books and manage loans.
- Research for assignments (articles, journals) etc.
- Stay upto date with worldly issues.
- STUDYNET FACEBOOK MOBILE PHONES CHAT EVERYTHING!!! :)
- Comunication - phones Study - Google Scho Laptop - Studyne Send pictures to MUM

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