

Learning and Teaching / Learning Through Enquiry Alliance

Conference 2009

Agriculture Building
14-15 July



Foreword

Professor Rob Robson, Pro-Vice-Chancellor for Teaching and Learning



I would like to welcome you to the Conference.

This year our University of Reading Learning and Teaching Conference has joined forces with the Learning Through Enquiry Alliance, and is being jointly hosted by our Centre for the Development of Teaching and Learning and our Centre for Excellence in Teaching and Learning in Applied Undergraduate Research Skills.

The University's Learning and Teaching Conference is a key event in the teaching calendar, offering all staff involved in teaching and learning an opportunity to meet informally, share ideas and practice, and find out more about teaching activities across campus and further afield.

As usual we have a packed programme. We are delighted that this year Professor Phil Race has agreed to give a Keynote Speech on 'How Does Learning Happen', and that he has also agreed to lead a workshop on 'Giving Smarter Feedback'. I am delighted also to see so many other national and international contributors. There are hands-on workshops and papers, many from within the University, which give a flavour of how exciting it is to be involved in Teaching and Learning at Reading.

I'm sure we are all going to enjoy the Conference immensely and take away with us some great ideas and much food for thought.

Finally, I'd like to take this opportunity to thank all those involved in organising the Conference and to you for contributing.

A handwritten signature in dark red ink that reads "Rob Robson". The signature is written in a cursive, flowing style.

Keynote Speaker

Professor Phil Race



Phil leads highly interactive keynotes and workshops on assessment, learning and teaching in higher education. His passion is about 'making learning happen' in an approachable way, without recourse to jargon, acronyms or elitism.

How Does Learning Happen?

-moving beyond learning styles and cycles, to maximise student learning payoff.

Teaching is about causing learning to happen. In his address, Phil will move from the outdated views about learning styles and how learning happens, so usefully explored by Coffield et al (2004), and explore how we can go about making learning happen by addressing seven straightforward factors which underpin successful learning. He will examine how we can go about making learning happen in large-group contexts – and how not to lecture in lectures! Phil will then move on to how we can make small-group teaching work, by getting learners to work actively. We will then share our own experiences of the best and worst teachers we remember, and identify which actions work best for us in our efforts to make learning happen with our own students. Phil will finally look at how we can help our learners to become more conscious of what works for them in their learning.

Bibliography

Professor Phil Race originally trained as a scientist, but over the years progressively became more interested in teaching, learning and assessment, and gradually became an educational developer. Until June 2009 Phil worked part-time as Visiting Professor at Leeds Metropolitan University, after which he will retire from Leeds Met but continue to work as an independent consultant running workshops and giving keynotes.

Phil's mission is to improve and enhance the quality of students' learning by helping teaching staff to develop their methods and approaches, and by helping students to develop their own learning skills. Phil is also particularly interested in the design of assessment instruments and processes, and keen that both assessment and feedback should play positive and motivating roles in student learning.

Phil believes that too much emphasis in higher education has traditionally been placed on subject-content, and too little on learning processes and learner-experiences. In the present context of widening participation, he regards the development of students' capability (including particularly their skills in managing their own learning), as much more important than merely familiarising students with a particular range of subject matter. Teaching processes should not merely aim to be skilled performances, but rather should exploit a wide range of techniques to facilitate learning.

Principal Recent Publications

Making Teaching Work (2007) (with Ruth Pickford) London: Sage.

How to Get a Good Degree: 2nd edition (2007) Maidenhead, Open University Press.

In at the deep end – starting to teach in higher education (2006) Leeds: Leeds Metropolitan University.

The Lecturer's Toolkit: 3rd Edition (2006) London: Routledge.

Making Learning Happen (2005) London: Sage.

500 Tips on Open and Online Learning: 2nd edition (2005) London: Routledge.

500 Tips on Assessment: 2nd edition (2005) (with Sally Brown and Brenda Smith) London: Routledge.

500 Tips for Tutors: 2nd edition (2005) (with Sally Brown) London: Routledge.

How to Study (2003), Oxford, Blackwell.

Lecturing: a practical Guide (with Sally Brown) (2002) London: Routledge.

Conference Programme

Tuesday 14 July					
9.00	09.30	Coffee (Room 1L08)			
9.15 Welcome & Conference Opening		Professor Rob Robson, Pro-Vice-Chancellor Teaching and Learning, University of Reading			
9.30	10.00	<p>Academic Literacy Nike Theatre</p> <p>Taught post-graduate students learning to write for the academy: the case of Applied Linguistics.</p> <p>Clare Furneaux, University of Reading</p>	<p>Higher Education Policy Madejski Theatre</p> <p>University Ombudsmen: Is there a role for them in British Universities?</p> <p>Louise Hague, University of Reading</p>	<p>Digital Literacy Room GU04</p> <p>A question of taste: social bookmarking to support inquiry-based learning.</p> <p>Jamie Wood, CiLASS, University of Sheffield</p>	<p>Technology Enhanced Learning Room 1L06</p> <p>Teaching Ethics to the Playstation Generation.</p> <p>Clare Rawlinson, University of Reading</p>
10.00	10.30	<p>Undergraduate Students as Apprentice Researchers: Developing the Language of Enquiry-Based Writing</p> <p>Ursula McGowan, University of Adelaide</p>	<p>Learning Styles Differentiated Learning in the Physical Sciences: Is it necessary?</p> <p>Paul Taylor, University of Warwick; Ruth Ayres, University of Salford; Glynis Cousin, University of Wolverhampton; Karen Moss, Nottingham Trent University</p>	<p>Workshop Understanding Digital Identity</p> <p>Patrick Parslow and Sarah Fleming, University of Reading</p>	<p>Engaging Students in the Learning Process using Electronic Voting Systems.</p> <p>Elizabeth Page and Liz Tracey, University of Reading</p>
10.30	11.00	<p>Undergraduate Research Experiences through UROP - a National Evaluation Study.</p> <p>Joanna John & John Creighton, CETL-AURS, University of Reading</p>	<p>Developing personal strengths in students to enable them to engage fully with opportunities for autonomous learning.</p> <p>Ann Macaskill and Andrew Denovan, Sheffield Hallam University</p>	<p>Using Wikis for collaborative projects at Part 1.</p> <p>Eleanor Betts, University of Reading</p>	
11.00	11.30	Coffee (Room 1L08)			

11.30	12.30	Keynote Address: How Does Learning Happen? Professor Phil Race introduced by the Vice Chancellor Professor Gordon Marshall (Madejski Theatre)			
12.30	13.30	Lunch (Room 1L08)			
13.30	14.00	Academic Literacy Nike Theatre Inquiry Based Learning as a First Year Experience. Sheila Webber, University of Sheffield	Enquiry-Based Learning Case Study Madejski Theatre Life beyond the reading list: facilitating undergraduate research with museums, collections and archives. Rhi Smith, University of Reading	Workshop Room GU04 Designing and assessing inquiry based learning. Phil Levy, CiLASS, University of Sheffield	Feedback Room 1L06 Engage in Feedback: a web resource for improving the timeliness and quality of feedback. Jo Walsh, University of Reading
14.00	14.30	Information rich knowledge poor? Information literacy as a core asset for inquiry based learning. Vicky Grant, Maria Mawson & Peter Stubbley, University of Sheffield	'Teaching the Talk': Staff-student collaboration in an oral history research project. Alec Patton & undergraduate student collaborators, University of Sheffield		'ASSET': an interactive resource to enhance student and staff engagement with feedback. Anne Crook, University of Reading
14.30	15.00	'Now I feel like I'm really at University': using a community of enquiry approach to promote engagement and academic literacy amongst undergraduate students. Cathy Burnett, Fufy Demissie, Mary Haynes & Sheila Sharpe, Sheffield Hallam University	Developing our undergraduates: EBL in French at the University of Manchester. Annie Morton & Catherine Franc, University of Manchester		Talking about writing: exploring teacher and learner use of audio feedback on English for Academic Purposes (EAP) writing assignments. Clare McCullagh, University of Reading
15.00	15.30	Coffee (Room 1L08)			

15:30	16:00	<p>Academic Literacy Nike Theatre</p> <p>Enhancing the volunteer experience: developing heritage sector skills amongst humanities and social science students.</p> <p>Rhi Smith, Nikki Houston and Students, University of Reading</p>	<p>Enquiry-Based Learning Case Study Madejski Theatre</p> <p>The contribution of enquiry-based learning in enhancing first year students' experience in Business Studies.</p> <p>Tan Yoke Eng, Canterbury Christ Church University</p> <p>Evaluation of the use of wikis for group work associated with problem-based learning exercises in Pharmacy.</p> <p>Kat Bicknell, University of Reading</p>	<p>Workshop Room GU04</p> <p>Three Dimensions of Collaborative Learning: the PEERS project at University College Maastricht.</p> <p>Oscar van den Wijngaard & Wilfred van Dellen, University College Maastricht</p>	<p>Student Voice Room 1L06</p> <p>Transitional Mentoring - the benefits of peer support to first year students.</p> <p>Liz Tracey, Elizabeth Page & Kate Ward-Perkins, University of Reading</p> <p>Amplifying the Student Voice.</p> <p>Louise Goldring & the CEEBL Student Interns, University of Manchester</p>
16:00	16:30	<p>Developing an EBL template for higher education institutions.</p> <p>Rasha Wahid, Ahmad Madarati, Abha Sandill, Louise Goldring, Norman Powell & Muhanad Hatamleh, University of Manchester</p>	<p>A case study of students accessing published research data from one of the emerging 'Data Observatories'.</p> <p>Pete Smith, Oxford Brookes University Madejski Theatre</p>		
16:30	17:00	<p>'The Edge of Reason': supporting students in the critical evaluation of information resources.</p> <p>Helen Hathaway & Sally Smith, University of Reading</p>			

19.30 Conference Dinner: Phyllis Court Country Club, Henley-on-Thames

Wednesday 15 July

9.00	09.30	Coffee & Day 2 registration (Room 1L08)			
		<h3>9.15 Welcome & Introduction to Day 2</h3> <p>Professor Rob Robson, Pro-Vice-Chancellor Teaching and Learning, University of Reading</p>			
9.30	10.00	<p>Academic Literacy Nike Theatre</p> <p>Collaborative Creations and Communications: three case studies.</p> <p>Cath Lambert, Caroline Gibson & Students, University of Warwick</p>	<p>EBL & Policy Madejski Theatre</p> <p>Out of focus? Blurring boundaries: an EBL approach to policy-making.</p> <p>Nadine Wills, University of Sheffield</p>	<p>Workshop Room GU04</p> <p>Effective Feedback</p> <p>Phil Race</p>	<p>Career Management Skills Room 1L06</p> <p>Developing Career Awareness early in the Medical Curriculum through Enquiry Based Learning.</p> <p>Sarah Smithson, Alex Langhorn, Judy Stokes & Val Wass, University of Manchester</p>
10.00	10.30		<p>Enquiry Based Learning: Creating a Community of Practice.</p> <p>Phil Askham, Sheffield Hallam University</p>		<p>Graduate identity in times of uncertainty.</p> <p>Maura O'Regan, University of Reading</p>
10.30	11.00	<p>Developing Academic Literacy with First Year Undergraduates.</p> <p>Lyn Overall, Sheffield Hallam University</p>	<p>An evaluative enquiry in to small EBL development projects.</p> <p>Norman Powell, University of Manchester</p>		<p>Degree and Labour Market Outcomes of University of Reading Graduates.</p> <p>Sarah Jewell, University of Reading</p>

11.00	11.30	Coffee (Room 1L08)		
11.30	12.00	<p>Enquiry-Based Learning Case Study <i>Nike Theatre</i></p> <p>Encouraging Engineers to Read: A Book-Based Final Year Assessment. <i>Grant Campbell, John Blunden-Ellis & Frank Manista, University of Manchester</i></p> <p>Approaches to Enquiry Based Learning in the Teaching of Nanotechnology. <i>David Carey, University of Surrey</i></p>	<p>EBL & Policy <i>Madejski Theatre</i></p> <p>Enquiry Based Learning: Strategic development in to the curriculum. <i>Mike Bramhall, Allan Norcliffe, Justin Lewis & Jeff Waldock, Sheffield Hallam University</i></p> <p>We're all Learners Here: The LRT Project. <i>Alec Patton, Rose Bavage, Richard Heinrich & Philippa Levy, University of Sheffield</i></p>	<p>Workshop Room GU04</p> <p>Growing careers education from the grassroots - practical insights from CCMS Fellowships set within a wider theoretical framework. <i>David Stanbury, Centre for Career Management Skills, University of Reading</i></p>
12.00	12.30			
12.30	14.00	<p>University of Reading Teaching Awards Ceremony Lunch (Room 1L08)</p>		

14:00	14:30	<p>Technology Enhanced Learning Nike Theatre</p> <p>Implications of Inquiry-based Learning in Teaching the Concept of Information Visibility: a case study.</p> <p>Yazdan Mansourian, Tarbiat Moallem University</p> <p>Inquiry Based Learning in a Digital World.</p> <p>Neil Gordon & Mike Brayshaw, University of Hull</p> <p>Technology and Inquiry Based Learning - perfect partners or false friends?</p> <p>Ryan Jendoubi, Sabine Little, Su Arnall, Georgina Lambale & Chloe Miller Smith, University of Sheffield</p>	<p>EBL & Policy Madejski Theatre</p> <p>Student Engagement in Enquiry Based Learning and Policy.</p> <p>Danny Wilding & Paul Taylor, University of Warwick</p> <p>Learning in Research Intensive Environments: a good deal for students?</p> <p>John Creighton, CETL-AURS, University of Reading</p> <p>Round Table Discussion</p>	<p>Workshop Room GU04</p> <p>Aligning collaborative learning theory with technology.</p> <p>Adele Aubrey & Peter Whitton, University of Manchester Room GU04</p>	
15:00	15:30				
15:30		<p>Conference Close (Room 1L08)</p>			

Session 1: Tuesday 14 July, 9.30-11.00

Academic Literacy

Taught Post-Graduate Students Learning to Write for the Academy: the case of Applied Linguistics.

*Clare Furneaux
University of Reading*

This paper will present early findings from a research study of MA students in the Department of Applied Linguistics at Reading. It will focus on two students, one native speaker of English and one international student, and their first three pieces of writing for the same modules. These assignments draw on a range of writing skills: researching academic sources; drawing on them appropriately in the text; data analysis; and drawing on prior learning and professional experience in academic writing. The students' work, the challenges they identify and reactions to the feedback they receive will be discussed.

Participants will, it is hoped, gain insights into the taught post-graduate student experience in learning to write for the academy.

Undergraduate Students as Apprentice Researchers: Developing the Language of Enquiry-Based Writing.

*Ursula McGowan
University of Adelaide*

The Boyer Commission 1998's Blueprint Reinventing Undergraduate Education lists three of its 10 ways to change undergraduate education as

- I. Make Research-Based Learning the Standard
- II. Construct an Inquiry-based Freshman Year; and
- V. Link Communication Skills and Course Work

and states that

'by admitting a student, any college or university commits itself to provide maximal opportunities for intellectual and creative development.'

My presentation will provide a conceptual framework (McGowan 2008a) that presents undergraduate students as apprentice researchers and all their written assignments that require evidence from the literature as their steps towards becoming competent researchers.

For students who are new to the research environment of a university, the development of writing styles that match the requirements of their various disciplines is often problematic, as manifested in the incidence of 'patch-writing' and continuing inadvertent plagiarism (McGowan 2008a). However, my view is that to leave the task of discipline-specific writing skill development to a university language and learning centre, as an add-on that is separated from core learning and teaching in the disciplines, is to marginalise a crucial aspect of students' induction into the university's culture of research and evidence-based writing. Instead, I will demonstrate a series of techniques that can be adopted by mainstream lecturers and tutors to assist students in progressing their evidence-based writing skills. These include assisting students in developing an understanding of the nature of research writing (Willison & O'Regan 2007, McGowan 2008c) and skills in genre analysis for 'harvesting' academic language from their readings without plagiarising (McGowan 2000, 2005, 2008b)

Undergraduate Research Experiences through UROP: a National Evaluation Study.

Joanna John & John Creighton, CETL-AURS
University of Reading

The Thrift Report (2008) on research careers in the UK has recently recommended that research councils work with universities and industry to develop a national programme of undergraduate research experiences such as those currently offered through individual Undergraduate Research Opportunities Programmes. In the US, UROP schemes are more widely established and a Research Experiences for Undergraduates programme run by the National Science Foundation supports active research participation by undergraduate students. Evaluative studies on these experiences have indicated learning gains including critical thinking, problem solving and understanding the nature of scientific knowledge (Hunter, Laursen and Seymour, 2007). Here in the UK, UROP is offered in a small but expanding number of institutions and has broadened its subject scope to include non-science subjects.

Given this expansion of and interest in undergraduate research experiences it is timely to reflect on the nature of the UROP experience according to UK students and their supervisors. This paper reports on a national evaluation study of students' placement experiences initiated at the University of Reading shortly after its own UROP scheme was begun in 2007. In collaboration with four research councils, students at 50 different universities completed a survey exploring their placement experiences of diverse research activities and related learning gains. Twenty-three ethnographic interviews were undertaken with students at five universities exploring the students' accounts of their UROP: the work they did, the challenges they faced, the people they met. Finally, seven semi-structured interviews with supervisors at two universities explored their perceptions of students' experience and the challenges and costs in supervising a UROP.

References

Hunter, A.-B., Laursen, S. L. & Seymour, E. (2007). Becoming a Scientist: The Role of Undergraduate Research in Students' Cognitive, Personal and Professional Development. *Science Education*, 91 (1), 36-74.
Thrift, N. (2008). *Research Careers in the UK: A Review*. Department for Innovation, Universities and Skills.

Higher Education Policy

University Ombudsmen: Is there a role for them in British Universities?

Louise Hague
University of Reading

The purpose of the paper is to examine whether the role of an University Ombudsmen is suitable for Higher Education Institutions in the United Kingdom. In particular the role of such an University Ombudsmen will be considered in relation to the support of postgraduate students.

The Office of the Independent Adjudicator for Higher Education has existed in the United Kingdom since 2004, and is often referred to as 'the Ombudsman' for Higher Education. Whilst it is very successful in resolving student complaints about Universities, involvement occurs only after all University procedures have been completed. In the case of postgraduate students academic relationships are occasionally irretrievable.

The relationship between postgraduate student and their supervisor is probably one of the most important that a young academic will encounter during their career. Should the relationship not work, the effects can be devastating, particularly if a future career is affected. The proposed role of an University Ombudsmen would be to resolve any dispute prior to University procedures becoming involved.

Many European Universities, and some American Universities, have developed the role of University Ombudsmen, with a particular focus towards postgraduate students. The purpose of the paper is to examine the different models used, and consider the potential suitability of those models for British Higher Education Institutions.

Learning Styles

Differentiated Learning in the Physical Sciences: Is it necessary?

*Paul Taylor, University of Warwick
Ruth Ayres, University of Salford
Glynis Cousin, University of Wolverhampton
Karen Moss, Nottingham Trent University*

Increasing numbers of university students come from social groups traditionally 'underrepresented' in HE (Lewis, 2002). In 2001 HEFCE made recommendations surrounding both admissions and progression of 'underrepresented' groups 'to ensure that all students have the best possible chance of succeeding in their studies'.

In Australia 'Universities have, quite appropriately, responded to this challenge with a greater emphasis on student-centred learning' (Buckridge & Guest, 2007). The idea that adopting 'student-centred' methods would benefit non-traditional students appealed to us. In this small-scale study in the Physical Sciences at Nottingham Trent and Warwick Universities, we explore this idea in our own contexts.

A series of semi-structured interviews were held with students from a non-traditional background.

What emerges is that, while enjoying independent study, they do not benefit particularly from highly engineered educational contexts. We identify two simple themes that could affect curriculum and pedagogy.

Firstly, our non-traditional students value regular contact with tutors in small groups or one-to-one, allowing them to raise questions with less fear of appearing stupid and giving them feedback to reassure them of their ability. Secondly, they are uneasy with 'rules' to be memorised. They appreciate greatly opportunities to put principles into practice, on paper or in the lab, to see how the 'rules' are applied and hence to gain greater understanding.

In conclusion, what seems important is to focus less on the *system* of HE and more on provision of environments where staff and students from diverse backgrounds collaborate in the practice of Chemistry and Physics.

Developing Personal Strengths in Students to Enable Them to Engage Fully with Opportunities for Autonomous Learning.

*Ann Macaskill and Andrew Denovan
Sheffield Hallam University*

The transition to university can be psychologically demanding for students requiring greater levels of initiative and independence. Students are also required to develop more autonomous approaches to their learning (Chemers, Hu & Garcia, 2001). There is a relatively large research literature examining the effects of various pedagogies on the development of autonomous learning. However, there is considerably less research, focusing on the personal qualities of students, which facilitate or impede their development as autonomous learners. Positive Psychology theorizes that all individuals have psychological strengths that they may be unaware of, but which they can use to improve their functioning and quality of life (Seligman and Csikszentmihalyi, 2000). This study assesses the psychological strengths that students bring to aid their development as autonomous learners. The well-being and life satisfaction of the student group were also assessed as university education should aim to promote well-being. Psychological strengths were assessed in 214 students on day one at university. Two weeks later their top three strengths were fed back to them in a personal and academic development module and the impact assessed. At the point of feedback significant increases in self-esteem were observed. Students were encouraged to use their character strengths in their personal development portfolios and to focus on ways in which they could maximize their use. Four months later students were again assessed to see whether the initial increases in self-esteem were maintained. Significant associations were found between particular strengths, which were predictive of learning, achievement, well-being and life satisfaction at university.

Digital Literacy

A Question of Taste: Social Bookmarking to Support Inquiry-Based Learning.

*Jamie Wood, CiLASS
University of Sheffield*

This paper will report on an action research project undertaken by the presenter into the impact of two social bookmarking tools (delicious and diigo) on students' digital information literacy and will assess the affordances of such web-based services for supporting inquiry-based learning. The context of the research was two iterations of a first year seminar course in the History Department at the University of Sheffield. Students were asked to 'bookmark' sites (including scholarly articles and primary sources) that they had found on the web during their weekly readings. The bookmarking process worked as follows:

- Independently find the site;
- Assess its relative suitability for the weekly assignment/ topic;
- Select the website for inclusion in the course resource list (hosted in delicious/ diigo);
- Describe the site, by choosing a title and writing a short description, including evaluating its merits and problems;
- 'Tag' the site with a series of descriptors that would facilitate searching and the gradual construction of a course tag cloud, or 'folksonomy'.

Such an approach has strong potential benefits for developing students' information literacy capabilities, particularly their use of the web when conducting research, but there are challenges...

Outcomes. By the end of this session, participants will have been introduced to two social bookmarking tools, heard about examples of their use in specific teaching and learning contexts, with a particular focus upon their utility for inquiry-based learning, and engaged in discussion of student and staff feedback on the experience and usefulness of these tools.

Workshop

Understanding Digital Identity.

*Patrick Parslow and Sarah Fleming
University of Reading*

This session is based on the material developed by the This Is Me project. This Is Me is an Eduserv funded project based at the University of Reading, which has been working to produce re-usable learning materials to help people to teach and learn about their Digital Identities.

We use the term Digital Identity to describe the persona someone projects across the Internet. Your Digital Identity as perceived by other people is made up of material that you put there yourself (for example photographs on Flickr and your own Web page), but it also is made up of material other people put there about you (blog posts that mention you, photographs in which you are tagged).

The project outputs include the stories gathered through interviews and monitoring press and web coverage, the workbook, which we have published under a Creative Commons Attributable Share-alike license, and producing and testing learning materials for use by individuals and groups.

In the session we will give more details of what a Digital Identity is, and provide examples of case studies we have investigated. We will discuss topics such as choice of email address to use in communications, whether to publicise yourself and your work on the web, how to defend your online reputation against slip ups or malicious attacks and generally how to be aware of how you appear to others online. Additionally we will provide a series of activities participants can use (individually or in small groups) to help them and their students explore their own Digital Identity.

Anticipated outcomes:

- Be able to describe what Digital Identity is.
- Be aware of own Digital Identity.
- To use provided activities with own students (in groups or individually).
- Be able to adapt existing activities and develop new ones appropriate to local needs.

Technology Enhanced Learning

Teaching Ethics to the Playstation Generation.

*Clare Rawlinson
University of Reading*

Ethics is a notoriously challenging subject to teach; controversial subject matter, together with the complicated theories involved, can make engagement and good student participation difficult to achieve.

Contemporary society is an environment embedded with electronic technology. From an early age children now interact with electronic toys, often with an educational rationale. Teenagers and young adults, when not face-to-face, are most likely to communicate via e-technology and pursue entertainment through video gaming consoles and it is natural that these will affect the process of learning. Modern students will come with embedded e-learning skills and high expectations of using these skills; this will often conflict with the reality of higher education. However, modern technologies can provide opportunities to optimize interest and engagement in complicated topics by harnessing these inherent skills.

Here we examine a case-study-plus model using personal response systems (PRS) for increasing student contribution to discussion of ethical dilemmas and improving student understanding of ethical decision-making frameworks. Pharmacy students were anonymously polled using PRS on a chosen course of action in reference to an ethics case study. This was followed by class discussion of the case in relation to the law, ethical theories and personal opinion and re-polling. Class participation in voting and discussion was high and evidence of deep-learning was noted; due to this polling arguments could be presented in a depersonalised manner, i.e. by reference to voting patterns rather than personal opinion. Student feedback was positive and encouraged future use of this e-learning technology where class discussion is required.

Engaging Students in the Learning Process using Electronic Voting Systems.

*Elizabeth Page and Liz Tracey
University of Reading*

It is known that one of the greatest challenges to students in their first year in higher education is adapting to the more formal teaching environment of the 50 minute lecture. Yet in some subject areas this format still provides the most efficient way of teaching large groups of undergraduates. Electronic voting systems can provide a way of dividing lectures into 'bite-sized' chunks in which students can check understanding of concepts and teachers can assess progress and comprehension.

The Department of Chemistry has been trialling the use of electronic voting systems in first year teaching over the past two years. The hand held devices have been used mainly in first year and foundation year lectures for chemists and non-chemists in a variety of different ways. The benefits to students have been evaluated both by student responses and quantitatively by comparing module marks. This paper describes research into the use of electronic voting devices at Reading and Southampton where a similar survey has been conducted. Our results show that overall student satisfaction is high and staff are increasingly introducing use of electronic voting into teaching and assessment.

Using Wikis for Collaborative Projects at Part 1.

*Eleanor Betts
University of Reading*

Do 'high-impact experiences' benefit part-time mature students? Based on a first-year group project using a Blackboard based Wiki, this paper outlines the pros and cons of assessing online collaboration within a specific element of the student body. Certain expectations exist with regard to mature students: that they have made an active choice to enter HE, makes them highly committed, motivated students, prepared to invest time and effort in their studies. If this is the case, are 'high-impact experiences' necessary? What are the other academic challenges faced by these students, which make these learning experiences worthwhile?

The anticipated outcome for participants of this session is that they will have considered some of the issues faced by part-time mature students and the value of online collaborative projects as an aspect of active learning.

Session 2: Tuesday 14 July, 13.30-15.00

Academic Literacy

Inquiry Based Learning as a First Year Experience.

*Sheila Webber
University of Sheffield*

The presenter will summarise, and reflect on, inquiry based elements at level 1 in the BSc Information Management (IM) programme to which she contributes. By the end of the session she hopes to have illuminated some of the perceived benefits and challenges of an inquiry based approach as a key element of the First Year Experience (FYE), and the contribution of using a variety of physical and virtual learning environments.

A key stimulus for revising the curriculum was student feedback (through the NSS and focus group) that some students were not engaging with the discipline of IM itself. IM is not a school examination subject, and new students want to understand what it means and also how it relates to their future careers. Students' positive response to their level 3 research project had shown that they could be stimulated by pursuing a question that interested them.

Key elements of the level 1 strategy include: introducing a new Semester 2 module "Inquiry in Information Management" (in which students carry out mini-projects in small groups, with research questions they have formulated); increasing the inquiry elements in a Semester one module "Information literacy"; using a variety of learning environments and Web 2.0 tools (including WebCT and the virtual world Second Life) and a variety of assessments (e.g. posters, reports); taking a reflective team-teaching approach to the Inquiry module; making active researchers and external experts a core part of the teaching teams .

The presenter will draw on the FYE and IBL literature.

Information Rich Knowledge Poor? Information Literacy as a Core Asset for Inquiry Based Learning.

*Vicky Grant, Maria Mawson & Peter Stubley
University of Sheffield*

Information literacy is a core academic skill and is essential for both an inquiry based or problem based curriculum as well as being a key future asset for university graduates. In a time when the developed world is swamped with information our students could be increasingly information rich and yet knowledge poor. A plethora of information does not, in itself, make a well informed student. We maintain that students with the skills to effectively plan a search strategy, retrieve information from quality monitored sources and critically evaluate and use that information are best placed to reap the rewards of an inquiry based and problem based curriculum.

In the presenters' University, the Learning Teaching & Assessment Strategy includes the aspiration that graduates will be able to "...demonstrate the core capabilities and skills of information literacy, interacting confidently with the nature and structure of information in their subject, and handling information in a professional and ethical manner." Information literacy is therefore recognised as a core skill.

A project funded by the institution's CETL contributed towards the creation of a library community for IBL, and participants will learn how two Faculty Librarians are supporting IBL and PBL by working to integrate information literacy into the academic curriculum. They believe that integration is crucial, as it provides the context and relevance essential for engaging students. The session will also show how IBL techniques are used in librarian lead information literacy workshops in some modules.

'Now I feel like I'm really at University': Using a Community of Enquiry Approach to Promote Engagement and Academic Literacy amongst Undergraduate Students.

*Cathy Burnett, Fufy Demissie, Mary Haynes & Sheila Sharpe
Sheffield Hallam University*

This paper describes a project which supported students in taking responsibility for the learning process through encouraging them to ask and interrogate their own questions during seminar discussions. The work spanned a variety of undergraduate courses related to Early Childhood and Education, including professional courses for trainee teachers and early years professionals. Feedback from students and tutors had highlighted a lack of engagement by some students in the academic dimension of these courses and drawn attention to the significance of social and cultural contexts to the nature and quality of seminar discussions. In order to address possible barriers to participation, the team decided to support the development of academic literacy initially through promoting engagement, confidence and critical thinking through oral work. Using a community of enquiry approach, tutors worked alongside students to support them in pursuing enquiry and critical thinking. The project evaluation has suggested that participants are becoming increasingly confident in generating their own questions, influencing and shaping discussions and reflecting upon the development of their own thinking. Moreover, tutors have begun to question and adapt their teaching styles in order to more effectively promote student-led dialogue. This presentation will provide participants with a detailed overview of the approaches used and report on the evaluation of the student and staff experience. This work will be used to prompt discussion around the role of oral work in developing academic literacy.

Enquiry-Based Learning Case Study

Life Beyond the Reading List: Facilitating Undergraduate Research with Museums, Collections and Archives.

*Rhi Smith
University of Reading*

This paper examines the development of inter-disciplinary modules at the Museum of English Rural Life. As more universities embrace the idea of the 'student as producer' it is important to develop pedagogical models for engaging students in research. CETL-AURS has funded projects in a range of different disciplines exploring strategies for developing undergraduate research skills. One strand has explored the role that museums, archives and collections can play in enhancing the research skills of humanities and social science students.

At MERL a new series of inter-disciplinary modules has attracted students from the humanities and social sciences. These modules have illustrated that university collections can be used as the catalyst for an impressive standard of undergraduate research. However, the design and delivery of these modules has also highlighted the challenges which students face when working with collections.

In collections based research students traverse new and often illogical information pathways and analyse unfamiliar primary evidence. Our challenge has been to create an EBL structure which allows students to engage with this process of discovery.

This paper explores some of the methods used to orientate students to research with collections. It will examine how collections specialists such as archivists, curators, learning officers and librarians can support students. It will also discuss the role that peer support plays in creating a safe environment for research.

In this way it will argue that, with the right structure, university collections can be central to the development of the research skills amongst a range of different students.

'Teaching the Talk': Staff-Student Collaboration in an Oral History Research Project.

*Alec Patton & undergraduate student collaborators
University of Sheffield*

This collaborative presentation assesses the year-long 'Teaching the Talk' project at the University of Sheffield. During the course of this project, run in collaboration with the University of Sheffield/British Library Theatre Archive Project (TAP), over thirty undergraduate students have conducted oral history interviews about post-war British Theatre.

After receiving contact information for a prospective interviewee, the interviewer arranges, conducts, and transcribes the interview. The interview transcript becomes part of TAP's online database, while the recording is housed in the British Library Sound Archive. Student volunteers have also given conference presentations and led research seminars during the course of the project.

Oral history interviewing entails a range of information literacy skills, from transcribing according to a house style to sifting through the idiosyncratic data of conversation in order to use it as evidence. Student interviewers learn things that no other researcher has ever documented, so that their learning experience becomes a process of knowledge-creation rather than knowledge-consumption. There is no guarantee that the student will obtain the desired information, but the event will transform their understanding of research.

The presentation will use specific examples from the project to examine the specific issues raised by student-staff research collaboration, from the perspective of both students and staff. This case-study's findings will have implications for anyone involved in research collaborations between staff and students, and this will be the first time that its findings are presented to an audience outside the university.

Developing our Undergraduates: EBL in French at the University of Manchester.

*Annie Morton & Catherine Franc
University of Manchester*

In 2006, the senior language tutors in French Department at the University of Manchester undertook a Ceebl funded EBL project in the hitherto unexplored domains of French grammar and phonetics. (see 'EBL for an End to Boring Learning', Franc, Lawton and Morton, 2007). Whilst initially designed to engage and motivate students in areas of learning traditionally perceived as 'challenging' and ultimately to improve accuracy, the final evaluation revealed that students in fact thought they had acquired many more skills thanks to the project, skills such as communication, presentation, research and organisation. This paper will explore the way Franc and Morton have continued to develop EBL within the Manchester French curriculum, firstly through the embedding of EBL phonetics in the first year core language module, secondly through the development of PAgES (Peer-Assisted Grammar Revision (ebl) Sessions) spanning all three undergraduate years, and finally through the Year Abroad Project currently being piloted. Through analysing our experience, both positive and negative thus far we hope to demonstrate how Manchester is dedicated to developing the independence, professionalism, intellectual curiosity and overall employability of its French graduates. Delegates will hopefully be able to learn from our highs and lows in order to enhance provision in their own institution, as well as having some concrete examples of EBL Language scenarios that could be adapted for use in any higher education setting.

Workshop

Designing and Assessing Inquiry Based Learning.

*Phil Levy, CiLASS
University of Sheffield*

In inquiry-based learning (IBL) students take charge of their learning, using the scholarly and research practices of their disciplines to move towards autonomy in creating and sharing knowledge in their fields. They collaborate with peers and with more experienced scholars/researchers who provide support and guidance, and they share the results of their inquiries with each other and wider audiences. Some approaches to IBL involve students in large-scale, 'whole-cycle' research projects while others involve them in exploring a smaller-scale question or theme and in developing their understanding of, and skills in, specific elements of a larger research process.

From the perspective of the IBL designer-facilitator, the challenge is to create the conditions in which students' inquiries are stimulated, and in which students are supported effectively to develop their inquiry capabilities and skills ('inquiry literacies'). Support takes the form of activities, assessments, resources, guidance and environments that are designed to scaffold the inquiry experience. This workshop will explore principles and practical ideas for designing IBL, including a focus on approaches to assessing students' inquiries that are consistent with the aim to encourage their ownership of their learning experience. It will be suitable both for IBL 'beginners' and more experienced IBL practitioners.

Participants will be invited to share their experiences of IBL or similar approaches and will have an opportunity to consider what the key elements of IBL design might be, with some examples from the University of Sheffield. The main workshop activity will be a small-scale, practical design task - participants will be able to choose between working together in small groups on a scenario that will be provided, or on a real-life scenario based on their own interests. Outline designs produced by the different groups will be shared and will provide the basis for discussion. The expectation is that the workshop will generate different perspectives and ideas, which participants may wish to build on in their own practice.

Feedback

Engage in Feedback: a Web Resource for Improving the Timeliness and Quality of Feedback.

*Jo Walsh
University of Reading*

The provision of quality feedback in relation to course work is seen as a cornerstone of learning and has been the subject of a range of publications and projects (for instance see Irons, 2007, HEA events, the FDTL Phase 4 FAST project, Formative Assessment in Science Teaching, OLAAF, On-Line Assessment and Learning). It is also recognised that many students are concerned about the quality of feedback they receive and this has been highlighted in successive National Student Surveys, 2005-2008. Improving the quality and timing of feedback to students is a priority at Reading but guidance is also needed on the challenges of getting students to read, understand and learn from feedback. This paper will briefly highlight the above issues before describing a web based resource for staff which provides a range of information and tips on how to improve the quality and timeliness of feedback provision without necessarily using more staff time. The Engage in Feedback website comprises 8 easy to navigate sections with information on topics such as "Providing rapid feedback for first years"; "Engaging students with their feedback" and "Evaluating your feedback provision". The presentation will highlight a range of the resources provided within "Engage in Feedback" the aim being to provide each member of the audience with a "feedback tip" that they can take away to utilise in their own teaching.

References

Irons, A (2007) Enhancing learning through formative assessment and feedback, Routededge.
Effective feedback to Students, <http://www.bioscience.heacademy.ac.uk/events/reports/london06.htm>
see <http://www.open.ac.uk/fast/>, <http://www.bbk.ac.uk/olaaf/>

'ASSET': an Interactive Resource to Enhance Student and Staff Engagement with Feedback.

*Anne Crook
University of Reading*

Providing timely, quality feedback and ensuring student engagement with that feedback is a sector-wide challenge for staff. For example, the National Student Surveys have highlighted students' concerns about the quality of feedback they receive with the 'assessment and feedback' category of successive surveys recording, on average, the lowest overall scores. Assessment, and its associated feedback, should inform learning but evidence suggests students do not necessarily identify the links between the feedback they receive and their learning.

The University of Reading is leading a JISC funded project which aims to enhance and improve student and staff engagement with feedback through the development of a Web 2.0 resource, 'ASSET'. ASSET will support staff in providing feed-forward and timely feedback to students, through the use of video and audio casts. ASSET will be designed to encourage and support students' deeper engagement with feedback they receive and will facilitate feedback-oriented dialogue between students and between students and staff, thus completing the 'feedback loop' (Jawah et al, 2006).

During 2009/10, ASSET will be piloted in a number of Schools across the University.

This paper will briefly showcase the pedagogic approach to ASSET's design and will provide colleagues with an opportunity to view a pilot version of the resource. Plans for evaluating ASSET and its impact on staff and students will also be discussed.

Talking About Writing: Exploring Teacher and Learner use of Audio Feedback on English for Academic Purposes (EAP) Writing Assignments.

*Clare McCullagh
University of Reading*

This paper will report on the findings of a small scale action research project exploring how teachers and students in an EAP writing context exploit and perceive audio podcasts as a feedback medium. The research was inspired by findings from other studies across the HE sector in which audio as a feedback mode has facilitated a richer, fuller layer of detail than is practical with written commentary. Meanwhile, tutors have found audio feedback to be an efficient and time-saving method of delivering feedback, whilst students have found it to be both friendly and engaging. Teachers in CALS were particularly interested to explore the use of audio to motivate students to engage more deeply with the re-drafting process. During the Autumn 2008 Pre-session course the use of both generic and individual audio feedback was included alongside a small amount of teacher written commentary on student essays. Teacher and student responses were captured through surveys, focus groups and discussion. Findings indicate that both teachers and students found this style of feedback to be engaging, personal, and particularly appropriate for commentary on rhetoric and content; however, for teachers who were new to the process, it was tiring and not necessarily time-saving.

Session 3: Tuesday 14 July, 15.30-17.00

Academic Literacy

Enhancing the Volunteer Experience: Developing Heritage Sector Skills amongst Humanities and Social Science Students.

*Rhi Smith, Nikki Houston and Students
University of Reading*

Volunteering provides an added challenge for high achievers. However, it also allows less confident students to develop a range of subject specific and transferable skills in an unthreatening environment. At Reading we are exploring how collections can provide a differentiated working environment which enhances the employability of a range of humanities and social science students.

This paper explores a project co-funded by the CETL for Careers Management Skills (CCMS), the CETL in Applied Undergraduate Research Skills (CETL-AURS) and MLA South East. For the past 3 years the Reading University Museums and Special Collections Service (UMASCS) has been enhancing its volunteer programme. A new centralised structure provides placements for students across the campus and at other museums in the local area. We now manage 150 volunteers who provide 3.0 FTE a year – 95 of these are University of Reading students, primarily humanities and social sciences.

UMASCS volunteers can choose from a range of different volunteer projects from working with botanical specimens to Ancient Greek vases. They are involved in marketing, learning, cataloguing and conservation with museums, specialist libraries and archives. They receive specific training from professional staff and gain useful hands on experience.

The CCMS CETL-AURS project has developed this further by accrediting the volunteer work of Reading students. Through collaboration with the Reading University Student Union's MASIV scheme students can now have their volunteer work with collections recognised on degree transcripts. This project has also allowed UMASCS to develop sector specific skills and careers workshops and resources to help students demonstrate their skills and knowledge to potential employers.

Developing an Enquiry Based Learning Template for Higher Education Institutions.

*Rasha Wahid, Ahmad Madarati, Abha Sandill, Louise Goldring,
Norman Powell & Muhanad Hatamleh
University of Manchester*

Statement of purpose: There are no basic and clear guidelines that enable academics to realise criteria for EBL teaching.

Aim: To develop an Enquiry-Based Learning (EBL) template to facilitate converting from traditional didactic teaching to EBL.

Methodology: An extensive literature review has been conducted. A qualitative approach of one-to-one interviews experienced staffs who are already engaged in developing/coordinating EBL based modules/courses through different faculties at the University of Manchester will be conducted. Twelve staff representing different faculties across the University of Manchester will be interviewed. The interview questions are set to cover various aspects including:

- Motivation for developing EBL (i.e. who made the decision to convert the course; How did you go about the process of converting your teaching to EBL);
- Development and preparation (i.e. how do you stimulate the students' enquiry or trigger types);
- Evaluation & Feedback (i.e. how do you maintain good practice of the process); and
- Template (i.e. based on your experience what will make a useful template).

All data received will be treated anonymously and subjected to content analysis.

Results: At this year's LTEA conference, we intend to present the findings achieved in our project and share the developed template.

Conclusions: The template should provide an innovative approach to higher education teaching, as it will enable academics to easily and conveniently move to learning based on enquiry and problem. Additionally, it will aid CEEBL's major strategy of enabling Enquiry-Based Learning methods to be developed widely across higher education institutes.

'The Edge of Reason': Supporting Students in the Critical Evaluation of Information Resources.

*Helen Hathaway & Sally Smith
University of Reading*

The paper will relate the SCONUL (Society of College, National & University Libraries) Seven Pillars model of information literacy, specifically two of the seven headline skills "The ability to distinguish ways in which the information 'gap' may be addressed" and "The ability to compare and evaluate information obtained from different sources" to exemplars of good practice in Reading. It will illustrate Liaison Librarians' engagement with Schools across all faculties to support students at different levels to find and use reputable sources of information rather than overreliance on Google and Wikipedia for example. It will include how we can use Blackboard and face to face sessions to encourage the use of online reference materials, databases and e-journals and identifying reputable web pages. It will pose the questions of how we can encourage critical evaluation of information resources particularly at times of academic transition – from secondary school to Higher Education and from undergraduate to postgraduate levels for example and whether these skills transfer into other areas of academic practice and study habits. It will raise awareness of the range of potential support for students in the development of Information Literacy and participants will be involved in discussion and identification of areas for further development.

References

SCONUL, Advisory Committee on Information Literacy (1999) *Information skills in higher education*
http://www.sconul.ac.uk/groups/information_literacy/papers/Seven_pillars2.pdf [accessed 17 March 2009]

Enquiry-Based Learning Case Study

The Contribution of Enquiry-Based Learning in Enhancing First Year Students' Experience in Business Studies.

*Tan Yoke Eng
Canterbury Christ Church University*

The Business School at Canterbury Christ Church University has in recent years experienced a huge increase in student numbers. This has created many challenges for lecturers such as group size, accommodating students from varying social and cultural backgrounds, different educational experiences, varying abilities, motivation, needs and expectations. A key challenge has been to find ways of engaging students in purposeful tasks and helping them to take responsibility for their learning.

Research (Kahn and O'Rourke 2005) indicates that a curriculum that is designed around enquiry-based activities appears to enhance learning. Having attended the 2008 LTEA conference in Sheffield, I decided to institute an enquiry-based teaching and learning programme, using especially the ideas outlined by Allan (2007). In this approach, rather than deliver knowledge, tutors facilitate and support students learning. A typical seminar session consists of four components:

1. an engaging introduction that helps to improve motivation
2. a student led enquiry which leads to emotional engagement
3. small group discussions in which students develop transferable and interpersonal skills
4. an open forum in which students share ideas and consolidate their learning

Preliminary surveys show that this approach has contributed to students' experience in terms of motivation, needs, satisfaction and achievement, but some have found it challenging and preferred a more directive teaching. The outcomes of the initiative have also been disseminated to the rest of the university in a recent staff development conference and some colleagues have been prompted to review their practice.

Evaluation of the Use of Wikis for Group Work Associated with Problem-Based Learning Exercises in Pharmacy.

*Kat Bicknell
University of Reading*

Group-based problem-based learning exercises are widely used to teach therapeutics at the Reading School of Pharmacy. Whilst group work can foster enhanced peer learning and support, intra-group tensions can arise as a result of perceived “free-loading” and different work schedules or practices. Providing clear guidelines for assessment of group work can help to alleviate student concerns, however, methods for assigning grades for individual contributions to group work can be complex. A wiki is a collaborative webpage or series of webpages that allows contributors to create and modify available content. As individual contributions to a wiki are documented throughout the creation process in the wiki’s revision history, the use of wikis for group work allows a tutor to monitor the ongoing development of the work as well as the involvement of individuals in the task. This paper will describe how wikis were used to evaluate the process and final product of a problem-based learning group exercise undertaken by Part 3 Pharmacy students. Whilst the revision histories of the wikis successfully allowed the assessment of individual student contributions to the group work and student feedback was positive, a number of issues did arise (i.e. edit wars, lack of confidence in materials, elimination of need for face-to-face communication) and these will be discussed.

A Case Study of Students Accessing Published Research Data from one of the Emerging 'Data Observatories'.

*Pete Smith
Oxford Brookes University*

This paper will suggest how students and other researchers from a range of disciplines can access published data from the new generation of Data Observatories that is emerging across the UK. (See <http://www.data4nr.net/introduction/>). These Observatories have assembled a host of datasets from a variety of national and local sources, both government and commercial. Many of these sources are themselves difficult to navigate and the value of the Observatories is that data can be directly accessed and downloaded.

The content of the observatories will be of interest to students and researchers in environmental and geographical studies, social and political studies, demography and economics, business and marketing, urban studies, housing, transport, public policy and town planning.

The paper will describe the experience of a recent student project on a taught course which required some analysis of data to examine social and environmental patterns in the city of Oxford. (See <http://www.oxfordshireobservatory.info/wps/portal/dataobservatory>). Whilst the method of accessing data in other parts of the country will not be the same, the kinds of data that are available will be uniform as they are drawn from the same root sources.

In addition, the paper will also examine the Indices of Deprivation that are available on

<http://www.communities.gov.uk/communities/neighbourhoodrenewal/deprivation/>

and the small geographical areas for which data is available, especially the Super Output Areas created from the division of wards by aggregating Output Areas.

The paper will briefly draw attention to the techniques of quantitative analysis that students require to process data and will suggest how the analysis of published data can feature in a student research project. Almost all published data is produced as a time series or for geographical areas and mention will therefore be made of the technical problems presented by autocorrelation and the ‘ecological fallacy’.

Workshop

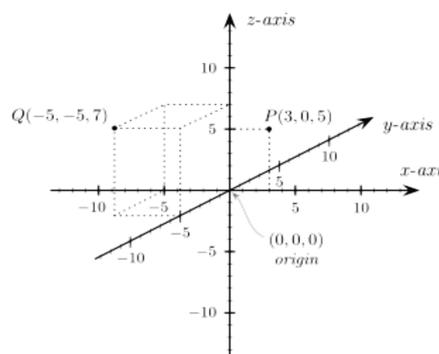
Three Dimensions of Collaborative Learning: the PEERS Project at University College Maastricht.

Oscar van den Wijngaard & Wilfred van Dellen
University College Maastricht

With project **PEERS**, UCM explores new ways of research and learning at the undergraduate level, by developing new educational modules along three, equally important axes: student-student collaboration; student-staff collaboration; and collaboration between academe and the 'outside world'.

Three types of modules that were developed on the basis of this model will be discussed:

1. In Think Tank students write a policy proposal for an external client, based on problem analysis and research, using the diverse academic backgrounds and skills of the participating students.
2. In Conference, students organize their own conference about a topic of their own choice; they prepare the conference logistics, design and host workshops, and select and invite speakers. The conferences are open to anyone.
3. In the UCM Undergraduate Research or URE modules, students participate in on-going research. As researchers, they are members of small research groups that meet frequently for mutual feedback, instruction, and discussion. Supervision is provided by expert researchers and teachers from the field of interest.



Think Tank and Conference are open to all students who have reached their third year at UCM, while PEERS URE aims at second and third year students with a high GPA and progress rate. Where possible, we seek to connect the students and the work they are doing across these various modules. During this workshop, we will also discuss how this model can be used to evaluate and modify existing modules in ways that allow for a more prominent role for inquiry or research, even in more traditional courses.

Student Voice

Transitional Mentoring - the Benefits of Peer Support to First Year Students.

Liz Tracey, Elizabeth Page & Kate Ward-Perkins
University of Reading

The first year of university life can be a challenging time for students, who are faced with a variety of new situations, styles of learning and responsibilities. The Peer Mentoring Scheme at the Department of Chemistry, run in conjunction with staff from the Counselling & Psychological Services and CDoTL, has sought to provide a network of current undergraduate and postgraduate mentors to support Part 1 students.

The role of the student mentor is to answer any questions or concerns first years may have about the chemistry course or university in general, and to point them in the right direction for further advice and support. Mentors are in a good position to help new students throughout their first year of study having recently gone through the same experiences themselves.

This paper introduces the concept of peer mentoring, explaining the need for such a scheme and what it aims to achieve. Best practice and practical issues associated with running the scheme are discussed along with training received by mentors. Regular feedback has been gathered from both mentors and mentees over the duration. Our results show that first year students value the extra support which mentors provide, especially in terms of academic support.

Participants of this presentation will gain an insight into the value of Peer Mentoring as a unique support mechanism for first year students. Participants will benefit from the expertise of the Counselling & Psychological Services. The session will provide guidance for those participants who wish to set up a similar scheme and will create a network of interested people through which to share advice and experience.

Amplifying the Student Voice.

*Louise Goldring & the CEEBL Student Interns
University of Manchester*

This workshop will focus on extra-curricular ways of students supporting each other, looking specifically at the work that the CEEBL Student Interns have been doing this year to increase students' awareness of, and engagement in, CEEBL and its activities. The key event has been our conference; Student Voice Conference: an enquiry into your learning.

This conference has focussed on students sharing and analysing their learning experiences in order to get the most out of them and support others who are going through similar processes, encouraging all University of Manchester students to become more actively involved in their learning communities.

The Student interns felt it was very important to provide students with a variety of innovative and appealing ways to engage with EBL and CEEBL at the conference. The techniques and activities used will be discussed more during the workshop and participants will also have a chance to see students' feedback, before and after the conference.

There will be a strong emphasis on discussion throughout the workshop with the aim of sharing experiences to better understand what motivates students to become actively involved in shaping their own learning. Participants will be encouraged to share their own experiences.

Anticipated Outcomes:

Participants will

- Come away with an understanding of the motivations and advantages of running a student-focused conference
- Be able to replicate a variety of extra-curricular student engagement and feedback activities
- Hear the students themselves discuss issues about student engagement

The workshop will begin with an introduction from the CEEBL Student Interns, discussing their initial ideas and motivations for the Student Voice Conference. (10 minutes)

We will then briefly discuss and look at some of the recorded student opinions about EBL from before and during the conference. (10 minutes)

For the remaining part of the workshop participants will be introduced to the engagement and feedback activities used with the aim of creating a 'mini-version' of the Student Voice Conference, including activities such as the 'talking wall' and a panel session entitled "Students: Consumers or Collaborators?", facilitated by the interns.

Participants will also have the opportunity to discuss the applicability of these activities in their own institutions.

The session will end with some general reflection and feedback from participants.

Session 4: Wednesday 15 July, 9.30-11.00

Academic Literacy

Collaborative Creations and Communications: Three Case Studies.

Cath Lambert, Caroline Gibson & Students
University of Warwick

The Reinvention Centre for Undergraduate Research, a collaborative Centre for Excellence in Teaching and Learning at Warwick and Oxford Brookes Universities (www.warwick.ac.uk/go/reinvention), through the concept of 'Student as Producer' works to create a more inclusive academic community where learners, teachers and researchers are seen as scholars and collaborators in the common pursuit of knowledge. This workshop will engage participants with three diverse examples of the collaborative work of the Reinvention Centre:

Students at Work: Learning to Labour in Higher Education presents the production of a documentary film which was researched and filmed by a team of undergraduate and postgraduate students and administrative and academic staff. The film itself includes reflections on the benefits and challenges of collaborative enquiry.

Reinvention: a Journal of Undergraduate Research presents on the progress of an undergraduate research journal. Students' manuscripts are subject to a rigorous review and editorial process involving students, academic and administrative staff; the editor is an undergraduate. Students' submissions are extracurricular and therefore not assessed. Early research results suggest that students' experience of publishing in *Reinvention* is profoundly different to submitting essays and reports within the curriculum.

Reinventing Spaces introduces a multi-method research project into historical and contemporary relationships between pedagogy, curriculum and space. The research is carried out by a team of academic staff, postgraduate and undergraduate students, and outputs include academic writing and conference papers.

All three methods of creation and communication aim to integrate students into the research culture of their departments, disciplines and universities.

The workshop will be presented by students and staff involved in all 3 case-studies. It will involve the showing of the short documentary film and viewing of the *Reinvention* on-line journal and *Reinventing Spaces* data-repository. There will be time for questions and discussion.

Developing Academic Literacy with First Year Undergraduates.

Lyn Overall
Sheffield Hallam University

This paper focuses on discussing the issues that university teachers need to know and do in order to allow each learner to take responsibility for his or her literacy learning. There is an expectation that learners come into higher education well equipped to deal with the reading and writing requirements that they will meet in HE. Each year university tutors are optimistic that newly enrolled students will be able to do this. This optimism is not always justified. This presentation, from a university with a CELT on Autonomy where there is lively debate amongst both staff and students about the ways to achieve this, draws on the findings of a personal project (2005 ongoing). It will describe the approaches taken to aid transition to academic work. It will be illustrated with case studies that begin to explore individuals' experiences as readers and writers. One aspect of the debate is whether aspects of learning should be integrated or approached through generic 'study skills' units of study. The approach used here is centred on the premise that university teacher's need to take responsibility for providing **both** the means for learners to engage in the tutor's discipline and in academic literacy that the discipline demands. The project is informed by the work of Dweck and her co-workers which explore theories of self and on research on approaches to reading and writing for academic purposes.

Participants will be invited to continue the debate on issues raised and to critique the approaches presented in the paper.

Enquiry-Based Learning and Policy

Out of focus? Blurring Boundaries: an EBL Approach to Policy-Making.

Nadine Wills
University of Sheffield

Enquiry-based learning (EBL) is not just about processes of learning but about relationships and the spaces they take place in: sometimes this means blurring boundaries. One group particularly affected not only by having to implement but also often needing to initiate enquiry-based learning and policy are professional services staff. However, enquiry-based learning is usually seen as been “done” by lecturers and students. Why? Why is learning segregated to certain places and spaces and people within an University? Yet, for many it would be quite a novel if not radical concept to imagine an administrator engaging in an EBL approach and that learning might not only be initiated by academics in an institution. Just as collaborations with students are important to re-conceive the potentials of learning and scholarship within the realms of higher education, it is also important to consider the possibilities of professional services staff of engaging with – not simply supporting other’s - EBL . Is there such a thing as an enquiry-based professional services approach? What might it look like and what would this mean practically?

Professional services staff are often labelled as non-productive in University environments (learning and research as being “assigned” to certain kinds of staff). They are also not usually seen as engaging with and helping to produce learning outcomes for students (unless it is in support of a module or Departmental process). What if these boundaries began to become blurred? How might one begin towards an approach that took on policy as a kind of creative learning and collaborative process both for and with students?

This paper considers some common approaches to professional services staff within university hierarchies, what an EBL approach might look like in practice and what its benefits might be.

Enquiry Based Learning: Creating a Community of Practice.

Phil Askham
Sheffield Hallam University

This paper reports on a two year (2008-2010) teaching fellowship funded by the Centre for the Promotion of Learner Autonomy (CPLA). This is one the 74 Centres of Excellence in Teaching and Learning (CETLs) set up the UK by the Higher Education Funding Council in 2005 as part of a national initiative to “reward excellent teaching practice, and to further invest in that practice so that CETLs funding delivers substantial benefits to students, teachers and institutions”.

The teaching fellowship is being used to explore the use of enquiry based learning (EBL) as a means of embedding a more student centred approach to learning and enhancing the student experience.

The research project is designed in two phases. The first phase (Audit) explores the experiences of a range of colleagues across a very large and diverse faculty (Faculty of Development and Society comprising Education and Humanities, Applied Social Sciences, and Built Environment), operating within very different contexts in terms of subject matter and external regulation but all of whom are committed to the introduction and development of enquiry based learning and the promotion of learner autonomy within their modules and programmes as a means of enhancing the student learning experience.

The second phase (Implementation) will begin in AY 09-10.

The aim of the research project is to examine the barriers to implementation as well as the success criteria leading to a better understanding of how enquiry based approaches can be more effectively embedded into the curriculum and how this is being achieved by setting up a *community of practice* to act as a support network and an effective forum for dissemination, encouragement and the exchange of ideas.

The subject areas are architecture, construction, counselling, criminology and community justice, education, english, environment, film, theatre and performance, forensics, geography, history, law, planning, real estate, regeneration and housing, psychology, social sciences.

An Evaluative Enquiry in to Small Enquiry Based Learning Development Projects.

*Norman Powell
University of Manchester*

A central strand to CEEBL's (Centre for Excellence in Enquiry-Based Learning) strategy of developing Enquiry-Based Learning (EBL) at the University of Manchester is through small projects. Over the past four years CEEBL has support 12-14 small projects each year, a total of 54 projects, through funding, advice and support. These projects have enabled members of staff to develop and implement EBL in a variety of disciplines across the four faculties, for students at a variety of levels, from school pupils to post-graduates and at a variety of scales, from individual teaching to changes that influence entire programmes. The funding and support that CEEBL offers has allowed members of staff to take risks and make an individual enquiry into what EBL means in their own context.

The variety of approaches that have emerged from these projects is explored, emphasising flexibility and versatility that can arise from focusing on the principles of facilitated, student centred enquiry through the prism of academic and professional contexts, levels of experience and motivations for change.

Early results of a synthetic evaluation across these projects are presented, drawing from the project bids, written case studies and post-project interviews.

Participants are should gain an appreciation of the some of the diversity of teaching and learning activities that have emerged from these projects and hence the possibilities that can be reinterpreted and reinvented in their own contexts. Insight into some of the influence that shaped these expressions of EBL will also be shared.

Workshop

Effective Feedback.

Phil Race

The UK National Student Survey of 2005 showed that the areas where students are least satisfied with their experience of higher education are feedback and assessment. In particular, they don't seem to get enough formative feedback, and it is not helping them as much as it should. What's wrong with formative feedback? It can be too late. It can demotivate students instead of motivating them. It can take too much of our time, and yet students may take little notice of it. Too often, it can be feedback only, rather than also being feed-forward. This workshop aims to work out how we can give more and better feedback to more students – in less time! It is widely accepted that assessment is the engine which drives student learning, and when done well, feedback can be a really effective lubricant.

It is well recognised that the feedback we give to students contributes significantly to their overall learning experience. The quality and timeliness of feedback may also affect student motivation and retention. In this workshop, we'll explore a wide range of feedback methods, so that you can make your feedback more effective, less time-consuming, and more suitable to evidence the high quality of your teaching to those looking for such evidence.

We will explore the pros and cons of paper-based, word-processed, and electronically delivered feedback, in terms of the learning payoff which students derive from feedback, and the efficiency for us in providing it for them. We will also explore how best we can find out from our students how our feedback is working for them – they know.

Career Management Skills

Developing Career Awareness early in the Medical Curriculum through Enquiry Based Learning.

*Sarah Smithson, Alex Langhorn, Judy Stokes & Val Wass
University of Manchester*

Since the implementation of Modernising Medical Careers in 2005 there has been a growing interest in how the careers of doctors are reported, and a series of high profile reports have been published on the topic. This project describes the development and introduction of a pilot teaching session using enquiry based techniques to introduce second year medical students to career management skills.

Drawing on educational, clinical and professional careers guidance experience, the project team devised a pre-session careers awareness survey, developed a teaching session which included putting medical careers in context, introducing self awareness and designing a career research tool. Evaluation was undertaken using an electronic rapid response system (ERRS). Observations from the survey, along with initial reactions of the students to the teaching have proven invaluable in the development of the teaching for subsequent cohorts, e.g., introducing case studies and using the ERRS to demonstrate attitudinal shift in the group and promote discussion.

Keen to enrich the picture obtained through involvement with the second year group, a revised career awareness survey has recently been circulated to students in all five years of the medical course. Analysis of the results is ongoing.

This presentation will provide participants with information about:

- the extent to which students are already engaging in dynamic career thinking early in their course.
- the enquiry based techniques used to support the development of career management skills, and
- the career influences and strategies of students as they progress through the course.

Graduate Identity in Times of Uncertainty.

*Maura O'Regan
University of Reading*

At last years Teaching and Learning Conference a Centre for Career Management Skills funded longitudinal project designed to investigate student experiences of higher education and their approach to pursuing their careers was introduced. The initial outcome of the project was represented in a four type orientation to career which formed the first stage of the research. Times change. These students have since graduated and England has officially entered a recession. Now more than ever a clearer understanding of how graduates approach their careers and cope in times of uncertainty and change is necessary.

This presentation will focus on the provisional findings of the second phase of the project and is based on the verbal and written responses of the twenty-five graduates involved. The information was gathered from pre-graduation interviews (May-June 2008), a series of post-graduation diary entries (July 2008-June 2009) and a final interview in the early summer of 2009. The discussion will be based on how the 2008 graduates have adjusted to life after university, whether their original orientation (career rationalist, deliberator, career hesitator and career instrumentalist) has been sustained, modified or changed and how they reflect back on their academic achievements in light of their emerging graduate identity. Finally, reflections on the contribution higher education has made to this post-graduation phase of their lives is discussed in light of implications for university initiatives such as careers education, work placements, volunteering schemes and the wider employability agenda.

Degree and Labour Market Outcomes of University of Reading Graduates.

*Sarah Jewell
University of Reading*

The aim of the talk is provide participants an overview of the main results of my PhD on degree and labour market outcomes of UK undergraduates, using the University of Reading as a case study. The research was conducted using data from cohorts of University of Reading students graduating in 2006 and 2007. Data were collected from three main sources: the University of Reading student database (RISIS), a survey of Reading undergraduates circulated in spring 2006, and the destinations of leavers in higher education (DLHE) survey. The survey collected information on family and socio-economic background, financial situation, term time and vacation employment and attitudes to careers, enabling us to investigate a wide range of factors affecting degree performance and labour market outcomes.

The primary aims of the study were to:

- identify the determinants of degree performance, taking into account a broad range of personal characteristics, as well as the effect of degree subject
- examine the extent to which students are employed whilst at university, and its effect on their degree performance
- analyse the effects of personal characteristics, employment at university, degree performance and degree subject on outcomes in the labour market.

My talk would provide an overview of the main findings and implications of the results for both the University of Reading and the UK higher education system.

Session 5: Wednesday 15 July, 11.30-12.30

Enquiry-Based Learning Case Study

Encouraging Engineers to Read: A Book-Based Final Year Assessment.

*Grant Campbell, John Blunden-Ellis & Frank Manista
University of Manchester*

Engineers as a group are traditionally not great readers. Even those who enter academia can soon lose the habit of reading entire books, or struggle to justify the necessary time commitment. Books tend to be consulted rather than read, dipped into for data rather than being immersed in for knowledge and understanding. However, books read in their entirety convey ideas and give a coherence of thought and rationality that cannot be gained from selective consultation without context. It is important that engineering graduates (and the academics who teach them) should be encouraged and enabled to read books, as the basis for enhanced and ongoing effectiveness.

This presentation will describe an initiative within the final year of the MEng Chemical Engineering programmes, in which students were required to identify a suitable book, broadly related to chemical engineering, and read it and be assessed on it. Meanwhile a similar number of academic staff also read the books in order to prepare the assessments. The reading was supported by a programme of lectures and discussion groups to engage students with the book as a concept and with the nature of reading more generally, in order to enhance and empower their own reading. The examination included assessment of these generic aspects as well as the students' technical mastery of their specific books. Feedback on this initiative was extremely positive as a refreshing alternative to traditional forms of teaching and learning employed in chemical engineering, and as encouraging enhanced skills in communication and greater inclination to read as the basis for lifelong learning.

Approaches to Enquiry Based Learning in the Teaching of Nanotechnology.

*David Carey
University of Surrey*

The word nanotechnology means different things to different people and often the traditional academic or discipline background plays a significant role in colouring a person's view of what nanotechnology means to them. To the chemist nanotechnology means atoms and molecules, to the physicist it can mean the appearance of quantum effects and to the engineer nanotechnology promises faster, cheaper and smaller electronic devices. From a societal viewpoint, who owns nanotechnology and identifying who are the stakeholders are considered important questions. With such differing viewpoints, teaching nanotechnology to students with different academic backgrounds represents a real challenge. At Surrey we have embraced this challenge not by cramming large amounts of new material from different disciplines but by using this multidisciplinary aspect as a strength in teaching nanotechnology by promoting a more enquiring approach to learning. Specific examples of this approach include allowing the students to research and construct their own definition and description of nanotechnology and getting the students to suggest the questions and methods they might use to examine a new nanomaterial for a possible application. We will aim to give our experiences of this 'work-in-progress' which may help those teachers working in multidisciplinary areas.

Enquiry-Based Learning and Policy

Enquiry Based Learning: Strategic Development in to the Curriculum.

*Mike Bramhall, Allan Norcliffe, Justin Lewis & Jeff Waldock
Sheffield Hallam University*

This paper reports on strategic developments aimed at enhanced student learner autonomy skills through the use of enquiry-based learning (EBL) when designing the higher education experience. Sheffield Hallam University is a recognised Centre of Excellence in Teaching and Learning (CETL) in the area of developing learner autonomy. The work is also influenced by the University's Teaching, Learning and Assessment Strategy, which is forward looking and addresses the developing needs of both current and future students. Central to the strategy is the need for students to become autonomous learners and to acquire the skills and knowledge needed for employment, research and continuing professional development. In this context it is imperative that students are increasingly able to manage their own learning, formulate their own lines of enquiry and develop flexible approaches to their studies - the essence of acquiring student learner autonomy. It is also important that students can work across discipline boundaries, often in a team context, tackling problems that are essentially multidisciplinary. In the work reported on here the central theme is the strategic use of EBL in problem areas that are typically multidisciplinary and involve students from different courses working together in small groups.

The University's LTA strategy is also aware of the need for the continuing professional development of its staff and we report on work in progress developing resources, including a handbook on EBL, to support staff wishing to embed EBL in the curriculum.

We're All Learners Here: The LRT Project.

*Alec Patton, Rose Bavage, Richard Heinrich & Philippa Levy
University of Sheffield*

The LRT project is investigating ways that the integration of learning, research, and teaching can both foster the next generation of researchers and contribute to the work of researchers right now. The project uses surveys and interviews with both staff and students across two faculties in order to find out what is already being done to integrate research and teaching, and to investigate ways that innovative practice can be applied by students and staff across the sector.

The LRT Project is conceived as an initiative for both 'learning/teaching enhancement' and 'research enhancement'. It is this dual purpose that makes it unique: it starts from the recognition that 'learning' is the shared purpose of both research and teaching, and that a research-intensive university is first and foremost a learning community. The project aims to discover ways that staff and student research can support each other.

The project team consists of representatives from a range of academic and professional services departments as well as a postdoctoral research coordinator and two undergraduate student researchers. In this presentation, the team will present the project's initial findings.

The presentation will focus on ways that universities can enable students to participate more fully in the research culture of the University, enable discipline-based research and knowledge-transfer to benefit more from learning and teaching, and offer a clarified definition of research-led teaching and a clarified perspective on the role of pedagogical research/scholarship in the University.

Workshop

Growing Careers Education from the Grassroots - Practical Insights from CCMS Fellowships Set Within a Wider Theoretical Framework.

David Stanbury, Centre for Career Management Skills
University of Reading

CCMS have initiated around 40 curriculum development projects at Reading and 12 other universities as part of our CETL activities. Many of these have been evaluated using a practitioner focused discursive methodology yielding rich insights into collaborative projects in general and employability developments in particular. This workshop will survey some of the key learning points, set these within a broad theoretical framework (derived from Land, 2004), relate these to work on employability and the curriculum (Yorke and Knight, 2004) and create space for participants to reflect on their own experiences of curriculum enhancement. Gains for participants will include:

- Reflection on and increased awareness of own approach to educational development
- Contextual and personal factors influencing impact of change agents
- Understanding of current context for employability developments, including theoretical models that illuminate pressures and choices facing developers
- Benefits from and barriers to effective collaboration in cross-departmental teams
- Limitations and possibilities afforded by incremental curriculum change
- Free copy of the CCMS booklet – *Growing Careers Education from the Grassroots*.

References

Land, R. (2004) *Educational Development, Discourse, Identity and Practice*. Maidenhead: Open University Press

Knight, P. and Yorke, M. (2004) *Learning, Curriculum and Employability in Higher Education*. Abingdon: RoutledgeFalmer

Session 6: Wednesday 15 July, 14.00-15.30

Technology Enhanced Learning

Implications of Inquiry-based Learning in Teaching the Concept of Information Visibility: a Case Study.

*Yazdan Mansourian
Tarbiat Moallem University*

This paper reports selective findings of a qualitative case study about the author's experience of employing an Inquiry-based Learning (IBL) approach in teaching the concept of Information Visibility. This concept, which was part of the author's PhD research, is a complimentary definition of the Invisible Web and describes various elements which make an information item visible or invisible for people in their information seeking process.

The current study was part of a module related to reference and Information Literacy skills running for a group of undergraduate students at Tarbiat Moallem University (TMU) in Tehran. 27 students participated in this study and the data was collected by learning diaries and semi-structured interviews. During the course of study, the researcher made use of IBL techniques to stimulate the interest of students about the concept of Information Visibility and highlighted the importance of this issue in human information behaviour. He did not directly teach the detailed causes of Information Visibility and allowed the students to pursue their inquiries to identify several elements which contribute in visibility/invisibility of information resources, particularly on the Web. Of course, the researcher provided them with an introduction and general guidelines on this issue. Participants worked together and reflected on their successful and failed experiences regarding the focal point of this study. They also shared their reflections with the rest of class through oral presentations. The results showed IBL is an effective way in teaching the concept of Information Visibility. The participants could make sensible links between the theoretical frameworks behind this concept and their everyday information seeking activities. Moreover, their general information literacy skills were considerably improved through this learning process.

Inquiry Based Learning in a Digital World.

*Neil Gordon & Mike Brayshaw
University of Hull*

Learning in a networked world provides a new set of possibilities and experiences. Embracing an enquiry based approach provides a focus on students and their interaction with sources of material (e.g. teachers and libraries). One approach to this is to build new flexible physical learning spaces to replace traditional ones, replacing the existing vocabularies of learning spaces with a new holistic vision of education provision – but physical spaces are expensive and can be inflexible.

In this paper we analyse from a dialog perspective how flexible enquiry based learning might be achieved virtually - utilising technology and especially the Internet. This paper will look at how synchronous and asynchronous computer mediated communication – perhaps provided via a Virtual Learning Environment - can enable virtual dialog to emulate the vocabulary of the new physical learning space. The goal is to present a "Roll your Own Virtual Learning Space" with a model which is deliberately resource lite, using just off the shelf solutions. Many students for the foreseeable future will be limited to steep lecture theatres and "traditional" teaching spaces. The aim of this work is to develop a model to liberate these learners from such real estate straight jackets and allow them to follow flexible and free inquiry based learning philosophies without pulling down or building new stone (or brick) walls.

Participants will have the opportunity to explore some of the technical issues and opportunities arising from new technologies i.e. Web 2.0.

Technology and Inquiry Based Learning - Perfect Partners or False Friends?

Ryan Jendoubi, Sabine Little, Su Arnall,
Georgina Lambie & Chloe Miller Smith
University of Sheffield

Our workshop will explore the relationship between IBL and technology, building on work to date on a study of networked learning currently being conducted at the University of Sheffield. The study has yielded some interesting and unanticipated results, challenging the very preconceptions on which it was based and forcing us to reconsider the relationship between technology, social interaction, academic culture, and inquiry based learning.

Throughout our initial phase of qualitative investigation, it became increasingly apparent that discussion of technology use in IBL is intimately connected to the forms of the pre-existing relationships between staff and students, across departments, and between students in the same and in different cohorts. While networked technologies can of course provide forums conducive to the naissance of new relationships and communities, their interplay with the background social context of individual departments and whole institutions is a factor which receives little acknowledgement. Our work so far suggests that any successful 'policy' on technology for IBL must be flexible enough to take these differences into account.

Our findings also have important implications for those approaching the topic not from the starting point of 'technology' or individual technologies themselves, but from the wider perspective of IBL as a pedagogical approach. The necessity of the more contextualized, nuanced analysis suggested by our study in a way legitimises IBL as more than a project of the departmental technophile, and in doing so removes a 'technological barrier' to its adoption.

Enquiry-Based Learning and Policy

Student Engagement in Enquiry Based Learning and Policy.

Danny Wilding & Paul Taylor
University of Warwick

Recent high profile reports to the Secretary of State for Innovation, Universities & Skills suggest in one case that all curricula should 'incorporate research-based study for undergraduates' (Ramsden, 2008) and in another that 'Research Councils should work with universities, research institutions, charities and industry to develop a national Research Experience programme for undergraduate students' (Thrift, 2008). Enquiry- and Research-Based learning appears to be assuming national importance.

The Reinvention Centre for Undergraduate Research (www.warwick.ac.uk/go/reinvention) clearly supports the suggestion of more research-based study research experience for undergraduates. Yet, the Reinvention Centre's aspiration is for undergraduates to have the opportunity to be *fully engaged* with the research culture of their University, which is conceptually troublesome in the prevailing model of HE in the UK that sees the 'student as consumer' (McCulloch, 2009). Indeed, inherent in this model are 'hierarchical binaries between teaching and research, and teachers and students' [Lambert, Parker & Neary, 2007].

Based on early results from research at the University of Warwick, this paper will explore how current audit and assessment regimes impact on students' ability to engage with research culture and examine how emerging models of *meaningful* student engagement with their institutions can start to re-create the notion of an inclusive academic community where learners, teachers and researchers are all seen as scholars and collaborators in the common pursuit of knowledge.

We shall include time for discussion to allow participants to explore the issues as they relate to their own HE settings.

Learning in Research Intensive Environments: a Good Deal for Students?

*John Creighton, CETL-AURS
University of Reading*

The Russell group proclaims: 'Teaching of the highest quality takes place in institutions which are at the forefront internationally in their respective subjects, inspiring the brightest undergraduates and training the best postgraduate and postdoctoral workers to create the next generation of innovators and leaders.' But is this the case?

Current orthodoxy holds that whereas many would wish or assert that there is a link between the quality of teaching and the quality of research, the data would suggest otherwise. Hattie and Marsh (1996) published a very influential meta-analysis of 58 studies and concluded that there was virtually no correlation between the two. This reinforced government policy decisions around the world separating funding for teaching and research. But was the interpretation valid? The QR indicators used citation indices and grants income. The QT indicators mainly used student evaluations based on satisfaction. Both datasets are remarkably problematic.

At the University of Reading, we undertook a survey into student educational practices in 2008, finding out exactly what kinds of activities they engaged in from a list which research shows to be educationally beneficial. We also have the RAE data, providing a broad-brush indicator of the research culture in departments. Neither dataset is free of its own challenges. However, an analysis of the two shows a large number of significant correlations, which paints a very different picture to the Hattie and Marsh orthodoxy.

Round Table Discussion

Workshop

Aligning Collaborative Learning Theory with Technology.

*Adele Aubrey & Peter Whitton
University of Manchester*

After taking part in this session the participants should be able to:

- Apply key theories of collaborative learning to activity design
- Appreciate why group work and collaborative learning are important
- Select and implement appropriate online tools to support collaboration and group work

Theories will be explored such as:

- Zone of proximal development - Vygotsky
- Social Interdependence - Johnson and Johnson
- Cognitive Development Effect - Vygotsky
- Connectivism - Siemens
- Cognitive Elaboration Perspectives – Dansereau, O'Donnell, Webb and others

This workshop will be of particular interest to academics who wish to use Virtual Learning Environments and other online tools to support enquiry-based learning, collaborative learning and group work. Academic-related staff who wish to explore some of the theory behind collaborative learning and see how the available technologies can be used to support this are also welcome.

Conference 2009

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