



Teaching and Learning Awards, Funding Calls, Events & Conferences

Jennifer Burke Award for Innovation in Teaching and Learning

The Jennifer Burke Award for Innovation in Teaching and Learning is awarded annually by the Irish Learning Technology Association (ILTA) and DCU. The award recognises and rewards innovative practice in teaching and learning in Ireland, and in particular reflects and remembers Jenn's vibrancy, creativity, energy and passion for learning. Nominations should be submitted by 1st March, 2010. Full details are available at www.jenniferburkeaward.ie or contact morag.munro@dcu.ie.

NAIRL National Awards for Excellence in Teaching

These awards are intended to recognise teaching accomplishments and to promote public recognition and celebration of the teaching role. DCU Heads and Deans are invited to nominate colleagues who are both exemplary teachers and innovative researchers. Full details are available at www.nairl.ie. Please contact learning.innovation@dcu.ie for further information.

DCU President's Awards for Excellence in Teaching and Learning

The President's Awards for Excellence in Teaching and Learning reward academic and support staff for excellence in teaching and learning activities. The President of the University presents the awards at the annual *Teaching and Learning Day* in May. Nominations should be submitted by 6th April, 2010. Full details are available at www.dcu.ie/ovpili/liu/lif-scheme/pres-award/2010.

Conferences and Publications Scheme

The Learning Innovation Fund Conferences and Publications Scheme supports the dissemination of the output of scholarly activity relating to Teaching/Learning (e.g. publication of research outputs; fees and subsistence relating to presenting at a conference). Application details are available from www.dcu.ie/ovpili/liu/lif-schemes/conferences-publications/2009.

Upcoming Events and Conferences

Date	Event	Venue
3 March	Working with Intercultural Learners www.drhea.ie	DRHEA event Dublin City University
11 March	Confessions of a Converted Lecturer Presentation: Prof. Eric Mazur, Harvard University eilish.mcloughlin@dcu.ie	CASTeL event Dublin City University
17-18 March	8th eAssessment Question Conference and Exhibition e-assessment-question.co.uk	London
22-24 March	Open Educational Resources 2010 www.ucl.ac.uk/oe10/index.html	Clare College, Cambridge
14 April	National Digital Learning Repository (NDLR) Showcase http://ndlr.ie	NDLR event Trinity College Dublin
19-21 May	EdTech 2010 - 11th Annual Irish Educational Technology Users' Conference ilta.net	Athlone Institute of Technology
29-30 June	3rd Annual Institutional Research Conference www.dcu.ie/conferences/ir2010/index.shtml	DCU & HEIR event Dublin City University

LIU Lunchtime Seminars

Seminar dates are listed on the LIU website
www.dcu.ie/ovpili/liu/Events/lunchtime-seminars.

Useful Resources

For this edition, Ellen Breen, DCU Library, has selected library resources on the scholarship of teaching and learning:

Selected texts

- Biggs, John (2007) *Teaching for quality learning at university*
- Cowan, John (2006) *On becoming an innovative university teacher*
- Fry, Heather (2009) *A handbook for teaching and learning in higher education*
- Markey, Anne (2008) *In at the deep end: starting to teach in higher education*
- Murray, R (2008) *The scholarship of teaching and learning in higher education*
- Race, Phil (2007) *The lecturer's toolkit: a practical guide to learning*

Selected journals

The library delivers hundreds of education titles to your desktop, they include general HE titles and discipline specific titles for example:

- Assessment and Evaluation in Higher Education*
- Chronicle of Higher Education*
- Higher Education Quarterly*
- New Directions for Teaching and Learning*
- Review of Educational Research*
- Teaching in Higher Education*
- Teaching Science*

To access these titles online go to library.dcu.ie.

Library databases

Professional Development Collection
Indexes and abstracts for over 800 educational titles with full-text access to over 500 titles.

ERIC and Eric International

ERIC is a non-commercial database sponsored by the Institute of Education Sciences of the US Department of Education. It contains more than 1 million abstracts of documents and journal articles on education research and practice. ERIC International is a subscription based database that provides access to the Australian and British Index.

Search discipline specific databases for articles on aspects of teaching and learning in different subject areas for example, *Inspec* for computer scientists, engineers and physicists.

To access these titles online go to library.dcu.ie.

Dublin City University
Ollscoil Chathair Bhaile Átha Cliath



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TEACHING REFLECTIONS

Learning Innovation Unit

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Introducing Teaching Reflections

Foreword by

Prof. Ferdinand von Prondzynski, President, DCU

Exactly 30 years ago this year I stood for the first time in front of a group of students to teach them. It was a scary moment, not least because some of those in the room were actually older than I was, and were probably much brighter. And yet that day marked the beginning of a journey of discovery for me, allowing me over the many years that followed to be inspired and encouraged and sometimes humbled by several generations of students. I also learned quickly that teaching was only really good if it was a two-way process, and that one of the most important skills was that of listening.

Thirty years on I am immensely proud to lead a university which has shown real commitment to the core business of teaching, and where year by year I hear from students and alumni about the contributions made by staff to their intellectual and personal development. I am proud also to be in a community who are committed to the university and its objectives.

Good teaching and learning are the basis on which a society is able to develop and maintain civilised values of scholarship, innovation, tolerance and civic duty. And right now, they are the building blocks on which our national regeneration and growth will depend. Universities are not just educational institutions, they are the places where national self-confidence is formed and given a sense of direction. What is discussed and analysed in *Teaching Reflections* represents the future for all of us.

Ferdinand von Prondzynski



Welcome to this Edition of Teaching Reflections

Morag Munro, Head of Learning Innovation Unit

Through our work in the Learning Innovation Unit (LIU) we are continually reminded of the importance of reflection on practice. We are also conscious of creating opportunities both to share teaching and learning experiences and to learn from each other. It is for these reasons that we have developed *Teaching Reflections*, a bi-annual publication, offering updates on teaching and learning activities, experiences and practical learning shared by DCU colleagues.

In this issue

This first issue offers a selection of articles across a variety of topics relating to teaching and learning. In *Giving Feedback: a Valuable and Necessary Process* Richard O'Kennedy, Vice President for Learning Innovation, gives a comprehensive overview of why provision of student feedback is essential and offers strategies for providing useful feedback that won't result in lecturer overload. Problem Based Learning (PBL) is an approach used on a number of DCU programmes; but what is it like to apply PBL to your teaching? Carol Barron reflects on her experience of introducing PBL into an undergraduate nursing programme.

Action Research is research conducted in order to develop one's own teaching practice that involves a systematic cycle of planning, action, and evaluating. In their article, *Learning Through Action Research and Technology*, Margaret Faren and Yvonne Crotty discuss the action research approach to learning employed in the e-learning strand of DCU's MSc in Education and Training Management. In the first of our regular 'Useful Resources' section, Ellen Breen complements the theme of developing one's practice with her suggestions for library resources available to assist in developing your teaching.

Over the past year the LIU and other DCU colleagues have been involved with a number of the Strategic Innovation Fund (SIF) projects. You can find out more in Jean Hughes' SIF update. The All Ireland Society for Higher Education (AISHE) is a professional society whose goal is to bring together and support those who are concerned to advance Irish Higher Education. In this edition Barry McMullin reviews the most recent AISHE conference and explains how you can join the society.

The Moodle Virtual Learning Environment (VLE) has been available to DCU staff and students since 2003. In this edition Elaine Walsh and Eamon Costello provide some tips for using Moodle, based on their experiences in Oscail. Another learning technology used by a number of DCU staff is Camtasia; you can learn about David Molloy's experiences using Camtasia with remote students in this edition.

On the back page you will find details of a number of forthcoming awards, funding calls and events which include: the Jennifer Burke Award for Innovation in Teaching and Learning; the NAIRTL Awards for Excellence in Teaching; the DCU President's Awards for Excellence in Teaching and Learning; and the Learning Innovation Fund (LIF) Conference and Publications scheme.

Many thanks to all DCU colleagues who have contributed to this edition including article authors and my colleagues Margaret Keane and Madeleine Patton in the LIU.

I hope that *Teaching Reflections* will become a focus for discussion and debate on teaching and learning related issues in DCU. With that in mind, I encourage you to comment on any of the articles in this edition via the comment box at the end of the online version of each article, available at www.dcu.ie/ovpli/liu/Teaching-Reflections.

Teaching Reflections is published bi-annually by the LIU. We welcome submissions relating to teaching and learning activities and experiences from academic and support staff. Article types for future issues will include, but are not limited to:

- Reviews: books, resources, software, teaching methodologies, conferences.
- Sharing from practice: Teaching tips and ideas, new teaching approaches.
- Feature Articles: Longer articles on a specific teaching or learning theme, project or case study.

Please email learning.innovation@dcu.ie if you would like to submit an item for inclusion in the next issue.



Learning Innovation Unit News

Teaching Enhancement Cycle

One of the LIU's recent activities has been the development of the DCU Teaching Enhancement Cycle (TEC). The TEC is a cyclical process for gathering feedback on one's teaching practice in order to self evaluate and move to positive, actionable change. The cycle is demonstrated in Figure 1 below. The LIU will hold information sessions on the TEC on 11th and 15th March. For further information contact learning.innovation@dcu.ie. The TEC web resource provides a range of tools for gaining and reflecting on feedback: www.dcu.ie/ovpli/liu/Teaching-enhancement-cycle.

Figure 1: Teaching Enhancement Cycle



Strategic Innovation Fund (SIF)

LIU staff have been involved in several of the Strategic Innovation Fund (SIF) projects, including DCU's AFI initiative and the Enhancement of Learning (EOL) *Flexible Curriculum* and *Dublin Centre for Academic Development* (DCAD) projects.

Postgraduate tutor/demonstrator course

We are coming to the end of the third iteration of our postgraduate tutor/demonstrator training course. This eight week course introduces postgraduate students acting as tutors and demonstrators to pedagogical theory and practice in the context of their teaching roles.

Learning technology

In addition to our provision of support for Moodle, new learning technologies that the LIU have been experimenting with over the last year include Camtasia, Audacity, Mahara and Google Apps for

education. As demonstrated in David Molloy's article on page 13, Camtasia is a screen capture tool that allows you to record what is on screen and play back the result as a video. Audacity is a free software resource that you can use to quickly create podcasts while Mahara is an e-Portfolio and social networking application. Mahara provides students with tools to create and maintain a digital portfolio of their learning, and social networking features to allow students and staff to interact. Finally, Google Apps for education is a suite of online communication and collaboration tools that can be used to support student learning. Many thanks to ISS for their support in hosting Mahara and Google Apps.

If you are interested in using any of the aforementioned tools in your teaching please email learning.innovation@dcu.ie

LIU writers' group

The LIU weekly Writers' group for educational researchers recommenced at the beginning of February. The purpose of the group is to allow colleagues a dedicated time and space on a regular basis to meet and work on articles, book chapters or any other writing project. The main purpose of the weekly group is to write, so discussion and other activities are kept to a minimum. Research in this area has shown that this model works well in assisting people to write regularly. You can join the group at any time and attend when it suits you best. If you are interested in joining or finding out more, please email: learning.innovation@dcu.ie.

Lunchtime seminar series

The LIU continues to host regular lunchtime seminars on topics relating to teaching and learning. The aim of these seminars is to encourage the cross-fertilisation of ideas between schools and disciplines and to generate debate on subjects of campus-wide interest relating to teaching and learning.

The seminar format consists of a presentation followed by questions and general discussion. The atmosphere is relaxed and lunch is provided. We welcome presenters from all academic and support staff involved in teaching and learning. Lunchtime seminar dates are listed on the LIU website: www.dcu.ie/ovpli/liu/Events/lunchtime-seminars.

Figure II: Vignettes of practice from programme participants

Martina Clerkin How can I use Irish language e-portfolios in the assessment for learning approach in my primary classroom?

Martina is a primary school teacher. She was concerned about the neglected use of assessment in her Irish language classroom. She saw the potential of electronic portfolios (e-portfolios) as a tool in assessment for learning. The full paper can be accessed at [ejolts.net/files/journal/2/1/Clerkin2\(1\).pdf](http://ejolts.net/files/journal/2/1/Clerkin2(1).pdf).

Mary Hooker How can I encourage multi-stakeholder narrative and reflection on the use of ICT in Teacher Professional Development programmes in Rwanda?

Mary is an Educational Specialist with the Global e-Schools and Communities Initiative (GeSCI). The focus of her research is to enable discourse among teachers, teacher educators, curriculum developers, partners and policy makers in order to stimulate deep reflection on the various possibilities for ICT integration in professional learning in Rwanda. The full paper can be accessed at ejolts.net/files/journal/2/3/Hooker2%283%29.pdf.

Ronan Mulhern How can I design a recovery-oriented e-learning website for people with mental health difficulties?

Ronan is an assistant manager of EVE (Eastern Vocational Enterprises) Limited, a large occupational service centre for people with mental health difficulties. Ronan's main focus is the use of internet-based e-learning to enhance and support learning and personal development among people with mental health difficulties. The full paper can be accessed at ejolts.net/files/journal/2/3/Mulhern2%283%29.pdf.

The authors engage in a self-study of their practice. They clearly express their concerns when they recognise that their values are not being lived as fully as they desire, they imagine a possible way forward, gather data in the action and make evaluations of the effectiveness of the action in living their values more fully and then modifying concerns, plans and actions in the light of the evaluation. Through a disciplined form of educational enquiry the educational knowledge of professional educators has been made public and legitimated in the academy.

Conclusion

This paper supports Snow's conclusion that

"The knowledge resources of excellent teachers constitute a rich resource, but one that is largely untapped because we have no procedures for systematizing it. Systematizing would require procedures for accumulating such knowledge and making it public, for connecting it to bodies of knowledge established through other methods, and for vetting it for correctness and consistency." (Snow 2001: 9)

The use of multimedia technology opens up new creative possibilities for practitioner-researchers provided that they see learning as a collaborative process not only involving teacher/student dialogue but with a wider dimension of student/student dialogue moving toward a web of betweenness that ICT can facilitate (Farren 2006, 2008).

References and further reading

BERA (2009) *Explicating A New Epistemology For Educational Knowledge With Educational Responsibility*. Keynote Symposium presented at BERA on the 3rd September 2009. Retrieved 14th December 2009 from www.actionresearch.net/writings/bera/bera09keyprop.htm

Car, W. and Kemmis S. (1986). *Becoming Critical: Education, Knowledge and Action Research*. London: The Falmer Press.

Croft, Y. (2009a). *The importance of assessment for learning when creatively using digital technology and web 2.0 technologies in a research based masters programme*. DIVERSE International Conference, Aberystwyth University, UK.

Croft, Y. (2009b). *Having a vision for your own learning by creatively using digital technologies in a Masters programme*. Educational Studies Association of Ireland (ESAI) Conference, Kilkenny, Ireland.

Croft, Y. (2005). *How do I create a visual narrative that contributes to my learning and the learning of others?* Masters degree dissertation at Dublin City University.

Farren, M. (2008). *E-Learning and action research as transformative practice*. *Innovate*, 5(1). Retrieved October 1, 2009 from www.innovateonline.info/index.php?view=article&id=543

Farren, M. (2006). *How am I Creating a Pedagogy of the Unique through a Web of Betweenness?* (Doctoral dissertation, University of Bath, 2006). Retrieved from www.actionresearch.net/farren.shtml

Habermas, J. (1976) *Communication and the evolution of society*. London: Heinemann

McNiff, J. & Whitehead, J. (2006). *All You Need to Know About Action Research*. London: Sage Publications.

Snow, C. (2001). *Knowing What We Know: Children, Teachers, Researchers*. *Educational Researcher*, 30 (7), pp. 3-9.

Whitehead and McNiff (2006). *Action Research Living Theory*. Sage.

Whitehead, J. (2004). *What Counts as Evidence in the Self-studies of Teacher Education Practices?* in Loughran, J. J., Hamilton, M. L., LaBoskey V. K & Russell, T. (eds) (2004) *International Handbook of Self-Study of Teaching and Teacher Education Practices*. Dordrecht: Kluwer Academic Publishers

Whitehead, J. (1989). *Creating a Living Educational Theory from Questions of the Kind, How do I improve my Practice?* *British Educational Research Journal*, 15, pp. 3-17.



Giving Feedback: a Valuable and Necessary Process

Prof. Richard O'Kennedy, Vice President for Learning Innovation

Introduction

Most students entering University are coming from a system that is highly controlled. They generally receive very regular homework and the corrected material is given back with comments that allow them to improve their performance. The exam system is highly structured and there are very many ways whereby they can get information on past exam papers, marking schemes, sample questions and answers.

On entering University they now have to take personal control of many aspects of their life and study. For some students this is very daunting and a number fail to do so effectively. Some individuals work very well in a less structured environment - in fact they thrive in it. However, for some the transition is difficult and can take time.

Feedback is therefore essential in order to help these students come to terms with their new learning environment. It can help them to realise that they now must think for themselves, that they are personally responsible for their study and learning and that they must come to terms with new assessment approaches. Often this is not easy: exams such as the Leaving Certificate work to a highly defined curriculum where prediction of questions, 'learning off' material for expected questions, box filling and re-gurgitation are part of the established processes and can be exploited to get good results.

So what should feedback give to the students and how can it be effectively delivered? Figure I lists some of the essential characteristics of good feedback; whereas Figure II outlines the characteristic features of poor feedback. However, achieving good feedback practice can be a major hurdle given the fact that classes are often very large, teaching, research and academic loads are high, and, increasingly, students appear to be less well prepared for the university environment.

Delivering feedback

Initially the focus should be to acknowledge elements that are positive or good in the assignment. It is then useful to highlight areas of significant weakness where major misapprehensions are demonstrated or errors were made. Suggestions on how these may be

Figure I: Characteristics of good feedback

- Delivered promptly after submission or within agreed time-frame.
- Constructive and encouraging.
- Includes, where possible, praise when good and noteworthy elements are present.
- Clear and specific, with advice as to how improvement can be achieved.
- Avoids comparisons with others.
- Effective use of time of reviewer and student.
- Capable of affecting outcomes e.g. new submissions, re-submissions or exam performance.
- Delivered in sufficient detail to give student clear information on how progress can be made.
- Where there are very many problems it is generally best to focus on a key number of issues. A meeting with the student may be the best approach here.

Figure II: Characteristics of poor feedback

- Delivered long after submission when it can have no tangible effect on outcomes.
- Negative and lacking any encouraging element.
- Delivered publically where recipient may be embarrassed.
- Lacks clarity and recipient unclear about how improvements can be made.
- Takes up too much time of reviewer. This may slow feedback, is poor use of time and results/improvement are no way in proportion to effort.
- Facilitated student not prepared to make required effort to reach reasonable quality levels. Here the student has the attitude that the marker should provide a lot of information so that she/he effort can benefit with no or minimal personal effort.

remedied should be included. Key areas that need improvement should then be given. If possible references or other sources (books, papers, theses etc.) should be given for consultation. However, where there are major problems a meeting can be very valuable as there is no substitute for discussion as a method of giving feedback and clarifying issues of misunderstanding. Indeed, such discussions can also lead to a far better understanding by the student of what is actually required and offers the opportunity to identify where the major problems are in terms of

lack of knowledge, inconsistencies, the level or standard of work necessary, difficulties with writing, language problems, or other additional factors impinging on the generation of high quality work. The latter may be far beyond the specific subject area but, nevertheless, are key in relation to the student's overall performance and well-being.

Frequently it is said that with large classes and heavy workloads feedback may be difficult or impossible to give. These are major problems, but I would suggest that there are several approaches that could be used to overcome them. Nowadays, students are very well acquainted with computer-based testing systems. They can go 'on-line' and check their knowledge in a host of areas. This approach is regularly used for test questions for the Leaving Certificate, for the driver theory test, for the Health Professions Admission Test (HPAT) and many other tests. The overall format involves a bank of questions providing multiple choice solutions covering the subject area. Students log on and can do the test. Good sites provide rapid results and clearly explain why the correct answer was valid. Such an approach is very valuable with large numbers of students and when knowledge of a subject matter needs to be assessed. It provides immediate feedback and students are able to use the test to evaluate the effectiveness of their study programmes, their understanding and how they are progressing.

It is also relatively easy to run such tests. A formal exam could consist of all students doing the same test at the same time. Alternatively, if the bank of questions is large enough it is also possible to provide each student with an individualised test paper thus reducing issues associated with copying. These systems can provide feedback directly and this can also minimise the time required by administrators and lecturers for both marking and providing feedback. With large numbers it would be very useful to exploit technology to its maximum to provide such feedback. However, this approach may not be appropriate in all areas, but there are a number of similar approaches that may be utilised.

In relation to 'essay-type' questions it would be ideal if individual essays could be graded/marked and returned with appropriate feedback. However, there are other mechanisms that are useful and can be applied in larger tutorial groups. Figure III outlines possible feedback methods applicable to various class sizes. It is also important to note that students from different educational systems may need either additional feedback or guidance in a number of areas. Examples of these are given in Figure IV. In

order to expedite and standardise the process for giving feedback, the use of a template such as the one shown in the feedback template at www.dcu.ie/ovpli/liu/teaching-reflections/issue-1/TR-1-giving-feedback.shtml may be beneficial.

Giving helpful feedback can take time and considerable effort. However, it can often be time well spent as it results in much improved performance, significant reduction in failures and associated re-sits and can enhance student wellbeing and motivation. If you think about it we all like to receive encouragement and this motivates better performance. Constructive criticism can also be very beneficial as we can all do better. Surely the essence of our role in the education of students is to enable them to work efficiently, either independently or as part of a team. Feedback must be an integral part of this process and its value should not be underestimated.

Figure IV: Feedback for students from different educational systems and associated issues

- Students may not realise what exactly is required. Therefore, it is essential to give detailed directions especially at the start.
- Use of language and long written assignments may be very difficult if English is not the mother tongue. This is particularly the case with very complex topics. Hence, an initial plan should be requested, constructively criticised and then used as the basis of the full assignment.
- It is important to ensure that any feedback given is very clear and unambiguous and is fully understood as some students may say that they understand when in fact they do not.

each individual to develop their own sense of being as they learn in relation with others. Complementing this approach, Crotty's (2005, 2009a, 2009b) focus on the production of digital narratives of learning to stimulate creative enquiry, reflection and innovation in practice is also a distinguishing feature of the Masters programme.

Mode of enquiry: action research

A widely accepted definition of action research is that it is a form of self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of (a) their own social or educational practices, (b) their understanding of these practices, and (c) the situations in which the practices are carried out (Carr and Kemmis 1986). Jack Whitehead (1989:4) refers to education as a value-laden practical activity and defines 'values' as those qualities that give meaning and purpose to our personal and professional lives. He believes that by asking questions of the kind, 'How do I improve what I am doing?' practitioners can create their own living theories by embodying their educational values in explanations of their educational practice (Whitehead 2004).

In the action research enquiry participants on the programme express their concerns when they recognise that their values are not being lived as fully as they desire. They then imagine a possible way forward, gather data in the action and make evaluations of the effectiveness of the action in living their values more fully. They proceed by modifying concerns, plans and actions in the light of those evaluations. This is based on an action plan set out by Whitehead and McNiff (2006), shown in Figure I.

Figure I: Whitehead and McNiff's action plan, 2006

What are my concerns?
 What experiences can I describe to show why I am concerned?
 What can I do about it?
 What will I do about it?
 What kind of data will I gather to show the situation as it unfolds?
 How will I explain my educational influences in learning?
 How will I ensure that any conclusions I reach are reasonably fair and accurate?
 How will I evaluate the validity of the evidence-based account of my learning?
 How will I modify my concerns, ideas and practice in the light of my evaluations?

During the dissertation supervision period group validation meetings are organised to encourage individuals to present their ongoing research.

The validation group of peers (4-8 per group) are asked to offer advice on enhancing the comprehensibility of the account. Advice is also given on the quality of the evidence used to justify the assertions made, the awareness of the normative background from which their report was written and the authenticity of their account in the sense that through interaction over time the writer shows that they are committed to living their values as fully as they espouse. At the validation meeting, each individual presents their research within the framework of the following questions adapted from Habermas' (1976) framework of social validity and applied within the action research validation meetings (Farren 2006:102):

1. Are the descriptions and explanations of the practitioner-researcher's learning comprehensible?
2. Is there sufficient evidence to justify the claims being made?
3. Are the values that constitute the enquiry as 'educational' clearly revealed and justified?
4. Is there evidence of the practitioner-researcher's educational influence on the learning of others?

Vignettes of educational practice

We encourage programme participants to provide evidence-based accounts of how they are improving work practices within their organisations and generating new knowledge through the use of ICT. The three action research enquiries overleaf (Figure II) from programme participants were published in the Educational Journal of Living Theories (EJOLTS) (www.ejolts.net) – a peer reviewed international web-based journal. One of the distinguishing features of EJOLTS is that it operates an open review process and this means that communication between the reviewers and the authors takes place through the open discussion forum at ejolts.net/moodle/mod/forum/view.php?id=5.

Another distinguishing feature of the journal is the use of multimedia forms of representations to express educational influence in learning. The action research enquiries discussed in this paper show how practitioner-researchers are developing their multimedia skills on the Masters programme in order to submit their multimedia explanations for public criticism (Crotty 2009a, 2009b). The original contributions to knowledge of this research at DCU have been presented in a 2009 keynote symposium of the British Educational Research Association on *Explicating A New Epistemology For Educational Knowledge With Educational Responsibility* (Chaired by Margaret Farren, BERA 2009).

The Production and Deployment of an On-line Video Learning Bank in a Skills Training Environment.

ShareAlike licence.

On the evening of the first day, the conference also saw the official launch of a new book, *Mapping Civic Engagement within Higher Education in Ireland*, edited by Lorraine McLrath, Alison Farrell, Jean Hughes, Seamus Lillis and Ann Lyons. This is the latest in the AISHE Readings (AISHE-R) series, which collects together, in book form, key Irish research in the scholarship of Teaching and Learning in Higher Education. Although officially described as an 'occasional' series, it is noteworthy that this is now the seventh volume in what has become a very substantial and wide-ranging scholarly resource.

Of course, if you would like to contribute to the ongoing growth and development of AISHE, or even just want to stay in touch with its conferences, publications, and other events, you might consider showing your support by joining the society!

Links and further reading

All Ireland Society for Higher Education (AISHE) website: www.aishe.org
 AISHE-C 2009 website, including links to keynote biographies and online proceedings: ocs.aishe.org/index.php/international/2009/index
 AISHE-J: ajs.aishe.org
 AISHE-R: www.aishe.org/readings
 International Consortium for Educational Development (ICED): www.osds.uwa.edu.au/iced
 UCD Teaching Fellowship Scheme: www.ucd.ie/fellows
 University of Adelaide, Research Skill Development (RSD) and Assessment in the Curriculum website: www.adelaide.edu.au/cjpd/rsd
 McLrath, L., Farrell, A., Hughes, J., Lillis, S. and Lyons, A. (Eds.) 2009 *Mapping Civic Engagement within Higher Education in Ireland*. Dublin: AISHE and Campus Engage. Available from www.aishe.org/readings/2009-1

It is important to note that AISHE has adopted an open-access policy across all its publications; so all of the works mentioned above, including AISHE-C conference proceedings, the AISHE-J peer reviewed journal, and the complete set of AISHE-R books are all available, online, in full text form, with no charge or subscription requirement; and, further, may be freely distributed and reused under the terms of the Creative Commons Attribution-NonCommercial-



Learning through Action Research and Technology

Dr. Margaret Farren & Yvonne Crotty, School of Education Studies

In the context of changing or improving social practice, in education in particular, it emerges that teachers' values and concerns need to be addressed and that this can be done through involving teachers in critical reflective dialogue and developing a more open attitude to educational practice.

produced by the participants in their research, they may also produce digital visual accounts that emphasise the production of evidence-based explanations of the processes of improving practice.

The focus of this article is on the action research approach to learning of the MSc in Education and Training Management programme (eLearning strand) and in particular, how participants of the programme engage in action research. It integrates improving practice with knowledge creation.

The approach to teaching reflects emergent thinking within education about the need for educators to research their own teaching. Farren's (2006) doctoral research enquiry 'How can I create a pedagogy of the unique through a web of betweenness?' was integral to the development of her own Higher Education teaching practice as she clarified the meaning of her embodied values in the course of their emergence in practice. 'Pedagogy of the unique' is a standard of judgment that recognises the importance of singularity; that is, each individual has a particular and different constellation of values that motivates their enquiries and each operates in a different context from within which their enquiries develop. The 'web of betweenness', suggested by Farren, is a standard that recognises the social interactive process of learning and the potential of

Context

Participants in the programme are drawn from the widely varying fields of education (primary, secondary, third level) corporate training, industry, nursing personnel, non-government organisations, government departments, and other state agencies. In addition to the text-based accounts of learning

Figure III: Selecting appropriate feedback mechanisms

CLASS SIZE	POSSIBLE FEEDBACK MECHANISMS
Large	<ul style="list-style-type: none"> Multiple choice questions with answers and explanation of choice of correct answer Use Moodle Feedback template could be useful
Medium	<ul style="list-style-type: none"> Tutorial style approach Model answers to provide questions followed by 'question and answer' session with students providing suggestions Key points related to answer should subsequently be provided Use Moodle
Small	<ul style="list-style-type: none"> Required outline plan initially provided; feedback should be given, then full assignment completed Use Moodle <p><u>Presentations:</u></p> <ul style="list-style-type: none"> Provide direct feedback on presentations Ask peers to make suggestions Provide feedback mark sheet covering key areas of importance (see Tables IV and V) <p><u>Essays:</u></p> <ul style="list-style-type: none"> Request outline plan and give feedback on this Feedback template can be useful (Table V) Provide feedback on final essay <p><u>Exam Questions:</u></p> <ul style="list-style-type: none"> Provide past questions and request student to answer under simulated exam conditions Mark and clearly indicate strengths and weaknesses Provide model answer or points that need to be covered Practice on questions should be used with re-sit students
Individual	<ul style="list-style-type: none"> Meeting with student following submission of work e.g. essay assignment, presentation or thesis chapter Best to start with discussion between student and marker; outline plan then to be prepared and critically analysed. Important with thesis that initial chapter be written and feedback provided. This is generally much more effective than waiting for entire draft of work.



The Introduction of PBL into a DCU Nursing Programme

Carol Barron, School of Nursing

Background

In late 2005 the School of nursing at Dublin City University was successful in its bid to the Health Service Executive to run a four and a half year undergraduate degree programme in Children's and General Nursing. This programme takes in 30 students each year. Healthcare today in Ireland, as elsewhere, is delivered within a rapidly changing environment where the nature of client care is often complex. This necessitates the need for nurses who are competent and capable of critical thinking and problem solving. The emphasis within nursing curricula is, therefore, on the development of higher order intellectual skills and abilities where the nurse acquires the ability to understand, not just acquire knowledge (Lobb and Butler 2009), alongside the development of lifelong learning skills. Problem Based Learning (PBL) is seen as one approach which meets these needs (Rowan, McCourt and Beake 2008). The development of a new programme presented the ideal opportunity to develop a hybrid curriculum where PBL modules could be incorporated alongside more traditional forms of teaching and learning throughout each year of the programme.

This article is a personal reflection on the experience of introducing PBL into an undergraduate nursing programme which commenced in September 2006, the preparation of staff and students that was required, and the issue of resources needed to facilitate PBL modules.

History of PBL

McMaster University in Canada is credited with first introducing PBL into their medical curriculum back in the 1960's. This change was initiated due to excessive course content and poor evaluation by the medical students of the links between theory and practice. The inclusion of PBL in full or hybrid curricula then expanded to include other health related disciplines such as nursing in the 1990's (Wilkie and Burns 2003). The effectiveness of the approach within these domains is now well established as indicated within the meta-review by Albanese and Mitchell (1993). At the same time PBL was incorporated into disciplines within the social sciences (Hartsell and Parker 2008) and sciences (Boyce and Singh 2008).

Closer to home, PBL modules are well established within DCU, such as those on our physics and business

programmes. Hybrid PBL curricula are available in UCD's English literature and diagnostic imaging; NUI Maynooth's computer science programme; and DIT's postgraduate certificate in teaching and learning and applied science degree. Finally, the speech and language undergraduate degree programme in Trinity College is run entirely through PBL.

What is enquiry and problem based learning?

Enquiry Based Learning (EBL) is a broad umbrella term used to describe approaches to learning that are driven by a process of inquiry. PBL is usually understood as a spoke of the same umbrella; in other words an approach under the broader category of EBL. As indicated by the name, at the heart of PBL is a problem, some sort of situation requiring an explanation or solution, which is presented to the students as their starting point before any theoretical input. PBL was defined by Barrows and Tamblyn (1980) as:

"[T]he learning which results from the process of working towards the understanding of, or resolution of, a problem. The problem is encountered first in the learning process." (Barrows and Tamblyn 1980:1)

Woods (1994) defined it as

"[An] approach to learning that uses a problem to drive the learning rather than a lecture with subject matter which is taught." (Woods 1994)

Thus PBL is an approach to learning that shifts the focus from teacher-centred to student-centred education and facilitates self directed learning while encouraging a deeper understanding of the material rather than superficial coverage (Savin-Baden 2008, Smyth 2008).

Students are typically presented with real-life practice based problems which trigger their learning. They then discuss the problem in small tutorial groups. They brainstorm ideas based on their prior knowledge and identify what they need to learn to work on the problem. Students then develop a plan to meet their own identified learning needs. They research those learning needs in their independent study time outside the tutorials. The students can also have fixed resource sessions in each PBL module to support their theoretical knowledge acquisition and learning. When they come back to the next PBL tutorial they share the information they have gathered and integrate their new knowledge into a comprehensive



Conference Review: AISHE Conference 2009

Prof. Barry McMullin, School of Electronic Engineering

The All Ireland Society for Higher Education (AISHE) is a scholarly organisation for all those involved and interested in teaching and learning in higher education on the island of Ireland. It originated in a Colloquium on University Teaching and Learning, held at the Royal Hospital Kilmainham, in December 1998, with support from the HEA and participation from all nine Irish universities and the DIT. AISHE was formally established in March 2000, and has operated since then as an individual membership organisation, working to facilitate the development of all aspects of teaching and learning in Irish higher education. Since 2002 AISHE has also been recognised as the representative member for Ireland of the International Consortium for Educational Development (ICED). AISHE has now built up a strong and enthusiastic membership across the Irish Universities, Institutes of Technology, and other colleges and organisations engaged with higher education all over the island.

AISHE pursues its mission through a variety of activities, including seminars, workshops, publications, and provision of online community forums and services. The AISHE annual conference, in particular, has been running since 2004, and has established itself as a premier venue for practitioners, from both Ireland and abroad, to present scholarly work on all aspects of teaching and learning in higher education. The 2009 conference took place in NUI Maynooth, on August 27-28 and very much lived up to the high standard established in previous years.

The conference format has three elements:

- Plenary sessions with invited keynote speakers.
- Parallel oral presentation sessions.
- Poster presentations spanning the full duration of the conference.

Abstracts of all presentations - keynote, parallel oral session and posters - are available via the 2009 conference web site:
ocs.aishe.org/index.php/international/2009/index.

All presenters were also invited to submit full papers, or other supplementary materials, to be included in the proceedings, and these are also in the process of being published online.

Keynote speakers this year were:

Val Chapman of the University of Worcester, UK: Val's talk was entitled *Disability is not a choice - inclusive teaching is* and gave a very stimulating and constructive introduction to the challenges, opportunities and rewards of designing our learning activities to engage the widest possible diversity of learners.

Prof. Bairbre Redmond, Deputy Registrar For Teaching & Learning at UCD: Bairbre took up the timely topic of *Rewarding Teaching Excellence*. Her presentation summarised recent experiences at UCD in seeking to recognise and enhance the role of teaching excellence in academic work. *The UCD Teaching Fellowship Scheme* was specifically discussed, highlighting the important added benefit of collegiality and collaboration among teaching fellows.

Dr. John Willison, of the University of Adelaide, Australia: John's presentation on *Discipline, Diversity and the Development of all Students' Research Skills* was focused on a project which he is currently leading, called *Research Skill Development (RSD) and Assessment in the Curriculum*. This centres around the ways that academics conceptualise and implement the explicit development of their students' research skills within undergraduate and taught masters curricula. (All participants were provided with a convenient one sheet summary of the RSD framework - but it is also freely available for download!).

The conference 'fringe' featured two other significant events. First, during the opening session of the conference, AISHE Vice-president, Sylvia Huntley Moore, formally launched the inaugural issue of the All Ireland Journal of Teaching and Learning in Higher Education (AISHE-J). This is a very important development for AISHE, made possible by generous support from the Higher Education Authority. AISHE-J is a peer reviewed journal which welcomes the submission of manuscripts presenting original scholarly work or commentary in any aspect of teaching and learning in higher education. It thus provides a significant new niche for the promotion and dissemination of the scholarship of teaching and learning in Irish higher education.

The inaugural issue featured a variety of both invited and submitted articles; and I'm particularly pleased to note that DCU was ably represented by Gerald Cannon, Mary Kelly, Colette Lyng and Mary McGrath of the School of Nursing with their paper entitled

Lecturer time overhead

While many lecturers might be considering using Camtasia or an equivalent package, the most obvious concern tends to be 'How much time will it take?' There are two answers to this question:

1. Edited Video: Where a lecturer would like to video edit for professional reasons (creating sections, titles, cutting out the 'umms' and 'eehhs'), this process is open ended in the time that may be spent.
2. Raw Video: Where raw video only is produced and uploaded, there is an overhead of approximately ten minutes per lecture.

Each of the lecturers in the school has taken this second, far more practical approach. There is an additional overhead of a few hours work before first usage - to install the software, check microphone setup and to familiarize oneself with the Camtasia package.

Additional considerations

1. 'Chalk and talk': Where a lecture takes place with the lecturer predominantly using the blackboard, then screen capture is a less suitable approach. As it only records voice and the laptop screen, the resulting video would prove virtually useless. Alternative approaches, such as the use of a stylus have been deployed and have worked effectively. After an initial time overhead in 'getting used to' the stylus and software, it provides the facility to record 'chalk and talk' material (with none of the dust!).
2. Screen size: When recording screen-capture videos, it was typically found that reducing video resolutions to dimensions such as 1024x768 was preferable. Large resolution videos would result in large video files and the potential loss of some quality or the "hanging" of other programmes on the laptop. Naturally, more powerful laptops could cater for higher resolutions.
3. Microphones: A range of different microphones were trialled, with varying results. Before organizing a screen-capture lecture, it is good practice to test any audio equipment in advance. How far can I walk from my laptop? Will the microphone pick up questions from the class? How long will the battery last on my wire-free microphone? One strongly recommended microphone/webcam is the Logitech 9000 Pro, which provides a large audio range without volume reduction. While DECT wire-free headsets such as the Plantronics CS90 were used successfully to provide great mobility (50m), additional care is required in advance of lectures to ensure that batteries have been sufficiently charged.
4. Video format: Camtasia allows the creation of multiple video formats, including Flash, iPod/iPhone (M4V), AVI, WMV, MOV and RM. Most commonly used has been Flash, due to the proliferation of Flash plug-ins in virtually all browsers across all operating systems. M4V format has also been trialled for the use of Apple handheld devices and

although it has worked well, additional care needs to be taken regarding the screen size.

Student feedback

Each semester, feedback/satisfaction surveys are performed to gather student opinion. Without question, the most common recommendation from students is that all remaining modules should provide video recordings of lectures. Here are some (slightly edited) snippets from these surveys:

"For remote students, all lectures should be recorded. This was done brilliantly in <snip> and <snip>. It has shown that it works. So don't [sic] see why DCU will not enforce this as a standard for all modules that are available remotely."

"Video recordings for each lecture please !!"

"The recording of video lectures gave me a real sense of participation in those modules... this should be done on all modules as it provided some real study benefits (and value for money!). If possible could you please please please ask other lecturers to do the same!"

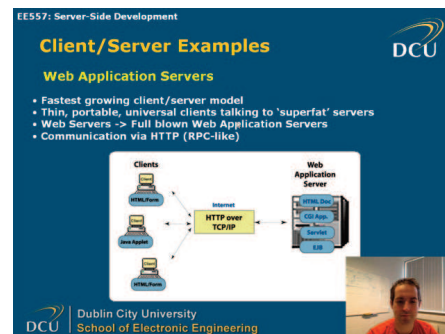
"Recording of lectures by some lecturers. Very positive."

Conclusion

In summary, screen-capture has taken an otherwise unfeasible task and facilitated the easy production of quality video lecture material. While there is undoubtedly some extra work involved for academics, it accounts for a relatively minor amount of time. Feedback from both staff and students has been entirely positive and the school will continue to encourage all lecturers teaching on remote modules to explore the possibility of generating screen captures for their remote modules.

Some examples of screen captured lectures, using Camtasia are available from the Video Resources section of wiki.eeng.dcu.ie/ee557.

Figure 1: Camtasia screenshot



explanation of the problem. While there are numerous differing models of PBL which can vary significantly there are a set of shared characteristics (Figure 1).

Figure 1: Shared characteristics of PBL models

- The problem acts as the trigger for learning.
- Learning occurs in a small group setting.
- The lecturer acts as a facilitator to the learning process.
- Learning is student-centered.
- Prior knowledge is activated.
- New knowledge is acquired and integrated.
- Students take responsibility for their own learning.

Preparing lecturers for PBL

While I had previously used PBL in nursing programmes in the UK, other lecturing staff who would coordinate the PBL modules on the programme had no prior experience of using it, (though the majority had a teaching qualification). Therefore, before the programme commenced, I sought and received financial support from the Learning Innovation Unit to employ an expert in PBL to run a series of one day workshops, over a three week period, to introduce staff to the philosophy of PBL. The workshops were attended by nine academic staff and were run in Semester 1; the first PBL module was to commence in Semester 2 of the same academic year. The workshops were specifically developed to meet the needs of the first two PBL modules within year 1 and 2 of the new programme. As part of the workshops we focused on problem design for these two modules. The 'problems' were designed in combination with the specific learning outcomes for each module. The issues around the appropriateness of various forms of assessment were also explored again for these two specific modules. This served to give the lecturers who undertook the workshops a sense of ownership over the modules. These workshops also gave everyone the experience of being a PBL student; in other words learning by doing.

Findings from the evaluation of the three day workshop was very positive. Lecturers felt that there was a "key timeframe" prior to them facilitating PBL and the preparation they received was within the time frame. There was also a strongly held view that lecturing staff should "go through the process as students do", and that "lecturers must undergo PBL to understand PBL". While the three day workshop was deemed appropriate as an introduction to PBL a need was identified for a follow up workshop once

staff had experience in facilitating PBL modules to discuss any issues that may arise e.g. input on managing difficult group dynamics or the evaluation of differing forms of assessment.

Preparing students for PBL

In the first year of the programme when students are introduced to PBL we initially divided the group of students into two groups for the tutorial sessions, in two small classrooms. We subdivided these groups again into two smaller groups and situated them at differing corners of the classroom to give them a sense of space and privacy. Although this exercise calls for two lecturing staff, to act as facilitators, and two classrooms, it is very worthwhile as students introduced initially to PBL need a lot of support to both understand the philosophy of PBL and what is expected of them within PBL tutorials. It is well reported that students with no prior experience of PBL rely more heavily on their facilitators initially as a source of guidance and information (Brandon and Basanti 1997). After the first year, it is not necessary to utilise two members of staff; rather the whole group can be divided into four and placed in a larger classroom.

Two 'problems' were presented to students in their first PBL module. The first was a visual collage which was largely an introduction to the process of PBL itself and focused on a minimal number of the module learning outcomes. The second problem, which was in the form of a short video, was more complex and focused on several module outcomes. At the beginning, students had difficulty with the media chosen as they were accustomed to textual information. Initially, the students were seeking the 'right' answer and found it both confusing and frustrating that the learning did not follow the format to which they had become accustomed in their secondary level education. Students also receive fixed resource sessions in each PBL module, which is designed to support their theoretical knowledge acquisition. In later PBL modules (Years 2 and 3) the students are given one in-depth practice related problem for each module, which again reflects their modular learning outcomes.

Despite the perceived advantages and benefits of PBL, I do not wish to give the impression that it does not have its difficulties. Every one of the students expressed the view that they have to put more work into PBL modules than more traditional modules. Students initially find PBL stressful, specifically in relation to the time spent searching for relevant resources, uncertainty with regard to the depth and breadth of knowledge required and the obligation

upon them to direct their own learning. Similar experiences are well documented in the literature (Carlisle and Ibbotson 2005, Lobb, Inman and Butler 2004) and I would suggest it is also related to the transition from a more didactic approach to learning. However, as the students progressed in the programme their concerns about PBL diminished although they do still feel that they have to put a lot of work into these modules.

Resources needed to implement PBL modules

I used part of my library budget for new programmes to ensure that students and staff had access to appropriate textbooks on PBL. The budget was divided between textbooks on PBL as a teaching and learning strategy (for lecturing staff predominantly) and books on PBL in children's and general nursing curricula (for students). These resources were beneficial to the students as they could find out how PBL is used in their particular programme of study. With the high standard and variety of e-journals that DCU subscribes to, there was no need to spend any money. Library staff ran small group sessions for the students on conducting literature searches and searching databases in the context of a PBL curriculum. Similar to the findings reported by Rowan (2008), it became evident as the programme progressed that the students gained skills in information retrieval and critique and were transferring these skills in other modules throughout their programme.

Physical resources such as small rooms without fixed equipment are necessary for tutorial sessions with small groups and this involved several face-to-face discussions with the administrative staff within the school. While this small issue may appear inconsequential, it is in fact a very worthwhile exercise. Once the rationale for the requests was discussed with administration staff, there were no issues in being allocated the appropriate room resources and this has followed through year on year once you identify that the module is a PBL module.

Within the classroom itself the equipment required for PBL is low tech: a flip chart, markers and 'bluetac'. Though you quickly learn that if you leave a flip chart stand in a classroom overnight it may well have mysteriously moved to some unidentifiable location by the next day! Therefore I devised a facilitator's pack which consisted of the flip chart paper and a bag which held the markers and 'bluetac' which I now take with me to all PBL tutorials.

Conclusion

Both students and staff require initial support when undertaking PBL modules: students are not familiar with this style of learning while staff may not be familiar with the facilitative approach required. The development of practice based problems to successfully trigger the students' learning, and achieve the required learning outcomes, is key to a successful PBL module (Barron et al. 2008). As a learning strategy, PBL offers the potential to bridge the theory - practice gap in professional practice, through the recognition and evaluation of practice-based problems (Horne et al. 2006, Price 2003). There are now 120 students in differing years on the Children's and General undergraduate nursing programme who all undertake PBL modules in each year of their programme. Since the introduction of PBL in the School in 2006, it has now spread to post graduate and Masters nursing programmes.

References

- Albanese, M. A. and Mitchell, S. 1993. Problem-based learning: a review of literature on its outcomes and implementation issues. *Academic Medicine*. 68 pp52-81.
- Barron, C., Lambert, V., Conlon, J. and Harrington, T. 2008. "The Child's World": A creative and visual trigger to stimulate student enquiry in a problem based learning module. *Nurse education today*. 28 (8), pp962-969.
- Barrows, H.S. and Tamblyn, R.M. 1980. *Problem-based learning: An approach to medical education*. New York: Springer Pub Company.
- Boyce, M. C. and Singh, K. 2008. Student Learning and Evaluation in Analytical Chemistry Using a Problem-Oriented Approach and Portfolio Assessment. *Journal of chemical education*. 85 (12), pp163-7.
- Brandon, J. E. and Basanti, M. 1997. An introduction and evaluation of problem-based learning in health professionals education. *Family and Community Health*. 20 (1), pp1-15.
- Carlisle, C. and Ibbotson, T. 2005. Introducing problem-based learning to research methods teaching: Student and facilitator evaluation. *Nurse education today*. 25 (7), pp527-541.
- Hartzell, B. D. and Parker, A. J. 2008. Evaluation of Problem-Based Learning as a Method for Teaching Social Work Administration: A Content Analysis. *Administration in Social Work*. 32 (3), pp44-62.
- Home, M., Woodhead, K., Morgan, L. 2006. Using enquiry in learning: From vision to reality in higher education. *Nurse education today*. 27 (2), pp103-112.
- Lobb, D. K., Inman, D. R. and Butler, R. G. 2004. Problem-based learning in reproductive physiology. *Journal of Midwifery and Women's Health*. 49 (5), pp449-453.
- Lobb, D. K. and Butler, R. G. 2009. Problem-based learning in a Canadian midwifery programme. *British Journal of Midwifery*. 17 (1), pp45-47.
- Price, B. 2003. *Studying Nursing using Problem Based Learning*. Basingstoke, UK: Palgrave Macmillan.
- Rowan, C. J., McCourt, C. and Beake, S. 2008. Problem based learning in midwifery-The students' perspective. *Nurse education today*. 28 (1), pp93-99.
- Savin-Baden, M. 2008. Problem-based learning in electronic engineering: locating legends or promising problems? *International Journal of Electrical Engineering Education*. 45 (2), pp96-204.
- Smyth, R. 2008. Practical guide to problem-based learning online - By Maggi Savin-Baden. *British Journal of Educational Technology*. 39 (6), pp1142-1142.
- Wilkie, K. and Burns, I. 2003. *Problem Based Learning: A Handbook for Nurses*. Basingstoke, UK: Palgrave Macmillan.
- Woods, D.R. 1994. *Problem-based Learning: how to gain the most from PBL*. Canada: Woods Publishing, Mc Masters University.



Camtasia for Remote Students: a Review

David Molloy, School of Electronic Engineering

Introduction

Since 1997, the School of Electronic Engineering has been offering remote modules to students on taught postgraduate programmes. Back then, a handful of modules were available to about twenty students, some of whom took up the option of continuing engineering education remotely. Today, there are in excess of two hundred students taking any of four million combinations of remote modules on postgraduate programmes in the school. While there are a number of factors affecting this growth in student numbers, the provision of course material in an online capacity has been demonstrated to be hugely significant.

Due to the programme being developed prior to the use of Moodle/WebCT in the University, remote course material was typically generated through a laissez-faire approach. Lecturers were asked to 'think online' when developing modules and were encouraged to experiment with different techniques for the deployment of such material. This resulted in a considerable variety of approaches being taken, which provided academics with the opportunity to get firsthand advice from their peers in relation to 'What works'.

Unfortunately, there was still one major puzzle to solve. As one student submitted in an online feedback form in 1996:

"... it would be more beneficial to me and the rest of the students if there was some sort of recording of lectures - I can't help feeling that the on-campus students are getting information that just isn't finding its way to us!"

This has been one of the most voiced concerns by students who are participating, in a remote manner, on a module which also takes place on campus. The concept of 'equivalence of product' should be adhered to for all students, who should receive a common course experience, regardless of study mechanism.

Exploring lecture video recording as a solution

The obvious solution to providing this equivalence was to provide remote students with video/audio recordings of all lectures. Unfortunately, despite numerous attempts, the provision of video material never worked satisfactorily. There were a number of factors involved, including:

1. Manpower: the requirement for a camera operator and lecturer in each lecture.
2. Time: video editing is a time-consuming process.
3. Hardware cost: equipment such as cameras and microphones is expensive.
4. Dynamic course material: where module content changes annually, the process needs to be repeated.
5. Quality and scale: rendering, compression and hosting of appropriately sized video files while ensuring that the quality of these files is sufficiently clear.
6. Focus: lecturer/slides/blackboard - view can be restricted to one or the other when cutting between video shots.

In short, the process was found to be too expensive, time-consuming and required professional video operation/editing.

A number of lecturers used the fallback process of audio recording their lectures as a half-way arrangement. While a number of students commented positively at these efforts, audio recording fell somewhat short of the ideal.

Camtasia screen capture as a solution

With the encouragement of the Learning Innovation Unit (LIU), a number of academics in the school have been deploying screen-captured video material over the last three academic years. Camtasia screen capture, while different to video recording, provides a very close second place when compared to professional video editing. In addition, it provides a range of advantages and addresses the problem factors listed previously:

1. Manpower: only the lecturer is involved.
2. Time: no lecturers perform any video editing as it is found unnecessary. Videos are provided 'warts and all'.
3. Hardware cost: where a lecturer has an existing laptop with built-in microphone there are no additional hardware costs.
4. Dynamic course material: content is easy to produce and deploy on an annual basis.
5. Quality and scale: Camtasia provides a range of high quality, small size file formats.
6. Focus: the laptop screen is recorded at all times. An option to embed a video is available but is limited in usage.

On the other hand, less structured interactions, where marks are not awarded for participation, require fewer resources and may also lead to rich interactions between participants. The key factor in deciding which is appropriate for you may be the type of learning outcomes sought. For instance if the ability to work in teams is a desired learning outcome structured online discussions may be suitable. On the other hand if you simply require more flexible tutoring less structure may be needed.

The meta-course

Moodle is not designed to represent programmes of study; it is module-centric. However, there may be situations where you want students from multiple modules to have access to shared information or even participate in shared activities. In this case the Moodle meta-course is your friend. A metacourse is a Moodle course which allows participants from multiple modules. For Oscail, this is useful when we need to make announcements relevant to an entire programme. It is also useful when making one set of learning resources (notes etc.) available to students from different modules, for example resources for revision or study skills.

An example of how we use the meta-course, and one that Oscail students find very useful, is the *Buy and Sell Books* discussion forum. Here students from the previous year's modules can communicate with students for the coming year and exchange textbooks. There may be wider potential here for this connection of students for mentoring.

Moodle activity notifications

There are a number of ways that students receive notification of new activity in Moodle. These include:

- My Moodle
- Automatic Email notifications
- Recent Activity block
- Latest News block
- Forum tracking/read tracking
- RSS feeds

All of these features do slightly different things. In common they let participants know, at a minimum, whether there have been new discussion postings within their module. Our advice is to choose one of these features and disable the others.

This avoids having to support multiple features that provide overlapping functions. We recommend *Forum tracking* as the most reliable and consistent of these features as it highlights new posts for participants when they login to their module. It has the advantage also of being less intrusive than email alerts.

Conclusion

Moodle has many features which, depending upon how you use them, can enhance the online learning environment for participants. We have given a small selection here that Oscail students and teachers depend on and we hope that by sharing them they are of some use to others.

Tips

- Make sure students agree to the plagiarism policy and encourage students to save files with a meaningful filename.
- If you have something that you need to share with students from more than one module consider using a meta-course.
- Avoid the buggy *Recent Activity Block* in Moodle and use *Forum Tracking* instead.

References and further reading

For more detailed accounts of our experience of using Moodle for online general teaching please see:

Fox, S. & Walsh, E. 2007. Task Oriented Online Learning (TOOL) - Social Interaction in an Online Environment. IN: *Case Studies of Good Practices in Assessment of Student Learning in Higher Education*, O'Neill, G., Huntley-Moore, S. & Race, P. (Ed.) Dublin: ASHE. Available from www.ashe.org/readings/2007-11/No-06.pdf [Accessed 10/11/09]

Costello E., Fox S. & Walsh E. (Forthcoming). *A reappraisal of online mathematics teaching using LaTeX*. Available from www.dcu.ie/~costello/Costello_LaTeX_Mathematics_Teaching_Online.doc [Accessed 10/11/09]

DCU polices covering the area of students conduct in online environments

The Policy to Promote Respect and to Protect Dignity from the Equality Office: www.dcu.ie/equality/respect/index.shtml

The Code of Conduct for the Use of Computer Resources: www.dcu.ie/info/regulations/computing.shtml

DCU Plagiarism Policy: www.dcu.ie/registry/examinations/plagiarism.pdf



Enhancing Undergraduate and Postgraduate Learning in Dublin: a Strategic Innovation Fund (SIF) Update.

Jean Hughes, Director of SIF Programmes, OVPLI

Most of you are familiar with the Academic Framework for Innovation (AFI) project in DCU and are probably also aware that this is funded by the Strategic Innovation Fund (SIF). But did you know that DCU is also involved in a range of other SIF-funded projects in collaboration with our partner Dublin-based universities and institutes of technology? The Dublin Region Higher Education Alliance (DRHEA) formed under SIF Cycle 2 to collaboratively address a range of teaching and learning issues across the Dublin region. The DRHEA includes the smallest Institute of Technology (IADT) and the largest University (UCD) in the country as well as DCU, DIT, ITB, ITI, DIT, NUIM and TCD so collaboration is challenging to say the least! However, the goal of the consortium is to recognise and collaboratively address those areas which all of the partners must address such as Bologna compliance, graduate education, increased internationalisation, flexible learning etc. Emma Johnson, SIF Administrator, provides overall project co-ordination and administration support to all DCU EOL projects. While the full suite of original projects has been curtailed due to reduced funding, significant progress is being made under the four DRHEA strands.

1. Enhancement of undergraduate learning (EOL) strand

The EOL strand focuses on important undergraduate areas including academic development, flexible curriculum, research-informed learning and e-learning. Involving all eight DRHEA partners, this strand is organised under four project areas and is led by DCU. Initial activity has concentrated on completing a series of audits to establish the position of each partner with respect to a number of key areas – accredited programmes in Teaching and Learning, e-learning, and Bologna compliance/alignment with the National Framework of Qualifications (NFQ). The results of these audits have been invaluable in making visible the stage of development and readiness of the partners in relation to priority projects and informing next steps.

Dublin Centre for Academic Development (DCAD)

The DCAD is the flagship initiative for this strand and aims to improve staff training and development through shared expertise, development of a professional framework and provision of fellowships. The DCAD held its inaugural symposium, *Academic*

Professional Values: Being an Academic in a 21st Century Higher Education Institution, on November 6th, 2009 in the Helix. Other DCAD initiatives include the development of a database of pedagogic expertise and funded fellowships. Jean Hughes, Director of SIF Programmes and Morag Munro, Head of LIU represent DCU on this project.

Flexible Curriculum

All HEIs are expected to be Bologna-compliant by 2010. As each institution is at a different stage in this process, the Flexible Curriculum project led by DCU enables partners to share expertise, compare approaches and learn from others' experiences. However, longer term and beyond initial compliance, the Alliance provides a mechanism to collectively address issues such as how to develop disciplinary learning outcomes, how to reconcile tensions between the learning outcomes paradigm and traditional grading systems, how to utilise learning outcomes to enable increased flexibility while maintaining academic coherence and standards. This group held a symposium on learning outcomes on 11th February in DIT Grangegorman. Morag Munro, LIU, and Billy Kelly, DCUBS, represent DCU on this project.

Research Enabled Learning (REL)

Increasingly the question of incorporating cutting edge research into the undergraduate curriculum is raised, with many bemoaning the fact that, often, students are not exposed to their lecturer's research until they become postgrads, if at all. In addition, with the aspiration towards 4th Level Ireland, the increase of postgraduate programmes and research and the myriad funded research opportunities in recent years, the need to develop a research culture as well as research tools and methodologies into undergraduate programmes, has never been greater. The REL project is addressing this area. The project team will organise an undergraduate research conference in August/September 2010 to give undergraduates an opportunity to present papers and posters. The team will also provide high quality online resources on areas including designing posters, writing abstracts and effective presentations, to support students towards this goal. Carol Barron, School of Nursing, represents DCU on this project.

Enabling e- and blended learning

The final EOL project addresses the area of enabling e- and blended learning. An audit conducted by the project team over the summer of 2009 yielded some striking facts. For example, the DRHEA institutions collectively represent 75,000 students, 10,000 staff, over 1,000 programmes comprised of in excess of 25,000 modules! When coupled with the fact that this is supported by only 25 e-learning staff, some of whom are not deployed full-time, the case for close collaboration becomes even more relevant. The e-learning team is a key source of support to the other EOL projects and is prioritising the development of a collaborative online module in teaching online. Seamus Fox, Oscail, represents DCU on this project.

2. Graduate education strand

The Graduate Education strand involves five of the eight partner institutions – the four universities and IT Tallaght. Activity is concentrated across six disciplines – Biomedical Science, Chemistry, Economics, Engineering, Physics and Politics/Sociology/Public Policy. You will have seen emails over the last year inviting participation in Masterclasses in areas including Carbohydrate Chemistry, Long-Wave Optics, Computational biophysics, International Relations Theory and Public Policy Analysis to mention only a small sample. Partners have also negotiated an inter-institutional collaborative agreement enabling student mobility and credit exchange across the DRHEA partners – in effect enabling postgraduate students from any of the partner institutions to take specific modules offered in any other partner institution. Modules across all six

discipline areas are already on offer in the current academic year. DCU's projects in this area are led by Professor Gary Murphy, Dean of Graduate Research supported by the School of Physical Sciences, School of Chemical Sciences, School of Law and Government, School of Biotechnology, School of Electronic Engineering and NICB.

3. Internationalisation strand

The third DRHEA strand of activity focuses on our international students and marketing Dublin as a city of choice for students from abroad. DCU is participating in the goal of establishing overseas offices to attract students to Dublin as well as in a scheme to provide scholarships to international students. Marie Heraghty, Head of the International Office represents DCU on this project.

4. Widening participation strand

This DRHEA strand aims to develop on existing access and participation activity, bring economies of scale and cohesiveness to initiatives across the region as well as developing new collaborative activity. A key initiative in this strand is the establishment of The Higher Learning Network which prioritises the development of joint Recognition of Prior Learning (RPL) processes, provision of sample/taster modules and an audit of routes into higher education (completed Summer 2009). Prof. Ronnie Munck represents DCU on this project.

Details of all DRHEA projects and activities are available from www.drhea.ie.



Academic Framework for Innovation (AFI) Update

Prof. Martin Henry, AFI Project/OVPLI

The first major component of AFI – the completion of the alignment exercise will become available, providing an overview of how well our current suite of modules meets the aims we have for the learning ultimately achieved by our graduates. This information should, in turn, inform reviews of our modules and awards and can be expected to lead to further development.

Over the first quarter of this year, the findings of the alignment exercise will become available, providing an overview of how well our current suite of modules meets the aims we have for the learning ultimately achieved by our graduates. This information should, in turn, inform reviews of our modules and awards and can be expected to lead to further development.

This milestone also marks the completion of documentation and information necessary for compliance with Bologna, and, while Bologna compliance has never been the principal aim of AFI, it is important to note that DCU now has its house fully in order from the Bologna perspective.

The ultimate aim of AFI – an academic structure with regulations and administrative processes that maximise student choice about the pace and pathway to graduation – remains to be achieved. Whether to prioritise AFI in order to realise the full benefits it could offer will be one major question for the university as it enters a new phase in 2010.



Some Moodle Tips

Elaine Walsh & Eamon Costello, Oscail

Introduction

Meeting the educational needs of students in an online environment can be both challenging and rewarding. Over the past six years in Oscail, through the running of online courses, Moodle has become our campus. We use Moodle as part of a blended model with a large reliance on the online component and in a particularly centralised way that reflects the nature of the programmes. For instance, all modules across each programme have a standard look and feel in Moodle. For this reason we put a lot of effort into the design and layout of our modules; which Moodle features to use, which to exclude, and how they contribute to overall pedagogy. In this article we discuss a selection of Moodle features that have had particular impact on our programmes.

Online assignments

One of the features in Moodle that we could not live without is the *Assignments activity* which allows the submission of assignments online (previously Oscail students submitted their assignments by post to tutors). There are many interesting things you can do with online assignments. Two administrative tips for making the process smoother are:

- including an online plagiarism declaration; and
- using a standard naming convention for files.

Online plagiarism declaration

As of June 2009 there is a special provision in the DCU Plagiarism Policy for online assignment submission. In Oscail, we implement this by having students agree to the plagiarism declaration by virtue of uploading their assignment to Moodle. This action determines their agreement to the contents of the declaration, and removes the need for students to physically post in signed declaration forms. This is shown in Figure 1.

Using a standard naming convention

Oscail students are required to save their assignment files according to a standard naming convention. This ensures that all relevant details relating to the student, the programme of study and the module are visible in the name of the document. For example, for Computing 1, Assignment 1, 2009, a student would save their assignment as:

C1_A1_2009_StevenStudent.doc.

This helps in connecting the assignment to the student once an assignment has been downloaded.

Figure 1: Student assignment declaration in Moodle

Student Assignment Declaration:

- I declare that this material, which I now submit for assessment, is entirely my own work and has not been taken from the work of others, save and to the extent that such work has been cited and acknowledged within the text of my assignment.
- I declare that this assignment, or any part of it, has not been previously submitted by me or any other person for assessment on this or any other course of study.
- I have read and understood the Assignment Regulations set out in Appendix 3 of the Course Handbook.
- I have read DCU's Policy on Plagiarism (see Appendix 4 of the Course Handbook) and understand that plagiarism, collusion, and copying are grave and serious offences in the university and accept the penalties that would be imposed should I engage in plagiarism, collusion, or copying.
- I have read and understood the Referencing Guidelines as specified in Appendix 5 of the Course Handbook.
- I have identified and included the source of all facts, ideas, opinions, viewpoints of others in the assignment references. Direct quotations from books, journal articles, internet sources, module text, or any other source whatsoever are acknowledged and the source cited are identified in the assignment references.

Clicking the **Upload this File** button for your assignment indicates that you have read and that you agree with the statements above.

Upload a file (Max size: 20MB)

Moodle discussion forum

The use of online discussion in distance learning programmes is important. We use the *Discussion Forum* activity in Moodle in two main ways:

- for academic support - peer-tutoring, general announcements (important dates etc.); and
- as part of formal Continuous Assessment (CA) - where marks are awarded for contributions according to a structured format.

In the latter, marks are awarded for forum postings (based on grading criteria). One observation from our experience is that some students will only post to forums if they receive marks for their contributions even if the potential marks available are very small.

Structuring discussions can involve considerable effort as it involves creating detailed schedules, developing criteria for grading discussion contributions i.e. a marking rubric, giving guidance to students as to how discussions should proceed and helping tutors to mentor and moderate proceedings. Due to this complexity a clear study guide and schedule of tasks is a vital tool and Oscail has spent considerable time developing these. Doing online group work as part of CA also requires considerable input from the students.