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Enhancing Learning and Teaching through Technology

Case studies: Portable

Introduction

Contributing institutions

Aberystwyth University

Making more mobile

Strategic objectives

This case study addresses the following objectives:

v. Enhancing the student learning experience

vi. Increased flexibility and accessibility

vii. Research

The project responded to student requests for access to the Blackboard virtual learning environment (VLE) via a mobile interface, which they felt would improve their learning experience through increasing their access to resources (for example, whilst away from their computers, whilst travelling etc).

Student feedback to the project demonstrates the ways in which those participating felt that their experience and ability to access learning materials had improved:

> *"I use my device a lot more. I used to bring paper to class, now I do all my work on Google drive, or in pages for iPad. I have blackboard open as another app, and I can switch between the two. It's been much better, as I don't have to have a lot of paper with me."*
>
> **Student Feedback on Blackboard Mobile Learn**

By undertaking research into student attitudes into using their own devices for learning and teaching activities, the university was better able to understand how and where to invest and what activities would be viable to run.

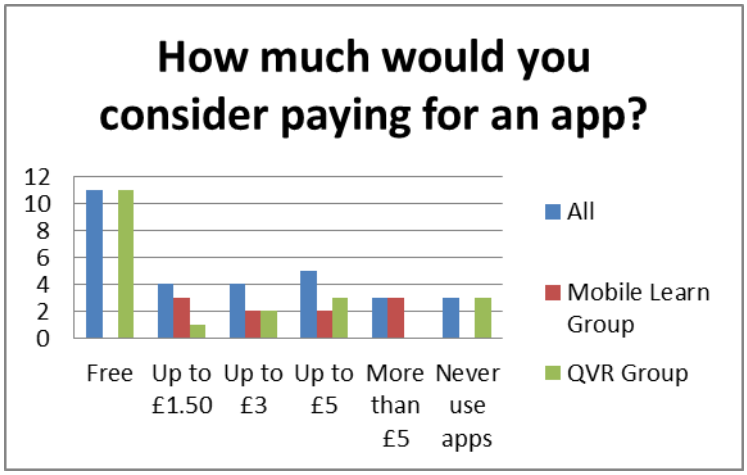
Issue

This project arose from requests received from students asking whether Aberystwyth University could enable access to Blackboard via mobile devices. It is unusual for us to receive direct requests from students for e-learning tool provision. Initially we were unable to enable the mobile interface because it would have required a large institutional investment. When Blackboard changed its pricing model, we were able to offer refunds to students wishing to purchase a personal licence for the Mobile Learn app. In addition, the JISC RSC Wales funding meant we were able to purchase a licence to enable in-class voting via personal devices. More information about the project can be found at http://nexus.aber.ac.uk/xwiki/bin/view/Main/Making+More+Mobile.

Background

When Blackboard initially launched its Mobile Learn service, institutions were required to pay a licence fee to allow students to access content via the app. The company then changed its pricing model to allow institutions to enable mobile access, with students purchasing an app to access on their devices. Costs are currently $1.99 for one year and $5.99 for life (approx. £1.49 and £3.49 respectively). Using funds provided the JISC RSC Wales Technology for Learning Small Grant Programme 2012/13, we were able to refund students purchasing the app. This allowed us to work with staff and students to promote the use of the Blackboard Mobile Learn app. We were also able to purchase an add-in to another product, Qwizdom QVR, which allows in-class voting through personal mobile devices.

As part of the project we ran surveys and a focus group to find out more information about students attitudes toward using their own devices for learning and teaching.



Impact

Although we offered refunds to students wanting to purchase the Blackboard Mobile Learn app, we found that only a few students were interested in receiving the refund, while a large number of students quite happily purchased the app and used it without ever contacting the team for support. We received 19 requests for refunds, but in the first year of the project saw over 120 unique logins from staff and students. Two years later, we now have nearly 800 unique logins through the mobile app, despite no longer heavily promoting the tool or offering refunds.

Staff were keen to use the Qwizdom QVR system because it allowed them to use in-class voting more easily – they didn't need to carry around so much physical kit as previously, as students could use their own devices rather than a heavy handset. Use of in-class voting at Aberystwyth is well used, but the amount of heavy hardware required to run large sessions can be a barrier to staff. Having presented on QVR at our summer Learning and Teaching Conference in September 2013, at least one member of staff was encouraged to use QVR on the basis of the mobile version (which meant she didn't have to carry handsets for a large module).

The results of the project have been presented in a number of places, including the European Blackboard Teaching and Learning Conference, where a number of institutions expressed an interest in the project, and were pleased to see that it had been successful as they had been unsure how to roll out Blackboard Mobile Learn in their own Universities.

As the project has proved to be so successful, it was agreed that the university would continue to offer the Mobile Learn app using the personal licence model, as well as continue purchasing the licence for Qwizdom QVR.

Why it can be embedded

Although this case study focussed on specific pieces of software, the general approach of exploring issues relating to Bring Your Own Device models can be used in a variety of contexts. When discussing mobile-enhanced learning activities, staff are often concerned that students will be unwilling or unable to use their own devices. The data gathered during this exercise demonstrate that students are familiar with using their own devices for learning and teaching activities. Mobile ownership is high and any gaps in ownership can often be easily remedied (for example through centrally provided loan equipment, students sharing devices or design of activities). The low number of students asking for refunds demonstrates that students are willing to pay small amounts of money for apps, and are familiar with using them for a variety of purposes. We believe that this case study demonstrates that Bring Your Own Device is a viable model for institutions. For institutions using the Blackboard VLE, the personal licence model is one that we believe we have demonstrated is a viable approach which is acceptable to both staff and students. For institutions using other VLEs, our approach demonstrates that students are willing to make a small outlay for an app that they perceive as useful.

The design principles for mobile friendly online courses, which we have developed as a project outcome, are applicable to any learning environment, and we have seen that good design benefits all users – these principles help users browsing on a mobile phone or tablet as well as students accessing via a standard desktop computer.

The project also demonstrates the value of developing a use case for investing in technology; without a concrete understanding of how a tool can be used in day-to-day practice, it can be hard to justify investment in terms of time and money. Small scale pilot, such as we undertook in Making More Mobile, allow institutions to ‘test the waters’ before making the case for institutional level funding.

Making More Mobile has also shown that both tools have proved useful to staff and students. Although the pilot phase has been small scale, it gave us the opportunity to test technologies before committing to a large institutional purchase.

Johanna Westwood and Kate Wright, E-learning Team, May 2014

Bangor University

Joint series of E-learning talks (Brownbag talks) between Aberystwyth and Bangor Universities

Background

During the Summer of 2012, the E-learning teams at both Bangor and Aberystwyth Universities decided to arrange a series of short E-learning talks to be held through video conference. The aim of the series was to share good practice in technology enhanced learning amongst staff at both institutions.

Academic staff at both Bangor and Aberystwyth were invited to give a short presentation describing certain teaching interventions or innovative projects in some detail, which allowed them to share their experience in using technology to enhance learning.

Six talks have been held per academic year, delivered using the Welsh Video Network. These were one hour sessions involving two presenters, one from each institution, with each presenter providing a twenty minute presentation allowing time for questions and discussions at the end.

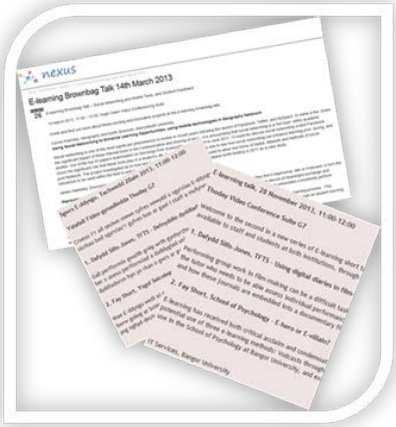
Recent topics covered include:

- E-assessment and feedback;
- Digital diaries, journal, blogs and wikis;
- Panopto Lecture Capture Software;
- Social Media Tools including Facebook and Twitter;
- Creating Open Educational Resources;
- QR Codes.

Screenshot from the bilingual presentation on using QR codes by Andrew Davies, School of Chemistry

Welsh medium presentations with simultaneous translation as well as bilingual presentations have been held, with the aim of promoting/facilitating Welsh medium education through technology.

The planning of the series was made using a shared 'Google Docs' page which allowed E-learning teams at both institutions to edit and update a planning document as required. Presenters were asked to provide a short summary of their talk which was translated and used to publicise the event.



Publicity material at both institutions

Benefits

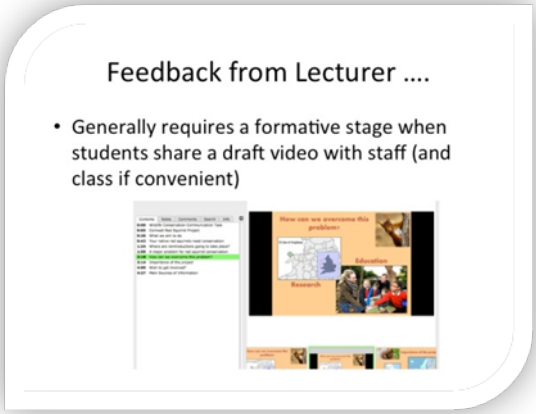
This series of short talks has allowed staff from both institutions to share their experiences in an informal setting, to question colleagues from the other institution, and to discover new ideas to further enhance teaching and learning.

> *"It provides a forum that enables me to meet the staff who are giving the talks, which then allows me to contact them to seek further advice and guidance in the future."*
>
> ***Dr Mike Beverley, School of Psychology.***

> *"The E-learning talks were excellent for sharing novel educational techniques. The use of a video conference allowed more discussion than just a video or report, as it allowed us to question other lecturers, to fully understand some of the practical implications of implementing new practices."*
>
> ***Dr Katherine Jones, School of Biological Sciences.***

The improved Welsh Video Network has allowed us to deliver these sessions to a much wider audience. Aberystwyth recently added the Llanbadarn Campus studio as an additional studio.

Working with the Academic Development Unit has allowed us to promote the events by including the talks as part of the PGCertHE staff development programme. Promoting the events within the Academy of Teaching Fellows has also proved beneficial in increasing attendance.



Screenshot from presentation on
Panopto Lecture Capture Software by Siân Edwardson, IT Services

Challenges

Certain technical difficulties arose occasionally when using the video conferencing equipment, for example when using the translation facilities. E-learning teams at Aberystwyth and Bangor have agreed to invest time in testing equipment before the next series of events to enable more effective use of the technology. Translation facilities are only installed in certain video conference suites which did present some limitations.

Future Developments

Plans are in place to continue with another series of talks during 2014-15, with many staff already expressing an interest in participating as presenters, to share their experiences of using technology to create innovative ways of engaging students.

Discussions have been held to extend an invitation to other institutions to participate, with the University of Wales Trinity St David already expressing an interest. The following quotation from a member of staff consolidates this suggestion:

> *"I would love to see these sorts of events expanded to more institutions, to further share good practice and so I can get to know more about other Welsh institutions". –*
>
> ***Dr Katherine Jones, School of Biological Sciences***

Plans are also in place to distribute feedback forms to attendees of previous talks to gather information and ideas on improving effectiveness, on future topics and timing of events to increase attendance and to encourage students to attend.

Inviting students as co-presenters is also an option which has been discussed.

Anecdotal evidence suggests that the series has been well received with staff at both institutions.

> *“Inspiring and insightful series of talks, with solid advice that can be applied in my teaching practice.”*
>
> ***Dr Fay Short, School of Psychology.***

Cardiff University

Implementing Interactive Whiteboard Technology

Background, challenge and intended outcomes

The introduction of interactive whiteboard technology into primary education in the early 2000s generated interest from other education sectors as to how this could benefit their learners. In 2006, Cardiff University received funding to upgrade and deploy/replace IT and AV equipment in its teaching rooms. There were additional funds awarded to provide new teaching equipment that would be of specific advantage to disabled students in the learning and teaching environment, and the functionality of interactive whiteboards met this requirement.

The approach

During 2006/07, 36 interactive whiteboards, PCs and data projectors were installed in teaching rooms across the University.

Benefits to the University

The PCs and data projectors installed in the teaching rooms were used extensively, however anecdotal evidence would suggest that there was little use of the interactive whiteboard technology.

Learning points and insights

Lessons learnt from this experience for the implementation of technologies more generally are:

- **Communication** - implementing new technologies must be communicated to staff effectively, outlining clearly the benefits to themselves and students, and what support is available to help them in its use.
- **Training** – plans for training must be considered during the initiation stage and outlined clearly prior to the implementation stage for any technology initiative, to ensure that once the technology is ready for rollout it can be utilised to its full effect from the start.
- **Time** - sufficient time should be allocated for staff to learn how to use the technology and to understand the pedagogic value of the technology; including how it can be of benefit to the students and themselves.

These learning points are now integral elements of any work undertaken to roll out new technologies.

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Cardiff Metropolitan University

Cardiff Metropolitan University's Peer Learning Networks

Key Words: mature students, peer learning, learning communities, social support, academic support, retention

Where was the initiative introduced? Across Cardiff Metropolitan University

Introduction

Funded by the Learning and Teaching Development Unit (LTDU), but developed and administered by students, peer learning networks are designed to provide students with an online platform, from which they can offer and access social/academic support and develop learning communities. Each network uses a range of tools such as discussion boards (for sharing experiences, asking/providing advice, posting useful links), multimedia (e.g. podcasts), learning resources (such as employability and academic skills), file sharing and social networking.

The LTDU provide support for the development of a range of peer learning networks within the institution. Two of the networks are programme-based; Speech and Language Therapy Society and PGCE in Physical Education, whilst other networks are open to the wider student community, such as the Global Campus and Mature Students communities.

Each network was developed in Sharepoint and made available via the student portal under 'My Communities'. Students interested in joining the online communities can simply click Register and wait for the network administrators to confirm membership. It is hoped that by encouraging peer support and collaborative learning, peer learning networks will lead to improved retention rates and academic progression of Cardiff Metropolitan University students. The following illustrates one of the networks.

Mature students' peer learning network

Background

The catalyst for this network was student withdrawal data, which was collected by LTDU using a survey that explored the reasons some students leave their programmes of study early. The results of this survey reflected the particular pressures that mature students face; lack of peer support and difficulties balancing home lives with work and study were frequently cited by mature learners as the primary reasons for leaving their programme before completion.

In an attempt to address these difficulties, the LTDU worked with a small number of students to develop a Mature Students Society that was open to all mature learners studying at the University. The Unit also funded a series of social events designed to encourage mature students to socialise and create peer support networks. The Society quickly accrued a large number of members, however, it became evident that whilst the Society was successfully addressing the issue of peer support, shortage of

time remained a key problem for mature learners that prevented society members from meeting/socialising regularly.

Approach:

A Student Intern was recruited to develop and coordinate a new resource called the Mature Students Peer Learning Network. The aim of the network was to provide mature students with an online meeting space where they could collaborate and forge friendships/social groups, share their academic, personal and employment experiences, offer and receive peer support and access relevant learning resources designed to help them maximise the benefits of their studies. Being online offers flexibility to learners by enabling them to engage in peer learning activities using the network's tools and resources at a time and place which is convenient for them. The Intern, Tom Richards, a second year student studying Speech and Language Therapy, began the process by consulting with mature learners and the Mature Students Society committee to establish user requirements. It was decided that the online space should comprise: a discussion board, file sharing capabilities, images, videos and testimonies from other mature learners, study skills and employability resources, links to useful information relating to being a mature student and a calendar to schedule Society events.

Users are able to participate in asynchronous discussions and engage in dialogue around social or academic issues. A range of learning resources are available via the network, on topics such as balancing work and study, time management and dealing with stress. These materials were carefully chosen based on feedback from mature students and an analysis of learner needs. Study skills help was also made available because research revealed that, often, mature students have been out of the education system for a significant amount of time which can cause some learners to lack confidence in their academic ability, and others to require a refresher in academic skills, such as referencing. Tom also developed a number of practical guides for mature students on, for example, setting up university email on a smart phone and planning for a dissertation, and also provided useful documents including exam timetables.

Being online offers flexibility to learners by enabling them to engage in peer learning activities using the network's tools and resources at a time and place which is convenient for them. However, face-to-face meetings are also highly valued and therefore in May 2012, Tom organised a mature students' coffee morning, an opportunity for students to socialise and enjoy a free coffee and cake.

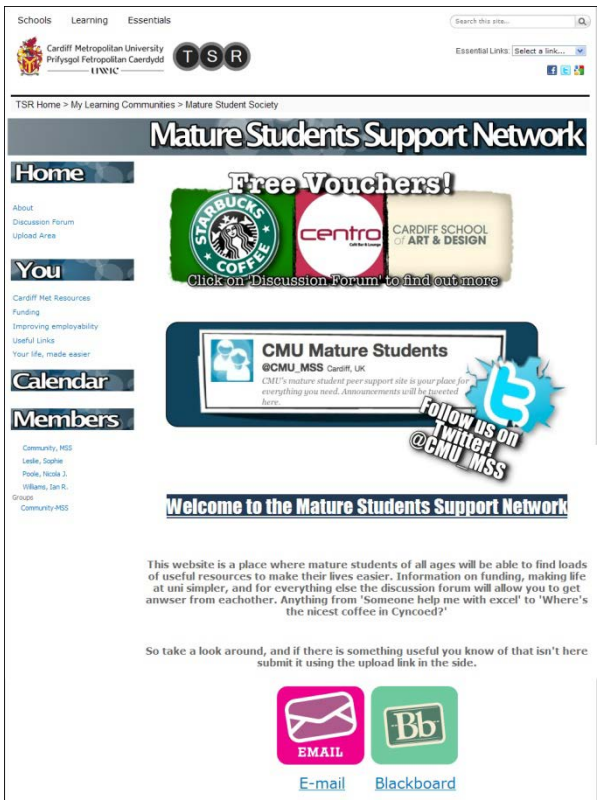
This event was also used as an opportunity to showcase the network and recruit new members. Following the coffee morning, a calendar was added to the network to enable members to schedule further social events.

Anticipated outcomes

Expected outcomes included:

- Improved access to social and academic support for mature students;
- Increased satisfaction and engagement of mature students;
- Lessening of the barriers to learning experienced by mature learners;
- Improved retention rates amongst mature students.

Evidence of actual outcomes



The resource has helped mature students to overcome several key barriers to academic progression, including: isolation and loneliness caused by the lack of a social network; the lack of time to develop and maintain friendships; and, difficulties balancing work, academic and personal responsibilities. Members of the group appreciate the easy access to relevant online materials that support the development of academic skills, and which help learners to cope with the particular pressures of being a mature student. Feedback from mature students indicates that the network has significantly improved access to peer support, which is particularly helpful during busy periods

when face-to-face meetings are not possible. Discussion forums and threads were found to be especially useful for seeking advice on academic issues and socialising with fellow students. Whilst many learners use a range of social networking sites, the fact that the peer learning network is separate allows learners to be open and honest with peers who understand their problems, without having to publicly disclose their concerns to friends outside the University.

In summary, the network:

1. Improved mechanisms for accessing and offering peer support amongst mature students;
2. Provided mature students with a platform from which to socialise with peers at a convenient time and place;
3. Helped users to overcome several key barriers to progression, including: isolation and loneliness caused by the lack of a social network, inability to find the time to make and maintain friendship; and, difficulties balancing work, academic and personal responsibilities;
4. Developed a virtual meeting space over which learners felt a sense of ownership and from which students could engage in collaborative activities, whether personally or academically oriented;
5. Provided students with access to relevant online materials that support the development of academic skills, and which help learners to cope with the particular pressures that this group of students commonly face.

Student testimony: Tom Richard, Student Intern for the Mature Student Peer Learning Network

"My role was to help create, market and maintain a new website for mature students across Cardiff Met. The Mature Student Support Network is a resource bank for mature students with a discussion forum for mature students to connect with one another.

The internship has really developed my IT skills, organisational skills and communication skills and has given me experience of liaising with personnel from many areas of Cardiff Met - including the LTDU, Finance and Student's Union. It's also provided me with greater insight into the challenges many students face when they are trying to juggle an intensive degree program with family and work commitments.

To advertise the network, I have put an advert in the student magazine, on the TV screens around campus and I have also held an informal coffee morning to show students the website, the features available and introduce students to one another. This helped to promote a sense of community amongst mature learners, and will hopefully help to reduce the sense of isolation students can sometimes experience, especially in the holidays when people go home and feel cut off from the student microcosm. I believe that in doing so we will help to reduce withdrawal rates, whilst enhancing engagement, attainment and progression.

Aside from having a bit of extra money I feel like I'm doing something really useful for my peers, and it's been really beneficial to my professional development. It's helped improve on many transferable skills and is a good primer for the challenges and organisational skills required in the majority of employment roles after graduating."

Reflection/impact

This case study has shown that working in partnership with learners can lead to mutually beneficial outcomes. Students contributed strongly to the development of the peer learning network and took ownership over the resource once created. It is believed that this ownership gave learners a sense of empowerment, and was a factor in the high levels of student engagement with the resource. It also meant that students could continue to develop the online community and mould it to fit their own requirements.

Working in partnership with learners allowed the LTDU to explore the unique needs/concerns of mature learners, and to develop a resource that addressed their particular needs. The approach has since been adopted elsewhere within the University in order to benefit additional student groups.

Finally, the case study demonstrates that technologies need not be expensive or complex in order to be used in exciting, effective and innovative ways. Sharepoint, the University's content management system, was found to be fully fit-for-purpose. Cost is often a major barrier to new initiatives such as these, and this case study shows that valuable resources, with the potential to improve student retention, can be developed at little cost to the institution.

Glyndŵr University

Process and Product: Using Web 2.0 technologies for problem-based and collaboration in nursing.

Clive Buckley, Glyndŵr University

Background

This case study explores how a Web 2.0 technology, in particular a wiki, has been used to facilitate group work with undergraduate nursing students at Glyndŵr University. In employing a wiki to facilitate student collaboration, tutors are able to observe the process by which students develop their final presentation, providing an opportunity to scrutinize group dynamics. This also enables assessment of the process of collaboration in addition to the rather more common process of assessing the final product of group work. It is widely recognised that assessing just the product of group work has significant shortcomings; it is difficult to determine how well the group worked together and whether members of the team contributed equally to the product or whether some took on more of the task than others. There have been attempts to compensate for this, for example peer assessment has been used to enable members of the group to allocate marks to one another. Again, this is not without difficulty as students sometimes yield to peer-pressure and award higher marks to group members than are truly justified. Using a wiki for group work allowed tutors to monitor group progress and the contributions made by each group member. Marks can then be awarded for both the process and the final product. Knowing that tutors are observing individual contributions also encourages all members of the group to participate.

Established practice

Problem and scenario-based learning has been adopted across many nursing programmes, and one of the main aims of PBL (problem-based learning) is to promote autonomous learning by encouraging students to take some responsibility for their own learning (Ousey 2003). The PBL framework at Glyndŵr was used to teach student nurses about possible trauma issues in a clinical practice setting. The ‘trauma' based PBL was introduced at the end of the 2nd year of a pre-registration Bachelor of Nursing (Honours) Degree Programme, and traditionally small groups of students would meet on campus to collaborate on approaches to different scenarios. Meeting on campus posed a number of logistical issues; the nursing programme drew students from a dispersed and largely rural area and arranging convenient times to meet was difficult; travel expenses were also not insignificant.

It was proposed to use a wiki to facilitate a more flexible medium that students could use to collaborate at distance and without associated travel costs. Students could still meet on campus but were encouraged to use the wiki, as this would be monitored by tutors to gauge participation levels.

The challenge

Whilst many within nursing are comfortable with technology, when Glyndŵr introduced the wiki use in 2008 there was some resistance from both students and

staff. Web 2.0 technologies were relatively new, although most students were familiar with Facebook which has similarities to a wiki. Some staff also expressed concerns about their own technical skills but, with training, these concerns largely dissipated.

The pedagogical approach

In the pilot stage it was decided that wiki contributions would be observed but not assessed; staff did not want to disadvantage those that were uncomfortable with the technology or those that had poor internet connectivity. It was also decided to set very few 'ground rules'; students were instructed to follow 'netiquette' behaviour but were allowed to conduct their collaboration as they deemed fit. Tutors hoped that allowing students to take responsibility for their own approaches would encourage a degree of freedom and the formation of communities of practice. Tutors would only intervene if inappropriate behaviour was observed, but this was an extremely rare occurrence and students behaved professionally.

After initial reservations, students quickly adapted to the medium and tutors observed a very high level of participation. Interestingly, although students were aware that tutors were monitoring the wikis, they tended to adopt informal language ('text-speech') rather than the more academic language they would use in class or in written assignments. This could be interpreted as an indicator of student acceptance of the medium.

Example student posts:
"c u tomorrow" - see you tomorrow
"hope u are all happy" - hope you are all happy
"Dus any 1 no" - does anyone know

Tutors also noted that students, normally reluctant to contribute to classroom discussion, embraced the opportunity to debate and contributed enthusiastically. This behaviour, which would not occur in a traditional face-to-face classroom, suggests that students' perception of the electronic medium and the "rules" of social engagement were significantly modified. Without the physical classroom environment, and isolated from direct contact with tutors and peers, new rules of discourse developed. Students, in effect, established a set of social norms specific to the virtual environment within which they were operating.

The intended outcome

The decision to introduce a wiki for group work was driven by both pedagogic and pragmatic objectives. The use of PBL, scenario-based learning and group work were seen as powerful strategies to facilitate learning, but assessing group work was fraught with difficulty as it was near impossible to establish how the group work was distributed. By observing the process of collaboration, it was hoped that tutors would be able to evaluate the degree of individuals' participation. In the pilot stage it was decided not to formally assess this participation but it was anticipated, if the pilot was successful, then this would be a consideration. Pragmatically, it was recognized that having students meeting in person was challenging and potentially costly for the individual; moving to the online environment removed some of these barriers.

The e-learning advantage

In terms of learning and teaching, there have been significant advantages of using a wiki for group work. Students, free from the constraints of time and location, can collaborate when and where it is most convenient. The online platform also gives those who find it difficult to contribute in a classroom a 'voice'. The asynchronous nature of the collaboration means they are able to take time to formulate their thoughts and to make considered responses to any discussion. Tutors can observe the collaborative process and evaluate the contributions made by individuals. Following the pilot stage it was decided that the wiki group work would form part of the assessment, recognizing that the process of collaboration is an important element in the construction of the product.

Students have largely welcomed the fact that tutors are observing (and latterly assessing) the wiki contributions. In a student survey:

- 83% of students agreed to the statement *"The wiki was useful in helping us share ideas and resources"*
- 76% of students agreed to the *statement "I would like to use a wiki for group work in the future"*
- 68% agreed that *"Our group work improved because we used a wiki"*

With regard to the pilot being observed by tutors, only 37% agreed with the statement that they "would prefer tutors could not see our wiki pages".

Key points for consideration

- Technology should not be seen to be automatically replacing traditional practice, but as something which can potentially enhance practice.
- Low-risk pilots can be a successful strategy for introducing change.
- Pragmatic solutions to problems can have unexpected gains.

Additional information

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Or contact Dr Clive Buckley: c.buckley@glyndwr.ac.uk

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Grŵp Llandrillo Menai

HE Assistive Technology for Wales

Subject area

FdA Deaf Studies

Rationale and aims

The aim was to create a sound support base to embed video clips as a new resource for teaching and learning on the Foundation Degree Deaf Studies programme.

Coleg Llandrillo's Lead Tutor on FdA Deaf Studies is David Duller, who is profoundly Deaf. The project initially was formed as David had ongoing difficulties communicating with other sign language colleagues and students in other HEIs/FEIs. He also wanted to capture signing resources, in order to use within teaching of the programme. The overall ethos was to embed video based resources for learning, teaching and networking within the FdA Deaf Studies programme.

Scope and context

The team for the project included a number of teaching staff from the Deaf Studies programme and support staff from ICT Services and the college's ILT Champion.

ELTT elements addressed

Objectives

Enhancement of Learning, Teaching and Assessment, and of Core Processes

i. Emphasising learning rather than technology

ii. Mainstreaming the role of technology in enhancing learning, teaching and assessment

iii. Staff development

iv. Enhancing other core processes through use of technology

An Enhanced Student Learning Experience, including increased flexibility and accessibility of provision

v. Enhancing the student learning experience

vi. Increased flexibility and accessibility

Effective Collaboration and Sharing of Current and Good Practice

ix. Collaboration

Indicators of success

Enhancement of learning, teaching and assessment, and of core processes

- Ongoing evaluation of enhancement of learning and teaching through technology;
- How technology has been used to facilitate the development of new pedagogic practices and assist in curriculum transformation;

  and include scholarly and academic literacies appropriate to the digital age;
- That learners and staff at all levels agree that technology is used in a relevant and beneficial way, while being integral to effective operation of the institution.

An enhanced student learning experience, including increased flexibility and accessibility of provision

- Where and how technology supports an enhanced student experience;
- Strategic understanding of the importance of technology in enabling flexibility and accessibility of learning;
- Timely adoption of appropriate technologies, with quality materials provided for all learners;
- That technology is used appropriately to strengthen and enhance Welsh medium learning, address equality and diversity, and foster lifelong learning;
- That technology is integrated into operational processes for increased flexibility and accessibility of learning;
- That the student experience has been enhanced through working collaboratively and sharing experiences and outcomes.

Effective collaboration and sharing of current and good practice

- The benefits of collaborative activity, resulting in effective dissemination, sharing and promotion of good practice in the use of technology to enhance the student experience;
- Increased collaboration within and between institutions in Wales, the UK and globally, including open educational resources, shared services and cloud computing as appropriate.

Overview

The project aimed to create a small library of 10 ‘bite size’ video resources of 2-4 minutes long where possible. The shorter videos were deemed to hold the learners attention more effectively, giving smaller bursts of information. The students also would be taught how to film and record themselves onto USB sticks and where appropriate, upload them onto Moodle (VLE) for tutor feedback. This would enable them to keep a track on signing improvement and reflective tool within the academic year.

The first draft videos focused on **Regional variation** showing examples of how a sign can vary depending on locality and **Word order** to show how British Sign Language (BSL) is structured.

Following the Coleg Llandrillo Cymru merger with Coleg Meirion-Dwyfor, the internal collaboration extended to include an additional BSL tutor based in Dolgellau. This project was then extended to incorporate meetings via this new technology with the new campus and additional members of the team.

The lead tutor on the FdA programme was given support to ensure a thorough understanding of using webcams, and how to make the video resources to upload to Youtube.

The development phase went smoothly and the lead tutor was happy with the quality and method of the video production. At this time, YouTube was being used both as a web based storage area and a video formatting tool converting WMV to mp4 format. There were a few teething problems at the beginning with saving the videos to YouTube.

It was hoped that the student experience would be enhanced by having access to this video repository, and also utilising this as a reflective learning tool by being able to film themselves, this is still currently ongoing.

The External Moderator and Examiner for this programme visited around this time, and both were enthused that our FdA programme has taken innovative steps to enhance the student experience.

Linking remotely with other educational institutions utilising the video communication licences purchased from two companies called ooVoo and Sightspeed is still being forged.

We evaluated the effectiveness of ooVoo and Sightspeed video communication software as tools to link remotely with other educational institutions. ooVoo was found to provide the most user friendly interface and functionality.

We began to explore other areas within the programme where the technology could be used. We spoke about recording key lectures, in this and other areas of Llandrillo, as a possible extension to this project for the coming year. It was agreed that all HE programmes should been informed of this technology and benefits. This has been communicated to all on email and information disseminated within our Curriculum and Standards Committee, HE Co-ordinators Meeting and also the Higher Education Quality and Standards Group. We hope that by being in partnership with a global education provider, it will help build networks for students and staff in time to come.

Benefits and impacts

This project greatly enhanced our learning resources and reflective learning practice for this programme. It has enabled us to engage with video resources and communications for a curriculum area where face-to-face meetings, in-person or

online, is crucial. The video resources have also stimulated a greater use of the college's Virtual Learning Environment (Moodle) by students following the programme.

Students can access the BSL clips on the Youtube and Moodle VLE. They can watch them as often as needed in order to improve their receptive and productive skills in BSL. This has provided students with the flexibility of engaging with the technology outside of the campus.

A repository of BSL video resources is now created and will grow in future years, helping to build on students practical and language skills and enabling cross college communication. This work also builds student/tutor engagement and peer review, and develops reflective practice for tutors and students.

Learners provided encouraging feedback to the usefulness of the resources. We intend to enhance this by building up the students' knowledge and skills associated with the structure, and functions of BSL specifically covered in the videos.

Conclusions or lessons learned

The project provided a stimulus to engage with video technologies to create new and innovative resources open to any teacher or learner via Youtube. College students can also access the resources via Moodle as part of the structured delivery of the programme.

Learner feedback showed that the students clearly had engaged with the videos, they felt that they were useful and effective within their learning and reflection. They also felt that the access to the videos was easy and the picture quality was clear. A sample of the comments made included, 'this is a brilliant way of accessing this information from home and I feel it is explained very clearly with good examples' and 'this is exactly what was needed for the signed reflection on linguistics, very useful'.

It is rewarding that the project will have a lasting and effective pedagogical influence on the programme, and it will carry on and grow in the coming academic years.

Links and further information

You Tube videos: www.youtube.com/user/fdadeafstudies

http://moodle.gllm.ac.uk/course/view.php?id=3543&username=guest

Further opportunities

The videos are available online and we would welcome opportunities to work with other Deaf Study tutors who share a common interest. The aim is to further embed and build on what we have achieved to date, and to build on the networks in other HEIs in order to share these resources and foster a community of interested parties of learners and tutors.

A major updating of these processes is scheduled so that staff can take advantage of improvements in hardware and software (including mobile devices), and the new streaming media facility shortly to be installed.

Contact details for further information

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The Open University in Wales

Open Educational Resources (linked to the ELTT Strategy Objective vi: Increased Flexibility and Accessibility)

The Open University has made a strong commitment to supporting its students, other educational providers and learners around the world by providing a substantial suite of Open Educational Resources (OER) across a number of platforms, including iTunes U, YouTube and the OU's own *OpenLearn* site.

OpenLearn provides free access to a wide range of learning materials from The Open University. Launched in October 2006 thanks to a grant from The William and Flora Hewlett Foundation, the vision for *OpenLearn* was to offer free online education, open to anyone, anywhere in the world and thus far over 23 million people have accessed the site and its resources.

Providing over 8000 study hours of learning materials from Open University courses, *OpenLearn* continues to grow with new course materials being published regularly in the *OpenLearn* 'Try' section. Moreover, *OpenLearn* now also gives access to topical and interactive content, from expert blogs, to videos and games linked to the OU's BBC television programmes.

In Wales, the OU has recognised the value of *OpenLearn* to support the University's widening access work. For instance, through the Reaching Wider partnership, we are working with education, community and voluntary organisations to bring *OpenLearn* to mid and north Wales. We have been running a series of free training courses for people working in the community to train them as *OpenLearn* 'Champions.' This enables them to support others to use *OpenLearn* and start their learning journeys in whatever way suits their individual circumstances and study goals. The *Open and Online* report recommended that this work should be rolled out across Wales.

The OU in Wales has also developed a series of *Pathways to Success* guides which support learners to navigate the resources available through *OpenLearn* in a variety of academic subject areas. For further details see: www.open.ac.uk/wales/study/free-online-learning-open-university/pathways-success.

Based on the model of *OpenLearn*, the OU in Wales is currently developing *OpenLearn Cymru*, a discrete site that will provide OER through the medium of Welsh and/or of relevance to the study of Wales-related topics. This work also supports the ELTT Strategy Objective ix: Collaboration as the site and resources are being developed with input from the Coleg Cymraeg Cenedlaethol and JISC RSC Wales. The site will also provide a platform for the collaborative development of new resources with other educational providers and sector bodies in Wales.

Swansea University

Widgets for Everthing?

Chris Hall, Manager of Swansea Academy of Learning and Teaching

Students need to receive accurate information about their course modules. As well as being accurate, this information needs to be easily accessible. Across the University there was an issue with inconstant information being held and presented to students in multiple places. Therefore each time information was re-entered there was the possibility of errors. The information that supports learning, such as learning outcomes, module synopses, syllabus, assessment components, timetables and reading lists, needs to be held in one place and available to students in the most effective format.

The University Intranet is where all information about programmes, modules and individual students is held. The Intranet should be the repository of all accurate information.

The MyStudies section of the University VLE is the focus of students learning across the University. It is the place where students access their course material, submit their work and get their feedback as well as their grades.

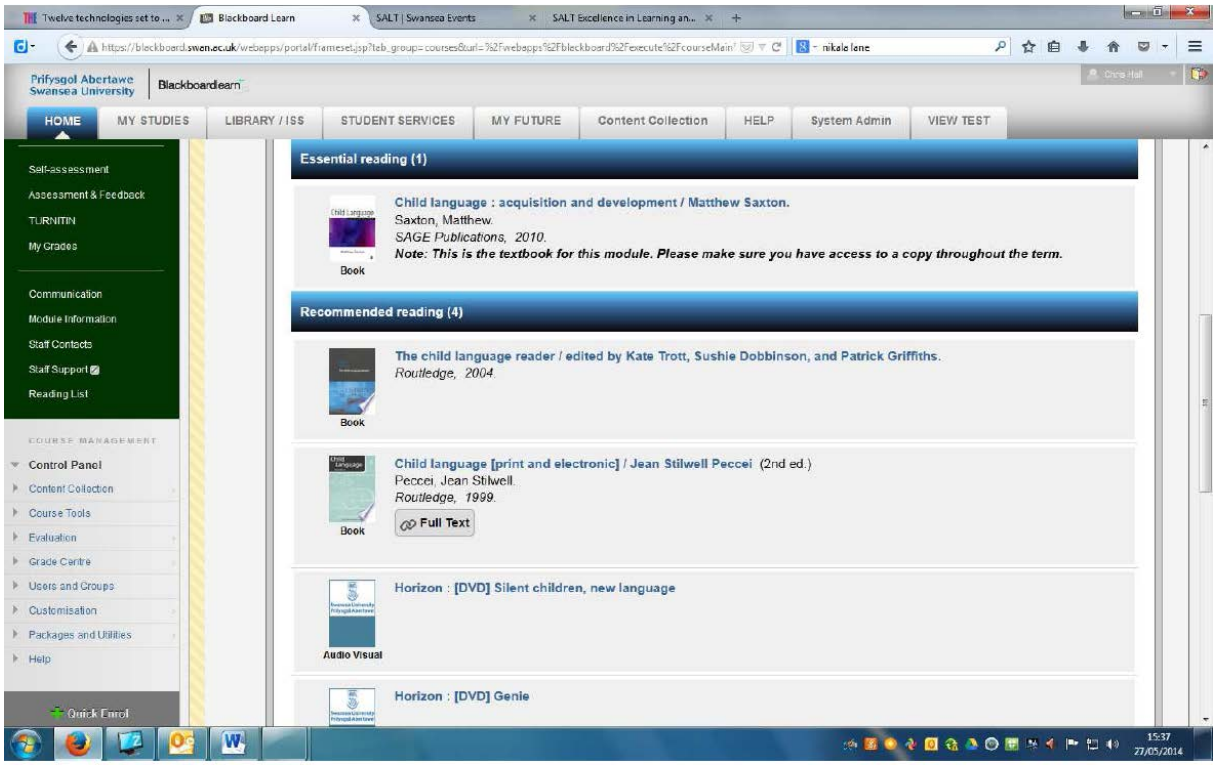
It was decided that the Intranet would be the central point of information that would then be fed to all other systems. Students would be able to access the information relating to their module via the module sites in the VLE. In order to enable this, a widget was developed that pulled information from the Intranet and placed it in the relevant place of the appropriate module in the VLE. This would enable the information to be entered once, in the Intranet, and not have to be re-input into the modules in the VLE. This would reduce the chance of errors, and also reduce the staff time needed to add and update information.

This was initially trialled with the Learning Outcomes, Synopsis and Syllabus sections/areas for each module. At the start of the academic year a new menu item ‘Module Information’ was added to each existing taught module in the VLE. All new modules were created with the new menu item. Once the widget concept had proved successful and robust it was then applied to other information.

Encouraging students to read has been a theme of recent work at the University https://blackboard.swan.ac.uk/bbcswebdav/institution/LibraryISSResources/Teaching%20Materials/SALT_Round_Table.pdf.

One of many strategies to encourage and develop student reading was to improve the module reading lists. The University had recently purchased rebus:list which is designed to manage university course reading for academic libraries, and fundamental to the design is the concept of complete reading list management aimed at supporting the entire workflow of generating, maintaining, and managing reading lists. The same widget architecture was used to embed interactive reading lists from rebus:list to modules in the VLE.

The Reading Lists are managed by Academic Staff and Subject Librarians, within the Rebus system that links with the Library Catalogue. The reading list is then embedded in the module site in the VLE using the widget. An example of the Reading list in seen in Module sites is below.



Reading list embedded in the VLE

Students can follow links directly to electronic sources, such as e-books and journals, and to links in the module catalogue for physical items. As with the Module Information widgets, the information is held in one central place and then delivered to students in an appropriate format within the VLE.

In the recent re-benchmarking exercise when asked, “What has been the best use of technology to enhance and support your learning that you've experienced while you've been at Swansea University?” students highlighted, having module information in Blackboard and access to e-books and journals.

Following the development for the VLE, the widgets have also been used on the University website to deliver information for prospective students.

This is an ongoing process and currently widgets for electronic timetables, staff information and assessment components are in development In addition, the widget concept is also being used to automatically deliver video for specific modules that is held in the Universities streaming server.

University of South Wales

23(ish) things - an introduction to digital tools

Case Study Objective: Enhancing Learning, Teaching, Assessment and Core Processes

Key Words: digital literacy, social media, staff development

Where was the development introduced: throughout one department.

Aim

Managers at the library were concerned that they were not taking advantage of potential digital tools that are frequently discussed in relation to improving or marketing library services (such as blogs, twitter, QR codes, etc). In addition, the number of queries about digital technologies that library staff were receiving had increased significantly over the past few years. The 23(ish) things course was developed in response to these concerns, to familiarise library staff with digital technologies such as social media. This was designed to increase their confidence and understanding of the role of these tools in higher education in general and the libraries in particular.

Description/approach

A pre-assessment activity was carried out before any training was planned, in order to decide what sort of technologies staff needed to know about and what level of training was needed. This pre-assessment took the form of a simple survey that all library staff were required to fill in. It gave them simple multiple choice options about their familiarity with a vast range of digital tools, services and websites, as well as room to specify if there was anything they particularly wanted to know about or were concerned about.

For this literacy intervention, pre-assessment was extremely useful as it formed the basis for selecting the content of the course and demonstrated the level at which we'd need to pitch the material.

23(ish) things is an online course designed to introduce participants to a range of new websites and digital tools. It is based around the ‘23 things model’ popularised by Helen Blowers. The original model challenges participants to try out 23 digital things (websites, tools, apps, etc) over the course of twelve weeks and write a reflective blog post on each one. The course leader puts out guidance and challenge details via their own blog.

This model was adapted in various ways to suit the needs of the library staff at the university. First, the course was made private rather than public, taking place on Moodle rather than on blogs, with discussions taking place via forums rather than blogs. This allowed the staff to learn without worrying about students or members of the public seeing any mistakes, and for ideas for new library procedures to be debated and discussed privately.

Each week, staff were introduced to two or three 'things', digital tools or websites, through online guides describing how, and more importantly, why these tools can be used. Guides were a mixture of text, images and videos and focused on the use of these tools in the context of the library service - e.g. how Facebook/Twitter/Evernote/Forums could be used to support library users, promote the service or help with library work. The introduction to each thing was then followed by a task. In the original 23 things course, this task would have involved trying out the tool but many staff were concerned about privacy and signing up for social services that they would no longer use after the course. For this course we thus only enforced the use of tools that didn't require signups (e.g. picture editing, viewing blogs, searching twitter, etc). Where it was impossible to use a tool without signing up, detailed demo videos were included and then staff were asked to reflect on and discuss the use of these tools in the forums.

Anticipated outcomes

- Improved knowledge of the various digital tools - what they are, a basic understanding of how they work and why/how they might be used in higher education. We expected that this knowledge would allow to staff to be better able to answer simple IT related queries that can arise in the library where there are a large number of computers but no dedicated IT staff;
- Improved confidence levels about social media - by providing clear explanations and demos of the different tools, we hoped that some of the mystery and fear of services like Twitter, which can seem incomprehensible to the non-user, would be removed;
- Improve the library's use of social media and other services, in order to improve their marketing and interaction with students on these platforms. By introducing all these tools and explaining the importance of managing a digital presence, it was hoped that staff would be able to improve the library's online presence through blogging, twitter and social media interactions. These tools can improve student experience as they allow for easy interaction and answering of casual queries, as well as fast dispersal of information and news of issues like changes to opening hours, problems with databases, or new resources.

Evidence of actual outcomes

Participants blogged about their experiences, commented on their learning and how this had impacted on their work, and contributed ideas for continuing development demonstrating engagement and benefits.

Specific challenges/opportunities created by this initiative

Opportunities:
23(ish) things can easily be adapted and updated to be made available and relevant to all staff at the university. Online delivery means that it's as easy to deliver to 200 staff as 20. The course is a great opportunity to get staff familiar with the very basics of a lot of tools, which can get people to start thinking about the potential of these tools to improve their teaching and learning practice.

Running the course in groups with closed forums means that the staff can start discussions which stimulate thinking about different uses and best practice for applying these tools to practice - a definite opportunity for developing new ideas.

Challenges:
Staff time needed for developing, running and updating this course was not inconsiderable. The tools and websites featured on this course change frequently, which means that the course needed updating regularly - even within the twelve weeks some of the services updated and completely changed some functions, which meant a last minute rush to change the guide. Over the twelve weeks the online course leader was needed to spend at least a few hours a week interacting with trainees, checking material and updating as necessary. If the number of staff on the course at one time was considerably higher, it may require more than one staff member to manage.

Encouraging staff to take the ‘next steps’ after the course was difficult as the course has an end point after which support wasn’t as easily available. Direction to further support in the form of an online resource bank, further training, and a forum for continuing discussions of best practice ideas would be ideal and could be set up if the course was developed across the university.

Reflection/impact:
Introducing staff to all these digital tools is a great way to empower them by increasing their confidence in the digital environment. It removes a lot of mystery from social media and encourages staff to become autonomous digital users - once they get familiar with several tools, they begin to see that there are many more available and that many of them are pretty similar to use. Staff enjoyed having the opportunity to ‘play’ with some of the websites, and many mentioned discovering that there were websites or services available for things that they didn’t even know were possible.

The use of forums and facilitated discussions also proved influential, as they stimulated discussions between staff who ordinarily had little interaction due to working at different campuses. Library managers mentioned that having had these discussions online, the staff then seemed a lot more comfortable with each other when they did work together, thus creating a far more cohesive team. If this course could be widened to staff around the university it has the potential to facilitate interaction between staff across departments or campuses who wouldn’t otherwise meet.

On reflection, to improve the course, it would be better to reintroduce the requirement to actually use every single ‘thing’ rather than allowing staff to just learn about the ones that didn’t require a signup. Whilst privacy is a valid concern, I think that those engaging in this course need to actually use the tools as this will allow them to engage in active learning. The course can also guide them through the privacy settings of each tool, which will give them a better understanding of online security and privacy and thus negate some of their concerns.

University of Wales Trinity Saint David

Preparing staff for changing VLE platform

The University's TEL Strategy Working Group had developed, through the activity associated with the Gwella Project, the view that the world out of which TEL developed was itself rapidly changing and that any approach that did not recognise that newer, faster, better would be coming along soon would risk committing itself to a technology that would become outdated and the world is littered with outdated technologies.

The Group realised that the most important task it faced was not so much introducing particular, current technologies but rather changing a culture in which certain technologies had become bedded in. For this reason, TELSWG championed changing the VLE platform from Blackboard to Moodle: not only because of the perceived benefits of one platform over another, but from a conviction that academic staff had to become used to changing technologies as technologies changed.

This conviction led the Group to re-cast its vision: more important than introducing particular technologies for staff to use would be helping them to develop the skills required to move from new technology to new technology as they appeared. It would be more important, for example, to be able to recognise the advantages offered by a new technology; to be able to develop new uses for existing technologies; to re-purpose and to mix technologies; to recognise quickly when the useful lifespan had been exceeded and to be able to switch to something new as quickly as possible by reducing investment in particular technologies; all these and other new and transferable skills had to be developed. The changeover of platforms was an ideal model case study for the Group as many staff had already invested heavily in Blackboard, become used to it and would view change as alarming.

To facilitate this process the timescale was reduced for the changeover from three to five years to one year. The procedure was completed by July 2010, having been begun in October 2009 when the decision was finally ratified by senior management.

Colleagues at the CAMEL event on VLE at Cardiff University in November 2010, were surprised that we had taken such a step though they understood our reasoning. A not dissimilar reaction had greeted our announcement at the Gwella event in October that this was our intention. Other institutions had made the change: others were contemplating the change. Many were asking themselves whether or not they had become too dependent upon a particular platform to disentangle themselves from the relationship.

The approach

Once dedicated staff had been put in place the new VLE was constructed on a 'dummy' site, to which practice access was provided to staff who had completed initial training.

Those staff who completed initial training early (the 'early adopters' in Everett Rogers' model[1]) were used as 'champions' to encourage their colleagues, so that the team could develop an 'early majority (Rogers, 1962)' as quickly as possible.
Staff and students were notified on the existing site by a 'countdown' that the changeover would be taking place and when it would be taking place, and at midnight on 31st July 2010 the changeover did take place.

The date was chosen to be as little inconvenient as possible: late enough so that all business of the session just closing could be completed: early enough to enable staff and students to manage the re-submission/examination period in early September. Very few difficulties were encountered.

Lessons learned

One observation that is apparent from staff training sessions is the wide range of IT skills amongst staff. This range of skills can, at times, cause problems during training as some staff require a much greater degree of hand holding than others, which can cause frustration for others as the pace of the training slows. This range of IT skills may also hinder the use of TEL as some staff may feel they are being left behind. It has been a priority to develop support structures to assist them as they develop their skills.

Another issue that has arisen is the timing of training sessions. Sessions are held at a variety of times and days across the working week, but full attendance for centrally arranged sessions is very rarely achieved. This is mainly due to work schedules and commitments of staff and possibly as TEL engagement is voluntary. There has been an increase in School/Programme team arranged training targeting a particular aspect that staff are interested in, this type of training will be developed and promoted further across the Institution.

[1] Rogers, E. M. (1962). *Diffusion of innovations*. New York: Free Press