

Enhancing Learning and Teaching through Technology

Case studies: Showcase



Introduction

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Aberystwyth University

AU Exemplary Course Award

Strategy objectives

This case study addresses the objectives in the Enhancing Learning and Teaching through Technology strategy listed below:

- i. Emphasising learning rather than technology
- ii. Mainstreaming the role of technology in enhancing learning, teaching and assessment
- iii. Staff development
- v. Enhancing the student learning experience
- viii. Benchmarking provision

Aberystwyth University (AU) used the Blackboard Exemplary Course Programme rubric to help staff redesign their modules, in order to enhance the student learning experience. The rubric focuses on recognised good practice in learning and teaching, and thus puts learning processes ahead of technology. What made the rubric particularly attractive is that the evidence-based principles promoted by the HEA and other bodies (such as constructive alignment, deep learning, reflective practice, etc) are embedded in the rubric in ways that are clear and easy to implement.

The staff development activities that are central to our implementation are based on both academic and digital literacies, and evidence-based practice. The rubric itself serves as a form of benchmarking, and we used the rubric in order to redevelop our own Blackboard Required Minimum Presence (RMP), which is the standard for appropriate use of Blackboard at AU and mainstreams use of technology for learning and teaching.

Issue being addressed

It is not always easy for staff to think 'outside the box' and use Blackboard as more than just a repository for lecture notes. The effective use of Blackboard is a common issue across the UK, as identified by Jessica Poettcker, Student Engagement Consultant for the NUS, (Poettcker 2013). At Aberystwyth University, we wanted to empower staff to use Blackboard to its fullest potential. The Exemplary Course Program (ECP) rubric, developed for Blackboard's Catalyst Awards, provided a useful tool for changing practice (Blackboard 2013) and encouraging staff to explore effective use of Blackboard.

To encourage staff to use Blackboard to its fullest potential, we carried out three activities:

- Embedded selected elements from the rubric into our Blackboard Required Minimum Presence (RMP);
- Trained staff in using the rubric to redesign their modules;
- Implemented a local competition, the AU Exemplary Course Award (AU ECA).

What we did

Within one calendar year, we went from the initial concept to implementing the AU ECA and embedding it into core practice. This rapid deployment is due in large degree to support by senior management.

The timeline of our activity is listed below:



In April 2013, I attended a workshop on using the rubric at the Blackboard Teaching and Learning conference, and recognised it as a tool that would meet our needs at Aberystwyth. The E-learning Team reviewed the rubric and identified particular items that would be most appropriate for our context at Aberystwyth. We then expanded our Blackboard Required Minimum Presence (RMP) document and promoted it to staff through departmental meetings (E-learning Team 2013). Central processes are being put into place this year to facilitate consistent uptake of the RMP.

The next step was to design and deliver training for staff in using the rubric. To support this, we organised a local award. We set the deadline in November, in order to give applicants time to prepare for Blackboard's Catalyst Award in January. The award was launched and a training session delivered at the first Aberystwyth University Learning and Teaching Conference in September 2013.

Support from the Pro Vice Chancellor for Student Experience and International was instrumental in making this effort successful.

The panel was comprised of five people: an E-learning Team member, a member of academic staff, an administrator, the Student Union education officer, and a departmental Director of Undergraduate Studies. All of the members were required to go through the ECP training. The panel met in December to select the winners, with awards presented at the HEA's Future Directions Conference in April 2014 (Aberystwyth University News 2014).

All of the applications were recognised as demonstrating some exemplary practice, and there was clear agreement among the panel on the two winners. Publicity about the winners was put onto Nexus and the IS News, with items on both the Staff and Student Welcome pages in AberLearn Blackboard pointing to the Nexus page. Participants said that not only the rubric but the opportunity to look at colleagues' modules in Blackboard was valuable, so we have put video tours of exemplary modules onto AberLearn Blackboard and the Nexus website (E-learning Team 2014). This promotes sharing of good practice among staff.

Impact

The use of Blackboard's ECP rubric to inform our RMP has had an impact, as evidenced by new central university processes that require modules to meet the RMP. Institutes are monitoring application of the consistency of their Blackboard provision using the RMP, and are encouraging staff to redesign their modules and apply for the AU ECA.

The AU ECA has already transformed practice here. Both the applicants and the panel members gained from the experience, as evidenced by the comments below (E-learning Team 2014):

"The Blackboard ECP provided a great framework for me to think critically about my module site. The BB team here at Aberystwyth University were always available to help me implement features that I wasn't familiar with. The feedback from my students about Blackboard has been overwhelmingly positive. I'll definitely continue to work on improving my site and making it something that helps to engage and support students in their learning." - Madeline Carr, International Politics IQ30520 – winner

"The ECP training was really useful in getting you to reflect on how you use Blackboard in your teaching. It also illustrated how the students' learning experience can be improved using the ECP rubric. Applying the rubric is easy and is a great way to improve your module in a student-centred way. I know my module is much better than it was last year – and my students seem to agree!" - Victoria Wright, Psychology PS11320 – winner

"The modules that most impressed me were those where the instructor's personality came through ... demonstrating that Blackboard can be a dynamic and interactive tool for teaching and not just a 'filestore' for hundreds of PowerPoint files!" – panel member

"The highlight for me was seeing the taught courses reflected back into the online support material... You could really see that the exemplary modules had been developed with the student in mind." – panel member

We had eight applicants to the AU ECA and an additional applicant to Blackboard's Catalyst Award. The two winners have been invited to sit on the panel for next year. As an increasing number of staff engage with the rubric, a community of practice is being built up.

Why this is our favourite

We wish to showcase this innovative case study because it was received enthusiastically by staff and had a far-reaching impact within a short period of time. The rubric promotes not just technology use but good practice in learning and teaching. The main part of the work was in designing the training session, but once the session had been designed, it didn't take a great deal of time to deliver the training to any interested groups of staff.

We found this to be a relatively easy way to promote sound educational principles built on evidence-based practice. Any institutions who are interested in sharing ideas and carrying out similar projects are welcome to contact the E-learning Team at is-alto@aber.ac.uk.

References

- Aberystwyth University News. (April 2014). "Celebrating Excellence in Teaching." Available online at www.aber.ac.uk/en/news/archive/2014/04/title-148777-en.html (Accessed 26 April 2014)
- Blackboard (2013). Blackboard Catalyst Award – Exemplary Course Program. Available online at www.blackboard.com/About-Bb/Catalyst-Awards/Exemplary-Course-Program.aspx (Accessed 26 April 2014).
- E-Learning Team, Aberystwyth University. (2013) AberLearn Blackboard Good Practice Guide. Nexus. Available online at <http://nexus.aber.ac.uk/xwiki/bin/view/Main/guides+-+Blackboard> (Accessed 20 May 2014).
- E-Learning Team, Aberystwyth University. (2014) AU Exemplary Course Award. Nexus. Available online at <http://nexus.aber.ac.uk/xwiki/bin/view/Main/AU+Exemplary+Course+Award> (Accessed 28 April 2014).
- Poettcker, J. (2013). The Student Experience. Presented at the Blackboard Teaching and Learning Conference 2013. Available at www.youtube.com/watch?v=uQ7aqaRZ3mk (accessed 21 March 2014).

Mary Jacob, E-learning Advisor, Aberystwyth University

Bangor University

Integrating a lecture capture system into Teaching and Learning practices at Bangor University

Lecture Capture

Staff and students at Bangor University make extensive use of the Lecture Capture system Panopto. Panopto allows staff to record lectures and tutorials; it can also be used to upload pre-existing video material and stream that content to students as well as offering students the option to download content for offline viewing.

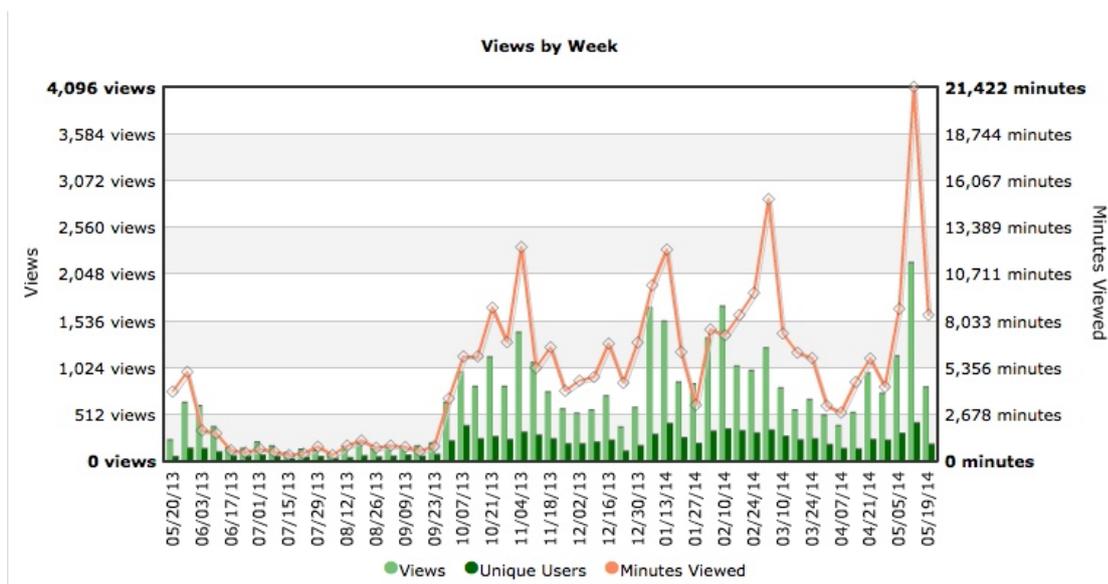
Panopto is installed in all teaching spaces and staff can install and use the software on any computer they have access to on and off campus. Staff can also allow students to make their own Panopto recordings.

The need for a lecture capture system had been recognised as a requirement to facilitate new methods of course delivery that were moving away from the traditionalist approach of the 'one off' lecture. A system was required to meet the demands of modern learners.

'Increasingly distance learning, part-time study, illness, disability and timetabling conflicts challenge this (traditionalist) approach'

Dr David Carey, Reader School of Psychology

The Introduction of Panopto has undoubtedly enriched the student experience at Bangor, providing a popular and effective study aid. The graph below shows recent views on the Panopto server during the exam period, demonstrating that students use the recordings as a study aid.



Introduction, Support and Response to Lecture Capture

Panopto was introduced in 2010, following requests from staff for a centrally support recording system. An in-house lecture capture system had already been developed in one school and had proved successful. Purchasing Panopto allowed IT services to give university wide access to lecture capture.

Panopto was chosen because it was easy to use, required simple, low-cost recording equipment and it could be easily integrated into Blackboard, Bangor's Learning Management System, using a building block.

The Learning Technology Team promoted the software by presenting seminars and workshops and offering lots of one-to-one support. Staff quickly learnt how to use the system, which is not automated. The software allows staff to manage the distribution of their own recordings. The Learning Technology Unit provides a continuous source of help and advice, as well as facilitating events to disseminating good practice.

Panopto has been well received amongst staff at Bangor:

'Panopto has provided me with an opportunity to produce original educational resources in the form of supplementary vodcasts and capture my lectures so that students re-experience the class during revision. This has had an incredible impact on my teaching: not only have my students found it helpful in their learning, but it has also provided me with an opportunity to review and reflect on my own teaching after the class.'

Dr. Fay Elizabeth Short, Senior Lecturer, Psychology

Supporting Distance Learning

Panopto is now increasingly being used to deliver distance-learning courses. The account below from Rob Brook describes how the School of Environment, Natural Resources and Geography have made use of Panopto to support students in a global online course:

'I have found the best use for Panopto is for distance learning. I've used it specifically for a module on agroforestry in the Distance Learning MSc Tropical Forestry course. In the 2013-14 session there were 47 registered students located all over the world, most in developing countries. Lectures and tutorials given to a residential class were recorded and then posted on Blackboard

The students really liked it. In the end of module evaluation, 98% (i.e. all but one) said they were either satisfied or very satisfied with the module, and several reported that they particularly liked the tutorials because it gave them the feel of being part of a wider class.'

**Dr Rob Brook,
Senior Lecturer in Agriculture & Rural Development**

Beyond Lecture Capture

Panopto is proved to be very adaptable and can be used for many other purposes besides straightforward lecture capture. Through the workshops that the Learning Technology unit has presented, staff have seen and shared examples of good and innovative practice using this technology.

The Lecture Capture system has allowed staff to give students access to recordings they have made outside of the lecture theatre to prepare them (students) for the lecture and make more effective use of the time spent in the lecture theatre – a practice now widely known as ‘flipping the classroom’.

Support Services such as the Library and IT Support have made use of Panopto to support the development of study skills across modules. This makes effective use of staff time as these resources can be reused in degree programs.

Panopto has been used to transform student assessment, with an increasing number of modules asking Students to produce recorded presentations for assessment. This allows students to develop skills beyond the traditional print based assessment tasks.

‘(Panopto) Provides students will opportunity to ‘self-appraise’ and improve presentation skills.’

Professor Andrew Pullin
Professor in Evidence-based Conservation

Students have responded positively to assessments that require them to use lecture capture technology. These require students to use their verbal as well as written skills.

‘The production of the policy brief (using Panopto) as one of them [assessments] was by far the most interesting one, as we could learn how to produce such document and develop other skills, such as managing Prezi and recording videos.’

Conservation and Land Management (MSc) Student

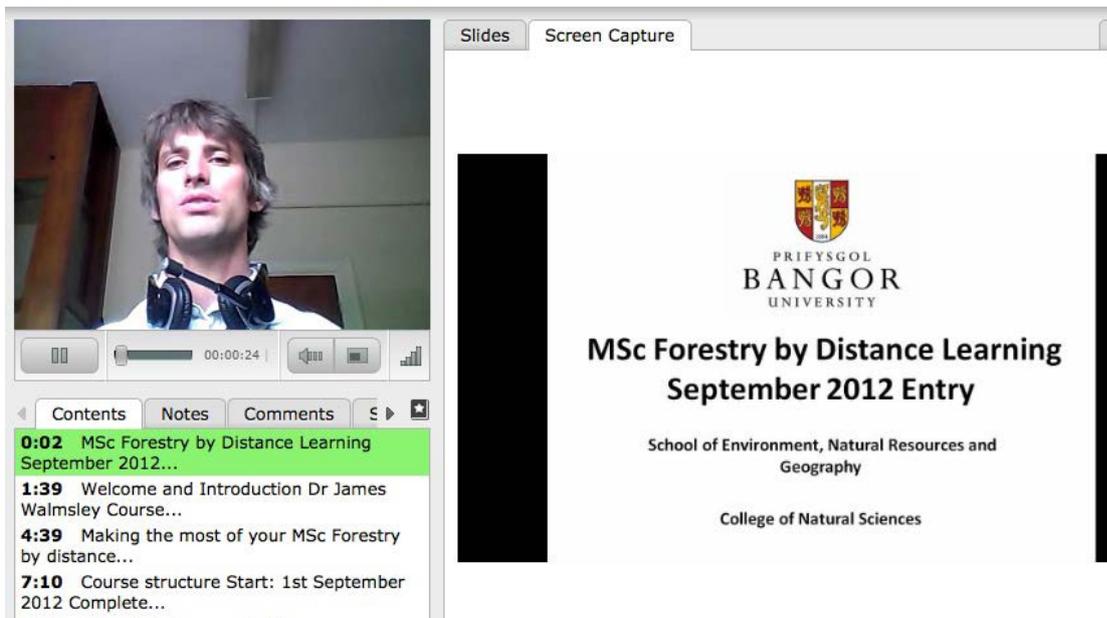
Accessibility and flexibility

Panopto allows students with additional study needs increased access to resources. Having the lecture to review and repeat at any time is a valuable study aid to many students. Panopto allows non-linear navigation of the lecture, making it a more effective delivery platform than a straight forward video recording (in Panopto students can navigate to certain points in a lecture using the title of the slides).

‘(Panopto Recordings are) Available for students to look at and download at any time on a variety of devices. Helpful to students who are dyslexic etc. as they can look over the lectures again and again, and actually listen to the

lecturer instead of just trying to read text. Useful as students can see the lecturer actually explaining and going through the PowerPoints etc., pointing out relevant detail and pointing out the important topics in the lecture. None of this can be gained by just putting up PowerPoint slides’.

**Dr. Anil H. Shirsat,
Senior Lecturer, School of Biological Sciences**



**Screenshot of Panopto recording by Dr James Walmsley
Lecturer in Forestry
(Navigation headings highlighted in green)**

Future Developments

The development of Lecture Capture at Bangor is on-going. Increasing demand for distance-learning support will require more options for the end viewer to be able to set variable bandwidth and offline viewing.

As staff are increasingly required to make their recordings public to support collaboration and Open Educational resource development, they will require more training in the use of creative commons licences. Staff will also benefit from more technical training in the use of sound and video capture material and in the design of PowerPoint and video resources.

Investing in a lecture capture system at Bangor has allowed staff to meet student demand for richer resources and study aids. The System has opened up new avenues for course delivery, student assessment and support methods.

Cardiff University

Flipping the Classroom

Background, challenge and intended outcomes

One of the main teaching methods within Higher Education is the traditional lecture approach, however a question that has been asked for many years now is “What’s the use of lectures?” Indeed this question was the title of a seminal book on the subject by Donald Bligh in 1971¹. Whilst lectures provide a mechanism for disseminating subject knowledge to large numbers of students at one time, they give very little consideration to the students’ preferred learning styles or the pace at which students learn. Students can often struggle to take in all the content being delivered during a lecture, and this causes particular problems where key concepts needed for future learning are not fully understood, or where it has not been possible to take good notes that will be needed to support revision.

A project was devised in Cardiff University’s School of Biosciences to investigate and evaluate an alternative method of delivering traditional lecture materials to minimise the amount of information that may be missed by students, and in turn to enhance note taking for revision.

The approach

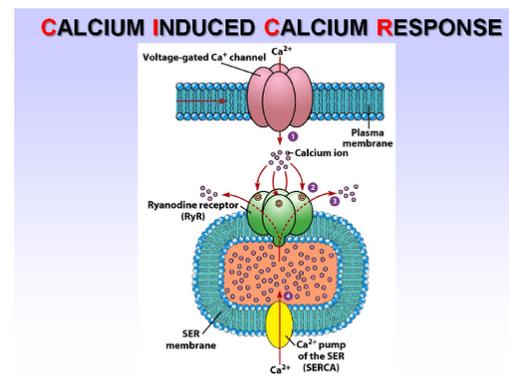
Dr Stephen Rutherford from the Cardiff University School of Biosciences wanted to develop his approach to teaching to ensure students had access to the key learning materials and content required for their programme, and to improve their understanding of this content.

Given that core syllabus content did not change dramatically from year to year, it was thought that this information could be prepared and made available to students so that they could work through this in advance of the scheduled lecture. This would ensure that necessary content could be learnt at the student’s own pace, leaving more time in the scheduled lectures to ensure content, concepts and their application were understood. This was an approach that had been used successfully by the University of Edinburgh’s School of Physics and Astronomy². In this way the classroom time is ‘flipped’, so that the material that would normally be delivered through the lecture is studied through the preparatory material in the student’s own time, and deeper engagement with the content that would previously have been done post-lecture as part of independent study would be considered during the face-to-face time.

Dr Rutherford chose to record voice-overs to PowerPoint slides and animations using Camtasia software, which

¹ Bligh, D. (2000), What’s the use of lectures? 6th Edition, Wiley and Sons, UK

² www.heacademy.ac.uk/assets/documents/stem-conference/PhysicalSciences/Simon_Bates_Ross_Galloway.pdf



packaged this content into a single file that could be uploaded to the Virtual Learning Environment (VLE). All students were given access to the learning material through the VLE in advance of the scheduled lecture, and were told that they should work through this before the face-to-face session. This enabled the students to go through the learning material at their own pace, as many times as they wanted, and provided Dr Rutherford with the opportunity to concentrate on using the contact time to reinforce the preparatory material. This also provided the space within the lecture to use the time differently and provide a more student-centred, interactive learning experience for the students. The lecture time can now be used to:

- cover areas that require a personal explanation;
- explore inspirational ideas;
- set in-class quizzes;
- establish further development/elaboration;
- identify key misunderstandings in the lecture material;
- discuss key research relevant to the content.

Response from students

The change in teaching delivery was communicated to students to ensure that they were aware and knew to look at the learning materials before the scheduled lectures. After a trial period, the students were surveyed to gauge their response to this style of teaching. One hundred students responded and the outcomes highlighted that:

- Over 85% of students found that pre-recorded lectures affected their understanding of the material in a positive way;
- Over 85% of students felt that the recorded lectures would have a positive impact on their revision;
- Over 90% of students found the enhanced live lectures useful and only 10% said that they did not want this 'flipped classroom' mode of delivery to continue.

During the trial there was no noticeable drop in attendance rates of the face-to-face sessions over the pre-recorded lectures, with more than 70% of students attending all sessions. 95% of students watched at least one of the four pre-recorded lectures, and over 70% watched two or more lectures online.

Other observations made by students included:

- The recordings allowed them to pause and 'rewind' back over material;
- There is no need to rush to make notes;
- It allows more time to digest information;
- It was easier to understand the difficult content;
- Using both recorded and face-to-face lectures reinforces information well;
- It is particularly good for disabled students, such as those with dyslexia.

Benefits to the University

From looking at the outcomes from the student feedback to this trial, the flipped classroom model offers the potential to provide:

- a more beneficial learning experience;
- students time to watch the videos and understand the information;
- the opportunity to tailor “live” sessions to students’ needs;
- the possibility of linking to or cutting with other media/real world examples;
- the emphasis that lectures are *part* of learning process, not the totality.

Learning points and insights

During the trial there were some key elements that became evident when considering implementing a flipped classroom approach:

- The time required to introduce this approach can be significant, and almost double the time compared to traditional lectures. However where this can be done for content that can be reused each year with little revision, the additional time taken once the learning materials have been produced is minimal;
- Careful consideration is required when deciding what to record and what to do in live face-to-face sessions;
- When creating learning materials, academic staff need to be mindful that video can be less inspirational and less visually-engaging than a face-to-face lecture;
- There can be confusion for the students on what is core material and what is additional;
- Students may not have enough time to view the video before the lecture.

Further aspects for consideration are:

- Learning materials need to be placed online as early as possible/practical;
- Hand-outs should be provided in advance of the scheduled lectures;
- Whether or not to record and make available the face-to-face lectures, to supplement the preparatory learning materials.

In summary

- Thinking about the *purpose* of our lectures is an important practice;
- ‘Flipping’ helps engage students in the *process* of learning, not just as ‘consumers of information’ but as true partners;
- Technology helps *support* teaching and learning, but should not replace it.

Contact information

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Registry and Academic Services

Cardiff University

Cardiff Metropolitan University

Making Assessment Count: The Feedback-Feedforward induction project

Key Words: Transition, Induction, support, collaboration, formative, engagement, feedback and feed-forward.

Where was the initiative introduced? Throughout the Cardiff School of Sport in Cardiff Metropolitan University

Background/Aim

Though it is important that the process of engaging students extends throughout the entire student life cycle, effective induction is recognised as being crucial to the successful transition of students into higher education, and to fostering a sense of belonging in learners. Kenny, Kenny and Dumont (1995) identified five indicators for effective student engagement. They included the level of academic challenge, active and collaborative learning, student-staff interaction, enriching education experiences, and a supportive learning environment.

In the final report from the What Works? Student Retention and Success programme, Thomas (2012) also states that:

'induction activities should have a range of functions, but in particular they should facilitate learners to build social relationships with fellow students and members of staff, and enable them to assess whether the course is relevant to their current interests and future aspirations.'

Therefore, the Learning and Teaching Development Unit at Cardiff Metropolitan University provided support to the School of Sport to develop the Feedback-Feedforward process. The Feedback-Feedforward was to encourage and support learner engagement during the induction period through a series of formative learning activities designed to challenge students and stimulate interest in their subject at a very early stage in their university life. The tasks also included elements of peer collaboration, peer review/feedback and was embedded within the personal tutoring scheme in order to facilitate peer support and staff-student relationships.

Description/approach:

The induction activities formed part of an overall process called Making Assessment Count (MAC). MAC typically uses a three-stage approach that has been designed to maximise the benefits of assessment by helping students to understand and apply the feedback they receive more effectively in order to continually develop their academic practices and performance. The framework was developed through a Jisc project at the University of Westminster.

MAC involves providing different types of feedback at various stages of the assessment process using simple e-based technologies (specifically blogs and online questionnaires) to develop an integrated process which collates feedback, guides

student reflections and facilitates their use of feedback in order to improve their performance. The three MAC stages are defined by the main focus of the feedback and reflection. These are:

- **Subject specific:** the learner receives back an item of marked coursework on which the marker has written primarily subject specific feedback relating the student's efforts.
- **Operational:** the student completes an online reflective questionnaire (created by the tutor) around their own work and performance (e.g. What did they do once they received their feedback? Did they fully understand the assessment criteria?) Students receive an automated, customised report containing feedback, support and guidance.
- **Strategic:** Using the customised report as a prompt, students complete a reflective blog entry which is shared with their personal tutor. The reflection typically focuses on what the student considers to be their key strengths and areas for development and may include actions which the student will take forward and apply to their subsequent assessment task. Tutors can then respond to blogs online or discuss the reflections during personal tutor meetings.

Following the MAC framework, the Feedback-Feedforward induction project was made up of three learning stages:

Stage 1: Induction essay and peer collaboration

On their first day at Cardiff Metropolitan University, BSc (Hons) Sport and Exercise Science students were set a 750 word essay on SES, which was to be completed within a two week period. Students were provided with basic assessment criteria and access to an online module called Feedback-Feedforward, which contained assignment information as well as a range of learning materials and resources on topics such as planning an assignment, deconstructing essay questions, referencing, etc. to help them complete the task.

During the first week of term, all students attended a meeting with their personal tutor. These meetings provided an opportunity for students to: discuss the induction essay in pairs or small groups, to unpick the induction essay title together, share ideas about the essay, and get to know others on the programme. Tutors facilitated discussions and used a number of questions to prompt/structure student discussions. Students were also able to talk to their personal tutors and ask questions about any aspect of the essay they were unsure about.

Following personal tutor meetings, students developed essay plans or drafts in preparation for their final submission. During a plenary session at the end of the first week, students reviewed one another's plans/drafts in pairs or small groups using the essay criteria, which was displayed on a large board. Learners provided constructive feedback to their peers using purpose-built feedback forms. The session was facilitated by three members of staff who provided help and advice to each pair. Students were required to submit a self-assessment and submission sheet along with their essay. The form asked learners what they considered to be their strengths and weaknesses in relation to the assessment criteria, and also to write a summary of the peer feedback they had received, and how they had used this feedback to improve

the essay. The purpose of the form was to encourage self-assessment and reflection but also to promote action on feedback.

Tutors marked students work and provided subject-specific feedback using the Grademark tool. QuickMarks were used to indicate grammatical errors and common mistakes in the students' work, while a rubric was used to show students how they had performed directly in relation to the assessment criteria. The rubric matrix also enabled learners to identify what they needed to do next time, and in what areas, in order to achieve a better grade. Finally, an open comments box was used by tutors to provide an overall summary of students' work, along with at least 3 suggestions on what they could do to improve their performance in the future. Feedback and marks were then released to students.

Stage 2: online self-assessment questionnaire

Students completed an online questionnaire designed to explore their study habits and academic skills. The questionnaire was developed in Blackboard (within the Feedback-Feedforward module) using the test tool and was set up in order that students received feedback only, without being graded.

Once the students had responded to all questions, customised feedback was generated and appeared immediately on their screen. Students were asked to read this feedback carefully and to think about how they would apply it to subsequent assessment tasks.

Stage 3: reflective blog/ action plans and review meetings

A reflective blog was created using a Campus Pack Journal tool. Students were asked to write a short reflective blog entry on what they had learned from the experience and to share with their tutor at least 3 bullet points outlining what actions they intend to take in their next assignment in order to improve their performance. As this was likely to be students' first experience of self-reflection, a number of prompting questions were provided to structure and scaffold reflections.

Crucially, students were required to write down 3 bullet points/actions that they could refer back to when approaching their next assignment. The aim was to encourage learners to form concrete ideas/plans about how they would use their feedback in a practical way in the future (feed forward) **to improve their performance.**

Students printed off their blog entries and brought them to their next personal tutor meeting. In small groups, students shared their reflections, developmental objectives, and discussed strategies for further improvement. The purpose of this task was to facilitate peer learning through the sharing of experiences. It was hoped that this would lead to students forming additional plans/ideas about their own personal/academic development.

An example essay that demonstrated good practice was then presented by personal tutors and reviewed by students. With the help of their personal tutors, students began to pick out the similarities and differences between this work and their own, and subsequently identified what changes they could make in order to improve their essay.

Anticipated outcomes

It was anticipated that the Induction Project would:

- Help students to develop accurate expectations about the demands of higher education;
- Prepare students for their first summative assignment;
- Promote peer interaction and support early in their academic studies;
- Encourage effective study habits such as understanding and engaging with assessment criteria, self-assessment and reflection.

Evidence of actual outcomes

A series of focus groups were conducted with students and staff to evaluate the project's impact. In summary the following key finding emerged from the Induction Project:

1. Helping students to develop accurate expectations about the demands of higher education and preparing students for their first summative assignment

Feedback from students and Personal Tutors show that the Feedback-Feedforward tasks helped students to develop expectations about the demands of higher education, and supported them in preparing for their first summative submission. This was evident within student comments within the focus groups, furthermore, echoed from the staff within the Personal Tutors meetings. A number of students expressed difficulty becoming accustomed to academic writing and referencing throughout the process. This enabled tutors to address these areas and build student confidence and competence at an early stage. Students commented that they felt "in a better position" compared with their student counterparts having completed the induction tasks. This additional preparation was valuable, as it removed the ambiguity and anxiety of completing and submitting assessments.

Promoting peer interaction and support early on

Peer interaction and support was achieved to an extent within the Induction Project, but upon further reflection this aspect could have been further embedded within the process. Personal Tutors commented positively on the interaction of students within the initial Personal Tutor meeting when completing the discussion task. Furthermore, this was echoed by the Tutors within the Peer review and feedback plenary session as students were clearly engaged in the process, with several students asking for additional feedback forms in order to review one another's work nearer the completion.

2. Encouraging effective study habits such as understanding and engaging with assessment criteria, self-assessment and reflection

The Induction Project was aimed at identifying, developing and honing such keys academic study skills for future summative submissions. Feedback from staff and students suggests that this aim was met well throughout the Induction Project. Each of the three areas was highlighted by students as areas that they had not previously

engaged with, and went on to suggest that these areas would be moulded in to their future practice. It was interesting, and not surprising, that reflection was a common theme suggested by the students as an area they would focus on integrating in to their future practice.

Glyndŵr University

Online, accredited professional development: The Postgraduate Certificate in E-learning (theory and practice)

Clive Buckley, Glyndŵr University

Background

This case study explores the design, development and implementation of the online postgraduate certificate in e-learning (PGCeL) at Glyndŵr University.

In 2008, coinciding with the launch of the Gwella initiative in Wales, Glyndŵr University decided to explore ways to increase and enhance its e-learning (technology-enhanced learning) capacity. Face-to-face professional development sessions of workshops and seminars were instigated and some progress was made. However, the view from colleagues was that a more coherent, longer-term, accredited programme of professional development was required if Glyndŵr was to make the level of advancement it sought. It was decided that a postgraduate certificate be developed to satisfy this demand, moreover, to facilitate access for busy staff the course would be online, enabling flexible modes of study.

The PGCeL was validated in the spring of 2009, with its first cohort of students starting in September that year. In 2013, after four successful years and in response to student demand, the PGCeL was developed and extended to form its replacement the MSc Learning and Technology which launched in September 2013.

The PGCeL is taught entirely online and recruits from both inside and outside of Glyndŵr, with an approximately 50:50 split. In recognising the role the PGCeL had had, the Quality Assurance Agency, in its 2013 Institutional Review of Glyndŵr University, highlighted the University's strength in the field of technology-enhanced learning:

'The review team concluded that the University's good use of its strong and extensive expertise in the development and delivery of e-learning methods is a feature of good practice.'

(QAA, March 2013)³

Established Practice

Glyndŵr University, like most universities, uses a virtual learning environment to support its students. In the late 1990's the University used Blackboard but moved to its current VLE, Moodle, in 2010. Training (2009) in use of the new VLE from a technical perspective was provided by the IT department, and pedagogic aspects were explored in face-to-face staff development sessions run by an experience e-learning academic. Whilst valuable, there was a growing feeling within certain

³ www.qaa.ac.uk/InstitutionReports/reports/Documents/RG1159GlyndwrE.pdf

academic areas that more extensive professional development in pedagogic use of technology to support learners was required. It was proposed that a postgraduate certificate in e-learning be developed to complement the existing Postgraduate Certificate in Professional Development, which has a focus on classroom teaching.

The Challenge

The transition to a new VLE served as a catalyst for staff to reflect upon their use of the platform and to consider whether it could be used more effectively to support learners. It became apparent during discussions that many staff used the previous platform as a document repository, and few were making use of more innovative tools such as blogs and wikis. By exposing staff to new tools and by exploring teaching opportunities these offered, there developed an urgency to have the PGCeL in place as quickly as possible. Developing such a bespoke course in readiness for the upcoming academic year (09-10) was a significant challenge for the programme leader.

In addition, convincing staff that studying online, at virtual distance, would be a rewarding and worthwhile experience, and that no great technical skills were required, proved to be another hurdle to overcome.

The pedagogical approach

It was decided at a very early stage that the course would be taught online; it was important that staff considering moving to online or blended learning approaches were themselves immersed in that medium. Moving online also enabled more flexible study; an important consideration for busy staff. Finally, it was decided that the course be offered to professionals working outside Glyndwr. This would serve as income generation but, possibly more importantly, would give a more diverse student body; something that enriched the social constructivist philosophy upon which the course was designed. This 'opening up' of the course presented an additional challenge; course content had to be designed and developed to be appropriate across a range of teaching and training contexts. The only restriction placed upon participants on the course was they had to have a group of learners, or have access to such a group, to conduct course activities and complete assignments.

It was also decided that, whilst maintaining academic rigour, activities and assignments should be strongly related to practice and the individual's professional context. Again, a great deal of thought was given to designing these activities and assignments to meet this aim.

As indicated, the course is built upon social constructivist principles and great store was placed in facilitating discourse between participants; to this end, extensive use was made of forum discussions, and active participation in these forms part of the assessment.

The intended outcome

The PGCeL had the prime aim of influencing practice. It was designed to give students the pedagogic knowledge to apply technology effectively and efficiently to support their particular group of learners. Technical skills are developed, but there was a clear focus on using the medium as a teacher and not a technician.

Tutors on the course were seen as ‘facilitators’ or ‘coaches’; being guides on the side rather than sages on the stage. Again, this reflects the social constructivist approach.

The course aims to produce reflective practitioners who are skilled in the use of technologies to support their learners. Communities of practice develop and cross-context sharing of ideas and practice encourage participants to reflect upon their own practice, potentially adopting alternative approaches to teaching.

The e-learning advantage

The decision to use a VLE as the PGCeL platform, rather than face-to-face or a blended learning approach had both philosophical and pragmatic underpinning. Philosophically it was considered essential that participants be immersed in the very medium they were considering using in their own teaching. The programme team aim to model good practice; to act as scaffolding agents as participants develop their own approaches to using the medium. Pragmatically, the online environment allows for some flexibility of study (although a rigid study calendar is used to facilitate cohesive forum debates); an important consideration for today’s busy professional. The online environment also had some unexpected advantages. Being online we were able to employ a part-time tutor based in Belgium; this gave the course a European perspective and ensured transparency when assessing student work. It also meant students, freed from the need to attend physical classes, could enrol and participate at distance; indeed we have had students from across the UK and Europe.

Feedback from students has been overwhelmingly positive, and for the period 2009 – 2012 100% of students who responded to an end of course survey said they would recommend the course to a friend.

External feedback has also been supportive and the external examiner reported (2011-12) *‘This PG Cert in eLearning is of a higher standard than many others offered in the UK.’*

Key points for consideration

- Studying online in a supportive and constructive environment is very rewarding but, as with any part-time study, it is demanding and requires some discipline;
- We believe that experiencing at first hand the online environment as a student equips our graduates with empathy for their own online students; they understand the benefits and the challenges of the medium;
- A minority of participants underestimate the demands of online postgraduate study; there is a false perception with some that online means ‘easier’ than traditional face-to-face;
- Teaching online is as demanding as teaching in the classroom, if not more so;

- Time management for both teacher and learner is paramount.

Additional information

Details of the new MSc Learning and Technology can be found at www.glyndwr.ac.uk/en/Postgraduatecourses/MScLearningandTechnology/

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

Grŵp Llandrillo Menai

Online and distance learning delivery on the Foundation Degree (FdA) in Library and Information Management

Subject area: Librarianship

Rationale and aims

The Library & Information Management FdA programme is delivered across Wales (and beyond). Teaching is delivered primarily by video conferencing. In addition, a range of learning technology is used to support classroom activities and distance learning.

The FdA programme builds upon the experience of delivery of the Scottish Qualifications Authority (SQA) Applications of ICT in Libraries (ICTL) programmes at SQA levels 7 & 8. It is a prerequisite of joining the FdA that students have completed the ICTL programmes first.

Scope and context

Learners on the Applications of ICT in Libraries and Foundation Degree in Library & Information Management programmes.

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

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

- v. Enhancing the student learning experience
- vi. Increased flexibility and accessibility

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;
- 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.

Overview

The FdA programme is delivered part-time, using weekly video conferenced sessions. Sessions are delivered monthly on the ICTL programmes.

Attendees can join sessions from a video conferencing suite or via desktop software (both using the JISC JVCS system). Tutor presentations, learning materials and desktop can be shared using free seeandshare software.

Learners collaborate on classroom activities using Google apps. Using a single Google doc to collate learner responses means that because all learners can see each other's responses, it forces learners to think of the less obvious responses. This means tutors don't receive the almost identical responses they would get from learners in a traditional classroom setting.

Gotomeeting webinar software is used to provide tutorial support to learners outside the taught video conferencing sessions. This software enables tutors to share annotated feedback on student assignments, as well as being able to discuss issues with the learners individually.

The ICTL and FdA programmes both cover extensively the use of social media for teaching and learning and as a workplace tool.

Learners work online using Google apps and social media to create a group presentation and use these resources in classroom activities, assessments and to communicate with fellow learners. Assessment focuses on both individual and collaborative use of these tools.

Assessments are all submitted online and feedback is also given electronically – using notation facilities in Word and using feedback tools in Moodle.

A range of digital literacy tools and skills are taught – as well as promoting digital inclusion and digital literacy as key roles for library staff to engage in with their user communities.

Extensive use of moodle, wikibooks and social media is used to support learning on the programmes.

Benefits and impacts

Learners experience a wide range of digital tools. These include:

- Video conferencing;
- Webinars;
- Social Media;
- Advanced ICT skills;
- ICT skills in a library setting;
- Collaborative tools e.g. Google apps;
- Moodle VLE;
- Adaptive technologies;
- Retention and attainment on both programmes are very high (100% successful completion on all programmes in 2012/13), particularly given the high dropout rates traditional amongst distance learners;
- Bilingual support has been facilitated by enabling tutors to assess and annotate student work in English or Welsh.

Conclusions or lessons learned

The use of learning technology can overcome geographical barriers to learning and improve retention amongst distance learners. This is because of the range of benefits offered:

- Support can be offered on an individual basis in a variety of ways outside the classroom;
- Learners who miss sessions can access classroom discussions and other online content;
- Learners can be supported outside and inside the workplace;
- Employers can free up staff to attend more easily because they don't have to leave the workplace;
- More detailed and regular feedback of a formative nature can be given;
- ILT also offers ways of improving formal feedback and summative assessments e.g. annotated feedback, online assessment.

Links and further information

http://en.wikibooks.org/wiki/Applications_of_ICT_in_Libraries

Access to Moodle courses for both programmes are available on request.

Further opportunities

The lessons learnt from this programme would be applicable to any programmes run as distance learning who which to utilise more learning technology.

Contact details for further information

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The Open University in Wales

***OU Anywhere* (linked to the ELTT Strategy Objective ii: Mainstreaming the Role of Technology in Enhancing Learning, Teaching and Assessment)**

Recognising that today's students need to study for their qualifications whenever and wherever suits them best, The Open University launched a new tablet and smartphone app in 2013. *OU Anywhere* makes OU course materials available on a wide range of tablets, smartphones and other mobile devices.

OU Anywhere means that the University's students can now download digital versions of OU produced textbooks, DVDs and audio CDs they receive in the post, allowing them the option of studying at home, in the office, or on the move – giving a true mobile learning experience. Students can use native e-readers to highlight and annotate text using the app, as well as interacting with tutors and fellow students online through the Virtual Learning Environment (VLE).

Course materials for all undergraduate qualifications were made available for use through the *OU Anywhere* app in 2013, with materials for postgraduate qualifications coming on stream in 2014. A video about *OU Anywhere* is available here: www.youtube.com/watch?v=25Djz9beptI

Simon Horrocks, Assistant Director (Development, Learning and Teaching), The Open University in Wales.

Swansea University

Anatomy in 3D

Dr Sam Webster, Lecturer in the College of Medicine

When teaching human anatomy to medical students some structures are hard or impossible to demonstrate, even with a collection of cadavers and plastic models, and as a consequence it is difficult for the student to visualise and relate them to other structures. To help with this, we regularly use computer generated anatomy models in small group teaching and self-directed learning, and the complexity of many of these models created from real-life anatomical datasets can be both an incredibly accurate, realistic resource for learning, and awkward and confusing to work with. Trialing stereoscopic (3D) displays suggested that the ability to display these models in a manner more similar to the way in which the brain normally perceives 3D structures makes this information clearer and easier to work with. A complex 3D CG model displayed in two dimensions can be awkward for the brain to interpret.

Stereoscopic teaching resources for anatomy have existed and been used in one form or another for over 100 years, particularly in surgical training. Research indicates that surgical trainees recognise shapes and structures more quickly when using stereoscopic displays instead of 2D displays.

Stereoscopic equipment has typically required an expensive, bespoke investment and skilled staff to maintain and prepare. We aimed to couple and examine the potential advantages of stereoscopic displays with the wide availability of less expensive consumer grade equipment that has appeared in the last few years, such as 3D TVs and 3D gaming computers. Computer generated anatomy models are widely available at the moment in a market with a number of competing products. At least one is free.

We recruited 36 volunteers with no or poor previous exposure to anatomical study, and assessed their anatomical knowledge of the blood vessels of the heart using an anatomy spotter style assessment with plastic models and pins indicating structures. We gave the volunteers a 20 minute small group tutorial describing the structure of the heart, blood flow through it, the large vessels of the heart and the coronary arteries and cardiac veins using illustrations and 3D CG models. We split the volunteers into 2 groups, and 1 group (test) received the tutorial using a large stereoscopic display, and the other group (control) received the same tutorial on the same display, but in a 2D mode.

After the tutorial the volunteers repeated the spotter test, and were asked to complete a questionnaire designed to gauge their experience. The volunteers also took part in focus groups in which they could discuss other issues and make any other comments on their experience.

Volunteers of both groups improved in their abilities to recognise the blood vessels of the heart on plastic models after teaching using CG models, and both groups found the use of CG models useful and helpful. There was no statistically significant

difference between the improvements in assessment scores between the test and control groups.

The volunteers of the test group reported that they found it easier to relate the structures of the 3D CG models to the plastic heart models. Both groups reported that they found the use of CG models useful to help understand the subject. The test group as a whole reported a small increase in confidence over the control group in their ability to identify the structures after teaching with a stereoscopic display. The test group also reported that they found it easier to follow the teaching with the 3D CG models than the control group, and more members of that group felt able to complete the questions quickly after the teaching. Both groups felt that using CG models to learn an unfamiliar subject was effective, but the test group reported this more strongly than the control group.

Volunteers commented that they would have found this method of learning more effective if they were able to interact with the 3D CG models themselves, and if the labelling of these models was larger and more distinct. Members of the test group commented that the effect of the stereoscopic display made it difficult to clearly see what structure the tutor was pointing too. The CG model was in a different perceived 3D space to that of the tutor's finger placed upon the screen, and the use of the mouse pointer or the act of clicking on structures to select and highlight them (with a colour change) was a better method of indicating structures.

The tutor found working with complex anatomical CG models to be a more natural experience when using the stereoscopic display, and that it highlighted the awkwardness of 3D CG models represented on flat, 2D displays. Interpreting and manipulating the models was easier with a stereoscopic display for both the tutor and the students.

The 3D TV had other advantages over using a projection system to display complex CG models. The 3DTV was brighter, with greater contrast and clearer colours.

As a result we have been using a large stereoscopic display in anatomy teaching to help describe and show structures that we would struggle to show in any other way. When students are asked whether they would prefer to view the models in a 2D or 3D stereoscopic mode, they almost unanimously request the stereoscopic view.

Teaching small groups of students for short (25 minute) periods using 3D CGI models in combination with other physical models and tools is working well, and we have produced some bespoke CG models to explain anatomical structures and relationships that we have experienced as being confusing to students. Some students have commented that seeing the anatomy in this way makes it instantly clear for them for the first time.

Students have not had any problems with the passive 3D glasses, including those that already wear glasses. The passive glasses have been cheap to buy (around £2/pair), helping ensure that we have enough.

We are also setting up a single user stereoscopic workstation for students to use themselves.

Using a large (140cm diagonal), high contrast, stereoscopic display for small group teaching with complex CG models is feasible and comfortable for the tutor and students with passive 3D technologies. There are advantages in the ability of the audience to follow the teaching of structures within stereoscopically displayed models, and in the clarity of the display. It is important that the tutor uses methods of clearly indicating structures to the audience because of the 3D space the model is within relative to the tutor, and that the tutor considers how best to present complicated structures.

We would recommend that students should also be able to work with 3D CG models themselves with stereoscopic displays as self-directed learning tasks.

We would not make any technical recommendations with regards to CG model development, as the major tools used to produce these models allow export into various formats that, in turn, can be used by the Unity 3D engine and the Unity Web Player browser plugin that we used to display models stereoscopically.

University of South Wales

iTunes U - a Tale of the Unexpected

Case Study Objectives

- Effective Collaboration and Sharing of Current and Good Practice
- An Enhanced Student Learning Experience, including increased flexibility and accessibility of provision

Key Words

iTunes U, marketing, global promotion, sharing knowledge, teaching resources, learning resources, Open Education Resources, OER, Welsh Government

Aim

This development is available throughout the institution and internationally, as South Wales on iTunes U. It explores the wide-ranging impact and unanticipated benefits that arose from the University's presence on iTunes U following its launch on that platform. The case study will be of interest to academics across the Higher Education sector, and institutions considering using iTunes U to share resources.

The purpose of the original iTunes U Project was to be the first Welsh institution to have a presence on iTunes U, and thus raise the global profile of the University. It was a marketing activity founded on releasing high quality, pedagogically sound, learning and teaching resources; the launch target was to release around 200 'assets' (ie, individual resource items). However, a more complex scenario of 'unexpected outcomes' emerged post-launch which are outlined below in 'Evidence of actual outcomes'.

Description/approach

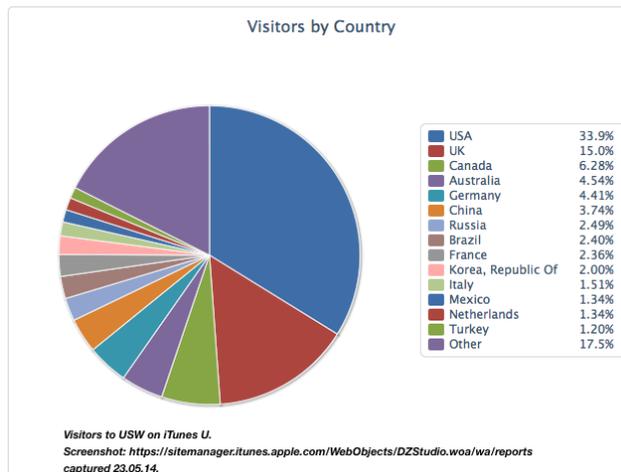
- Small, specialist team worked against a tight timescale (under a year from initial discussion to launch) and with a limited budget;
- Launched with around 200 'assets' (audio, video, pdf resources: a mix of learning & teaching, student showcase and overt marketing materials);
- Internal recognition achieved: University Staff Recognition Awards 2010 — Team Award Winner — iTunes U Project Team;
- Since launch the collections of resources have expanded to more than 400 items shared publicly and for free, ranging across around 20 subjects.

Anticipated outcomes

- Raising the global profile of the University by being the first Welsh institution on iTunes U.

Evidence of actual outcomes

- Our first public collection of freely and openly shared resources (7th in UK, first in Wales, still the only university in Wales) — putting us at the forefront of the OER movement;
- Since launch, there have been more than two million downloads of our resources (including streamed media and subscriptions) by users worldwide — a number far exceeding any expectations. Regularly, around a third of our user-base is in the US:



- Drama division's **Hollywood connection**: a Hollywood screenwriter, Diane Lake^{*}, downloaded one of the first Student Showcase audio dramas. She was so impressed that she initiated contact with the department and offered to write an original drama script for our students: this was subsequently recorded and released on iTunes U^{**}. Ms Lake flew across from the States to join the students for the recording.
^{*} *Diane Lake has written films for Columbia, Disney, Miramax, Paramount and NBC. Her play, Frida, was nominated for six Academy Awards in 2003.*
^{**} ['The Casebook of Violet Strange'](#);
- **Student Showcase** — we were first in the UK to have a section dedicated to promoting student achievements, e.g.:
 - Videos from Animation students
 - Audio dramas from drama and radio production students
 - Audios/videos from business students on work placement
- **Student involvement** — voiceovers for various resources, content creation (e.g. Raspberry Pi course, currently in development);
- The University and the iTunes U team have become regarded as leaders in Wales and wider on iTunes U:
 - Advised other bodies on setting up iTunes U, i.e. Coleg Cymraeg Cenedlaethol, ColegauCymru/CollegesWales, EducationWales

- University representation on two Wales Government bodies: ‘National Digital Learning Council’ and ‘Welsh Language, Technology and Digital Media Group’
- The University has been asked to host the HEW OER project across all Welsh HE institutions;
- **Upcycling:** resources that had been used on other (closed, course-based) platforms have been updated and given a new lease of life with a new (public, global) audience. This activity is continuing with our new developments in repurposing materials from iTunes U, and other University sources, to create rich, original multi-touch iBooks.

Specific challenges/opportunities created by this initiative

Procedural and production-related:

- Creative solutions to problems, e.g. Welsh video flashcards replacing ‘app’-based approach to create flashcards for multiple platforms;
- Improved pre-recording processes in obtaining Rights clearances for third-party content used in live events (e.g. public talks/seminars);
- Drove improvements to assessment procedures for Animation courses.

Reflection/impact:

- Could this be duplicated elsewhere? No and yes: ‘no’ in terms of the University’s particular experiences, but ‘yes’ in that others would discover their own ‘unexpected outcomes’.

The original aim was taken to a new level as a result of the many ‘unexpected outcomes’ which we achieved, bringing even greater recognition for the university than was ever anticipated. The innovative ways in which we achieved the aims of the original project, working on a shoestring budget against tight timescales, caught the imagination of Leighton Andrews, the Minister for Education and Skills, which propelled the University into a position of assisting to guide the future direction of educational technology policy across the Welsh schools sector.

The University is now seen not only as a significant player in leading on iTunes U, nationally and internationally, but is also being called on to contribute to related areas in the Open Education Resources (OER) landscape. However, although on a relatively smaller scale, perhaps the most interesting and exciting of all our ‘unexpected outcomes’ was that our students and staff of the Drama Department were given the opportunity to build a direct relationship with a top-ranking Hollywood screenwriter — an experience that would not normally occur for a university in the UK.

University of Wales Trinity Saint David

Using Video Technology to Support Student Learning

An assessment element which required students to use 'flip' video cameras was introduced within the *SJSI6014 Accessing Society: Developing Communication and Dialogue* module in the School of Social Justice and Inclusion (SJSI).

This research was part funded by the Gwella Project, and explored technology enhanced learning within HE by focusing on the student experience and how to identify best practice. Muir (1977 *cited in* Silverman, 2004: 338) highlighted that qualitative methods can 'identify best practices hidden by dominant problematic patterns'. Student led best practice is often 'missed' by content-intensive lectures in the drive to deliver content (Staley, 2010: 161). To this end the qualitative questionnaire aimed to give students a 'voice' regarding 'what worked' and 'what didn't' during the vidcast activity (Outhwaite & Turner, 2007: 390).

The approach

There were two distinct phases to this project, the pre-pilot and pilot phase. In the pre-pilot phase, eight first year undergraduates undertaking a range of degree programmes were introduced to the video technology, including digital, cassette and Flip Cameras, and an upgraded assessment task. The students' views and experiences of using the technology to make a short vidcast were collected through the use of qualitative questionnaires and a focus group. Such qualitative data collection techniques allow for the 'situation and context' to be acknowledged and explored (Popovic *cited in* Willis, 2008: 106). The assessment linked to the vidcast documentaries required students to include reference to theory/policy directly within the films, as well as ensuring that team working and professionalism was developed. The qualitative questionnaires and focus group allowed data surrounding the student experience of responding to the task to be collected.

The qualitative questionnaire focused on a number of key issues including:

- *Task enjoyment;*
- *Challenges;*
- *Learning;*
- *Instructions for task;*
- *What they would change.*

The students were encouraged in their diaries to include their own personal journeys and experiences, the data collected from these diaries fed into second stage of this research, the pilot phase (Alaszewski, 2006: 136).

From this pre-pilot data, the pilot phase was developed; this phase introduced the graded assessment task within a particular module for eighteen final year degree students who divided into six teams. Again, the data collected from the final year student experiences was broadly subjective and were collected using a qualitative questionnaire alongside a reflective student diary. The group vidcast documentary linked to the reflective diaries and allowed students to achieve 'genuine collaboration'

with their teams; whilst at the same time influencing future inclusion of vidcast documentaries as a form of assessment within a university degree (Hartley, Woods & Pill, 2005: 67). The student diaries also formed part of the final year graded assessment activity, which encouraged their engagement with the new technology, assessment task and completion of the reflective diaries (Universities UK, 2007).

Consent was gained from all students regarding their inclusion in both the pre-pilot and pilot phases of the research, and they were informed that the data collected may be published in research journals and delivered as conference papers (Somekh & Lewin, 2005: 56). If published the information would be confidential and anonymity would be assured (Garner, Wagner & Kawulich, 2009: 96).

The data collected from these diaries and questionnaires modified the design of the final assessment task for subsequent students; thus reflective practitioners' research ultimately impacts upon future practice (Garner *et al*, 2009: 105). Finally the vidcasts were screened with the students plus members of staff from the academic school. During this session students and staff were asked to consider the benefits of using vidcasts for student assessment and what would they change.

Lessons Learned

From the data collected via qualitative questionnaires, reflective student diaries, staff feedback from vidcast presentation workshop plus the comments linked to the assessment of students' work, three main themes emerged. The themes identified indicated that students were able to:

- *Apply theory to practice;*
- *Actively engage in technical and academic skills;*
- *Develop a range of skills associated with employability.*

Although students commented that the process had encouraged them to apply theory to practice it was more evident in lecturer and lecturer assessor comments that this was happening. Since undertaking this research, it was decided to develop a '*student guide*' written by the students in this study for future students who would undertake this module. This is in the early stages of discussion, but one of the issues that students highlighted was that the link between theory and the vidcast was essential as they desired to have their work marked within an academic frame. This was slightly surprising since when the project was introduced to students they were not sure how this would work in practice. Thus, they have decided to include a section in the student guide to give 'helpful hints' to students to apply theory to the vidcast assessment. Students also demonstrated that engaging with group vidcast documentaries as a form of assessment gave them the opportunity to link TEL skills to a real life situation, where they could perceive that there was a 'need to learn' certain skills both technically and organisationally.

As the students involved indicated that this task was holistic in nature and crystallised their whole degree into one final activity - but also suggested that this would enhance both first and second year students - it was decided that this type of assessment would be disseminated across the whole school. Again the student guide mentioned above would be part of the training for both lecturing staff and students undertaking

such an assessment. This includes technical training linked to the digital resources and online editing for both lecturers and students

Alaszewski A (2006) *Using Diaries for Social Research*, London: Sage.

Garner M, Wagner C & Kawulich B (2009) *Teaching Research Methods in the Social Sciences*, Farnham, Surrey: Ashgate Publishing Ltd

Maree JG, Maree K & Van Der Westhuizen C (2009) *Head Start in Designing Research Proposals in the Social Sciences*, Cape Town, SA: Juta and Company Ltd.

Outhwaite W & Turner SP (2007) *SAGE Handbook of Social Science Methodology*, London: Sage.

Silverman D (2004) *Qualitative Research: Theory, Method and Practice*, London: Sage.

Somekh B & Lewin C (2005) *Research Methods in the Social Sciences*, London: Sage.

Staley C (2010) *Focus on Community College Success*, Boston, MA: Wadsworth.

Universities UK (2007) *Enhancing Employability, Recognising Diversity: Making Links between Higher Education and the World of Work*, London: Universities UK.

Willis J (2008) *Qualitative Research Methods in Education and Educational Technology*, Charlotte, NC: Information Age Publishing Inc.