Centre for Educational Development   *Reflections*

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CED Conference 19 & 20 May 2009
Theme: **Assessment and Feedback**
19 May 2009 – Dr Chris Rust, Oxford Brookes University
20 May 2009 – Professor David Nicol, University of Strathclyde

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Guest Speaker Series
September 2008 - Development of Student Skills
31 October 2008 - Professor Vicki Tariq, University of Central Lancaster
27 November 2008 - Teaching and Assessment for Inclusion - in conjunction with Disability Services (full day)
19 February 2009 - Professor Mick Healey - University of Gloucestershire
April 2009 – CETL Dissemination Day

**HE Forum - Dissemination of TQEF Projects**
15 October 2008
26 November 2008
11 February 2009
13 May 2009

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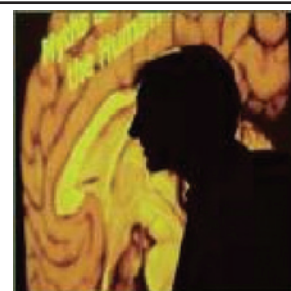
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AISHE Workshop at Queen's University Belfast
Theme: Beyond Self and Peer Assessment
Speaker: Professor David Boud, Dean of the University Graduate School and Professor of Adult Education at the University of Technology, Sydney
Venue: Council Chamber/Canada Room
Date: 26 June 2008, 1.30 pm – 4.30 pm (lunch available from 12.30 pm)
To register for this event please contact AISHE or email: l.carey@qub.ac.uk

AISHE International Conference Series
Theme: Encouraging Student Engagement
Keynote Speakers: Professor Lorraine Stefani, University of Auckland
                        Sandra Griffiths, Honorary Senior Research Fellow, CED
Date: 28 & 29 August 2008
Venue: NUI Maynooth, Ireland
To register for this event contact AISHE or email linda.king@aishe.org

REFLECTIONS

Welcome to the sixth issue of Reflections, the newsletter which focuses on teaching, learning and assessment in Queen's and more generally in higher education. Reflections is published once a semester by the Centre for Educational Development and provides a forum for discussing learning and teaching initiatives in Queen's. We aim to balance articles from the various support units within Queen's with contributions from academic staff and guest writers.

Our cover article is on the very current topic of providing feedback to students, an issue highlighted in the recent National Student Survey, and provides a new perspective on what we mean by feedback and how it can effectively improve student learning.

We also feature articles on embedding PDP in taught postgraduate programmes and on some strategies to engage students more actively in learning in a variety of disciplines such as Management, Geography, Anatomy and Social Work. A report from the Centre for Excellence in Inter-professional Education highlights innovative activities involving students from Medicine and Dentistry, Nursing and Midwifery, Pharmacy and Education.

Contributing to the next Reflections

We are delighted that we have a record number of articles sent in by Queen's staff in this issue. We would very much welcome contributions for our next issue of Reflections to be published in Autumn 2008. Contributions can take several forms:

Articles on an aspect of teaching and learning or student support (generally 500 - 750 words); Shorter "newsflash" items, e.g. reporting on a recent event or advertising a new venture or up-coming event (100 -200 words); Brief synopses of recent interesting articles on teaching and learning from the educational literature (100 – 200 words); Letters or responses to previous articles or to recent developments in H.E.

Contributions can be submitted via e-mail to Linda Carey, (l.carey@qub.ac.uk) or Susan Shields (s.shields@qub.ac.uk), Centre for Educational Development.

Linda Carey
Editor of *Reflections*

The National Student Survey (NSS) consistently shows that students are dissatisfied with the feedback they receive from teachers in higher education. But what is good quality feedback?

Professor David Nicol examines the issues and questions the validity of the NSS

Professor David Nicol

There is growing dissatisfaction with the quality of teacher feedback to students in higher education in the UK. The National Student Survey (NSS) consistently shows that assessment and feedback get the lowest satisfaction ratings by students when compared against other course indicators. As a result of the NSS, which serves as a kind of league table on where to study, many institutions have been scrambling to find ways of addressing this problem. More recently, the student body led by Wes Streeting (NUS) has launched a campaign to highlight teachers' and institutions' failures in this area: the Feedback Amnesty asks students to send samples of poor written teacher feedback to a central collection point, presumably to be used to publicise and shame. Given that some of my work has been used to inform the Feedback Amnesty, I feel I ought to contribute to this debate and share some of my concerns.

The Feedback Amnesty is a reaction to the findings of the NSS. The problem is, however, that this survey reflects what, in my view, is a rather narrow conception of feedback. The focus of the NSS is implicitly about written feedback: the survey shows that such feedback is often not sufficiently clear to students, lacks the detail they would like and is not supplied in a timely manner. However, the NSS overlooks all other types of feedback provided by teachers, for example when they discuss assignments in tutorials, answer questions in class, organise face-to-face meetings or give verbal feedback to the whole class in a lecture.

Also, there is a clear assumption in the NSS that if only teachers would 'deliver' more written feedback, students would perform better in their studies. Unfortunately, this bypasses some fundamental aspects of the feedback cycle and it ignores the active role students must play in the process for it to be effective. When teachers deliver written

The National Student Survey (NSS)

feedback, students must be able to decode the feedback message, internalise it and use it to make comparisons with, and judgements about, their own work. Only then will they be able to take action to make improvements. Processes of self-assessment are therefore embedded in the use of teacher feedback. Focusing only on the quality of the initial input (the transmitted feedback message), as the NSS does, is inevitably problematic as there are limitations in how much a written feedback message can convey. Indeed, I suspect that even if teachers provide greater and greater quantities of better constructed written feedback as rapidly as possible after receiving an assignment, students will still want more, and will be less satisfied with feedback provision than they are about other features of their courses. This will always be true unless we change students' understanding of what feedback is and how it works.

Another important failing of the NSS is that it does not take into account the fact that feedback comes from different sources, not just the teacher - it is self-generated when students engage in learning tasks and is also produced when students engage in peer discussions about their assignments. And it does not occur at a single point in time: it starts when the task and criteria are discussed, it involves every stage of assignment production, it is cyclical and, importantly, it involves applying what was learned in action. In my opinion, a good educational experience should help students develop the ability to reflect on and self-assess their own work and comment constructively on the work of others. Paradoxically, given that the NSS measures only teacher-delivered feedback, those who organise learning using a problem-based pedagogy, which relies on rich and ongoing peer feedback dialogue with students evaluating their own progress, are likely to receive poor ratings for feedback in the NSS.

Another problem that should not be overlooked in this debate is the students' willingness to participate in feedback processes. Many HE institutions have already funded specific interventions to tackle feedback issues with extra opportunities made available to clarify feedback messages through dialogue, for example, in discussion sessions, in one-to-one meetings and by providing feedback on exams. However, a common finding associated with these interventions is that few students actually come to these sessions. And we should not forget the common experience of teachers taking time to provide extensive written feedback only to find that students don't collect their assignments.

So how can we improve feedback quality in general and, importantly, improve both teachers' and students' understanding of feedback in all its aspects? I think we ought to start by engaging students as partners in feedback processes: such processes rely as much on what they do as what we do as teachers. Unless students share responsibility with teachers for their learning we are unlikely to make significant progress. To help with this, we ought to provide many structured opportunities for self-generated and peer feedback. We have to manage student expectations and broaden their understanding of feedback, of the importance of different feedback sources (self, peers as well as tutors),

the different types of feedback (written, oral, vicarious, formal, informal) and that feedback is continuous and ongoing and is embedded in all learning activities. And yes, we must also improve the quality of written teacher feedback. On the one hand this calls for better guidelines on how to write feedback comments in different disciplines (notably absent in higher education). However, rather than writing more and more on students assignments, opportunities must also be created for students to respond to feedback comments and to discuss them with teachers and peers, both in and out of class. Interestingly, research also shows that giving feedback on students' self-assessments and providing opportunities to resubmit assignments after using feedback leads to more effective transfer of learning to new problems and contexts.

Many writers in addressing these issues in recent years have produced guidelines to help teachers redesign feedback to make it a more active and participative experience. Black and Wiliam were pioneers with their work with schools showing the importance of feedback (both self, peer and tutor) in their assessment for learning initiative that has received national and international recognition. In my own work in HE I have developed a framework and feedback principles that, when implemented, have been shown to enhance student learning outcomes in modules across different disciplinary contexts (see www.reap.ac.uk). This work shows how feedback, broadly conceived, can help students develop the ability to monitor, evaluate and regulate their own learning. It also highlights the importance of the informal feedback dialogue that is generated by students when they form scholarly communities around their studies.

Back to the Feedback Amnesty. Streeting and his colleagues are right to campaign in favour of doing a better job in providing feedback. However, focusing the Amnesty on gathering instances of badly written feedback compounds a problem already inherent in the NSS. As they stand, both the NSS and the Feedback Amnesty reflect too narrow a view of feedback and they both miss out on the opportunity to capture the bigger picture. There is a pressing need to rethink the National Student Survey beyond a delivery model of feedback which is less than beneficial. Once a more comprehensive set of survey data is available based on a wider perspective, initiatives like the Amnesty could continue to contribute to the process, but be expanded to collect examples of good feedback practice in all its forms. I believe that this would make an important contribution. It would help the HE community develop a more productive understanding of what feedback is and of its crucial role in enhancing teaching and learning.

Professor David Nicol will be a guest speaker at the CED Annual Conference being held on 19 & 20 May 2009 with the theme of Assessment and Feedback.

Professor David Nicol
University of Strathclyde d.j.nicol@strath.ac.uk
Feedback Amnesty pages are at http://www.officeronline.co.uk/education/275201.aspx

For my **National Teaching Fellowship Project** I am preparing a guide to assist staff in higher education think about inclusive teaching strategies. It is planned that the guide will be easy to use in order to facilitate staff who have increasing demands upon their time. The work acknowledges that there is already a huge amount of effective practice going on in this area. Therefore it is the intention to give voice to that practice through the guide.

Sandra Griffiths, NTFS
Honorary Senior Research Fellow, CED

Effective Strategies for Teaching for Inclusion in Higher Education

There is little doubt that during the past 10 years universities have made marked progress in making the learning environments more welcoming to a wider variety of students. While it is true that we have seen participation rates increase, it is also the case that many groups still remain under represented. For example, young males from disadvantaged backgrounds make up a very small number of entrants to higher education.

It could be argued that there has rarely been a time when it is more important to look at what is happening to foster inclusivity in the classroom. The impact of globalisation, multiculturalism, recent equality legislation, terrorist attacks, and concerns about fragmentation and integration are frequent topics in the national press. There have been increasing calls from government for higher education to come up with solutions to some of these hotly debated issues. In higher education, diversity, widening participation and inclusivity have long been complementary agendas.

First of all, what is meant by the term inclusion in this context? There are numerous definitions such as the following one which goes part of the way to explaining the thinking.

"Inclusion extends beyond equity and its associated legislative frameworks to encompass approaches in which each individual is valued and respected, differences between individuals are seen positively and the diversity of an institution's social capital is seen as a quality outcome." Cones et al (1983)

This definition takes us part of the way towards what could be described as a whole university policy embedded in a quality culture. Without consideration of a whole university policy for inclusion, the situation will remain one of isolated good practice by individual champions of teaching or teams of innovators. A student's experience of inclusive best teaching practice will be dependent on chance rather than a learning experience which is part of a deliberately structured system.

It is well accepted that one can either harness the strengths of a diverse intake of students or ignore the diversity opportunities and teach to a common denominator. Often the latter choice is made unwittingly or because of huge pressure of time.

However, the definition above only takes us part of the way because, even if we do acknowledge the need for a whole university policy there is, as yet, not a fully worked out agreement of what is a "quality outcome" for inclusive teaching in terms of the total range of teaching and learning activities in higher education.

In recent years we have come a very long way in terms of policy and practice for disabled students and students with special learning needs. However, we are only beginning to scratch the surface regarding a curriculum audit of practice which takes into account all backgrounds and other factors relating to the inclusive debate in higher education. One example of this is the extent to which the content of our discipline areas reflect practice and examples that are international.

Within the classroom itself you might consider the following experience:

Have you ever been in a lecture where the lecturer's eye contact and body language led you to conclude he/she was addressing people on the other side of the room to the one where you were seated?

If you answered yes, you may also want to think of how engaged you felt with the content of the lecture.

In response to a question about the learning environment, Les Watson, designer of the Saltire Centre at Glasgow Caledonian, puts it this way:

"Our buildings should reflect our beliefs about learning and teaching and mirror our concerns about inclusion, participation and community. If we do not design our buildings to play to the wide variety of difference in our learners then we are continuing the practice of exclusive education."

In order to share and develop a repertoire of effective practice my National Teaching Fellowship Project aims to look at a range of factors which impact upon an inclusive teaching experience. Additionally, it is planned to provide staff with examples of strategies for teaching which are emerging as agreed useful practice in this field.

The project aims to assist staff to think about the implications for teaching for inclusion for their own context. By teaching is meant teaching in its widest and most flexible sense to include learning, learning support, curriculum design and assessment of learning as well as classroom practice.

The project aims to highlight effective practice and strategies for teaching for inclusion in the following general areas:

- Your own perspective
- Teaching and Learning Methods
- Auditing Programme Design, Content and Materials
- Inclusive Assessment
- Enhancing Learning Support for Inclusivity
- Is elearning inclusive?
- The Learning Environment
- Extra-Curricular Activities

Following on from the generic strategies the project will look at specific case studies from discipline areas which illustrate how a team or individual has implemented a successful approach.

Members of staff in Queen's who would be interested in joining a focus group discussion or submitting an example of practice from their professional area or discipline should get in touch with me (Sandra Griffiths) at the Centre for Educational Development, ext 6763 or email s.griffiths@qub.ac.uk

References

Cones, Jahna and Noonan (1983), Exploring Racial Assumptions with Faculty in New Directions for Teaching and Learning, no.16 San Francisco: Jossey-Bass 1983

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Embedding PDP at module level within a student's academic programme of study allows both staff and students to engage in the process in a mutually relevant context. It is not surprising, therefore, that where Schools are able to identify such opportunities; they have been using these as the central aspect of support for PDP in undergraduate programmes. Where this is done effectively, Personal Tutors can take a supporting rather than a leading role with the students. As the student matures and progresses to final year and beyond, there is recognition that they are considering issues, such as progression, and should need less support in determining, planning, addressing and reviewing their goals if they have come through an effective PDP support structure at Levels 1 and 2. Similarly, the future postgraduate taught student will be coming to their programme having experienced the PDP cycle in a range of contexts and having successfully set and achieved a range of personal goals. Postgraduate Taught programmes often offer a wide range of opportunities for embedded PDP. The following examples show how PDP was embedded in a suite of taught postgraduate courses in the School of Biological Sciences and an interdisciplinary MA.

The starting point:

A preliminary review of Programme Specifications indicated that three out of four MSc programmes and their associated Postgraduate Diplomas (Animal Behaviour and Welfare, Biomolecular Structure and Function and Ecological Management and Conservation) had some common modules. These also had obvious links to the PDP cycle of reflecting, planning, doing and reviewing in career academic and personal contexts. It was decided to explore the potential for embedding of PDP within the modules;

• Foundations for Research (Semester 1)

• Professional Development (Semester 2)

• Research Project (MSc only)

The mapping process:

Representatives from CED and the School met to discuss the details of the requirements for PDP in the light of QAA requirements and the University's new Employability and Skills policy. The details of module content, practical activities and assessment were discussed and compared against the requirements for PDP and existing support materials and tools. The mapping process also checked that embedded PDP support was offered across both semesters (and both years in the case of MSc programmes). As a result the following proposal for embedded PDP was constructed.

Summary of PDP Embedding Points in Biological Sciences MSc

Programmes Embedding Points within Relevant Learning Outcomes	Examples of Relevant Skills Development Activities Within Mapped Module
Year 1, Semester 1: **Foundations for Research in Biosciences module** Develop as independent and self critical learners Be able to reflect on their own and on others' functioning in order to improve practice; Be able to engage more confidently in academic and professional communication with others, reporting on action clearly, autonomously and competently Use computers to assist in the interpretation of the design, methodology and interpretation of results of published research, and as preparation for projects.	Project planning and management (Cognitive/Intellectual Skills and Technical skills) Time management skills (professional attributes/attitudes) CVs, interview and presentation skills (professional attributes/attitudes and business and organisational awareness skills) Review and evaluation of data (Cognitive/intellectual skills and Professional practice)
Year 1, Semester 2: **Professional Development module.** Reflective skill development, learning journal, evaluative reports and placement/advanced laboratory or data analysis training. Relevant Learning Outcomes; High level of awareness of the professional standards and requirements in the biosciences and their discipline. Reflective skills, relevant to working effectively with others in a professional context.	Improving own performance in a professional context. (Cognitive/intellectual skills, Technical skills, Professional attributes/attitudes, business and organisational skills, professional practice,) Working with others. (Professional attributes/attitudes)
Year 2, Semesters 1 and 2 **Research Project (MSc students only):** Project Management and Research cycles and good supervisory practice will map to PDP. Relevant Learning Outcomes; After completion of the research project students will have gained experience in scientific research at a level appropriate to the Masters degree i.e. professional scientific research; they will have gained experience in data collection and analysis and they will be able to contribute to design and communicate scientific research in a written form.	• communication, • problem solving • independent learning • time management (Cognitive/intellectual, professional attributes/attitudes, technical skills and professional practice).

Dr Mark Johnson (School of Biological Sciences)

Ms Anna Newell (School of Languages, Literatures and Performing Arts)

Ms Eimear Gallagher (CED)

As a result of the mapping process, it was realised that the majority of PDP support could be identified within existing programme design.

That left the following requirements;

• providing students with information and an introduction to PDP opportunities at the start of their programme

• explanation of the rationale for PDP at each stage of their programme e.g. in student handbook

• support for recording of PDP (e.g. through the e-folio)

• information dissemination to all other staff involved in delivering Postgraduate Taught programmes (particularly those involved in mapped modules)

• annotation of Transcripts to demonstrate where opportunities for PDP have been provided within each course

The outcome:

The mapping process had determined the structure and approach to PDP making the task of providing explanatory information and designing an appropriate induction programme relatively straight forward. The School elected to use the e-folio as a facility for the student to record and plan for general PDP activities while retaining assessment related records in more traditional formats (e.g. the reflective journal). Recognising that the roll out of PDP at undergraduate level within the School would not reach final year until the 08/09 cohort graduated, a specific PDP

induction event took place in the form of a one hour workshop in an IT suite so that students could also be introduced to their e-folio. The co-ordinator of postgraduate taught programmes within the School contacted academic colleagues involved in the courses and they attended the workshop along with the students. This was a useful way of ensuring that all involved in the programme were aware of the implementation strategy and how it fitted with specific module activities.

As a result of the mapping and embedding of PDP within modules, the issue of annotating Transcripts can be addressed by underlining those modules in which PDP has been embedded. Further accredited developmental activities, such as the Queen's Work Experience Award, are also noted on Transcripts ("Degree Plus").

It is hoped that the mapping process will give students a more explicit understanding of skills that are necessary to achieve a high mark, with the same skills being relevant to subsequent employment. For example, students have sometimes perceived the main tasks of an MSc project as the acquisition and analysis of data, yet a proportion of projects lose marks due to hasty write-ups. This can be addressed by more explicit consideration of the student's management of the project meetings and overall schedule.

Mapping and embedding PDP to an MA for Interdisciplinary Arts

Mapping PDP to the MA for Interdisciplinary Arts involved the same approach as that taken in Biological Sciences. Whilst the content and learning and teaching strategies of the two programmes were very different, both presented a range of clear opportunities to embed PDP within modules and link it to existing assessment

strategies.

The MA in Interdisciplinary Arts included a number of modules which are very much project, skill and activity based. Modules like this make excellent points to map PDP. While the MA did not offer as many obvious links to business/ organisation awareness as the MSc programmes, there were, nonetheless, opportunities which could be further exploited, such as links to the Belfast Festival and voluntary work. More central to the mapping process was the inclusion of assessed and peer supported critical incident logs, critical analysis and reflection presentations at the end of each module and CV/VIVA presentation activities. The MA also provides further opportunities for development planning through optional summer project and dissertation.

Final Thoughts

The taught postgraduate programmes have been left, by most Schools, as the final area of provision to consider in terms of PDP implementation. However, now that we are coming to that point, the early experiences indicate that PDP embedding in this type of programme will not present significant challenges in many cases. The relatively short duration, the fact that both postgraduate taught programmes had been designed with employability enhancement in mind and the inclusion of substantial project and experiential/skill development activities made it easy to map and embed PDP in both of the highlighted examples.

Encouraging attendance, promoting participation and fostering learning in undergraduate tutorials: a new approach based on 'assessed' tutorial hand-ins linked to active learning-oriented tutorials

Dr Mike Crone, Senior Lecturer, School of Management

Introduction: context, some familiar problems and one possible 'solution'

I was appointed as a Senior Lecturer in the School of Management in September 2005 having previously worked in a full-time research post for eight years. My initial teaching responsibility was to take over as module coordinator, lecturer and tutorial tutor for a key Level 2 module on International Business. This module was taken by 90-120 students from the BSc Management and a number of related pathways within the School.

In preparing the module, I had a number of concerns based on my limited previous teaching experience: poor or patchy student attendance, failure of students to prepare for class (e.g. by doing set readings) and unwillingness of many students to engage in dialogue during the tutorial class. These 'problems' have been identified in the teaching and learning literature (e.g. MacMillan and McLean, 2005) and will, no doubt, be familiar to colleagues across the University, notably in arts, humanities and social sciences.

Whilst some of these issues might be attributed to factors beyond our control as lecturers (such as the increase in part-time working and diversification of the student body) it is also legitimate for us to ask ourselves whether our teaching practices are partially responsible. Thus, in evaluating the module, as inherited, I wondered: (1) What incentive or motivation was there for students to attend tutorials? (2) How and how much would students learn if they did attend? This reflection led me to devise a new approach to undergraduate tutorials, which revolves around the use of assessed tutorial 'hand-ins' as part of a varied programme of 'active learning-oriented' tutorials. This short article describes and reflects upon this new approach, which has subsequently been adopted, in similar form, by a number of colleagues in my School, and may be of interest to other teachers across the University.

Table 1: Tutorial overview plan for AY 2007-08
Note: Students undertake a group presentation task during Week 10 & 11 tutorials (assessment weight 10%).

What was done? Description of the new approach

Beginning in academic year 2005-06, I made significant changes to the tutorial programme for the Level 2 International Business module. Specifically, I devised a structured programme of 'active learning-oriented tutorials', which supported and built upon learning from the lecture programme . An improved version of the tutorial programme was subsequently deployed in academic years 2006-07 and 2007-08. Linked to this new method of teaching tutorials was a new assessment component. For each tutorial, students were required to prepare a 'hand-in' – such as a one page summary of a reading or brief answers to set questions based on a case (see Table 1 for details). These 'hand-ins' were submitted in class to earn marks towards the module assessment; each 'hand-in' was worth 1% or 2% for a cumulative total of up to 10% over the semester. Most of the 'hand-ins' earned marks on a pass/fail basis but two were actually 'marked' out of 2 (Table 1).

Why was it done? Rationale for the new approach

1. Using assessment to 'shape' student behaviour

Race (2001, p.31) has observed that "assessment methods can be designed to maximise student motivation, and prompt their efforts towards important achievements". Ramsden (1992) suggests that assessment should be linked to learning by assessing during the learning experience. Other authors have described systems of "formative summative assessment" (e.g. Trotter, 2004, in relation to 'tutorial portfolios'). Hence, the approach described above aims to shape student behaviour in relation to tutorials (i.e. promote attendance and preparation, encourage in-class participation and foster learning) using the incentive of earning marks towards the module assessment.

2. Promotion of 'active learning'

Active learning is about learning from doing, performing and taking action, and about interacting with others. Bonwell and Eison (1991) described active learning strategies as those that involve "students in doing things and

Wk	Required preparation	'Hand-in'	In-class activity
3	Read assigned article and prepare one page summary	Article summary; 1% (pass/fail)	Small group discussion and in-class answers to questions based on readings
4	Read book chapter then prepare a one page essay plan for a sample question	Essay plan; 2% ('marked')	Workshop on essay planning then class discussion of essay plans
5	Read article and case material then prepare brief answers to set questions	Answers to set Qs; 1% (pass/fail)	Whole class discussion based around prepared answers to set questions
6	Read assigned article and prepare one page summary	Article summary; 1% (pass/fail)	Small group discussion and poster presentations based on readings
7	Read case material and complete homework sheet of closed questions	Homework sheet; 2% ('marked')	Whole class discussion of answers to question sheet and case review
9	Read web article and case study, then prepare brief answers to set questions	Answers to set Qs; 1% (pass/fail)	Small group discussion based around answers to set questions
12	Read case study materials then prepare briefing paper for 'role play' debate	Briefing paper; 2% (pass/fail)	'Role play' debate based around prepared briefing paper

(have the students) think about the things they are doing" (p. iii). The role of the teacher is then to carefully construct activities and facilitate them. Active learning approaches are said to be generally more popular with students, increase student attendance and motivation, promote deeper learning, and develop communication and other social skills (Bonwell and Eison, 1991). Hence, a key objective underlying this new approach to tutorials was to more explicitly promote 'active learning' by incentivising student preparation for, and participation in, task-focused tutorial activities (e.g. engaging in small group discussion, preparing a poster, completing a homework sheet).

3. Giving formative feedback and encouraging reflection

The model deployed mixes formative and summative assessment. It is summative in the sense that the hand-ins contribute up to 10% towards students' final module mark. However, the approach also offers the opportunity for informal formative feedback to helps students' learning. For a typical tutorial, students are asked to do a reading (e.g. journal article or case) and prepare a one page summary or answer a series of set questions about the reading. They are then asked to discuss their prepared answers in class with members of a small task group of 4-6 peers. In doing so, they get informal peer feedback, and sometimes tutor feedback. Task groups are sometimes asked to present a summary of key points to the rest of the class (e.g. a poster), which offers the opportunity for immediate verbal feedback from the tutor. Finally students hear the tutor give a brief summary of the key learning points from whole activity at the end of the session. This approach also provides multiple opportunities for students to reflect as part of the learning process; the act of preparing the hand-in forces students to think about the reading, as does peer discussion and listening to tutor feedback.

So what? Reflections and student feedback

The nature of the new tutorial programme on the module was deliberately quite demanding of students in terms of preparation and participation. On the whole students seemed to enjoy this innovation in teaching and assessment, as evidenced by tutor evaluation data:

The overall average attendance rate for tutorials on the module was a respectable 74% in 2005-06, 70% in 2006-07 and 71% in 2007-08 . The mean mark achieved for the 'hand-in' assessment component in both 2005-06 and 2006-07 was six out of 10.

Qualitative student feedback taken from tutor evaluation questionnaires in 2005-06 and 2006-07 suggests that the key objectives of the new approach to tutorials are being realised (Box 1).

Box 1: Selected qualitative responses to tutor evaluation questionnaires

Q. What did you find most satisfactory about tutorials?

o   I liked that we got marks for handing in work at tutorials - it was a big incentive to go

o   The fact that tutorials contribute to assessment was a motivator for learning

o   Earning marks during the term helped continuous learning and made you do the work

o   Doing work for tutorials then discussing it really helps embed the knowledge

o   Successfully encouraged students to participate in tutorials

o   Every tutorial was organised differently with different tasks - keeps students engaged

Concluding comments

The approach to undergraduate tutorials described in this short article does not purport to be 'rocket science'. However, colleagues who share my concerns about undergraduate student tutorial attendance, preparation, engagement, in-class participation and, ultimately, learning may wish to consider the approach as one of a number of tools and techniques to tackle these issues.

References

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MacMillan, J. and McLean, M. J. (2005) Making first-year tutorials count: operationalising the assessment-learning connection, Active Learning in Higher Education, Vol.6, No.2, pp.94-105.

Race, P. (2001) Designing assessment and feedback to enhance learning, in The Lecturer's Toolkit, 2nd edition. London: Kogan Page.

Ramsden, P. (1992) Learning to Teach in High Education. London: Routledge.

Trotter, E. (2004) Using Formative Summative Assessment to Progress Learning. LTSN BEST workshop 'Optimising Retention and Maximising Achievement', University of Salford, 16 March. Obtained from HEA website: http://www.business.heacademy.ac.uk/resources/landt/retention/optimising (10/07/07).

Table 2: Tutor evaluation data for Module 210MGT211 International Business

Statement on questionnaire (Likert scale 1-5)	AY 2005-06		AY 2006-07	
	Mean	% 4+5	Mean	% 4+5
Made aims and learning outcomes of the session clear	4.7	100	4.7	100
Encouraged student participation	4.7	100	4.8	100
Showed interest in students' learning	4.5	93	4.9	100
Responded positively to questions / inquiries	4.6	93	4.9	100
Presented a range of perspectives when appropriate	4.7	100	4.9	100
Number of respondents (sample size)	n=30		n=32	

Centre For Excellence in Interprofessional Education

Dr Anne Jones, Education and Skills Development, CED
Dr Sue Morison, Director, CEIPE

The Centre for Excellence in Interprofessional Education (NI) (CEIPE) - one of three Centres for Excellence in Teaching and Learning at Queen's - involves the students and staff of the Schools of Medicine and Dentistry, Nursing and Midwifery, Pharmacy and Education working together to identify parts of the curriculum which would benefit from an interprofessional approach (Fig 1). Interprofessional Education (IPE) provides students with the opportunity to engage in learning with, from and about one another, with the aim of promoting collaborative practice. This type of learning is usually designed for healthcare students who will in future be working together as members of a team and need to acquire the skills to do this. However, there are a variety of other academic disciplines that can benefit from such an approach.

To date, as well as developing projects in the healthcare disciplines, CEIPE has also worked with colleagues in the School of Planning, Architecture and Civil Engineering, the School of Law and the Institute of Professional Legal Studies and the Centre for Excellence in Creative and Performing Arts.

IPE is when professionals from different disciplines learn about each other and learn together. This engenders respect for the other and improves collaboration and the quality of the outcome.

CEIPE currently has a range of projects that fall broadly within (3) themes:

1. Patient Safety and Improving the Quality of Care

Human (Adult and Child) Simulation

Medicines Governance

Drug Prescribing and Administration in Paediatrics

Feeding and Nutrition in Infants and Children

Dentistry and the Dental Team

2. Beyond the Clinical Team

Healthy Environmental Planning

Arts in Medicine

3. Learner-Teacher Interaction and e-learning

Studying and Learning Preferences Inventory (SALPI)

Recording and analysing Learner-Teacher Interaction

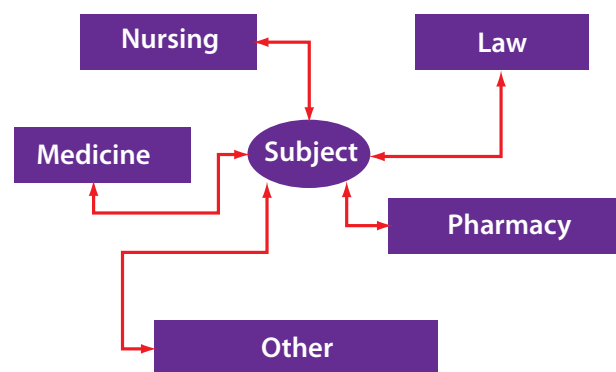*Using and developing e-learning*

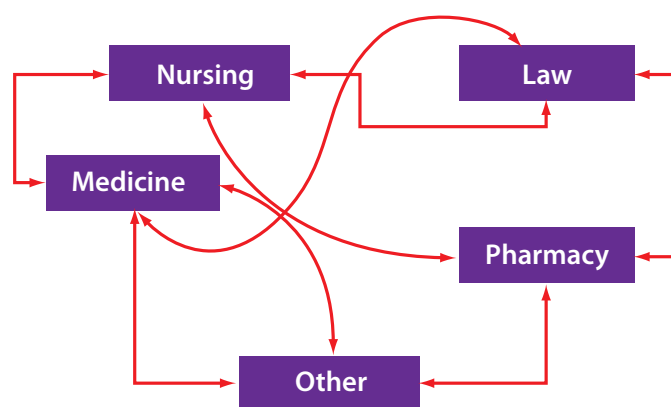Figure 1: Multi-professional education in the Health Sciences

Figure 2: Inter-professional education in the Health Sciences
(After Bowers, 2006:727)

The Human Patient Simulator enables nursing and medical students to work together in role play on case scenarios using SimMan and SimBaby to mimic the 'real patient' environment. A one way mirror enables the teaching team to observe and monitor the students' response to specific scenarios including communication between other members of the clinical team and / or relatives.

Healthy Environmental Planning enables Medical and Environmental Planning students to work together in small interprofessional groups to undertake a Health Impact Assessment (HIA) of a new development in the local area and present their findings to an expert panel. This programme has been developed in conjunction with Belfast Healthy City and their partners who include the City Council and the Health Boards.

Arts in Medicine enables students to examine some of the ways in which the arts interact with medicine and how these methods challenge conventional perceptions of the practice of medicine. Students have worked with dancers, poets, musicians, patients at Belfast City Hospital and the residents of Windsor House and the Camphill Community to explore how dance techniques may be used with brain injured patients, how creative writing has a role in the health process and how music is used in a hospital or therapeutic setting.

e-Learning is a quickly developing agenda in education. Within CEIPE there are a number of e-learning initiatives and opportunities for students. For students unable to attend the workshops in medicines

governance and prescribing, for example, a CD of the interprofessional workshops is produced and students are invited to participate in an on-line interprofessional discussion board.

For all students there is the question of their learning preferences. Over the years the well known learning styles questionnaires have become commercial products. An ongoing CEIPE project has been the development of the Studying and Learning Preferences Inventory (SAPLI). SALPI profiles a student's disposition and existing preferences for studying and learning. Students complete a forty item questionnaire to create a profile of themselves as a learner across eight dimensions of studying and learning: Anxiety, Time Management, Selecting Main Ideas, Self Testing, Information Processing, Motivation, Concentration and Test Strategies. An online version of the questionnaire is available for ALL students in the University to use via the School page in their PDP e-folio. Students who complete the questionnaire are provided with a profile of their learning and studying strategies which can help them to understand their strengths and identify where they could develop further as effective learners.

Reference

Bowers, H F (2006) Designing quality course management systems that foster intra-professional education, Nurse Education Today 26 (8) 726-731

Some student quotes

"I felt that Interprofessional Education helped my interpersonal skills in relation to team working and communication with other members of the multi-disciplinary team." – (3rd year nursing student)

"I felt that IPE helped me to establish my own role as a nurse and to see the roles of others in a team" – (3rd year nursing student)

"It was great to actually pull together and pool our knowledge and skills to try and make the baby better" – (3rd year nursing student)

"I feel that I learnt how to communicate more effectively; I had to work on a project with 2 nurses so basically we had to decipher what the main problems were" – (4th year medical student)

"I feel like I got a greater awareness of what it is that nurses do and therefore how my role as a doctor fits in with them." – (4th year medical student)

Recent international visitors to CEIPE

The work of CEIPE has attracted international attention. In January 2008 CEIPE hosted an exchange visit, funded by the European Interprofessional Education Network (EIPEN), of Dr Agnieszka Ostachowska-Gasior and Dr Jagoda Jaworska from Jagiellonian University, Krakow. Dr Jaworska is a gynaecologist/obstetrician and Dr Gasior's speciality is nutrition and pregnancy. During their week long visit Jagoda and Agnieszka spent time with the dieticians in the Royal Belfast Hospital for Sick Children (RBHSC) where they also observed the IPE Infant Feeding presentations by fourth year medical students and third year Children's Branch nursing students.

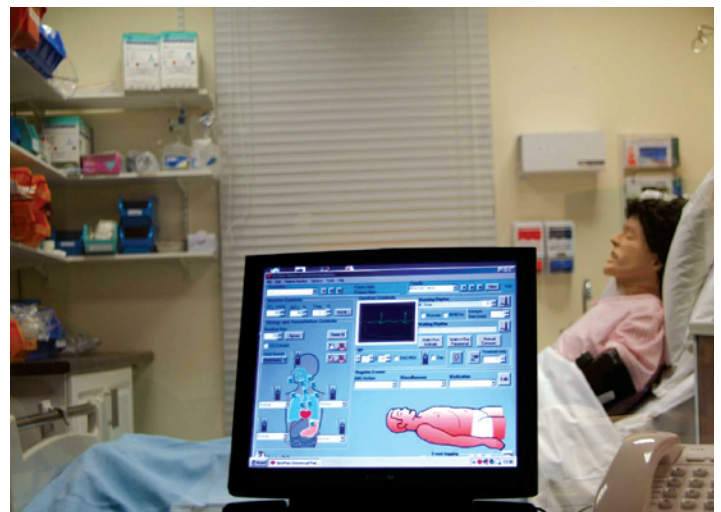Figure 3: Medical and nursing students learning together using SimBaby

Figure 4: The hi-tech SimMan is used to help nursing and medical students learn about teamwork in a medical emergency

They visited the Clinical Skills Education Centre in the School of Medicine and the Clinical Education Centre in the School of Nursing. They saw a demonstration of the adult Human Patient Simulator as well as observing an IPE SimBaby workshop. A presentation on their visit to Queen's will be given at a national conference in Krakow later in 2008.

Dr John Gilbert, Principal and Professor Emeritus from the College of Health Disciplines, University of British Columbia gave a lecture on Wednesday 20th February, 2008 at QUB entitled "Interprofessional Education: A Tale of Two Centuries". In this presentation, Dr Gilbert reviewed the complex motivations for IPE and set out some of the system problems that continue to present challenges to its full realization.

To find out more about the work of CEIPE please contact Dr Sue Morison, Director at s.morison@qub.ac.uk

Reference

Barr, H. Freeth, D. Hammick, M. Koppel, I. and Reeves, S. (2005). Effective Interprofessional education: Argument, Assumption and Evidence. London: Blackwell Publishing.

An Online Lecture Environment

for Third Year Medical Students

Third year medicine represents an important transition from the largely classroom based teaching of first and second year to the predominantly clinical teaching when the students spend virtually all their time on hospital wards throughout Northern Ireland. The 40% increase in student numbers created a new imperative in 2007/8 to re-design the curriculum. This allowed us to not only to accommodate the greater numbers but also make sure that the high quality of the learning experience was not just maintained but enhanced.

Clare Thomson, eLearning Developer, School of Medicine and Dentistry
Dr Kieran McGlade, eLearning lead and Deputy Director of Medical Education

In third year we wanted to re-emphasise the importance of students' exposure to the clinical environment by maximising the amount of time on the wards, talking with patients and learning to apply the science learned in earlier years. A key objective was the need to avoid the potential disruption of students having to return to Belfast for lectures every week. These were the driving forces in developing a series of electronic lectures (eLectures) and supporting learning materials covering the scientific basis of clinical practice that students could access no matter where they were throughout Northern Ireland.
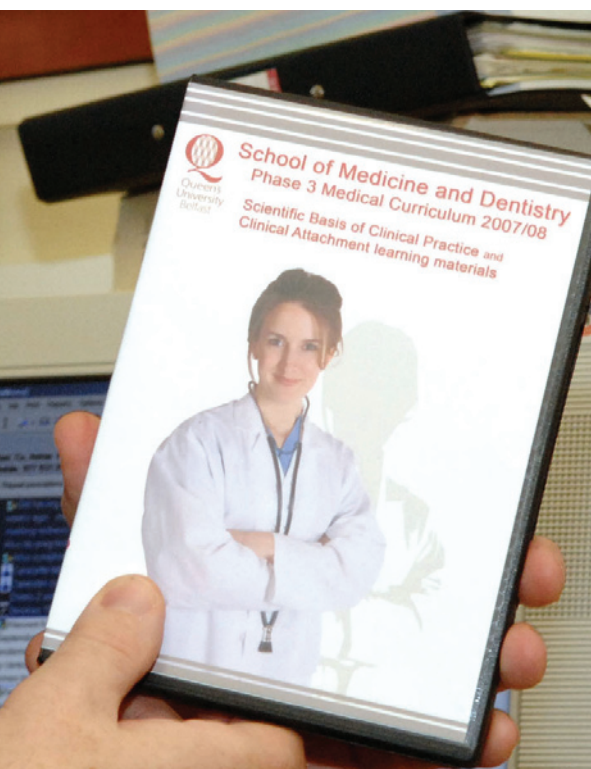
The Learning Materials

The majority of the electronic content is made up of the course 'Scientific Basis of Clinical Practice', which underpins the Third Year clinical learning by demonstrating how pathology, microbiology, therapeutics, haematology, biochemistry and the Individual in Society relate to the practice of clinical medicine.

The resource contains over 130 eLectures including 40 new lectures in microbiology, therapeutics, clinical biochemistry and haematology. It also offers a range of supplementary learning materials such as multiple choice questions for self-assessment, case histories, kardexes (records of prescriptions held on hospital wards) and a virtual tour of the haematology laboratory.

Production

Each lecture was filmed by Media Services, either during an actual live lecture or in the studio. The volume of material became so great that assistance from an outside company was required to carry out some filming, editing and post-production. The video and the associated Microsoft PowerPoint presentation were then brought together using Microsoft Producer to create the eLecture. Figure 1 shows an example of an eLecture and demonstrates how students are able to freely navigate it, using the table of contents underneath the video.

Figure 1: eLecture

With this DVD Queen's has secured a lead in eLearning among medical schools. The new DVD is invaluable for third year medical students as they spend the majority of their time on placement. They no longer have to juggle attending lectures at Queen's, with their work in hospitals across Northern Ireland.

Delivery

The course was distributed to each student on a DVD so that they would have access to all the material whether or not they had access to the internet, with the added benefit that the eLectures could be accessed faster than they would via online delivery.

However, the disadvantage of using a DVD alone is that any edits, changes or additions would not be available to the current year group. So to counter this, the entire content was also made available via a website with emails sent to students alerting them to changes.

Benefits

- The students on placement across hospitals in Northern Ireland are now able to keep up with their studies, without having to travel back to Belfast.
- They have access to key learning resources at a time that fits in with shift work patterns and learning on the ward.
- Relevant content can be accessed prior to and/or during their current clinical attachment without the restrictions of a traditional timetable.
- They can stop and rewind lectures to go over any difficult concepts time and again.
- The lecture audio can also be downloaded onto an MP3 player for mobile learning.
- Students can also link to other resources online and particular sites relevant to their course.

Feedback

To date two student surveys have been conducted, with a response rate of over 50%. More than 80% of the respondents said they were using their own laptops to access the material. There was a very positive reaction to the resource. For example, over 90% reported that they thought it was an important resource and over 80% thought it provided them with a lot of useful flexibility in their learning. Indeed many of their comments reiterated the benefits of flexibility. They were able to manage time more efficiently and could tailor their learning for the clinical attachment they were taking. Being able to stop/rewind and rewatch lectures at appropriate times was considered invaluable.

The access statistics of the website also show that students are viewing the material quite literally at all times of the day and night.

The future

Implementation of this elearning resource has raised a number of important issues which will need to be addressed as we further develop the content for the upcoming academic year. Some students find the self-directed nature of this resource difficult to handle and may require help. Lack of face-to-face contact with lecturers may be an issue and we may have to promote alternative means of peer group interaction to replace the loss of the large lecture format which often fulfilled an important social function.

The launch of the resource in November 2007: attended by Chief Medical Officer, Dr Michael McBride; Head of School, Prof Patrick Johnston; Director of Education, Prof Maurice Savage; along with some of the colleagues who played key roles in the creation of the resource.

The future of this resource is very exciting. Not only will we be including new clinical content such as cardiology, surgery, ophthalmology and endocrinology, with the appointment of a new eLearning Developer for the School, we are also revamping the current content. In addition, the use of new software will provide a more professional look and ensure cross browser compatibility.

Electronic lectures provide us with exciting opportunities for peer review and quality assurance as well as rendering the curriculum more transparent to the many teaching staff, both academic and NHS involved in student medical education which will facilitate a more 'joined up' approach to the education of our new doctors.

Acknowledgements

AMERICAN ASSOCIATION OF ANATOMISTS
Washington DC, United States of America

Aisling Keane, Teaching Fellow, Basic Medical Science

In May 2007, as a result of a travel award from the Centre of Educational Development and the Symington Memorial Trust from the Anatomical Society of Great Britain and Ireland, I was delighted to attend the American Association of Anatomists (AAA) annual conference in Washington DC. The AAA conference was a joint venture with the Experimental Biology Annual Meeting which is a multi-society, interdisciplinary, scientific meeting of Anatomy, Biochemistry and Physiology. The AAA conference was important because not only did it allow me to present my own research, it also gave me the opportunity to meet other scientists and learn from them. Attending this conference was important for me because it also incorporated sessions on innovative methods of teaching anatomy. As a relatively new Teaching Fellow at Queen's, it gave me the opportunity to learn how lecturers from other universities teach similar courses to mine.
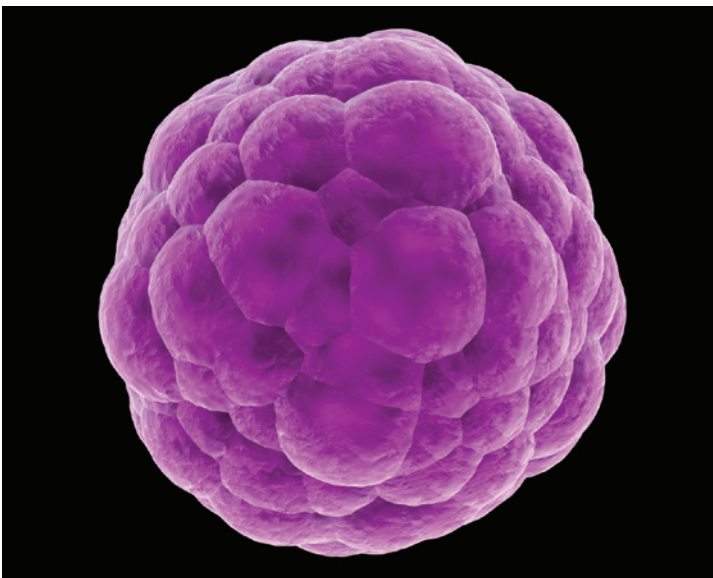
Naturally, the talks attracted various numbers of delegates. The main hot topics at the conference were the platform sessions on teaching innovations in Anatomy. I particularly enjoyed the session chaired by Dr Lawrence Wineski, from the Morehouse School of Medicine. The first talk was given by Dr Wineski, and described how certain lectures and practicals in gross anatomy could be replaced by an interactive study guide that the students could review before attending a formal class. In particular, Dr Wineski spoke of an interactive session available on CD called "Introduction to Dissection" which he and his colleagues had developed. Student feedback over two years had shown that students felt that the CD was an adequate replacement for the traditional introductory lecture. I enjoyed this talk as it is becoming increasingly hard to recruit anatomists who are experienced in cadaveric dissection into the DR. As a result any methods were selective lectures can be removed so that students spend more time on the actual dissection will naturally enhance student learning. Other lecturers in Anatomy showcased their own software innovations such as the "Anatorium" developed by Professor Tim Wilson and colleagues from the University of Western Ontario. The Anatorium is a 3D virtual reality theatre which allows students to see how the human body works as an integrated system. Another popular talk was given by the keynote speaker Professor Darwin Prockop, M.D., Ph.D., Professor of Biochemistry and Director of the Gene Therapy Center at Tulane University. Professor Prockop gave an original and enthusiastic talk on The Reparative Power of Multipotent Stromal Cells from Bone Marrow. In his talk, he discussed how the scientific community is enthused by the manner in which these cells may be used to repair tissues. However, he warned his audience that caution is needed, as although these cells can repair injured tissue by differentiating into most cellular phenotypes their mechanism of action is still relatively poorly understood. Professor Prockop reminded us that there is potential for misinterpreting results from promising new therapies through poorly designed experiments.

Other highlights included the R.R. Bensley Award Lecture in Cell Biology delivered by Professor Matthew Welch, University of California, Berkeley. Professor Welch's talk entitled "Lessons from the Enemy: What Pathogens Have Taught Us about the Control of Cytoskeletal Dynamics" was for me one of the most enjoyable hours that I spent at the conference. The talk focused on how different bacterial and viral pathogens target the actin cytoskeleton of host cells to promote pathogen replication and spread during infection. What was particular interesting were the videos and movies that Professor Welch used to great effect throughout his talk.

I thoroughly enjoyed the conference and came home with much to think about.

'Lightning' project in 'Geography at Work' module

Professor Brian Whalley
School of Geography, Archaeology and Palaeoecology
b.whalley@qub.ac.uk

'Geography at Work' is a Level 3 module that has been running for six years in Geography. The main individual task is to produce a report on a topic researched for an external employer. The remaining assessment is the 'lightning' or 'blitz' project described here. This task takes its name from the short time allowed for it. The intention is to simulate a 'real world' job which puts people under pressure to produce a piece of work. For instance your manager calls in and says, 'Please let me know about ….. by Wednesday'.

The Lightning (or 'Blitz') project takes place after semester one exams when there is no other pressure on students. It can operate with a single, or better, a duo or triple of students. As a team, they are informed who will participate in the group in advance so they can make preparatory contact, exchange e-mails and phone numbers etc. They are also given a general brief about what is expected. The task is to respond to a given project title and, after having researched it, make a presentation three days later. Because of the focus on the project, it is better to have only one topic per team rather than two or more teams trying to do the same project. Typically, teams are e-mailed on a Tuesday evening and have to make their presentation on Friday lunchtime (with a written report to be handed in later that day). This puts students under pressure and requires them to work as a team, think through the project, i.e. what is achievable, what to do (and not), do the research and report in a professional manner. It also aims to make students bond as a team (rather than just a 'group') and use their own creativity and skills to perform the task. All students have had instruction in some team-working techniques such as TOIDPAR (Tuning in, Objective setting, Idea generation, Decision making, Planning, Action, Reviewing) from Level 1 and also in Level 2 dissertation preparation sessions. No formal teaching is provided in this module so only reminders of team-working and analytical techniques, such as 'concept maps', are given.

The project title is usually related to an environmental issue, perhaps as seen by the University but given an air of officialdom by stating, e.g. 'The Senate of the University is considering its green credentials and would like you to report on…'. Topics here have included, paper recycling, 'Fair Trade', cycling, electricity saving etc.

Usually, two academics are present for the assessed presentation, together with one or more School administrative staff. Questions follow the presentation(s) both about the issues raised and how they did the project.

The project is invariably well done by the students showing professionalism, imagination and creativity. It is not easy to provide a clear criterion referenced scheme for marking and I have found a loose scheme including items such as: clear statement of aim and objectives, appropriate methodology, amount of information derived in the time available and quality of presentation of results to be the most useful. These can be placed with a 'how well would I be able to do it' quotient. This year the assessors were surprised how much paper and Post-its Schools used in a year. The students provided some good solutions to reducing such paper usage in their presentation.

An advantage of this project, aside from the benefits to the students, is that it can be marked quickly and feedback given to students at the time of presentation or soon afterwards. Student/peer review has not been used as part of this assessment although it might be possible to use a Level 3 presentation to Level 2 students. The method could of course be used for other types of project or with interdisciplinary teamwork.

As two of the students this year put it:

"The Blitz project was 4 days of continuous, hard work yet thoroughly enjoyable and very rewarding. It made a nice break from the normal assessment students are faced with today and complemented the skills attained during our module very well."

And:

"The blitz project was challenging and full of pressure; however it accurately simulated what I feel the real world of work will consist of; gathering, synthesising, assimilating, writing and presenting findings within tight timescales to specification … demonstrating and testing a number of work skills and abilities that will be crucial in life and in years to come."

Level 3 'Geography at Work students: Gareth Patterson, Claire Taylor and Niall Muldoon after their presentation.

Queen's **Aerospace Engineers** Fly High!

by Drs **John Copelton** and **Jonathan Cole**

The Aerospace Professional Studies module for third year students of Aerospace Engineering provides a good example of how careers, employability and skills can be integrated into an effective learning experience within an academic module. Dr John Copelton from the Careers, Employability and Skills unit works closely with Dr Jonathan Cole from the School of Mechanical and Aerospace Engineering to ensure that the Stage 3 students are ready to meet the challenge of applying for jobs in the aerospace industry. Together they have developed a course which features very willing contributions from many of the major names in the aerospace engineering sector, including Airbus, Bombardier, British Airways and Thales Air Defence.

Dr Cole has ensured that the emphasis throughout the Professional Studies course is on active learning with the students encouraged to engage with invited speakers from the aerospace industry and ask plenty of questions. A key feature of the course is the assignment where the students work in pairs to research, prepare and deliver a presentation on a major aerospace employer. This element was introduced to ensure that the third year students were familiar with as wide a range of potential employers as possible and in a position to make informed career choices. To help the students to deliver their presentation, Dr Copelton devised a two hour workshop where the students progress from discussing their experience of what makes a good presentation to giving short presentations on topics they can identify with, such as "student life" and "advice to first years". The workshop is designed to be relaxed and informal and only constructive criticism is allowed!

The culmination of the assignment is, of course, the students' own presentations, which have always been of a very high standard. Students' grasp of the potential of PowerPoint would make many a lecturer green with envy. However, it is pointed out to them that it is their delivery of the presentation which counts for most of the marks on the assignment. This is an important point to make because presentations are very commonly required by employers as part of the selection process at a company assessment centre, where candidates are judged on their personal suitability for employment.

A new feature of this year's course was a typical assessment centre exercise led by three engineers from B/E Aerospace. The students were divided into teams of five and, within each team, various roles characteristic of a manufacturing engineering company (team leader, engineer, finance director, etc) were allocated. The scenario was described – a problem had occurred during a manufacturing process and a customer (an airline) had noticed the defective product. The teams had to decide how to rectify the situation. Team members were given written information and engineering drawings. Different information was given to the various members but they were not told this – they had to find this out for themselves. The teams had about 40 minutes to work on the problem, propose a solution, and prepare a presentation. The B/E Aerospace representatives assessed the team working and subsequent presentations, and provided prizes for the winners. Exercises such as this are hugely valuable in preparing the students for the process of obtaining a graduate job.

A bonus for many of the students this year was the option to visit RAF Aldergrove, where they had lunch in the Officers' Mess before touring the helicopter maintenance hangar. One of the helicopters had been stripped down to locate an intermittent fault so the students were able to view the internal mechanisms with an Engineering Officer on hand to describe how everything worked. Our aspiring fliers also grabbed the chance to sit in the pilot's seat and operate the controls!

The Careers, Employability and Skills unit carries out the annual survey of the Destinations of Leavers from Higher Education on behalf of the University. It has been gratifying over the last few years to note that the companies who have participated in the Professional Studies course often appear subsequently as employers of our graduates. The employers appreciate that their involvement in the course ensures that they receive applications from well-informed and well-motivated finalists. Queen's has always been able to attract the top employers to recruit; the difficulty in the past has been finding time in a crowded curriculum to educate our students about the very wide range of opportunities open to them. Initiatives like the Professional Studies module in Aerospace Engineering provide an ideal opportunity to do this in an academic setting and in a way that students can appreciate and even enjoy!

Catering for diversity in student learning

Dr Tracey Wilkinson
Division of Basic Medical Sciences/Anatomy

Thankfully, not everyone is the same. All of us do things differently, including how we learn, as it is generally accepted that the learning styles of students vary. Although some of the qualities of more than one style may be inherent in any one learner, most learners prefer to be taught in a way that suits their particular style. In other words, characteristics of certain teaching styles may enhance the learning of students with 'matching' learning styles. In the large classes we are often asked to teach, or indeed even the small ones, it would be difficult to suit all of the learning styles present in the class at any one time. However, I believe that as teachers, it is incumbent upon us to develop a variety of styles, so that we can cater for most of our students at some time.

In the Division of Basic Medical Sciences, my colleagues and I are in an enviable position. We teach anatomy, which is interesting to just about everyone, is a very practical subject, and forms the basis of many other scientific disciplines, including 'sexy' ones such as medicine and forensic anthropology (as can be seen by the success of the many related novels and TV shows). Teaching anatomy is not just about learning lots of Latin names, it is associated with teamwork, the manual skills required for dissection, tactile experiences and the fascination of learning about the human body first hand. The knowledge gained can then be applied to real clinical, forensic or rehabilitation situations.

However, this article is not being written specifically about anatomy. I would like to describe briefly some of the methods used in an attempt to cater for students' diversity in learning styles, as well as to engage their interest.

One of our anatomy courses is taught in a non-vocational biomedical science degree pathway, where students may go on to further study in a medical or paramedical discipline, or become scientists in, perhaps, forensic science or anthropology. Part of the course is therefore problem based, where the students learn anatomy in small groups through a practical case relevant to one of these disciplines. For example, they may be given a pile of bones that were 'found' in a field outside Belfast, and, as the local forensic anthropologists, have to decide which are animal and which are human, and then identify the latter. They must learn about human osteology in order to complete the task. Another has them learning about the walls of the thorax and coverings of the lungs in order to find out how a hypothetical young man died as a result of a stab wound to the chest. Although these situations are fairly specific, cases can surely be found in most disciplines, as it has been shown that learning best takes place in a relevant context.

Other small group learning environments find the students discussing the anatomy of standing up, lifting and drinking a cup of tea, or doing a press up, applying the knowledge they have already learnt about the muscles and joints of the limbs. Much of the anatomy taught at Queen's is through dissection, but task-based practicals give the students the opportunity to work through a series of stations with a colleague or two, answering questions with the help of textbooks or other provided material.

Although lectures are still given to accommodate students who enjoy them, I have reduced their number and always have an interactive component. Many have three versions given to the students: one presented during the lecture; one for the student handout, where they fill in blanks or draw simple diagrams; and a third for posting on Queen's Online. The last has a navigable menu system and a self assessment component for the students to test their understanding.

Methods of assessment can also be matched to the type of teaching. Logbooks may provide a rich source for recording of practical activities and reflection. Problem solving activities in groups allow not only the testing of their factual and conceptual knowledge, but also the assessment of the students' ability to work in teams.

Although it would be impossible to meet all of the students' learning requirements all of the time, I believe that with a little effort and imagination, we should be able to provide a variety of teaching environments that makes it easier for all of our students to learn at least some of the time.

Interdisciplinary Education
in Court Work Skills

Dr John Devaney, School of Social Work

There is a need to ensure that interdisciplinary education for students from different disciplinary backgrounds amounts to more than just sitting in the same room whilst being taught about an area of mutual interest. For professionals who will meet regularly in practice interdisciplinary education is a potent learning mechanism and is of particular relevance and importance. As social workers and lawyers meet on a daily basis in the court room and other legal fora, an opportunity for a shared learning experience was greatly welcomed by staff in the School of Sociology, Social Policy and Social Work, and the Institute of Professional Legal Studies.

With the introduction of the new degree in social work, student social workers in the final year of their studies undertake a module on court work skills. This provides preparation for working in the court system and student social workers are assessed on their ability to produce written evidence in the form of a report, and their ability to provide oral evidence in a court setting. In practice social workers work in a variety of legal contexts, including the criminal justice system as probation officers and the Family Courts in matters such as applications for care orders. Trainee barristers undertake extensive substantive and procedural legal training including the areas of Family Law and Criminal Law. They also undertake extensive skills training including advocacy training. As such the benefits of providing a shared learning experience for students who will one day practice together was thought to be very important. For both sets of students the shared learning experience injected an additional element of realism in the education programme of both courses, helping to bridge the theory – practice divide and facilitating the development of knowledge and skills that will be required in their future roles.

Dr John Devaney and Ms Catherine Maguire from the School of Sociology, Social Policy and Social Work and Mrs Aine Maxwell from the Institute of Professional Legal Studies formulated a template for this shared learning experience. This involved:

1. case analysis and preparation of professional reports by student social workers

2. analysis of these reports, eliciting relevant information and construction of examination in chief and cross examination by trainee barristers.

3. preparation for court appearance by all

4. court appearance by all

5. joint briefing sessions for all trainees.

Social Work Students' Perspective

The shared learning experience involved 118 student social workers presenting written and oral evidence to a mock court based on real life case studies. The reports written by the students and their performance whilst giving oral evidence and being cross examined by the trainee barristers was assessed by staff from the School of Sociology, Social Policy and Social Work.

From the perspective of the student social workers the shared learning experience provided the opportunity to:

1. better understand the importance of producing a high quality report for court

2. practice skills in giving oral evidence in chief and dealing with cross examination in a legal context

3. develop confidence in working with legal professionals

4. be assessed under more realistic conditions.

At the module review the students commented that whilst the prospect of being cross examined by the trainee barristers made them anxious, they appreciated the opportunity to experience this process before "doing it for real". They also noted that they had fewer misconceptions about the role of barristers, and that the assessment was clearly related to the learning outcomes for this module.

Bar Trainees' Perspective

Social work reports were received by the Bar trainees who then prepared questions for examination in chief and cross examination. A preparatory session was timetabled for the Bar trainees. The Bar trainees were required to undertake examination in chief and cross examination of the social work students under supervision with the added responsibility that this session formed part of the assessment process for the social work students.

From the perspective of the Institute of Professional Legal Studies, joint training offered the Bar trainees the opportunity to:

1.   have a better understanding of the role of the expert witness

2.   analyse the significance and effect of an expert's report

3.   elicit favourable evidence and advance own case and also construct examination which undermines opponent's case

4.   undertake clear and coherent examination in chief and cross examination.

The Bar trainees welcomed the opportunity to meet with fellow professionals. They welcomed the opportunity to analyse experts' reports and then to examine in chief and cross examine on the basis of those reports. The trainees thought the session added realism to the advocacy training process.

Next Steps

Based on the successful completion of this pilot consideration is now being given to how this shared learning experience could be developed and enhanced for both sets of students in future years.

Professor Gerry McCormac with Heather Long

Biomedical Sciences Graduate Wins Science Shop Award

Samantha Taylor
Teaching Fellow – Division of Basic Medical Sciences/Anatomy
Eileen Martin
Manager – Science Shop, Queen's University Belfast

Heather Long who graduated with First Class Honours in Biomedical Science last year, was recently awarded the Science Shop Award 2007 for her research with The Ulster Cancer Foundation (UCF). The Science Shop presents annual awards of £1,000 to students who complete the best research project with community and voluntary organisations. Heather's work reflects an ongoing partnership between UCF and The Science Shop, with both students and organisations benefiting from the research.

During the past 5 years UCF have supported a number of students from a range of disciplines and have benefited from several very useful pieces of research. Students gain research experience which counts towards their degree and often find the experience of working on a work-related research project both interesting and inspiring, as well as beneficial for their CV.

Heather's research project was jointly supervised through Anatomy and The Ulster Cancer Foundation and involved the piloting of an online tutorial on skin cancer (developed by the University of Sydney) amongst a group of General Practitioners in Northern Ireland. One of the principal aims of the project was to assess the effectiveness of the pilot as a training programme for the diagnosis of skin cancer. The results showed that 92% of participants would recommend the tutorial as appropriate for continuing professional development.

For further information on Science Shop research projects, please contact either Eileen Martin or Emma McKenna at (02890) 97 3410 or at science.shop@qub.ac.uk

Supporting the Community:
Local and International Project (Healthcare related)

Doris Corkin
School of Nursing and Midwifery

Project Description

Nursing educators and students within the School of Nursing and Midwifery generously responded to the Belfast Salvation Army and St Vincent De Paul 2007 Appeal with gifts (3 large bags) and supported a Children's Orphanage in Ethiopia with the contents of ten large envelope packages, plus money gift from Child Branch nursing students for children to party during the recent festive season.

The focus of this community outreach project was to promote health with a 'fun' theme targeting disadvantaged children and young people locally and internationally. Many quality gifts such as colourful toothbrushes and sponges, drinking cups, reading and picture books and small games were delivered locally before Christmas and posted by air and surface mail to Ethiopia, where celebrations take place from 7th January (see photos).

A delightful email from Karen Salmon (nurse from N.I who specialises in the education of AIDS/HIV in Ethiopia and who has presented to our Child Branch students when home visiting), captured the essence to be had from giving *'watching their happy faces while playing musical statues and pass the parcel for the first time, with wonderful gifts'.* This outreach project demonstrates just how important these new initiatives can be.

Supporting Partners:	iris.corry@salvationarmy.org.uk
	Karen Salmon
Hosting School:	Nursing and Midwifery
Target Audience:	Children and Young People
Start Date:	November 2007 to January 2008 and plans for project to be ongoing
Contact:	Teaching Fellow Doris Corkin, MBC, d.corkin@qub.ac.uk, Tel: 028 9097 2339
Also Teaching Fellows:	Catherine Monaghan, Sonya Clarke plus other members of Children's Team

Double First for the School of Education

Kirsti Alexander/**Barbara Lynagh,** School of Education

Queen's School of Education achieved a 'double first' by adding to its portfolio two unique courses specifically designed to enhance professional skills within Northern Ireland.

September saw the launch of the School's very first online programme. Born out of an exciting collaboration with the Institute of Child Education and Psychology (ICEP), Europe, the Advanced Diploma in Professional Development, Inclusive Education aims to equip teaching professionals with the skills necessary to teach pupils with special, emotional, behavioural or additional learning needs including dyslexia and autism.

The need to effectively manage an increasingly divergent range of pupil abilities in mainstream classrooms has become ever more prevalent. Richard Jay, Director of Education at the School of Education, observed "The course is designed to build the capacity of teachers and other professionals, enabling them to respond effectively to the diverse educational needs of all pupils, especially those with special and additional educational needs".

The unique, online teaching delivery method allows students to study in any location by means of interactive learning activities, online tutorials, class discussion boards and access to experienced tutors via email and telephone. Jenny Robinson, Regional Director of ICEP in Northern Ireland and Scotland reflected, "By delivering the course online, we give teachers the opportunity to obtain the qualification at a time and pace compatible with the demands of their busy working lives."

In 2003, the Council for Curriculum, Examinations and Assessment (CCEA) introduced a new 'A' level subject into the Northern Ireland curriculum - Moving Image Arts. The Nerve Centre, a multimedia education centre based in Derry with an outcentre in East Belfast, was tasked with providing structured training for teachers and ongoing technical support. Martin Melarkey, Director of the Nerve Centre, was appointed to the role of Chief Examiner of Moving Image Arts 'A' level. This has given him a key role in

Melanie Stewart, D H Christie Memorial Primary School, Coleraine, with Dr Eileen Winter, Director of Academic Programmes (ICEP) at the launch of the new Advanced Diploma in Professional Development (DipPD) Inclusive Education delivered by Queen's University School of Education and the Institute of Child Education and Psychology Europe (ICEP).

BACK TO SCHOOL : Teachers from all over Ireland are going back to school to learn teaching methods for pupils with special or additional learning needs. At the launch of the new Advanced Diploma in Professional Development (Adv DipPD) Inclusive Education delivered by Queen's University School of Education and the Institute of Child Education and Psychology Europe (ICEP) were Philomena Barr CCMS, Johanna Robinson Aquinas Grammar School, Ben Ritchie De La Salle High School Downpatrick, Pauline Jennings St Gerard's ERC, Maeve Murphy St Malachy's PS Killcoo, Jenny Robinson ICEP, Joan Burch Methodist College Belfast, at the launch of the new Advanced Diploma in Professional Development (Adv DipPD) Inclusive Education delivered by Queen's University School of Education and the Institute of Child Education and Psychology Europe (ICEP).

developing the specification and designing curriculum support materials for the new subject. Martin is one of the tutors delivering the School of Education's new Masters level modules in Moving Image Arts which also commence this year. These professional development modules are the first of their type to be offered in the province and will provide accreditation for teachers eager to take up the challenge of teaching this new and innovative subject.

The module co-ordinator, Dr Tess Maginess, commented "Interest in Moving Image Arts continues to grow; fifty local schools are offering this 'A' level next year and there are plans to introduce a GCSE in the subject too. I am delighted that the School of Education can build upon the pioneering work between CCEA and

the Nerve Centre and offer two new Moving Image Arts modules to local teachers."

For further information on these or any of the other part-time undergraduate and postgraduate learning opportunities available through the School of Education at Queen's, please see our web site at www.qub.ac.uk/edu or contact us at:

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