



e>exchange <e

Ideas, practices, news and support for decision makers active in learning and teaching

WOULD YOU LIKE EXTRA FOAM WITH THAT LAPTOP?

Les Watson savours the café culture at Glasgow Caledonian University that is providing space for creativity in learning.

THE HIGHER EDUCATION ACADEMY

Professor Paul Ramsden, the Academy's newly appointed Chief Executive, outlines his hopes for the organisation.

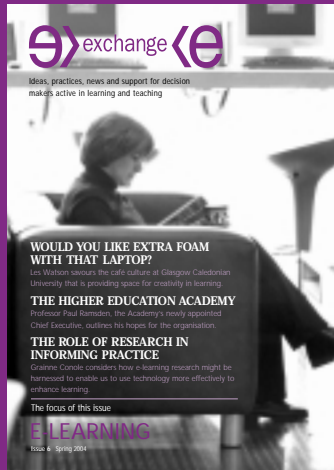
THE ROLE OF RESEARCH IN INFORMING PRACTICE

Grainne Conole considers how e-learning research might be harnessed to enable us to use technology more effectively to enhance learning.

The focus of this issue

E-LEARNING

Issue 6 Spring 2004



Cliff Allan



Sally Brown



Kathy Wiles

Exchange Issue 6 Spring 2004

Exchange exists to stimulate the sharing of ideas, practices and news about learning and teaching in higher education. It aims to encourage positive change by supporting its readers in developing and enhancing learning and teaching in their communities.

Exchange is published by the Higher Education Academy.

Editors in Chief

Cliff Allan,
Programme Director, LTSN

Sally Brown, Director of
Membership Services, ILTHE

Editorial Board

Representatives from the
partner organisations

Guest Commissioning Editor

Kathy Wiles, Director, Centre for
Academic Development, University
of Newcastle upon Tyne

Editor for General Interest

Andrea Rayner, ILTHE

Production Editor

Allison Loftfield, LTSN

Exchange is a tri-annual publication. Each issue includes an examination of a different theme along with a look at news items of interest on learning and teaching generally.

The views expressed in this publication are not necessarily those of the Editors nor of the partner organisations. The editors reserve the right to edit, amend or abbreviate copy without notice.

The Higher Education Academy
(LTSN)

The Network Centre
4 Innovation Close
York Science Park
Heslington
York YO10 5ZF

Tel: 01904 754500
Fax: 01904 754599
Email: enquiries@ltsn.ac.uk

Exchange website:
www.exchange.ac.uk

An electronic version of Exchange is available on the Exchange website along with full references for all the articles, where supplied.

Exchange is available free of charge. If you do not currently receive a copy and wish to do so in the future please contact exchange@ltsn.ac.uk. Your details will be used solely for the purpose of keeping you informed about Exchange and will not be made available to outside organisations.

Exchange acknowledges with gratitude permission to use photographs from the Learning Café at Glasgow Caledonian University and from NTFS award holders.

*Design: Melanie Gardner
Cover: Learning Café*

Comment from the Editors

This issue of **Exchange** is published at a propitious time when the partner organisations come together as constituent parts of the Higher Education Academy from 1 May 2004. We celebrate the union and look forward to broadening our remit. Key aspects of our work will be in advising the sector on policies and practices that impact on the student learning experience and supporting curriculum and pedagogic development. It is apt, then, that this issue explores an aspect of curriculum development that most universities are actively considering: e-learning.

Our guest editor, *Kathy Wiles*, writes:

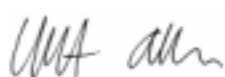
“e-Learning has the potential to revolutionise the way we teach and how we learn.” *Charles Clarke, Secretary of State for Education*

“e-Learning is an enigma: we all seem to be talking about it, but how many of us are actually engaging with it, and what is e-learning really contributing to education? This issue of **Exchange** brings some of the issues surrounding e-learning into the light, with articles that answer questions, make vital connections between technology and learning and cast an eye to where current developments might be taking us.

We present a broad range of articles, from looking at specific developments such as e-books and e-portfolios, to more general themes like research and reusability. For those of you for whom it is all still new, we ask ‘What is a learning technologist?’ and we also offer perspectives from the people and organisations who have been working with e-learning for many years. For those of you who wonder just how e-learning can impact on education, we invite you to sip a brew at the ‘Learning Café’, while the global nature of e-learning is reflected in articles from two well known international voices.

Wherever you are with e-learning, we hope you will find something here to inspire you, answer your questions, or even to disagree with. Most of all, the message that comes across from this issue of **Exchange** is that e-learning is learning – and that means something to all of us.”

The next issue of **Exchange** will be published in the Autumn, by which time our new Chief Executive Paul Ramsden (who introduces the Academy in this edition) will be in post and the Academy will be fully operational. We hope you will continue to find this magazine a useful and informative publication that keeps you briefed on current and emergent issues.



Cliff Allan



Sally Brown

Focus: e-Learning

- 8 In conversation *Kathy Wiles talks to David Unwin*
- 11 Would you like extra foam with that laptop? *by Les Watson*
- 13 e-Learning our lines: a decade of ALT *by Rhonda Riachi*
- 14 What is a Learning Technologist? *by Martin Oliver*
- 16 Recording achievement, the Progress File and e-implementation *by Rob Ward*
- 18 A future for eBooks in higher education? *by Bruce Ingraham*
- 19 Engaging with e-learning in geography, earth and environmental sciences *by Mike Sanders*
- 20 SURFing in the Netherlands *by Bas Cordewener*
- 22 The supporter: the role of the learning technologist *by Susan Armitage*
- 24 e-Learning and disability: strategic and policy issues *by Lawrie Phipps*

Opinion: e-Learning

- 25 Ubiquity comes fast: wireless comes slowly *by David Brown*
- 27 From learning objects to learning design *by Allison Littlejohn*
- 30 The role of research in informing practice *by Grainne Conole*

General Interest

- 7 The Higher Education Academy *by Paul Ramsden*
- 32 Lessons from the workplace *Jon Perkins interviews David Boud*
- 35 Key skills: rhetoric, reality and reflection *by Vicky Tariq*

Regulars

- 3 Editorial
- 4 News
- 37 Feature on a Fellow *Keith Ward* talks about nursing in context
- 39 Related Projects

Centres for Excellence in Teaching and Learning



The Higher Education Academy is playing a key part in providing support for higher education institutions bidding for the new Centres for Excellence in Teaching and Learning (CETLs). Two successful briefing events for HEIs were held in March. Each day included information briefings from the Higher Education Funding Council for England (HEFCE) and the Academy. Participants had the opportunity to discuss key issues in facilitated workshops. Frequently Asked Questions arising from these briefings are now available on the Academy's website at www.heacademy.ac.uk/CETLs/faqs.asp.

Sally Brown of the ILTHE and Brenda Smith of the LTSN Generic Centre are also working with HEFCE to develop training materials for the CETLs panel. The Academy will be assisting successful bidders at Stage 1 to develop their Stage 2 proposals. Ongoing support for CETLs will also be provided by the Academy, including its Subject Centres.

Entrepreneurship: can it be taught?

Many graduates think about becoming self-employed, but relatively few do so. It will be essential to encourage careers advisers, academics, institutions and organisations to promote self-employment as a viable option for graduates. Val Butcher, Senior Adviser with the LTSN Generic Centre, is leading a Department for Education and Skills project on teaching entrepreneurship to undergraduates.

The aim of the 16-month project is to facilitate the development of the undergraduate curriculum by putting in place the background information and materials needed to equip universities to deliver instruction in the skills required to start and grow a business.

Further information is on the Generic Centre website (www.ltsn.ac.uk/genericcentre) under Projects: Employability.

Connect: the learning and teaching portal

The first phase of Connect, the new learning and teaching portal, was launched in March. The LTSN and JISC are working with partners including the ILTHE, the British Education Communications and Technology Agency (Becta) and the Association for Learning Technology (ALT) to bring together information, resources and community-building opportunities in the form of portal services that can be found on one site, or individually embedded in other websites. The first set of Connect services now available include:

- Funding Connect: a database of funding opportunities available for learning and teaching throughout the UK
- Organisations Connect: a comprehensive list of learning and teaching organisations with quick access to who does what and their current policy or pedagogical work
- Forum Connect: a place for hosting virtual seminars and discussions, offering a range of online tools and services to support community-building
- Resources Connect: a search facility that targets named UK sites to locate relevant materials for learning and teaching.

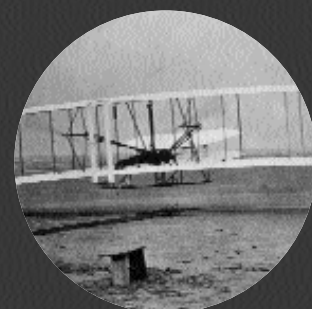
For more information email connect@ltsn.ac.uk or log onto www.connect.ac.uk.

Education Image Gallery launched

For the first time, further and higher education institutions will have online access to an extensive imagery collection from the Hulton Getty archive which will enable them to enhance and tailor their teaching tools.

This new JISC resource is selected from collections such as the world-renowned Hulton Archive, Photodisc and Getty Images News. 40,000 images covering a broad range of subject areas and key events from the 19th century to the present day are available to teachers, researchers and students.

For further information, see www.jisc.ac.uk/collection



Collecting and using student feedback

A guide to good practice in collecting and using student feedback has been published to help higher education institutions make the best use of their student feedback. The guide, produced by the Centre for Higher Education Research and Information as one of the outcomes of a HEFCE-funded study, draws on the experiences of HEIs and their students to identify issues of concern and highlights existing good practice. The Guide is available to download from the LTSN Generic Centre website (www.ltsn.ac.uk/genericcentre) through the Resources database.



Supporting sustainable e-learning

The LTSN Forum on Sustainable e-Learning brings together staff and educational developers as well as learning technologists from the UK HE and FE communities in order to:

- devise practical strategies for supporting staff in the design, development and implementation of online courses
- disseminate good practice in supporting sustainable approaches to e-learning
- contribute to the ongoing debate in the sharing and reuse of e-learning resources.

Four events will be held on 19 May (UCLAN), 4 June (University of Newcastle), 18 June (University of Strathclyde) and 8 July (Institute of Education), chaired by Allison Littlejohn (who writes on the project in this issue of Exchange). For details see the Generic Centre website (www.ltsn.ac.uk/genericcentre) under Projects: e-learning.

Enhancing learning through feedback

Forty-two case studies of effective and innovative feedback practice from practitioners in Scottish Higher Education Institutions and seven principles for effective feedback practice are available from the SENLEF (Student Enhanced Learning through Effective Feedback) project (www.ltsn.ac.uk/genericcentre/senlef).

As part of the Quality Enhancement Engagement Themes Assessment work in Scotland, the SENLEF project is also involved in a workshop on 'Improving feedback to students (link between formative and summative assessment)' on 4 June 2004 at the University of Glasgow.

For more information visit www.qaa.ac.uk/scottishenhancement/events/Assessment_workshops.htm

Newsfilm archive delivered online

Some 6,500 hours of high resolution film and video material from the ITN Archive and British Pathe newsreels will be digitised and delivered online to colleges and universities across the UK.

Newsfilm Online, a project funded by JISC with ITN and the BUFVC (British Universities Film & Video Council), will provide librarians, teachers, lecturers and students with access to a vast digital resource to support and enhance learning and teaching across almost every subject discipline.

The agreement with ITN is the first of a series of digitisation projects being managed by JISC with funding from the Higher Education Funding Council for England (HEFCE). The overall programme represents a total investment of some

£10m to be applied to delivering high quality content online, including sound,

moving pictures, census data and still images for use by the further and higher education communities.

Further information is available from Stuart Dempster, JISC, at s.dempster@jisc.ac.uk.



The Higher Education ACADEMY



The Higher Education Academy came into being on 1 May this year. Professor Paul Ramsden, the Academy's newly appointed Chief Executive, outlines his hopes for an organisation that will be concerned with every aspect of the student experience.

The Higher Education Academy represents an exciting initiative for UK higher education. I am privileged to have been asked to lead it. The Academy builds on the achievements of other groups, most notably the LTSN Subject Centres, the ILTHE, and the National Co-ordination Team, all of which will be combined under the new organisation. The Academy will therefore draw on a wealth of skills and information created by a team of dedicated professionals. In all aspects of our operations, we must continue to give good value for money and increase the levels of service we provide to our users and members. For example, it will be important to consolidate the success of the Subject Centres in the light of the recommendations of a current review.

It will be my aim also to ensure that the Higher Education Academy goes further and makes its own distinctive impact. The Academy will be concerned not only with learning and teaching but with every aspect of the student experience. It will provide coherence, added value, inclusivity, and a powerful emphasis on the needs of stakeholders. It will work collaboratively with universities and colleges in a framework of collegial support. It will recognise that the needs of different institutions vary depending on their missions, avoiding a one-size-fits-all approach to professional development and the enhancement of teaching. It will support institutions in managing teaching and services in ways that maximise the quality of outcomes for their students.

I want the Academy to achieve these objectives through applying the best available knowledge in a rigorous way. Our students deserve no less. This will imply

greater emphasis on strategic advice for the sector and more vigorous engagement with the wider policy context, including the implications for the student experience and standards of more flexible tuition fees, increasing numbers of overseas students and variable academic pay rates. It will mean establishing a solid, easily-accessible evidence base that will enable all staff who teach and support student learning to choose the course of action that will best achieve their goals.

I will also expect the Academy, through its expanded capacity for research and evaluation, to take a leading role in building institutional potential to respond effectively to the results of quality audits and national surveys.

The Academy will work co-operatively with colleges and universities, as well as the Leadership Foundation and the new Centres for Excellence in Teaching and Learning, to help establish management and leadership structures that provide higher quality experiences for students and more transparent recognition and reward for good teaching. And I am keen for it to develop strong relationships and formal benchmarking arrangements with similar bodies overseas, including the Carnegie Foundation in the US and the newly-established National Institute for Learning and Teaching in Australia.

I am confident that the people responsible for providing an excellent student experience, including both academic and support staff, are more than willing to rise to the challenge. Working together, we will ensure that the Academy sets an example that other countries will find hard to match when it comes to applying a professional, evidence-based approach to improving students' experiences throughout the United Kingdom.

Kathy Wiles, Guest Commissioning Editor, and **David Unwin** introduce this issue of Exchange

IN CONVERSATION

An easy question first! Does 'e' make a difference?

DAVID UNWIN: Of course it does! At any level there are certain things that must be learned by rote, no matter what the delivery mechanism is. However, conventional study from books and lectures doesn't have the same potential as 'e' for interactivity between students. From a learning perspective, students become part of an online community, which lends itself well to the exchange of ideas, encouraging debate and creating a network of support and collaboration.

KATHY WILES: What about the criticism that online learning reduces the 'student experience' and can create a sense of isolation? Very young students, in particular, may not have the skills required to form an online community.

DU: Students are embedded in a complex, ever-changing environment and they learn from many sources. A mistake educators often make is to assume they can in some way control all of this. As for feelings of isolation, students can experience that in a crowded lecture hall! In any case, today's students are very computer and technology literate and are used to the world of email, text messaging and online chat.

So what makes 'good' e-learning?

DU: Good learning is good learning, full stop. Good e-learning is learner-centred and learner-driven. Students learn as and when it's convenient to them, without distractions, and can study in their own time and place. Through e-learning it should be possible to provide even closer personal support than conventional teaching often allows.

KW: I agree; e-learning is quite challenging for today's teachers, because it places control of the learning experience into the hands of the students. It can be quite sobering to find out that students find only a small part of your course to be useful and relevant to their learning experience. Of course, this has always been the case in traditional learning too.

But does that mean it is better than face-to-face?

DU: The best e-learning does not have a direct campus-based equivalent. Many people are too wedded to the convention of the classroom teaching model and have tried to apply e-learning in ways that emulate it, rather than exploiting the full potential of the medium.

KW: How do we break this cycle? We are asking many people to take on unfamiliar territory and their answer is to transfer what they know and are comfortable with into the new learning environment. Is it too big a cultural change to expect this to happen quickly? Or are we looking at a long-term slow change? What are the risks of not changing?

DU: The problem that e-learning professionals have had in the UK in a variety of funded programmes stretching back over 20 years is that e-learning has been used by the authorities as the shock troops to generate cultural change in the education system. This is asking too much of it. Sending students to a computer to do some work isn't going to change attitudes to teaching in research-dedicated five-star universities.

So we are saying that one size doesn't fit all?

DU: Indeed. With e-learning, different disciplinary, institutional and other elements must come into play. As in all teaching, the greater the breadth of approaches, the better the e-learning is likely to be.

KW: By which you mean the use of different teaching tools, such as discussion forums, online debates, quizzes. I think it's important to emphasise that e-learning is about quality interactions, not simply accessing great chunks of material online.

What about the best of both worlds: so called 'blended learning'?

DU: It's hard to imagine that all higher education will be delivered electronically. We are more likely to see both a wider acceptance of e-learning and a move towards blended learning where appropriate.

KW: Studies have shown that the blended approach is most favoured by students. However, it is not wrong to go for a wholly 'e' approach – just as it is not wrong to go for a wholly face-to-face approach.

DU: My own experience is that tutoring in 'e' is altogether better than face-to-face, but that's a personal thing. I have never been convinced by the supposed gold standard of the small face-to-face tutorial group.

e-learning has been used by the authorities as the shock troops to generate cultural change in the education system.

So how do we quality assure e-learning?

DU: Teaching via e-learning is open to scrutiny and quality control, more so than face-to-face teaching in many respects. It allows the auditing of all dialogue and interaction between all tutors and students, which is not practicable with traditional teaching. It follows that we have opportunities for QA not present in face-to-face teaching and learning.

KW: That represents another threat to teacher autonomy though, doesn't it? Everything that I do is open to scrutiny, so what if I get something wrong? I think this issue is one of the 'blocks' to the growth of e-learning: that it is a tool for the benefit of the quality police, rather than for the benefit of teaching.

DU: On the other hand, your quality police have probably done more to improve teaching in our universities over the past 15 years than anything else. The pity is that until recently no money has followed, unlike the RAE.

Given that e-learning is here to stay, what challenges are there for institutions?

DU: Providing good e-learning is as much about management and support as technology and pedagogy. The ideal approach is for HEIs to develop a central e-learning function to support the needs of Faculties across the board. Universities with traditionally devolved structures are therefore less well placed to support e-learning than those that have 'command and control'.

KW: Yes, we need to recognise the growth of the new professionals and include them in our structures. And it is only by having a centralised element to this support that the whole institution can benefit.

DU: Developing dedicated resources, such as a team of learning technologists, is critical if we are to make real progress. I don't believe that dumping e-developments onto already overworked and underpaid academics is the way forward. They need professional help.

How is UKHE plc progressing in this area?

DU: There is a lot of unsatisfied demand around the world for access to higher education. e-Learning helps to bridge this gap, providing students with an opportunity to study that might not have been possible before. HE needs to learn from and build on the experience of other parts of the education system, including the commercial training industry.

e-Learning is no longer a cottage industry, then?

DU: Most definitely not. There are thousands of online courses available worldwide, creating confusion for potential students. Currently, the difference in the quality between one online course and another is not always apparent to students and that is a challenge. Independent auditing or some kind of bench testing of courses is needed to help students make an informed choice.

KW: And of course, we are now seeing strategies emerging both from the Higher Education Funding Council for England and the Department for Education and Skills. These will have a big impact on the way we look at e-learning in the future, and brings e-learning into the fold: it is no longer a bolt-on activity to other forms of education.

What does the research say about e-learning?

DU: The use of e-learning in higher education raises a complex set of research questions. The monitoring and evaluation of the student e-learning experience is essential to understand how to improve the students' online experience.

KW: We have lots of anecdotal evidence about e-learning, but very little longitudinal evidence. Of course, much of the research into e-learning has been action research; those who are involved in e-learning have a very pragmatic and flexible approach to trying new things. Fortunately they are good at sharing too, through networks like the Association for Learning Technology.

I don't believe that dumping e-developments onto already overworked and underpaid academics is the way forward. They need professional help.

DU: Yes, and with the appointment of Professor Paul Ramsden as first Chief Executive of the Higher Education Academy, I'm sure the Academy will help to drive us further in the right direction.

Finally, why do we get so excited about e-learning?

DU: e-Learning is exciting because it widens access to people who otherwise might not have the opportunity to learn. In a sense the technology is secondary to the learning. e-Learning should not be about technology for technology's sake but about how it can help us evolve new ways of learning and personalising education. New technology and applications are not the answer to encouraging wider acceptance and uptake of e-learning. Progress is more easily hindered by a limited insight and understanding of e-learning than any aspect of technology.

KW: The most exciting thing for me is that sense that students are empowered more than ever before. It will be very demanding for all of us to keep up with them: that has to be better than churning out a lecture every few days.

DU: Yes, and it will be interesting to see how these changing dynamics unfold in other countries and cultures which traditionally lean towards teacher-push. It's 'new learning' not 'new technology' that most excites me.

Until his recent retirement, after a long career in which he was engaged with e-learning in higher education, DAVID UNWIN was Learning Programmes Director of UkeU

The background image shows two women sitting at a table in a library or study area. They are facing each other and appear to be in conversation. A laptop is open on the table between them. The scene is dimly lit, with a purple tint over the entire image.

Would you like extra foam with that LAPTOP?

Les Watson savours the café culture at Glasgow Caledonian University that is providing space for creativity in learning.

Project work, problem-based learning, group work, collaborative work, team-based learning: these are the approaches that we increasingly use with our students to help them develop those all-important skills that employers say they want. It's all about ensuring our students hit the workplace running and that they possess the skills that they need to be successful lifelong learners. But apart from setting the tasks and expecting results, do we give them the tools to succeed in these group-based activities? Where is that magic space that provides the mix of interactive environments and technologies to encourage and support group work?

Wander around the campus and you will find groups of students in the corridors, reception areas, vacant classrooms and the refectory working together on their joint project or preparing that presentation. By observation off campus it's clear that the way many young people work is to get around the kitchen table with their friends, workbooks, coffee, and CD/radio to tackle group tasks they have been set. What's more, the modern, knowledge-focused, workplace that awaits

students post-university expects that they will be effective group workers with experience of, and high levels of competence in, problem solving and group project work. So where have we provided this space for the development of group work competences in our universities? More often than not we haven't and students are faced with highly interactive assignments that they have to undertake in a traditional, often hushed, library setting.

At Glasgow Caledonian University we have had a shot at meeting this need by establishing a Learning Café. Note it's a Learning Café and not an Internet Café. The focus of the space is on learning, in particular on the oral and social components of learning that form such a large part of group and project work.

Part of the stimulus for the Café development came from the Danish belief in the oral nature and sociality of learning as key aspects of personal development. I suppose that we in the UK express this in the form that 'you don't really know something until you've tried to teach it'. So the Learning Café is based on two themes: the way students are in the 21st century, and the belief that conversation is central to personal learning.

The Café is in the Library building and has seating for 200 students from individual bar stools through comfy sofas to group work tables of all sizes (some so large that we had to have them made on site). It provides high quality food and Costa coffee comparable in quality and service with high street outlets. Importantly for the University, the Café is part of the Glasgow Real Learning Network supporting Glaswegian lifelong learners, hence its name: Real@Caledonian. It is open to all of Glasgow's lifelong learners (of whom 70,000 are registered) as well as the 14,000 students registered at the University. Real is a partnership between the Glasgow City Library service, Learning and Teaching Scotland, Scottish Enterprise Glasgow, the 10 Glasgow FE Colleges, and Glasgow, Strathclyde, and Glasgow Caledonian Universities. Real@Caledonian is one of 33 Real learning centres across the City and the only one on a University Campus. This means that, in addition to the group learning facilities in the Café, users have access to 350,000 volumes and 2,000 journal titles. As in most HE libraries many of these resources are online but some are not and never will be – yet visitors to the Café have access to all of them.

The ethos of the Café is summed up by a number of quotes on the walls. One of my favourites is: 'If you want creative people give them time to play' (John Cleese).

The essence of play, and playful thinking in particular, is also part of the Café concept. It's the playful personal conversations that we have with ourselves that are at the heart of our most powerful learning experiences. In the Café we are particularly interested in using technology to help students to be playful, creative and imaginative. But the 200 users have access to only 80 computers. This is not the usual battery learning that we see in many other locations on campus – one chair, one student, one computer. This is a more imaginative and embedded use of IT. The technology does not dominate the space in Real@Caledonian but it supports the work of the learners. There is enough of it to be there if you need it (thin client boxes on some of group tables and laptops on the coffee tables) but not so much that you are overpowered by its presence.

Has it worked? Have a look at the video on our website at www.realcaledonian.ac.uk. During the two



It's the playful personal conversations that we have with ourselves that are at the heart of our most powerful learning experiences.

years since it opened the Café has been an enormous success with students. But what is really exciting for us is that it is just the start of a journey in learning space development at Glasgow Caledonian. We will continue to experiment with combinations of people, space and technology and have recently started a project with wireless networking and PC tablets in the Café. We are also building a £20 million Learning Centre due for completion in September 2005. The Learning Centre takes the concepts we have tried in the Learning Café and combines them with a fundamental rethink of the way we deliver services to our students – our non-stop shop for all services that students need outside the classroom. We expect the result to be of interest across the HE sector as an imaginative approach to service provision in a 21st century university.

If you want creative people give them time to play John Cleese

e-Learning our lines: A DECADE OF ALT

Rhonda Riachi rehearses the role of the Association for Learning Technology.

Why all the fuss about e-learning? To some in education it is just another buzzword; to others it has acquired the status of the Holy Grail. The Association for Learning Technology (ALT) has been trying to navigate teachers, researchers, support staff and managers between these two extremes for nearly eleven years, long before the term e-learning was coined.

Learning technology was itself a new phrase when ALT was founded. Other terms, such as ICT and educational technology, vied for attention. Scepticism concerning the usefulness of technology was the norm, and ALT members often ploughed a lonely furrow in their respective fields. Many came from the Computers in Teaching Initiative (begun in 1989), which set up subject-based centres around the UK. Others joined from the consortia set up to develop software under the TLTP programme. Our first annual conference, ALT-C 94, was nearly oversubscribed, such was the need among the community for opportunities to network, present papers and meet people who understood the institutional problems of introducing learning technology into higher education. Since then ALT has embraced further education and recruited more corporate members, and our events and publications strive to bridge the divide between sectors.

Following its first issue in April 1994, the ALT journal (ALT-J) soon gained a wide readership. Despite a plethora of titles in the educational technology arena, ALT-J is now the journal of record for e-learning developments in tertiary education. Working in tandem with our conference ALT-C, where many ideas get a first airing before further refinement, the journal has encouraged the development of a new discipline – not merely learning and technology, but learning technology – which has arisen despite the lack of direct recognition in the Research Assessment Exercise (RAE).

Now the term *learning technologist* is widely recognised and regularly appears in job advertisements. The need for a professional approach – understanding both the technology and the pedagogy – is acknowledged in the education sector and in companies that produce much of the software and systems currently in demand. ALT set out to bring education and commerce together to allow them to see what they had in common and how they might collaborate for mutual benefit. After all, it's no use just shouting at the computer when it crashes for the umpteenth time. Likewise, it's not surprising if the virtual learning environment we adopt on campus doesn't suit our teaching modes if we never tell the software developers what we want.

The commitment and enthusiasm of ALT members across the UK has ensured that new technological developments in education are subjected to critical and informed appraisal. This is essential if we are to avoid the costly mistakes of the past: large sums allocated for computing projects, which briefly saw the light of day then disappeared (the fate of many TLTP projects); and online resources compiled for individual subjects with no funds to maintain and develop them. The recent spate of e-learning strategies (DfES, HEFCE et al) provide an opportunity for UK education to drive change to suit learners and teachers, rather than reacting belatedly to technological advances by grafting on a partial solution that pleases no-one.

ALT will be there, working in partnership with others, to ensure the opportunity is not wasted.

www.alt.ac.uk

WHAT IS A LEARNING TECHNOLOGIST?

Martin Oliver attempts a definition.

Like so many terms related to e-learning, 'learning technologist' is hard to pin down. Who does it refer to? What do they do? These questions are not easy to answer.

Presently, there is no standard job description, no professional qualification nor standard career pathway for a learning technologist. People who identify themselves as e-learning officers, computing support, research assistants, staff developers or service managers all believe themselves to be learning technologists. So what is it that these people have in common and why are people interested in using this term at all?

Several groups have attempted to provide answers to these questions. In fact, such attempts have a remarkably long history. In 1976, for example, papers were published in the *British Journal of Educational Technology* that sought to explain the roles of what were then described as educational technologists. Their

account seems remarkably familiar today: these people come from a wide range of backgrounds and seem to have arrived 'by accident' (rather than following a career path).

What they have in common, however, is a shared emphasis and a common approach: they work to support the use of technology for learning and teaching through collaboration and discussion with academics. As such, they now form a vital part of e-learning development teams: because they possess knowledge that crosses boundaries, they both advise and facilitate discussions between educators and technical staff – they can even translate, if necessary! What learning technologists are not, however, are geeks: they might have technical expertise, but they define their role in relation to the educational activities that they support. Generally, they would argue that it's not important to know what the latest patch applied to a system is, unless it has some direct implication for how people are learning or teaching.

Another answer to these questions – a more recent one – was provided by Scott Millar on behalf of the Teaching and Learning Technology Officers, a special interest group of the Association for Learning Technology (ALT) that runs its own JISCmail list. This elaborates on the core role described above:

'A learning technologist is employed with a core activity of the job to promote and/or support the pedagogically effective uptake of specific 'learning technologies'.

Learning technologies are the systematic application of communication and information technologies to increase the efficiency and effectiveness of education through the design, implementation, use and evaluation of learning resources, organisational structures and methods.

Because a learning technologist promotes and supports change in educational practice they understand not only the pedagogical principles and the technology available, but also how to make best use of the latter to support and serve those principles.'

The Joint Information Systems Committee (JISC) also sought an answer, not least because so many learning technologists are involved in JISC projects. They funded a group to investigate the careers of these individuals. This study identified three separate groups: academics with an interest in learning technology use, existing professionals (such as librarians or staff developers) for whom learning technology forms part of their area of responsibility, and a third group, referred to simply as the 'new specialists', who defined their role as supporting the use of learning technology. This particular group were predominantly young (in their twenties or thirties), on fixed-term contracts (often externally funded) and had typically been in their current post for less than two years and at their current institution for less than four.

Building on this work, ALT has produced a draft job description and is now developing and piloting an accreditation scheme for learning technologists (<http://www.ucl.ac.uk/epd/alt-accreditation/>). This has

A JISC study identified three separate groups: academics with an interest in learning technology use, existing professionals (such as librarians or staff developers) for whom learning technology forms part of their area of responsibility, and a third group, referred to simply as the 'new specialists', who defined their role as supporting the use of learning technology.

involved extensive consultation with practitioners and related professional bodies from industry, further education and higher education. The initial pilot focuses upon a 'core' role, but the scheme reflects the diverse jobs these individuals undertake. It's not yet clear how widely this scheme will be taken up. However, levels of interest during consultation suggest that there is keen interest and a widespread belief that this could mark an important step from performing a 'role' towards becoming a profession. If the scheme gets it right – if it reflects what these people do, rather than what people who are not learning technologists think they do – then it might become a rallying point, something that practitioners feel happy to present to others to explain how and why they do what they do.

Maybe then, in another quarter of a century, there will be no need to ask what a learning technologist is.

Presently, there is no standard job description, no professional qualification nor standard career pathway for a learning technologist.

RECORDING ACHIEVEMENT, the Progress File and 'e'-implementation

Personal Development Planning has increasingly become part of the HE vocabulary. **Rob Ward** suggests how putting the 'e' into PDP could allow students' PDP records to be transferred seamlessly between institutions and employers.

In the beginning . . .

The term 'Personal Development Planning' first saw the light of day following the National Committee of Inquiry into Higher Education (the Dearing Report, 1997), which recommended the development of: an 'HE Progress File comprising:

- *A Transcript recording student achievement which should follow a common format devised by institutions collectively through their representative bodies*
- *A means by which students can monitor, build and reflect upon their personal development (Personal Development Planning/Recording).*'

Since Dearing, the term PDP has come increasingly to be part of the HE vocabulary, and has gained:

- a **detailed definition**, as: 'a structured and supported process undertaken by an individual to reflect upon their own learning, performance and/or achievement and to plan for their personal, educational and career development'
- a set of **agreed policy intentions**, all centred upon supporting student development
- **guidelines to support the implementation process**
- a **recommended date for implementation** within HE (2005-06) for the implementation of policy across the whole system and for all HE awards.

Adding the 'e' dimension

What has this to do with the 'e'-community? Well, a significant strand of development has been concerned with supporting the PDP process electronically, and this is growing apace. This is unsurprising, given moves towards IT-based learning environments, the remorseless pressure on staff resources, and the increasing readiness of many students, and an increasing number of staff, to engage with the technology. Initial development work at Loughborough (RAPID 2000), Liverpool (LUSID) and Nottingham (EPARS) amongst others was largely based upon freestanding systems. More recently, development work has been increasingly concerned with:

- 1 More integrated relationships with mainstream institutional record systems and Virtual Learning Environments. This facilitates the linking of PDP to institutionally held information such as module outcomes, the skills components within modules or transcript material captured within Student Record or Management Information Systems. It requires the exchange of data between systems holding information about individuals' current lives, i.e. to support the **horizontal integration of information**.
- 2 Developments that enable records produced through PDP processes to be transferred between institutions, i.e. that support the **vertical integration of provision and the lifelong learning agenda**. These draw strength from the fact that Personal Development Planning processes are not confined to HE. The new DfES Progress File is available to schools and colleges with a web-based version of the post-16 material under development, and plans for

all 14-year-olds to develop Individual Learning Plans using materials developed from existing Progress File materials have been announced. Foundation Degrees provide the first UK HE award that specifically embeds the records of learning in the design specification.

In addition, HE institutions have an increasing interest in the development of strategies for supporting students from more diverse backgrounds. Some see PDP as a key mechanism for connecting students to institutions in a more pro-active and developmental way.

In the context of employability, work for the Quality Assurance Agency (http://www.ltsn.ac.uk/application.asp?app=resources.asp&process=full_record§ion=generic&id=68) has confirmed that employers are primarily interested in the learning that derives from the process of PDP rather than the documented outcomes. This can contribute to the process of 'presenting and evidencing achievement' at the initial application stage.

Where next? Developing a practical case for 'interoperability'

Lots of challenges remain to IT-based PDP, such as:

- tensions between technical systems that emphasise commonality of approach and PDP practice characterised by diversity of approach and local ownership
- challenges created by seeking to systematise within a rational and logical framework a set of processes and

outcomes that may be used idiosyncratically by individuals.

Moves are now afoot to develop practice that enables records produced through PDP to be connected within, and transferred between, institutions and organisations. From an HE perspective, many would like to be able to:

- draw in application data, perhaps beyond traditional data, about potential applicants and their skills, qualities and capabilities
- in preparation for entry, enable students to select and present information drawn from existing records to prospective tutors, thereby supporting the induction process
- on entry, enable existing student records, or as much of them as learners select, to transfer to HE settings in the context of developing records of lifelong learning
- support more coherent and progressive learning between programmes delivered in different environments, such as a Foundation Degree programme led from FE and progression to Honours level study in HE
- on moving from HE, to take records, or as much of them as learners permit, into processes of employee appraisal or continuing professional development.

This is the start of a long road, though we are making good initial progress, and a suite of projects funded by the JISC has now taken up the cause. Ultimately, it should be possible for students to transfer their own PDP information from institution to institution to employer seamlessly.

<http://recordingachievement.org>

The website of the Centre for Recording Achievement, which contains information about a range of national and international practice, mostly centred upon HE.

http://www.jisc.ac.uk/index.cfm?name=programme_mle_lifelong2

The introductory page for the 'Managed Learning Environments (MLEs) for Lifelong Learning: Phase 2' suite of projects, with links to project details.

<http://www.cetis.ac.uk/profiles/uklipml>

This will form a vital central resource for all MLEs for lifelong learning projects developing the capacity of their systems to input and output learner profiles to or from other such systems.

<http://www.cetis.ac.uk/members/PDPcontent>

This sub-site holds the results of the questionnaires and surveys of PDP practice and the ICT systems which support it.

<http://www.cetis.ac.uk/members/llsp/interop>

This sub-site provides a guide to work done so far on 'interoperability.'

Developmental sites are at:

RAPID <http://rapid2k.lboro.ac.uk/intro>

LUSID <http://lusid.liv.ac.uk>

EPARS <http://winster.nottingham.ac.uk/epars/shared/htm/about.htm>

A future for eBooks in HIGHER EDUCATION?

What are the benefits of replacing paper-based publication?

Bruce Ingraham considers the role of eBooks.

Electronic books (eBooks) are attracting a lot of attention in some quarters. JISC (the Joint Information Systems Committee), for example, has an eBook Working Group that has recently commissioned three separate studies that are due for publication shortly. The questions 'What are eBooks?' and 'Are they likely to play a role in higher education in the foreseeable future?' are probably worth asking.

It is useful to distinguish between eBooks as physical devices and as software constructs. As a physical device, an eBook is a book-sized object through which any number of electronic texts can be read. A number of these have been developed in recent years, but it seems likely that there is little future for dedicated eBook devices. However, with the advent of powerful Personal Digital Assistants, tablet PCs and other forms of mobile computing, this really doesn't matter, because portable devices on which eBook software can be read are becoming increasingly widespread.

As a software construct an eBook is an electronic text that can be accessed on a range of hardware devices, and has much the same design, purpose and functionality as a conventional printed book. eBooks may have further electronic enhancements (e.g. hypertext or multimedia), but the key issue is that they play a role in education analogous to that played by printed books. Indeed, in evaluating their potential, it may be useful to think more in terms of 'ePrint' than 'eBooks' and include the wider-ranging documents (e.g. journal articles) that have conventionally been delivered in paper format.

However, if eBooks or ePrint serve the same purpose as books and journal articles one is entitled to ask 'Why bother? If it ain't broke don't fix it.' Paper technology has served academia well for hundreds of years. In fact, there are many reasons why the academic community is likely to find the use of eBooks/ePrint increasingly valuable. Electronic journals are rapidly replacing or supplementing paper ones. Weight, ease of manipulation, ease of desktop

access, ease of access to rare and out of print books, and the desirability of making VLE-supported courses self-contained are the most frequently cited reasons for the development of eBooks.

However, even if eBooks are desirable, there are two conditions that must be met if the academic community is actually to use them. First, they must be comfortably readable and provide functionality analogous to that of paper; and, second, they must be readily available. Both these conditions are well on the way to being met.

eBooks can be obtained free or for payment by individual readers and by academic libraries. Most of Western European thought and literature is freely available on the Internet in eBook formats, though it must be acknowledged that many of the free texts are less than fully reliable. However, academically sound collections are emerging. The University of Virginia's Electronic Text Centre (<http://etext.lib.virginia.edu/>) is one such.

Some academic publishers are now actively developing ePublication strategies. Taylor and Francis, for example, has made an arrangement with the JISC (http://www.jisc.ac.uk/index.cfm?name=coll_tandf_ebooks). There are also academically driven subscription services like the ACLS History E-Book Project (<http://www.historyebook.org/>); and various 'e-aggregators' provide eBook services to academic libraries.

However, most of this information has yet to penetrate to the level of ordinary working academics; and their lack of awareness of, and experience in, using eBooks is probably the biggest obstacle to their widespread use. The books are there and are reasonably usable; but until and unless the wider academic community becomes aware of them and begins to encourage students to use them, they will have little real impact. Consequently, readers who have yet to experience reading an eBook would do well to give them a try. It may seem counter-intuitive, but you may be pleasantly surprised.

A list of references relating to this article can be found at

www.exchange.ac.uk

Engaging WITH E-LEARNING

IN GEOGRAPHY, EARTH AND ENVIRONMENTAL SCIENCES

Mike Sanders explores how e-learning can enhance fieldwork.

When deciding how best to engage with our communities on the subject of e-learning, the first consideration is to look at the core aspects of our communities' approach to learning and teaching. In the case of the LTSN Subject Centre for Geography, Earth and Environmental Sciences (GEES), we find that fieldwork is a cornerstone of all the disciplines that we support.

Fieldwork is seen as an excellent way to facilitate experiential learning but also as a medium through which students gain exposure to everything from group work to survey strategies. Can technology make this rich form of learning any better? There are a growing number of practitioners in the GEES disciplines who would argue that it can. The main area where this enhancement occurs is in e-based fieldwork support that allows students to be familiarised with field sites in advance of the actual field trip. This is a great way of maximising what students can get out of the fieldwork experience.

Having identified the importance of fieldwork across all GEES disciplines, it has been possible to tailor Subject Centre activities appropriately. We have successfully engaged with our communities through a C&IT and fieldwork conference, departmental workshops on e-learning, a pedagogic research project on C&IT and fieldwork, case studies of practice and, most recently, an event exploring how VLEs are used in the GEES disciplines. In the majority of these examples, we find that fieldwork support emerges as the main area where practitioners are employing e-learning.

Today, most fieldwork support is web-based. On the one hand there are simple websites providing information on the area to be visited and the intended learning outcomes. On the other, more elaborate implementations can allow students to answer questions encouraging their own personal development prior to



the trip and then, having captured data in the field on a handheld global positioning system, view the data on their return. This is a good example of how e-learning can underpin teaching in GEES. Firstly there is the blended nature of the learning in which fieldwork support materials are delivered in a module. The fieldwork itself is not replaced but enhanced by e-learning. Secondly, images are fundamental to learning and teaching in the GEES disciplines. They can enable a student to gain an understanding of a remote location or visualise and conceptualise complex spatial relationships.

It should be noted that many GEES practitioners have been embracing the potential of e-learning for a number of years. However, what the Subject Centre has been able to do is bring together academics experienced in e-learning with those less well versed in order to share practice. It is fortunate that when the Subject Centre organises an event, GEES practitioners are happy to start swapping ideas and creating informal networks. This results in a community that is able to build on experience rather than spending time 'reinventing wheels'.

Information on our recent event 'Virtual Learning Environments in Geography, Earth and Environmental Sciences' is available at <http://www.gees.ac.uk/pastevents/vle03/vleevent.htm>.

SURFing in the NETHERLANDS

Bas Cordewener describes how the development of e-learning is being supported by an influential organisation in the Netherlands.

SURF is a higher education and research partnership organisation for networked services and information and communications technology (ICT) in the Netherlands. For the past 16 years the SURF Foundation has been supporting Dutch higher education institutions by establishing and maintaining a state-of-the-art network infrastructure (SURFnet) and by setting up a company that negotiates discounts for the national educational use of commercial software and consulting services (SURFdiensten). Tangible results, concepts and a vast network of experts exchanging knowledge and experiences have been established in the areas of teaching, research and administration. Financed by the Government and all HEIs, SURF has helped to make learning technology work and its implications understood.

SURF's unique character has made it an indisputable force in Dutch higher education and IT. Most importantly, from the very beginning SURF has been a joint initiative between all HEIs, who recognised the necessity of collaborative efforts in order to enjoy the benefits of IT in learning. The Government acknowledged that in SURF it had a reliable partner representing the views of the Dutch higher education system on the values and pitfalls of the integration of IT into education. Furthermore, SURF has proved to be capable of transforming grants into reliable innovative developments and initiatives. Last but not least, all SURF activities, results and benefits are produced within and delivered by the HEIs, the grants are invested in work done by the institutions and the outcomes (lessons learned, solutions, applications) are available to be enjoyed by all HEIs.

The SURF strategy has always been to have an eye open for new trends, new questions and the emerging possibilities of technology in direct relation to institutional and educational demands. The strategic four-year plan and each year's operational plan are the outcome of numerous consultations, meetings, reports and conferences to ensure that they reflect current developments and concerns. SURF watches closely for international developments, as they can be indicators for future trends and a reference for quality standards. The then new concept of a digital portfolio in competence-based education really took off in the Netherlands after several SURF projects which led to international recognition. Close links with organisations like ALT and JISC, on a strategic level and on a peer-to-peer activity level, are also important.

The balance between educational renewal and the increasing role of learning technology is a delicate one. Effective use of VLEs, learning content management systems, new media and administrative systems to enhance learning and teaching present a complex challenge that asks for a so-called 'digital pedagogy'. Accordingly, SURF on the one hand refers to the American Association for Higher Education's 'Seven Principles of Good Practice in Undergraduate Education' and changing

student demands, and on the other hand promotes system integration, the use of standards and the professionalisation of staff. That is why a variety of activities is organised with and for specific stakeholders in three flavours: orientation, proof-of-concept and embedding. Around the innovation projects (aimed at institutions), SURF developed the Project Life Cycle concept, offering specific support to project managers depending on what phase their project is in.

To date, evaluations of SURF's work show it has had an enormous impact. The large SURF innovation projects inspired institutional policy on human resource management, staff development, IT and teaching strategies. In addition, the value of collaboration became broadly recognised. Projects have delivered relevant results, skills and expertise and, most of all, a growing network of innovative colleagues with educational, IT and managerial experience. A formal evaluation by the Government found that owing to SURF activities, the capacity for innovation and project management had increased and experiences and expertise had been effectively disseminated. One of the recommendations to Government is that financial support should be continued.

SURF's influence seems to be still growing. More thorough evaluations will be needed to learn more about the effects of enhanced IT usage in teaching, about effective ways to apply new technology and about what changes in organisational structures are most productive. There is a need for supportive research, for reflection on good practices, for strategies to achieve the larger-scale implementation of promising pilot results, and for more intensive international sharing and refinement.

Though the IT hype may soon be over, new challenges will emerge and as long as institutions are willing to invest in a joint innovation community, SURF will help to get the best out of learning technology opportunities.

See <http://www.surf.nl/en> for more information on SURF in English.

THE SUPPORTER:

The role of the learning technologist



Susan Armitage, a National Teaching Fellowship holder, gives her perspective on supporting academic staff in the implementation of e-learning.

In early 2001 it was suggested to me that I should write an application for a National Teaching Fellowship Scheme (NTFS) award. I immediately rejected the idea as fanciful; after all I was not an academic, so how could I? I investigated further and discovered that the criteria for the award could be met by someone in a support role, provided that evidence from students, colleagues and publications could be collated to show the range and impact of my activities in the area at local and national level. And my colleague who urged me to submit an application was right: in 2001 I was one of the 20 recipients of NTFS awards.

At the time of my award, the UCISA (the Universities and Colleges Information Systems Association) survey of the management and implementation of Virtual Learning Environments had just been published. This survey indicated an increased uptake of VLEs in higher

education during the previous two years. However, widespread use of the VLE to support courses was still relatively low. The latest survey, conducted in 2003, states that 'use of VLEs is now much greater within institutions than in 2001'. On the one hand this was good news for those of us who had been promoting and supporting VLEs for some time, but for me there came a realisation that I could no longer support staff in the same ways as when numbers were small.

Of course, e-learning and VLEs are not the same. VLEs are one part of an e-learning experience that a student might have, with many other learning technologies forming part of that experience, such as simulations, databases, e-journals or e-books made available through the library.

e-Learning is important to the general development of learning and teaching in a variety of ways. It has the potential to provide students with flexible access to

learning materials, other learners and academic staff. This increases opportunities for those who might not be able to attend a 'traditional' course with set lecture and seminar times, thus widening participation and potentially providing access to courses from a global market. As systems become more integrated, access to administrative information can also form part of the e-learning experience for students.

My real concern, which formed the basis of my NTFS project, was how best to support large numbers of academic staff in the pedagogically effective implementation of e-learning and in particular of VLEs.

My project began in earnest in January 2002, when I enrolled on the Networked Learning module of the MSc in Advanced Learning Technology. This was followed by a short study tour to Australia and New Zealand that included attendance at the ASCILITE 2002 conference, an opportunity that I would never have had without the NTFS funding. At this conference, two main ideas for taking the work of the project forward crystallised.

These were:

- the importance of short case studies of practice with learning technology, preferably using local examples, to encourage take-up by other staff
- using some of the NTFS funding to host an invited workshop series for a small number of learning technologists to get to grips with what we do, how best we can do it, and what support and resources we feel we need institutionally and nationally to support us in our role.

Case studies were collected and distributed in paper and web form (<http://domino.lancs.ac.uk/celt/tald.nsf>) and an update is planned for this year.

In parallel with this project, I was contacted by the LTSN Generic Centre about a proposed series of e-learning guides. These guides are aimed at distinct audiences and raise the main issues facing those in HE regarding the implementation and use of e-learning. This appeared to me to be perfect timing in terms of the progress of my project and I jumped at the chance to be part of this initiative.

e-Learning is important to the general development of learning and teaching in a variety of ways. It has the potential to provide students with flexible access to learning materials, other learners and academic staff.

Two of the intended series of three invited workshops have now taken place. At the initial workshop, my concern about supporting large numbers of staff in using VLEs without an increase in learning technologists was echoed by other participants. We discussed a number of strategies for supporting staff and shared current practice.

The second of these workshops focused on the development of a paper for submission to the Networked Learning conference to be held at Lancaster University in April 2004. The paper focuses on the role of learning technology practitioners and their relationship with learning technology theory and research.

It is clear from these workshops that the role of the learning technology practitioner is changing and that Continuing Professional Development of those in this role is a key aspect of supporting academic staff for the effective adoption of e-learning. As a result, it is intended that the final workshop will link up with the JISC-funded project concerned with the development of an accreditation framework for learning technologists. This is an exciting development for the future of the learning technology practitioner.

The e-learning series is now available online at: <http://www.ltsn.ac.uk/genericcentre/index.asp?id=19519>

A list of references relating to this article can be found at

www.exchange.ac.uk

E-LEARNING

and disability: strategic and policy issues

Lawrie Phipps gives some advice on how institutions can ensure that their e-learning strategies and policies have considered the needs of disabled students.

e-Learning, as this issue of Exchange has shown, is being used widely across the sector. Inevitably this will have an impact on disabled students' experience where technology is employed in a learning situation. A number of initiatives have ensured an equitable experience for disabled students, including the Special Educational Needs and Disability Act and the Quality Assurance Agency's Code of Practice. What they have in common is the shift of responsibility for ensuring that disability is on institutional strategy and policy agendas.

The deployment of e-learning in an institution needs to be done in a way that does not place any disabled students at a substantial disadvantage. In addition, strategies, policies and processes must be in place to ensure that any future disabled students are similarly not disadvantaged.

Institutions should be aware of their disabled students' needs in e-learning. Over the last few years a lot of information has been disseminated that recognises the needs of one or two distinct groups of disabled people, such as blind or deaf students. This is not necessarily wrong, but strategies and policies need to reflect the full diversity of disabled students in education.

The following checklist, while not exhaustive, is aimed at ensuring that e-learning strategies and policies have considered disability:

- Does the institutional e-learning strategy make reference to disability, accessibility or inclusion?

Is the e-learning strategy cohesive with other institutional strategies that may contain disability issues (e.g. equal opportunities, learning and teaching and admissions)?

- Does the institution give staff using e-learning guidance on how to make their material accessible for disabled students?

Is there a minimum 'standard' that all material must reach?

How is it monitored?

Are there any disabled student user groups?

- Does the institution use a Virtual Learning Environment that is accessible to disabled students?
- Does the institution use a computer-based assessment program that is accessible to disabled students?
Does the assessment strategy reflect the needs of disabled students in both computer-based and non-computer-based assessment/ examination?
- Does the institution staff development programme provide opportunities for staff to develop their skills in creating accessible learning material?
- If the institution has a learning technology team, are they all aware of e-learning accessibility issues?

There are various approaches to answering some of the questions posed here. For example, several institutions have now included a series of staff development exercises within their Virtual Learning Environment that staff are required to complete before using the VLE in their own practice. This both familiarises staff with the system and ensures that they are aware of their responsibilities to disabled students.

If you would like further information or advice regarding disability and e-learning strategies, please contact TechDis, helpdesk@techdis.ac.uk or www.techdis.ac.uk

UBIQUITY COMES FAST: WIRELESS COMES SLOWLY

David Brown gives a US view on ubiquitous computing.

Teaching at over 80% of all American and Canadian colleges and universities now proceeds on the assumption that all students have daily access to the Internet. At some universities, like Wake Forest and Acadia, all students and staff own identical laptop computers. At Princeton and Dartmouth, where over 95% of all students own computers, electronic communication over email and through course websites is taken for granted. Yet, in Canadian and American universities, the ubiquitous computing movement – predicated on all students owning their own computers – is ‘old hat’, a victim of its stunning success.

The national conference on ubiquitous computing which I founded seven years ago is out of business. It is no longer necessary for scholar-teachers from ‘ubiquitous campuses’ to seek each other out and share ideas, because ubiquitous computing is now the norm: it is no longer a differentiator. Its disciples have succeeded in converting the sceptics, so there are few frontiers to evangelise.

The meteoric adoption of ubiquitous computing requires explanation. It’s expensive. It requires course redesign. It involves time learning a new tool. It inevitably means that some of the new things don’t work and have to be abandoned. Ubiquitous computing is intimidating, expensive, time-consuming, yet it has been quickly embraced by all. Why?

First and foremost is the enhancement of communication. More students can be more actively engaged in more meaningful ways in more learning communities because universal network computers enable them always to be in touch with their classmates, the professor, and (if appropriate) support staff such as practitioners in the ‘real world’.

Just as instruction can be more ambitious if all students in the class understand English, have access to a well-stocked library, have purchased the textbook, and have mastered the fundamentals of writing coherent paragraphs, so also it may be more ambitious, more rigorous, and more cost-effective if all students have access to the course website and a means of communicating with other members of the class.



The forces that have accelerated the move to ubiquitous computing will, by and large, not be pushing for wireless computing. Until wireless access is truly world-wide and until wireless systems can become the backbone for all types of campus computing, the 'wirelessness' of computing will be much less educationally significant than the universality of computer access.

Education is about passing knowledge from one generation to another. That requires communication. When every member of the learning community has one, the computer supports an 'add-on' communication system that greatly enriches the desire and capacity to learn.

Second, when computing is ubiquitous, the most powerful type of learning (collaborative, team or group learning) is greatly facilitated. For education, the impact of the computer is more 'how it changes the way people support each others' learning' than 'how it empowers an individual to go off and learn alone'. The success of ubiquitous computing rests upon what it accomplishes for society as a whole, not upon how it empowers an individual.

Third, universal or ubiquitous computing democratizes. Not until an instructor knows that all students have computer access can computer-dependent assignments be made a basic course requirement. Without all-class computer access, the curriculum and teaching methodologies must be 'dumbed down' to the lowest common denominator. With universal access, an instructor can freely differentiate assignments and due dates according to the capacities and interests of each individual student. Customisation is justifiable only when all students can accommodate it.

Fourth, ubiquitous computing enables an instructor to shift more responsibility to the students. This may save some teaching time but its main impact is upon the effort students invest in their own learning. The power of hybrid learning, where some tasks are most efficiently pursued outside class time, can be implemented. Course mechanics can be managed by the students themselves through a course website. From the Internet students have special access to a rich panoply of supplemental resources they may consult when extra help is needed.

Finally, ubiquitous computing has spread so rapidly because it's in style. Potential students avoid universities that shun computers. Students seek out learning alternatives that draw upon their familiarity with the Web. Employers want graduates to be computer literate.

Now that ubiquity has become commonplace, many wonder if wireless computing will spread as rapidly. Clearly there are some gains to be realised when moving from ubiquitous wired computing to ubiquitous wireless computing. But I believe the gains are not nearly of the same magnitude.

Wireless computing will be popular as a means of enabling network connections in all classrooms, especially in those historic structures that resist new wiring. Boutique applications of wireless computing such as access to databases from remote sites (whether a patient's bedside or an archaeologist's field site) will double and triple each year. The convenience of not 'plugging in' will be sought by many. But these educational gains will, at least until wireless computing is supported by satellite-like availability, be at the margin. The forces that have accelerated the move to ubiquitous computing will, by and large, not be pushing for wireless computing.

Until wireless access is truly world-wide and until wireless systems can become the backbone for all types of campus computing, the 'wirelessness' of computing will be much less educationally significant than the universality of computer access. The paradigm shift for education has occurred through the 'anyone, anytime' gains from ubiquitous computing. 'Anywhere' will be a further advance but the change will be minor compared with the universality that so many universities are already exploiting.

A list of references relating to this article can be found at

www.exchange.ac.uk

FROM LEARNING OBJECTS to learning design

The current focus on reusable digital learning resources, or 'learning objects', distracts teachers from course design. This trend needs to change, says **Allison Littlejohn**.

Objects are a hot subject. Learning objects, or reusable learning resources, have been the focus of recent debates in the learning technology sphere.

Over the past few years the widening of learning opportunities to greater numbers of students has created an enormous need for specially designed course materials. The problem is that creating new materials or repurposing resources requires considerable investment. To address this issue, numerous national and international initiatives have been funded to investigate ways in which digital learning resources, or 'learning objects', might be developed, shared and reused by teachers and learners around the world so as to benefit from economies of scale.

Behind these initiatives lies a vision of a future in which the vast range of learning objects that already exist could comprise a new currency of exchange within a learning economy. These could be repurposed by publishers, teachers and support staff and stored in digital repositories, where they could be easily accessed, recombined and reused within online courses. In an ideal world, these resources would be designed so that they could be adapted to fit different educational models, subject disciplines and levels of study. In general, the smaller the resource, the more potential

use it has across a range of courses: an image, for example, could be reused across several subject disciplines.

Another factor affecting the reusability of learning materials is contextualisation: a learning object will be designed for maximum reuse if it has not been contextualised within a particular subject discipline. For example, to increase its reusability, an image should not have associated text. It all seems straightforward, but the problem is that many of these new concepts do not appear to be impacting upon current practice at a local level. Therefore, it is important that the ideas emerging from research initiatives are discussed within the context of institutional practice.

In April 2003, the LTSN Generic Centre established a national forum to debate these issues: Supporting Sustainable e-Learning Forum (SSeLF). Working alongside other special interest groups, including the CETIS Pedagogy Forum, SSeLF was targeted particularly towards support staff in order to provide an 'insider view' of how the implementation of learning objects could be facilitated. Seventy-five delegates (including learning technologists, librarians, audio-visual staff, IT staff and directors of learning and teaching centres) represented 50 further and higher education institutions across the UK.

The synergy between academics and support staff needs to be improved.

Each forum session included contributions from leading experts in the field. During four seminars, there were arguments both for and against the use of learning objects. On the one hand, this approach may seem intuitive to teachers, many of whom already reuse and repackage paper-based content from several different sources into one seamless resource.

On the other hand, assembling a course from a large number of constituent parts, all of which need to be sourced and aggregated, may seem daunting to teachers. Moreover, the decontextualisation of resources is counterintuitive to the way teachers think, since grounding learning within a subject discipline is an effective way to increase student motivation. Another issue is that learning objects have to be tagged with keywords and descriptions to allow them to be searchable. However, information literacy is not a skill mastered by most academics, so it remains unclear how this can be achieved. There are further issues of intellectual property rights (IPR) and copyright. Finally, and perhaps most significantly, debates on the reuse of learning objects frequently focus on content, rather than on student learning.

We need to develop more successful partnerships to provide effective support.

How do staff in institutions tackle these problems? During forum discussions it became clear that dividing up learning materials into small learning objects is problematic for teachers. This is because the advantages in increased reusability of resources are largely offset by the impracticalities of creating courses from small component resources. Several delegates preferred the more pragmatic approach of designing

moderately sized learning objects, thereby effectively trading off reusability against educational value. Similarly, many chose a practical approach towards the contextualisation of resources, preferring to advise academics to design learning resources that could be easily repurposed by others.

It also became apparent that the effectiveness of being able to search for available resources within or across institutions was reduced by the fact that few institutions have linked content management systems with their Virtual Learning Environments (VLEs). This was viewed by delegates as an increasingly important issue that would require closer partnerships with information specialists.

The major topic of debate focused around design issues. Future VLE systems will have a different focus, based on Learning Design, a notational system currently being developed by IMS (www.ims.org). Learning Design will allow academics to develop course designs in which students are assigned activities (or tasks) in which they assume particular roles (for example group moderator, reporter etc). Students will have access to content appropriate to each task. The sustainability of courses will be determined by the reuse of all these types of resources: *content*, *activities* and *learning designs*. However, delegates reported that there is still a major emphasis on content creation in many institutions. This is compounded by the fact that academics often have a clear idea about the content they want to use, but are likely to require guidance and support in reusing *course designs* or *activities*. Several delegates were concerned that, despite these emerging ideas in Learning Design, the current focus on reusing content will continue to distract academics from course design. As a result academic staff are likely to continue assembling courses by developing content, only later tagging learning design around these resources. To promote a sustainable approach to e-learning, this trend has to change.

Future VLE systems will focus on Learning Design, allowing academics to develop course designs in which students are assigned activities (or tasks) in which they assume particular roles (for example group moderator, reporter etc). Students will have access to content appropriate to each task.

How will institutions have to change in order to support new approaches to course design? Many challenges arise from poor synergy across groups of staff. This is compounded by the recent rapid changes in the roles of support staff and academics. First, deficiencies in communication between research and practice communities were identified, with each group using its own terminologies. This can lead to one group not fully understanding the needs of the other, a factor that may contribute to the poor embedding of research ideas into mainstream practice.

Second, the synergy between academics and support staff needs to be improved. Some delegates reported that the support and advice offered to an academic seeking assistance is frequently biased towards the perspective of an individual support staff member or unit. While it is useful to be offered a range of opinions, much of the advice offered to academics tends to focus on content, rather than on underpinning educational issues. Content issues are relatively easy to address and therefore may appear to offer an attractively simple solution.

Third, anxieties associated with the uncertainty of future support roles in the current rapidly changing environment were identified. Delegates reported that these were due partly to tensions arising across and between support units within institutions, leading to inconsistencies in support provision. There is an urgent need for more clarity in the responsibilities of support and academic staff.

So – what of the future? It is clear that a shift is needed in educational development support to plan for effective use of systems based on Learning Design. This shift will emphasise educational design, rather than the content, of courses. To achieve this, we need to develop more successful partnerships to provide effective support. While it is clear from the forum that there is general move away from a ‘support’ towards a ‘partnership’ culture, institutions require further shifts in their organisational structures, promoting closer collaboration across support units and academic departments as well as with national research initiatives.

Furthermore, in order to help academic and support staff clarify their new roles, it may be useful explicitly to acknowledge the three broad areas which are currently described as ‘e-learning’: e-administration, e-content delivery and e-learning. At present e-learning is viewed as being somehow separate from other kinds of learning. It would be more helpful to go beyond the view of e-learning being ‘blended’ with face-to-face teaching and regard it as mainstream to learning and teaching practice.

Finally, there needs to be more focus on the learner. Although Learning Design focuses on learner activities and roles, we don’t have a full understanding of the type of support learners may require. This will be further explored in the next set of SSeLF forum sessions which are due to take place from May until July 2004. These sessions will explore how students can create and share learning objects using digital libraries and e-portfolios within the context of institutional change.

You are welcome to join the forum: further information and briefing papers can be found on the SSeLF website at:

<http://www.ltsn.ac.uk/genericcentre/index.asp?id=18429>.

THE ROLE OF RESEARCH IN INFORMING PRACTICE

Grainne Conole considers how e-learning research might be harnessed to enable us to use technology more effectively to enhance learning.

e-Learning is transforming education. It provides opportunities for learning anytime, anywhere, we are told. But the reality is that it is still marginal in the lives of most academics, with technology being used for little more than content repository or administration. Think carefully, how many really innovative examples of the use of technology have you seen? Technologies do have great potential benefit to offer education, but we need rigorous research if we are going to unpick the hype and gain a genuine understanding of how they can be used effectively.

There is now a wealth of digital resources and Information and Communication Technology (ICT) tools to support learning and teaching. In the last decade we have seen a shift from a focus on information to an emphasis on communication and a realisation that the development of content alone does not lead to more effective learning, but we are still at the beginning of harnessing that potential. The fundamental question is: how can technologies be used to enhance learning? Furthermore:

- What are the technical, managerial and infrastructural requirements to develop effective learning environments?
- What protocols and standards are needed to ensure materials can be easily transferred between systems?

- How can we ensure accessibility and deal with copyright and plagiarism issues?
- What new pedagogical models are possible and what is their impact?

e-Learning research has expanded significantly over the last decade. Its growth is due to the substantive impact of the Internet, fuelled by national e-learning initiatives and policy drivers. An influx of researchers from other disciplines (such as education, computer science and psychology) has occurred and new centres, dedicated conferences and journals have developed. In the next ten years we are likely to see the area diversify, although certain core foci of interest will probably emerge.

Academics working in this area need to demonstrate that the research is methodological and rigorous, building on existing knowledge and theories from feeder disciplines into policy and practice.

One research theme is concerned with the pedagogy of e-learning and, in particular, the development of effective models for the implementation and application of learning theory to instructional design and use of technologies. Work is needed on the development of guidelines of good practice and support mechanisms to develop the e-learning skills of tutors and students. Related research is being carried out on understanding the nature of online communities and different forms of communication and collaboration, as well as exploring different models for online course design.

A second area focuses on technology, both the technical tools and the development of architecture to support different types of learning, as well as standards to ensure interoperability between systems. This includes exploring mechanisms for tracking activity online, the nature of different types of virtual presence, mobile and smart technology and the development of context-sensitive and tailored learning environments.

A third area is concerned with organisational issues, such as formulating strategies for integrating online courses within institutional structures, and the seamless linking of different information processes and systems.

Why is e-learning research important? First, technology now has a significant impact on institutions, impinging on both organisational structures and individual functions (administration, teaching and learning, and research). However, little is understood about this or how organisations are being transformed. Second, the variety and complexity of new technologies and the potential ways in which they can be used is changing rapidly. Third, partly because of the first two factors, more academics and support staff are now using technology routinely for teaching, administration and research.

Senior management need help in understanding the nature of e-learning to inform strategic decisions they are making in terms of thinking about how technologies impact on their business. Otherwise there is a danger that they will make ill-informed and rash decisions based on scant evidence. This surface approach is evident in the ways in which many institutions have chosen and implemented Virtual Learning Environments (VLEs): for example, in some cases institutions have decreed that all courses must use the VLE without considering whether it is pedagogically appropriate or appreciating the associated staff development needs and time implications. Similarly there has been an overemphasis on looking for evidence of the cost-effectiveness of e-learning, when in reality we still have little understanding of the comparative costs of traditional teaching methods.

If we accept the importance of e-learning research there are a number of issues that need to be addressed over the next decade. As a young field, it suffers in a

number of respects. First, it is still eclectic in nature, not yet clearly defined and scoped. Second, much of the current research is criticised for being too anecdotal, lacking theoretical underpinning. More rigorous research methodologies are needed to ensure valid and meaningful findings. This means more systematic research but also a better understanding of the benefits and limitations of different methods and more triangulation of results. Broadly speaking, there is a tension between the needs of policy-makers/senior managers and academics/support staff. The former are more interested in potential efficiency gains and cost-effectiveness, wanting to see evidence-based practice with comparison of the benefits of new technologies over existing teaching and learning methods, whilst the latter are concerned with how the technologies can be used to improve the student learning experience.

Third, most institutions now have learning technology professionals within their support services and many offer e-learning Masters programmes. Learning technologists are now recognised as an important breed of new professionals providing a valuable institutional role spanning the technical and educational aspects of using technologies for learning; however, there is a chronic shortage of these professionals.

Fourth, the pace of change in terms of new technologies will continue; in particular mobile, smart and wireless technologies are likely to have dramatic effects. Finally, there is a need for current and future developments to feed in more coherently to policy and strategy discussions both at institutional and government level.

The next decade will be critical in terms of the area finding a clear niche and position alongside more established research fields. Research will offer us a real insight into the ways in which technologies can effectively support learning and teaching, and an understanding of how they can be used to improve organisational processes. We should also begin to see the development of new underpinning theories and models to account for the use of learning technologies, and perhaps even the emergence of new learning paradigms and working practices. Only time will tell.

LESSONS FROM THE WORKPLACE

David Boud is a highly influential and innovatory thinker on assessment in higher education, writes Professor Sally Brown (Editor in Chief of Exchange).

Now based in Sydney, where he is a Professor in the Faculty of Education at the University of Technology, David was born in the UK and his writing is widely used by higher educationalists not only in Australia and the UK but worldwide. He has nearly 30 years' experience in research and teaching development in adult, higher and professional education. His books on *Enhancing learning through self-assessment* and *Developing student autonomy in learning* are among the most widely referenced texts on postgraduate courses in HE learning and teaching.

This article on workplace learning demonstrates David's pragmatic, grounded and straightforward approach that is refreshingly direct and can be applied to a wide variety of UK HE teaching contexts.

Organised learning at work can often lead to the learner being stigmatised as 'bad at the job', and most of the time we do not even realise when we are learning, David Boud claims. *Exchange* reporter Jon Perkins asked him how this negative attitude to learning could be overcome and what lessons could be learned by those teaching, and learning as teachers, in HE.

'The biggest misconception of learning at work is that there's not a lot of it going on,' Professor David Boud says. 'It does occur, but it isn't labelled.'

David Boud is interested in how people learn and what can be done to foster their learning. This interest has taken him to a variety of settings in adult, higher and professional education and prompted him to examine practices from new forms of curriculum design (problem-based learning, negotiated learning and work-based learning) to learning

practices (use of reflection, reciprocal peer learning) and assessment (self-assessment, sustainable assessment).

I caught up with him in the intervals of a sabbatical in Europe, during which he is involved in workplace learning projects in Denmark and Sweden and an assessment project at the University of Edinburgh.

In his 2003 article 'Learning from others at work', Professor Boud states that learning is 'typically regarded as being "part of the job", or a mechanism for "doing the job properly", and is thus rendered invisible as "learning".'

“Learning” is seen as something separate from work which may or may not eventually have some use. It is not usually seen as something that helps people with what they are confronting now,’ he says.



“Learning” is seen as something separate from work which may or may not eventually have some use. It is not usually seen as something that helps people with what they are confronting now,’ he says.

Most workers, he says, do not realise when they are actually learning as part of their job, and are often resentful of and hostile to what is often seen as intrusive and irrelevant additional training or advice. ‘Education and training interventions are seen for what they are: attempts by others who do not appreciate the everyday dynamics of work to intrude upon it. They typically provide solutions to problems which are not experienced and don’t engage with issues work groups really care about.’

He has noted that being identified as a learner can often lead to a feeling of being stigmatised as being ‘bad at the job’. In his article ‘Acts of Naming Learners at Work’ (2003), he explains that ‘having an identity as a learner may not be compatible with being regarded as a competent worker’.

So, if being classed as a ‘learner’ is equivalent to an admission that ‘you are not doing your job properly’, and any attempt to impose learning is automatically resented, how can learning actually take place, and be seen to take place?

Professor Boud regards this as a major challenge. ‘There seems to be more of a stigma about “being a learner” than about learning in general, so it is

important to make that distinction and be inclusive, to get across the idea that “we are all learners here”’.

‘Good managers know that they can’t directly influence learning because their subordinates can’t allow themselves to reveal their real learning needs. To do so would risk being labelled an incompetent worker. The educational rhetoric about learning being a “good thing” is often not accepted, and being identified as a learner can be a real liability.’

Professor Boud admits there is no ‘technical fix’ for this inherent problem: it will require a change of attitude.

‘What managers can do is structure work and the work environment to allow opportunities for development, for networking, and for people to learn from each other,’ he says. ‘HE managers are typically not good at this. They have outdated models in their heads of what it is to be a manager. They reject these models as inappropriate to HE, and therefore only have partly-understood ideas about how they themselves were managed to fall back on.’

Professor Boud explained that the more involved a head is in the day-to-day activities of his or her staff, the easier it is to implement learning with the staff on their side. ‘However high up the manager is,’ he says, ‘he or she still has to understand what is going on. Learning will have a better effect the more the boss is in touch. Most learning interventions fail because they ignore the experience of workers.’

>>>



'It is difficult for teachers to sustain an identity as a learner when they are teaching. They feel too vulnerable to permit themselves to "let their guard down", and really attend to the implications of what is occurring from their own learning.'

They do not connect with their perceptions, their aspirations or their needs.'

So how can managers encourage staff learning and development effectively?

'In some cases it is just a matter of finding a connection and building on it, in others it requires starting from a different point entirely,' replies Professor Boud. 'The reality is that learning is intimately part of work, and the biggest mistake is not to notice learning is occurring in the first place.'

'We need to listen a lot harder to what staff say is going on, so that when we do try and teach it is clear and connects.'

Part of the problem in HE, according to Professor Boud, is the conflict between being a 'teacher' and being a 'learner'. They seem almost mutually exclusive. 'It is difficult for teachers to sustain an identity as a learner when they are teaching. They feel too vulnerable to permit themselves to "let their guard down", and really attend to the implications of what is occurring from their own learning.'

Professor Boud argues that since the act of teaching is in some ways 'a private act', many HE teachers are often unaware of what others are actually doing within the hidden confines of their own classrooms.

'Problems arise from a combination of many things, including silence about our pedagogical

practices,' he says. 'When teachers are together the focus is not on their own practices, but on their students.'

He is shocked that university teaching was until recently one of the few professions that was not trained, and comments that this was severely limiting the way that staff communicated with each other when discussing workplace learning. However, organisations such as the ILTHE have in recent years begun to address this need, and the new Higher Education Academy and the proposed Australian National Institute for Learning and Teaching in Higher Education will be able to extend its work still further.

'At universities a lot of staff simply do not have the vocabulary to discuss issues associated with their profession,' he says, 'so they only talk with regard to personal attributes. We must do more to foster meaningful discussions about pedagogy in normal work.'

Maybe in years to come being 'a learner' will be something of which teachers in HE and managers outside it will be proud, but Professor Boud believes that, until attitudes in the HE workplace are changed, the 'learner' tag will continue to be seen as an albatross around the neck.

'Initial training in HE is improving, though at too slow a rate. There is still a long way to go.'

A list of references relating to this article can be found at

www.exchange.ac.uk

Key skills: RHETORIC, REALITY AND REFLECTION



Vicky Tariq reflects on a programme at Queen's University Belfast that encourages the enthusiasts, the pragmatists and the antagonists to work collaboratively to deliver the University's student skills policy.

Readers will be only too well aware of the intense external pressure over recent years for pupils and students at all levels of education to be provided with explicit opportunities to practise and further develop a set of six nationally recognised generic key skills (Communication, Application of Number [Numeracy], Information Technology, Working with Others, Problem Solving, and Improving Own Learning and Performance). Higher education institutions have had to reflect on how they might best formulate policies and implement strategies which address not only the recommendations of the Dearing Report on skills, but also the growing concerns of professional accreditation bodies (such as the Teacher Training Agency), as well as those of their own teaching staff, about the key skills competencies of undergraduate and postgraduate students.

HE institutions are increasingly expected to:

- provide curricular and/or extra-curricular opportunities for students to further develop their key skills competencies
- provide more formal recognition of students' skills competencies, e.g. through Personal Development Planning/profiles and additional accredited awards (e.g. City & Guilds Licentiatehip).

To this end some institutions, such as Queen's University Belfast, have devised formal policies which contain statements of explicit intent designed to ensure

that all students have the opportunity to develop a range of skills, including key skills. Details of the Queen's University's Policy on Student Skills can be found at: http://www.qub.ac.uk/teach/s_skills.htm.

The reactions of academics faced with the reality of implementing any institution's skills strategy appear as varied as the viewpoints expressed more formally in the published literature over recent years (Tariq & Cochrane, 2003). When it comes to delivering on the key skills agenda, our experience over the past four years reveals that academics fall into one of three broad categories:

- 1 Enthusiasts – who embrace the skills agenda and who relish the challenges that emanate from it, particularly with regard to curriculum design and the development of assessment strategies
- 2 Pragmatists – who would prefer not to be in the 'frontline' when it comes to implementing any key skills strategy, but who resign themselves to the reality of the situation, to the fact that something must be done to address student skills, and who believe that they are among those best placed to ensure that it is
- 3 Antagonists – who lament the perceived decline in students' key skills competencies, but who find it hard to accept the 'skills agenda', and who almost certainly do not believe it is their responsibility to address what they perceive to be deficiencies of the UK's compulsory education system.

If an institution's skills policy is to be implemented successfully then these three groups of individuals, with their distinct but not entirely opposing viewpoints, must somehow be brought together to work collectively on the task ahead. It can help to start by accentuating the positive, i.e. emphasising the extent to which most, if not all, of the six nationally recognised key skills are already well embedded within an institution's curricula, before proceeding to how and what specific curriculum changes might be introduced to extend the opportunities for skills development.

To facilitate implementation of its student skills policy, Queen's University Belfast seconded four academics from various disciplines to act as 'skills champions'. One of our tasks has been to encourage individual academic units to invite us to facilitate a workshop on auditing and mapping key skills within the curriculum. During the course of the workshop, module co-ordinators or teams are invited to complete an audit of key skills in the individual modules contributing to their undergraduate curricula. The audit tool we specifically designed for this purpose enables a module team to highlight:

- those key skills that students have an opportunity to develop and/or practise within a module
- whether explicit learner support is provided and what form it takes
- whether the skill is explicitly assessed and the nature of the assessment (e.g. whether tutor-, self-, peer- or computer-aided assessment)
- the desired standard of proficiency (identified from a series of descriptors), so that progression in skills competency might be demonstrated (Tariq et al, 2004).

At this stage individuals are encouraged to reflect on the opportunities for skills development within their own modules and their assessment strategies.

The second part of the workshop involves bringing staff together in larger groups to 'map' their opportunities for key skills development across their programmes of study (e.g. degree pathways). Staff are then invited to interpret the 'map' before them and to reflect upon and discuss collectively what actions might



be necessary, in terms of curriculum design, to facilitate their implementation of the University's student skills policy. This is often the first opportunity that the enthusiasts, pragmatists and antagonists have had to engage with one another and to express their views, and the dynamics and content of the group discussion can prove very illuminating! Inevitably there will be those antagonists who leave a workshop with their views unchanged. However, there are also those for whom the experience proves enlightening, who subsequently recognise the need for action and who are prepared to be more proactive in facilitating the development of students' key skills.

We are increasingly moving on from the rhetoric surrounding the key skills agenda to face the reality of the skills competencies of our students and to reflect on how we might best facilitate improving those competencies.

Materials associated with Queen's University Skills Auditing and Mapping Tool may be downloaded from <http://www.qub.ac.uk/talent/skills/skillsaudit.htm>.

**For further information contact
Vicki Tariq (v.tariq@qub.ac.uk).**

*A list of references
relating to this article
can be found at*

www.exchange.ac.uk

NURSING IN CONTEXT

When **Keith Ward** moved into a university from a hospital environment, he became concerned that nursing training should not become too theoretical at the expense of context and application to practice. He therefore pioneered a completely new approach to the training of nurses, based on observations of actual patient contact and on his creation: Penfield, a 'virtual hospital'.

The 6th of January 1979 was a bad day: it snowed so heavily that the roads were blocked. Through the thick snow I ran the four miles to the local hospital to sit my SRN State Finals, the final hurdle to becoming a nurse. *'Mr Tate is a 54-year-old postman who has been admitted to your ward for an above knee amputation. Discuss the nursing care Mr Tate will require...'* Twenty-five years later, I remember the question as if it was yesterday, and the reason why I remember it so clearly is the context the question portrayed and the narrative that surrounded it. Several years ago, while reflecting on a rather tedious two-hour session I had just delivered on research methodology, I relived that day in 1979 and realised that the context of care and 'the nursing story' were two crucial elements to actively engaging my students in their own learning and in their preparation for becoming a modern nurse. From this point forward, I resolved to channel my efforts into recreating the context and story of nursing in the classroom for the purposes of learning.

This philosophy became the starting point for my National Teaching Fellowship, awarded in 2003: the belief that nursing is what nurses do, that the act of nursing is context-bound, and that nurse education should reflect this. My Fellowship gives legitimacy, resource, space and opportunity for me to pursue my ambition of achieving a fully context-based nursing curriculum.

Last weekend saw me departing from home in the early evening on Saturday to present in Edinburgh on Sunday morning, leaving after lunch on Sunday to travel to Cardiff to present at Glamorgan University first thing Monday morning, and travelling back to Yorkshire late on Monday afternoon; writing this article in transit. My wife wonders if I have taken too literally my responsibilities as a National Teaching Fellow to 'go out and influence the wider academic community' (in fact, I think that she secretly wonders if I need to see a doctor!). I feel like an evangelist, an enthusiast, a traveller – and the reason for all this activity and fervour? My growing belief that context-based learning has much to offer in the education of nurses and other professional disciplines.

My instincts, my experience and my reading all told me that if I was to achieve my ambition of achieving a context-based approach to the education of nurses I would need to bring three key contexts together: the environmental context, the patient context, and the curriculum context.

Recreating the environmental context has been relatively straightforward and has been achieved by building a computer-generated simulation of a hospital, Penfield Virtual Hospital. Penfield took three years to code and has many of the components you might expect to find in a regular hospital – patient records, wards, beds, nurses, doctors etc – which can be exploited by tutors.



Having built the environmental context, the next challenge was to set about recreating the patient context; a grant from the FDTL phase 4 initiative has made this possible. A consortium of three Universities, Huddersfield, Glamorgan, and Sheffield, has collected 194 sets of patients' case notes from two NHS Health Trusts. The case notes have been analysed and coded against the QAA benchmark statements for nursing and are being developed in partnership with academics from 46 universities as case-based learning materials. On completion, the learning materials will be posted to a dedicated website and the academic community will have unlimited free access to it to support their students' learning.

The case notes have also been transcribed, modified and used to populate a patient data bank accessible through Penfield. Completion of this phase (scheduled for May 2004) will bring together for the first time the environmental and patient context into one virtual workspace for the exploration of nursing care.

Penfield and the case-based learning materials will satisfy the pedagogical issues, i.e. how we teach, but do not address what we teach. What we teach is determined by academics, often in consultation with clinicians, based on the QAA benchmark statements and manifested through the nursing curriculum. How can we be confident that what our students learn in the classroom reflects the context of modern nursing? Consultation with clinicians goes some way to determining the clinical context, but the fact is that clinicians rarely have the time available or may lack the necessary skills to contribute fully to the process of curriculum development.

Verification of the curriculum against the actuality of what nurses do will form a significant part of my Fellowship project. The process will start with a full content analysis of the nursing records, to determine what nurses do, and in what context. It is recognised that not all that nurses do is recorded, or even recordable, and if we are to capture this sort of information, we need to adopt a different approach (the next stage?). My Teaching Fellowship resources will enable me to identify nine 'champions' (one from each UCAS region) from the extensive network of academics assembled under the FDTL project to work with senior clinicians, students and the University of Huddersfield in

the building of a curriculum template informed by the content analysis of the case histories. I hope that this approach to curriculum development, based on a community of academics, students and clinicians and active engagement in that community, may assist in the acceptance and uptake of the principles of such a curriculum.

I am not alone in my belief that context-based education has value: it resonates with several statutory and government bodies concerned with the education of nurses and other healthcare professionals, for example:



- 'There is a need to locate theory development in the context of clinical practice' (Nursing subject benchmarking exercise 2001)
- 'Practice driven curriculum (in particular, integrating theory and practice within a curriculum focused on the practical problems encountered in everyday practice)' (FDTL 4 priority drawn from Subject Overview Report Nursing 2000)
- 'The patient's experience is central to learning and healthcare' (first principle: Department of Health Principles for the Quality Assurance of Healthcare Education, March 2003).

I feel very privileged to have been awarded a National Teaching Fellowship and will use the opportunity to work towards creating excellence in the student experience.

A list of references relating to this article can be found at

www.exchange.ac.uk

e-Learning and Pedagogy Programme

- How can we enhance current knowledge about what constitutes effective practice in e-learning?
- How can we support practitioners in their use and understanding of e-learning?
- How can we promote the development of terminology and frameworks that will improve understanding and sharing of practice in e-learning?
- What are the current approaches to the design of e-learning activities and how can these be developed in the future to ensure that we are using sound pedagogical models?

These are some of the issues that the new JISC-funded **e-Learning and Pedagogy Programme** will be addressing in consultation with practitioners.

The JISC Committee for Learning and Teaching (JCLT) is funding a new e-Learning Programme to run until August 2007. The Programme aims to identify how e-learning approaches might be used to facilitate learning and to advise on how these

approaches might be effectively implemented. It focuses on three areas: **e-Learning and Pedagogy, Technical Frameworks for e-learning and Innovation.**

Through its e-Learning and Pedagogy Programme the JISC aims to ensure that e-learning as practised in UK post-16 sector should be 'pedagogically sound, learner-focused and accessible'. This new programme offers practitioners the opportunity to be closely involved with its future development. Through extensive consultation with practitioner communities representing the UK post-16 sector, the activities and outcomes from the programme will be refined and developed. This will ensure that the programme produces practical tools and advice that meet the needs of the communities.

For more information, visit http://www.jisc.ac.uk/index.cfm?name=elearning_pedagogy or contact Sarah Knight (sarah.knight@bristol.ac.uk).

Managed Learning Environment kit

The JISC Managed Learning Environment (MLE) InfoKit has been written by a group of experts from both further and higher education. It provides a simple, step-by-step set of guidelines on how to develop an MLE within an institution, including: What is an MLE? Why might you want an MLE? Implementation, evaluation and embedding.

The Kit is hosted by the JISC InfoNet service at <http://www.jiscinfonet.ac.uk/InfoKits/>

Exchange for Learning (X4L) One Year On

JISC has launched a website that brings together as a snapshot some of the outputs to date of the Exchange for Learning (X4L) Programme.

The site can be found at http://www.jisc.ac.uk/index.cfm?name=programme_x4l and includes videos demonstrating learning materials and tools as well as examples of actual learning materials and reports produced by the projects. JISC aims to launch X4L Two Years On in October 2004.

Study of Managed Learning Environments (MLEs) in the UK

How joined-up is your institutional learning environment? This extensive study looked at the extent and impact of MLEs across further and higher education institutions. It identified some key drivers and the future direction of MLE development. The full report, separate analysis of the use of VLEs in FE and HE and institutional case studies can be found at http://www.jisc.ac.uk/project_mle_activity.html

Linking Digital Libraries and Virtual Learning Environments

A programme of ten JISC-funded projects explored the technical and cultural issues of linking your library and VLE. Full integration may be technically feasible in the future but the cultural change required may take much longer.

See http://www.jisc.ac.uk/programme_divle.html for final reports.

Published by the Higher Education Academy

Formerly produced by:

**The Institute for
Learning and Teaching
in Higher Education**

Genesis 3
Innovation Way
York Science Park
Heslington
York YO10 5DQ
Tel: 01904 434222
Fax: 01904 434241
Email: enquiries@ilt.ac.uk

**The Learning
and Teaching
Support Network**

The Network Centre
Innovation Close
York Science Park
Heslington
York YO10 5ZF
Tel: 01904 754500
Fax: 01904 754599
Email: enquiries@ltsn.ac.uk

**The TQEF National
Co-ordination Team**

Centre for Higher Education Practice
The Open University
Walton Hall
Milton Keynes MK7 6AA
Tel: 01908 858434
Fax: 01908 858438
Email: ss-ncteam@open.ac.uk