



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

## **COULD STUDENTS BE REQUIRED TO OWN A COMPUTER?**

Ted Smith discusses the possibility of ubiquitous computing

## **A BUSINESS VIEW OF THE GRADUATE OF TODAY**

Charles Miller Smith offers his views

## **DEFINING AND ADDRESSING EMPLOYABILITY**

A fresh approach from Peter Knight and Mantz Yorke

The focus of this issue

# **EMPLOYABILITY**



## Exchange Issue 2 Summer 2002

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 a collaborative publication.

The partners involved are:

The National Co-ordination Team (NCT)

The Learning and Teaching Support Network (LTSN)

The Institute for Learning and Teaching in Higher Education (ILT)

The Joint Information Systems Committee (JISC)

Exchange is a tri-annual publication. Each issue includes an examination of a different theme along with a look at news and 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. If you wish to submit material to be considered for publication in Exchange please contact the Production Editor in the first instance at the address below.

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

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## Comment from the Editors

**T**he first issue of Exchange was apparently well received in the sector, with numerous copies being requested and new readers seeking to join our mailing list. Readers appeared to value the nature of the articles, and the breadth of matters covered. In this second issue we have continued with our format of general interest features and news along with an examination of a particular issue related to learning and teaching. We hope this approach continues to be helpful and of interest to you and your colleagues.

*Alison Holmes* is our guest editor for this second issue of Exchange devoted to Employability. She writes:

"This issue of Exchange is devoted to the topic of employability and work-related learning from all perspectives – students, employers and employees. It opens with an interview with *Charles Miller Smith* – a leading business figure – which highlights many of the issues which are then explored in more detail in subsequent articles.

In the higher education context Lifelong Learning begins in the way in which students are prepared for the world of work. *Peter Knight* and *Mantz Yorke's* article reports emerging findings from their research which identifies employability in terms of fundamental approaches to learning, rather than the acquiring of a 'packet' of skills. *Susan Curtis* confirms the benefits to students of working during term time, but also advises of the disadvantages; while the student voices heard in this issue confirm the importance of the confidence that can be built on work placements. *Ann Morton* reflects on how workplace mentoring schemes for staff can influence the teaching approach to students. A well established accreditation scheme for work place learning is described by *Colin Chisholm* while *Margaret Noble* and *Barbara Paulucy* discuss the impact of increasing the amount of work-related learning on the development of the HE staff providing it.

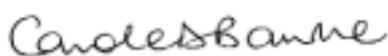
Employability is a vast topic and the articles in this issue examine just some aspects and draw on just some of the many viewpoints."

The full contents of both this and the first issue of Exchange, plus references and information on many employability-related projects can be found and downloaded from [www.exchange.ac.uk](http://www.exchange.ac.uk). The focus of the third issue will be the relationship between teaching and research.

We hope you find the variety of articles in this issue of use and interest.



Cliff Allan



Carole Baume

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## The imaginative curriculum

Until now, the curriculum has probably received less attention than, for example, teaching and assessment methods in the teaching and learning enhancement agenda. But, for students, the curriculum is central to their experience of higher education. Designing a curriculum is a creative process in which knowledge, skill and imagination come together. The LTSN Generic Centre is leading a project called 'The Imaginative Curriculum', which aims to explore the factors influencing contemporary curricula and to promote a deeper interest in how we construct courses or programmes and modules or units.

Dr Norman Jackson, Senior Advisor to the LTSN Generic Centre, explains, "We want to celebrate and

demonstrate the fact that creativity lies at the heart of the teaching enterprise and the enrichment of student learning."

The Generic Centre is producing a series of papers for this project. The first, entitled Pressures for Curriculum Change, is available at <http://www.ltsn.ac.uk/genericcentre/projects/curriculum/>.

Readers are invited to provide specific examples of the ways in which their course or institution is responding to some of these pressures. Examples will be pooled to provide a resource on the Imaginative Curriculum website. The project team is particularly interested in how academic colleagues understand how creativity is involved in making change.

## Sharing resources

Fourteen projects that have been successful in their bids to JISC's Focus on Access to Institutional Resources (FAIR) programme will begin work in August. They will be delivered by partnerships between more than 50 institutions and teams, including universities, libraries, JISC services, art galleries, colleges, museums and commercial companies.

The FAIR programme will help to develop mechanisms and services to allow the submission and sharing of content generated by the HE/FE community. Projects focus on the core areas of Museums and Images, E-Prints, E-Theses, Intellectual Property Rights and Institutional Portals.

Details of the successful projects and the consortia can be found at <http://www.jisc.ac.uk/dner/development/programmes/fair.html>.

## Accessible curricula

Designing accessible curricula is not only good practice, it is now a legal requirement. TechDis (the Technology for Disabilities Information Service), the University of Wales Institute Cardiff (UWIC) and the LTSN Generic Centre have collaborated on a guide entitled 'Accessible curricula – good practice for all'. It provides a starting point for the support of students with disabilities.

The guide deals with topics including understanding the needs of disabled students, lab practicals and field trips, assessment and examinations. It also gives practical guidance on producing 'barrier-free' course materials and how to deliver them appropriately.

Electronic copies of the guide are available from <http://www.techdis.ac.uk/resource.html>. For hard copies email [gcenquiries@ltsn.ac.uk](mailto:gcenquiries@ltsn.ac.uk).



## Learning and teaching about mental health

Mental health is a national priority under the NHS Plan. With this in mind the four LTSN Subject Centres most closely involved in teaching about mental health (Health Sciences & Practice, Psychology, Medicine, Dentistry & Veterinary Science and Social Policy & Social Work) have been looking at how to enhance pedagogy in this area. As a first step, they held a joint seminar in April to develop a shared understanding of different approaches to learning and teaching about mental health in HE and to identify development needs.

Participants discussed the development of more effective approaches to teaching and how they could better prepare students for the realities of mental health practice. Many noted that the seminar was the first occasion on which they had met people from such a variety of backgrounds, all involved in some aspect of mental health teaching. They found that the opportunity to break down the stereotypes and barriers that exist among the professions was not only of value for them, but of great potential value to their students.

A number of guiding principles for learning and teaching in mental health were proposed, including the need for courses to be evidence-based and accessible to users; to include learning about diversity and social inclusion and the experiences of users of services; and to recognise the need for interprofessional collaboration.

Future plans include a series of regional workshops, a web-based teaching resource exchange, codes of good practice and a national working conference linked to a special edition of a journal. Further details are available from Hilary Burgess, LTSN Subject Centre for Social Policy and Social Work Tel: 0117 954 6767 email: h.burgess@swap.ac.uk

## New briefing series from the JISC

You may already be familiar with the JISC (Joint Information Systems Committee) Senior Management Briefing Papers. In response to feedback from the education community, JISC has revised its approach to provide information about key issues that will impact on the HE and FE communities. Two new briefings on 'The Potential Role of Wireless LANs in Education' have recently been released. These are:

- a Senior Management Briefing Paper aimed at managers responsible for the development of institutional strategies who want some understanding of this issue;
- a briefing for practitioners, including

those without a technical background.

The JISC has also produced a set of postcards to raise awareness of the Technology Watch Initiative whose remit is to track and assess emerging developments in information and communications technology for further and higher education. Further information about the Technology Watch initiative can be found at: <http://www.jisc.ac.uk/techwatch/>

A limited number of paper copies of the briefings are available from JISC Assist. Electronic copies can be found on the JISC website at: <http://www.jisc.ac.uk/pub/>. Email JISC Assist at [assist@jisc.ac.uk](mailto:assist@jisc.ac.uk) or tel 0117 954 6850.

## Continuing professional development

The ILT's Continuing Professional Development (CPD) pilot project (see Issue 1 of Exchange), begun in January 2001, is now almost complete. Sixty individuals and 30 institutions have taken part in the project together with a consultant. Workshops for project participants were hosted by institutions who had volunteered

to participate in the pilot. A draft framework for planning and reviewing CPD grew out of the workshops and ILT members were invited to use the framework to plan, record and evaluate their professional development activity. This draft framework is available for consultation on the ILT website at <http://cpd.ilt.ac.uk/CPDDraft2002/Intro.html>. Final proposals for an ILT CPD scheme will be drawn up this summer.

## Inspiring Learning about Teaching and Assessment: a guide for new lecturers

The ILT has published a guide to learning, teaching and assessment, designed for staff relatively new to teaching and for postgraduate teaching assistants. The 'ILTA Guide: Inspiring Learning about Teaching and Assessment' by Phil Race and Sally Brown is published in association with [EducationGuardian.co.uk](http://EducationGuardian.co.uk). It is provided free of charge to ILT Associates to help them develop their confidence and professional

skills, and is also available electronically on the Education Guardian website.

The Guide offers practical suggestions on what to do in lectures; how to manage the technology of the lecture room; designing handouts; preparing and running small-group classes; group activities; and how to set about marking.

Hard copies may be ordered from [dawn.hyde@ilt.ac.uk](mailto:dawn.hyde@ilt.ac.uk).

# Could students be required to OWN A COMPUTER?

**Ted Smith**, Head of the JISC TechLearn service, discusses the possibility of 'ubiquitous computing' in the UK with Andrea Rayner

Over 200 universities and colleges in the USA now have 'laptop programmes'. These programmes require all students to purchase or rent a laptop computer for the duration of their course. 'Ubiquitous computing' means that all students and staff have a computer which they can use anywhere, on or off campus, and from which they can access the campus network at any time.

Is mandatory computer ownership likely to become a reality for students in higher education over here? Professor Ted Smith of TechLearn, the Joint Information Systems Committee's technology transfer arm, heads a project looking at the feasibility of ubiquitous computing in the UK.

"I think student demand will lead to widespread use of IT-led solutions such as Virtual Learning Environments," he says. "But that doesn't mean you need your own computer. You only need each student to have a computer if you completely rethink the way you are delivering learning and teaching. In fact, the mode of delivery hasn't changed all that much. Time pressures on teaching staff mean there's little space in their schedules to look at different ways of delivery. And even if they were able to commit the time, for every hour they put in you would need three to five hours of specialist time to develop media-rich resources. There is nothing necessarily wrong with just putting PowerPoint slides from a lecture up on the Web. If you're a part-time student with children who lives 20 miles away and can't get in until mid-morning, having such resources is better than nothing. But if you want to move on from that stage it takes time and specialist skills. One of the challenges we want to discuss is how we might do that in HE and how it might be funded."



The advent of ubiquitous computing in the UK would have profound implications for policy-makers. To begin the debate on those implications TechLearn hosted a conference for Pro-Vice-Chancellors and other senior

managers on Educational Computing in the 21st Century, which brought together speakers from both the UK and the USA to discuss their experience of introducing mandatory computer possession for students. Bill Harvey, Deputy Director of the Scottish Funding Council, and Keith Duckitt, Head of ICT at the Learning and Skills Council, spoke on policy issues for the UK.

Quoted in 'The Times Higher Education Supplement' (5 April), Bill Harvey said that he would want to see a good pedagogic reason for requiring students to have their own computers: as he put it, "just giving someone a laptop doesn't by itself do very much for learning." Ted Smith agrees. He believes that some institutions may see universal computer ownership as an enabling strategy, but to be really effective it has to inform their whole teaching and learning strategy. He is somewhat sceptical about the funding that might be available in the UK for ubiquitous computing, and for the on-site support and staff training that would be required.

However, he is convinced that ubiquitous computing will certainly happen in small clusters. There are

*'Emerging wireless technology means that students can stay networked while they move around, without the need to plug in a single wire.'*

already some courses in the UK that insist on computer ownership, particularly Business Schools – but they charge high fees. It is quite conceivable, he predicts, that those institutions who, by virtue of their target markets, can afford to require computer ownership may well do so. Less ambitiously, individual departments or faculties might go down the route of ubiquitous computing. “A university could fund it by not providing as many computers for student use on site. If you aspire to supply a PC for every five students, you might have to provide 4,000 PCs. If you replace these every three years, that might cost about £1.6m per annum. But if you closed the computing labs and released the teaching space, it might be possible to provide a laptop for every student. However, university managers would need to do some modelling on what effect this might have: even if the lab closures were phased in over a number of years, they might cause real difficulties for part-time students.”

Of course, the way forward is not necessarily in the form of a laptop. As Ted Smith points out, the penetration rate of mobile phones is massive, and in five years’ time most people will have mobile phones combined with personal digital assistants (PDAs). Emerging wireless technology means that students can stay networked while they move around, without the need to plug in a single wire. However, he warns: “You might have a vision of students sitting out on the lawn all accessing the same central resources, but at present if 30 or 40 students are sharing the same aerial it won’t work very well, although higher speed wireless networks are on the way. In the near future students will be able to download and upload material with their PDA. Then when they go home at night they could download the material into a PC or plug a keyboard and screen into their PDA. That could be the way to keep costs down. I imagine that is the most likely way forward. But as soon as you become too dependent on portable computers you create a whole new set of problems: you will have to watch out for muggings!”

“Personally, I think we will end up with a spectrum of institutions in ten years’ time,” Ted Smith concludes. “There will be some institutions that will never require their students to have a computer; some will take a very relaxed attitude to the use of computers and C&IT on campus, and may leave policy up to individual departments and faculties.

“I envisage universities opting for a variety of strategies. I have a vision of two universities: let’s call them Glamis University and the University of Kettlewell. Glamis is a research-led University which offers ‘the Glamis experience’: you come to it for interaction with the leading lights in your field. There are a lot of computers around (because their students can afford to buy their own machines), but it is left up to departments as to how they use C&IT in teaching. Their online activities are focused on selling, in partnership with some

*‘... some institutions may see universal computer ownership as an enabling strategy, but to be really effective it has to inform their whole teaching and learning strategy.’*

high-profile international universities, high-margin, top quality courses worldwide, though their own students on campus probably won’t get to use any of them.

The University of Kettlewell, on the other hand, is a post-1992 University that has an ambition to grow by widening access, sees computers as essential to that process and sells itself as ‘the IT University’. It is rethinking the model of teaching, probably cutting down on its teaching staff, increasing the numbers of support and development staff, and has a good Managed Learning Environment hooked into partner FE colleges round the region. It could take this strategy to its logical conclusion by demanding that every student has a computer – but it has a widening access remit and this could disenfranchise some of its potential market. Unless there is new money, I can’t envisage such a university being able to fund schemes of this sort itself.

“But I am hoping that people will start to think about the pedagogic advantages of ubiquitous computing. I think that the main driver will be the widening access agenda; others believe that it will be the students themselves and their demands. The important thing is that we should begin the debate.”

*Information from ‘Educational Computing for the 21st century: strategic issues for decision-makers’ is available from [www.techlearn.ac.uk/events.htm](http://www.techlearn.ac.uk/events.htm)*

# A business VIEW of the graduate of today



Chairman of Scottish Power, International Adviser to Goldman Sachs and former Chairman of ICI, **Charles Miller Smith** is a business leader well qualified to assess how successfully HE is addressing the needs of employers. He shared his views as Chairman of Scottish Power with Sarah Claridge on the qualities required of graduates taking the UK's economy forward into the 21st century and the role he foresees HEIs need to play.

**Sarah Claridge: As you know there is an increasing desire and drive – partly government driven – for graduates to leave University better suited and prepared for the workplace. Is this change in focus a development you welcome?**

**Charles Miller Smith:** Absolutely! It's important that Higher Education Institutions engage with organisations to identify how they can appropriately prepare students for work. There is sometimes a gap between what HEIs' perception is of what we want and what we actually need. Only by working together can we achieve what's best for the HEIs, students and employers.

There are already good initiatives within some university departments who work with employers to shape courses and provide input into learning. We would certainly welcome the opportunity to contribute and provide clarity around what we are looking for in future employees, as well as supporting HEIs in delivering the required skills training. We've already provided some key skills workshops at campuses across the country, mostly in conjunction with Careers Advisory Services. It would be good to see more students involved with these activities as attendance can sometimes be disappointing. It would be good to see HEIs and CAS encouraging more students to take up these opportunities. In many cases, it is the students who would benefit most that miss out.

»» Find out more: p13, *A postgraduate framework for work-based learning*; p14, *Work experience does matter – some evidence from Wales*

**SC: From an employer perspective what are the strengths and weaknesses of the type of student that has studied on a more traditional, less vocationally focused undergraduate course as is currently largely the norm?**

**CMS:** This is a good question, because different subject areas develop different and valuable skills whether they are traditional or more vocational. Getting through any HE qualification shows a certain degree of self-discipline and motivation. Candidates who undertake either type of course should be able to demonstrate the intellectual capability to understand and analyse complex information and ideas. It is this mindset, this intellectual rigour that is, in a nutshell, what a university education should provide.

More vocational courses need to ensure that they do not lose depth of knowledge if they are going to focus more on employability. Practical application and soft skills are important, but there also needs to be theoretical substance.

Equally, more 'academic' courses need to ensure that they do not forego employability-related skills at the cost of deeper knowledge. Furthermore, academic courses should spend time helping students to put into context the learning that they are receiving in relation to their future career, or even recognising and applying the skills that they have developed, for example report writing, data analysis, presentations, researching, benchmarking, influencing/constructing an argument.

In many cases, the skills that differentiate a student are those that currently they frequently develop extra-curricularly, for example teamworking, organisation, leadership.

»» Find out more: p12, *Developing employability strategically in a research led university*; p21, *The undergraduate experience of university life now includes term-time employment*

**SC: How employable are current undergraduates? Are they well placed to become our business leaders of the 21st century?**

**CMS:** There are definitely graduates in the market who have the drive and ability to make it as business leaders. I would question whether there are enough of them and whether the quantity of graduates coming out of HEIs has a sufficient ratio of quality candidates. As HE becomes increasingly open to all – a move I wholeheartedly endorse – the great challenge to HEIs is to ensure standards are not compromised, and that there still remains substance behind the learning. It is a hard task and I don't envy those trying to deliver it.

*'There is certainly a need to prepare undergraduates for a more uncertain future, with many careers and more frequent change in job roles.'*

We have been able, to date, to find graduates with the knowledge, skills and attitude appropriate for our business. In relation to the future, there is a debate around the balance between knowledge, skills and other attributes provided during higher education. There is certainly a need to prepare undergraduates for a more uncertain future, with many careers and more frequent change in job roles. Graduates are now competing with their peers at a global level, as are the educational standards they reflect. This may well result in an increasing need for the following: entrepreneurship, flexibility, creativity and the ability to learn and cope with change.

>>> Find out more: p15, *Defining and addressing employability: a fresh approach*

**SC: What are the most important skills you would like to see fostered in undergraduates by HEIs – for**

**example, critical analysis, self management, communication skills, project management?**

**CMS:** All of these! In an ideal world, graduates would hit the ground running on day one, but in practice this isn't going to happen. Graduates need to have these skills and be able to appropriately apply them to the organisation they are recruited in to. This means that they need the ability to assess their environment and take direction from others. In terms of what we need I would say the main qualities are:

- a passion for excellence
- integrity
- energy and enthusiasm
- leadership combined with an ability to work with the team
- desire and openness to learning & development (including self-awareness)
- energy & enthusiasm.



Our organisation actively supports graduates in their early career, but they need to realise that their careers are ultimately their own responsibility. And a career is all about constantly learning and absorbing new knowledge and information.

>>> Find out more: p15, *Defining and addressing employability: a fresh approach*; p12, *Developing employability strategically in a research led university*

**SC: Lifelong and work place learning are also areas currently under the spotlight for HEIs. Assuming you are in favour of individuals continually updating and improving their skills and abilities, do you have any views on how this is best delivered for the benefit of employer and employee alike? Can HEIs place a significant role in its provision? Are fast-track, graduate employee programmes still at the forefront of delivery for major**

### employers? Could employers and universities work in partnership to provide what is needed?

**CMS:** HEIs already play a significant role in continuous professional development by delivering post-graduate courses on a part-time basis, often in partnership with employers, as well as courses accredited to professional bodies (e.g. CIMA, CIM, ACCA, CIPD, IMechE, IEE, CBA, MBA etc.).

In relation to expanding on this provision, there are already development consultants and training companies that specialise in graduate and career development. There may be a valuable contribution to be made in this area, but HEIs would be competing with these suppliers and would need to learn more about organisations and understand what they need.

»» Find out more: p13, *A postgraduate framework for work-based learning*; p30, *Lifelong Learning Awards foster expertise and enthusiasm: a witness account*

### SC: Anecdotal evidence suggests that students value the opportunity, when offered, to gain work experience as part of their undergraduate study. As an employer would you endorse the benefits and agree that it produces more confident graduates able to fit into the workplace more readily?

**CMS:** Work experience is probably the single most influential factor after a good qualification, so we would wholeheartedly endorse its benefits. Any work experience is valuable as long as a student can reflect on what they achieved, what they learned, what they would like to develop further and how they are going to apply themselves in the future. Graduates who have work experience do tend to be more confident and often know what to expect, helping them to settle in quicker.

»» Find out more: p19, *Good reasons for employing a placement student*; p21, *The undergraduate experience of university life now includes term-time employment*

### SC: How easy is it for an employer to accommodate the needs of a work placement student?

**CMS:** Work placements have undeniable benefits to an employer. In terms of recruitment, the company gets a chance not only to assess a potential employee, but also to sell itself as a future employer. In terms of resources, employers usually get an intelligent, flexible and enthusiastic employee who can make a valuable contribution in a short space of time.

Although Scottish Power provides internships and work placements at the moment, we'd like to offer more of them. We could not possibly satisfy all the requests we get for work placements. There may be more scope for HEIs to facilitate placements.

»» Find out more: p25, *Students with special needs and their mentors: a mutually rewarding relationship*; p20, *Both sides of the work placement coin*

### SC: Could business reach out to the HE community in other ways?

**CMS:** Yes, and two such examples are the learning partnership scheme we have running at Scottish Power – Scottish Power Learning – and the mentoring scheme for Head Teachers which Goldman Sachs operates. I am personally involved with the mentoring scheme, having paired myself up with a head teacher in what is designed to be a mutually beneficial relationship. I firmly believe that business has a responsibility to reach out into the community, and, in particular, to open doors for those in society who have not had, for whatever reason, the same chances in life as others. Encouraging and empowering those who have not had access to education, and to other opportunities, is one of the greatest challenges our country now faces.

»» Find out more: p24, *How can mentors promote change in the workplace?*

*‘Encouraging and empowering those who have not had access to education, and to other opportunities, is one of the greatest challenges our country now faces.’*

# WHAT IS EMPLOYABILITY

## and how can it be ACHIEVED through the curricula?

Three articles describe three different approaches to integrating dimensions of employability in HE institutions.

### DEVELOPING EMPLOYABILITY STRATEGICALLY IN A RESEARCH LED UNIVERSITY >>>

The University of Newcastle upon Tyne provides central, ongoing support to encourage the development of employability skills and funds this through a series of external awards, as members of its Careers Service explain.

**M**ention an Innovations Fund project called 'Widening Access to Experience Works' to our academic colleagues and you will probably be rewarded with a blank look. Mention our support for curriculum development, or our activities on work-related learning, key skills and employability, and you will be much more likely to see positive recognition. Moving to a strategy-led, rather than project-led, approach to development has been a turning point for the Careers Service at the University of Newcastle.

The service had a good record of attracting project funding and a reputation for innovation and success, lending credibility to successive new projects. And yet, paradoxically, creating discrete identities had the effect of distancing each project from the Careers Service. Being developmental in nature, each project provided a useful way to kick-start development work. Even at the start of a project, continuation and sustainability are important issues. However, until recently we tended not to ask questions about a project's fit with wider departmental or institutional strategies. Against this background, we asked ourselves some key questions before bidding for external money in 2000:

- What were we trying to achieve?
- How could we measure success?
- Did our objectives fit with those of our academic colleagues?
- Could they see reasons for working with us?
- What did the University really want us to do, and what support could it provide?

When our bid to the HEFCE's Innovations Fund was successful, we decided to adopt a new approach. Staff from the Academic Development Unit (ADU), one of three Careers Service teams, would work in partnership with academics and other stakeholders to focus on curriculum-based interventions. No logo, no website, no separate project identity. We had an institutional plan (with an explicit commitment to enhancing the employability of all our students) and a learning and teaching strategy on which to build. Instead of going into departments with a request to get involved in a project, we would offer internal consultancy to support the implementation of institutional strategy. We were able to offer practical and, in some cases, financial support for new initiatives in teaching and learning. Academic staff no longer needed to grapple with project acronyms; they, too, needed to clarify their aims and objectives and decide whether we could help them to meet their goals.

Work was proceeding well when two key documents were



published: the 'QAA code of practice for Career Education, Information and Guidance' and 'Developing Modern Higher Education Careers Services' (the Harris Review). Both seemed to cry out for institutions to be clear about their strategies to enhance employability rather than providing specific careers-related services, though neither stated this as clearly as we might have hoped. However, the ADU's work meant it was well placed to develop the employability strategy which is currently being implemented across the institution.

The strategy-led approach has certainly paid off. Across the service, all three Careers Service teams now work more closely with each other to ensure that we maximise the efficiency of processes and achieve outcomes in a truly smart way. Teams offering services to students and employers have become much clearer about their long-term strategies, and have integrated project-funded activity to add value to their core work. The Careers Service does have a central role in the institution. Seamless integration of project outcomes into business plans and programmes of activity means that the strategy drives the project rather than the project driving the strategy.

A list of references relating to this article can be found at [www.exchange.ac.uk](http://www.exchange.ac.uk)

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**CATHRYN HARVEY**, Director, Careers Service  
 University of Newcastle upon Tyne

## A POSTGRADUATE FRAMEWORK FOR WORK-BASED LEARNING >>>

**At Glasgow Caledonian University accrediting work-based learning up to Professional Doctorate level has succeeded because employers can develop a learning contract directly related to strategic planning in their own organisation.**

**E**mployers are now investing in a better educated workforce and employees are more aware of how life-long learning can be achieved in their workplace environment. In response to this, at Glasgow Caledonian University we developed a framework for Work-Based Learning

*'The framework allows candidates to achieve personal excellence while instigating change to professional practice within their organisations'*

awards up to Master's level in 1992, and extended it to include a Professional Doctorate in 2000. The framework is based on individually negotiated learning contracts using work-based learning and directed studies. It provides a method of study that is becoming more attractive than traditional on-campus programmes. The framework is effective because candidates can negotiate a set of learning goals, each with a set of learning objectives relevant to their job profile. Each discrete goal is supported by agreed activities, assessment criteria and assessment methods relevant to the workplace environment. Companies are highly supportive of the framework as the learning goals are directly correlated to the growth objectives of the company while their employees achieve a postgraduate work-based qualification.

Feedback shows that candidates enjoy the learning contracts as these give maximum flexibility for different learning requirements and learning styles, whilst learners develop at their own pace. Companies have told us that they get much greater commitment to work and motivation from employees involved.

The first two goals within each contract are mandatory – the first is to undertake in-depth reflective practice and planning and the second is to develop skills in research methods. These two core elements ensure that candidates develop a clear rationale for their learning contract supported by research methods relevant to the workplace. Candidates also negotiate structured studies which are directly relevant to, and assessed as part of, the goals.

The extension to provide a Professional Doctorate (Prof. D) provides each candidate with a unique contract based on research and development goals and learning goals. Candidates set these goals at the leading edge of professional practice. Candidates either transferring to or entering a doctorate contract complete a mandatory 'research capability' goal. For these goals they propose a rationale and research methods which provide novel and original results whilst

extending their field of professional practice

Each goal in a contract is allocated credit points against the notional time required to achieve that goal. A candidate requires 180 credits for an MSc – the Professional Doctorate requires 540 credits. Candidates are assessed against generic level descriptors which relate to those prescribed by the Scottish Credit and Qualifications Framework, but which take account of the work-based learning approach.

The framework has been used for staff development by a range of companies. The work-based framework was chosen because of the flexibility provided by an individually negotiated contract where the goals are directly related to the strategic plans of the company. It has been successfully used for employees in the engineering, construction, health care and management sectors. The most important feedback that we get from clients is that the work-based approach is successful because learning can be directly integrated with the workplace environment and because the learning can be made specific to the individual's needs.

**COLIN CHISHOLM**, Dean of Faculty of Science and Technology, Glasgow Caledonian University

### WORK EXPERIENCE DOES MATTER – SOME EVIDENCE FROM WALES >>>

**Students with work experience have a twenty five per cent better employment rate than those without, according to the YES project at the University of Wales.**

**T**he Year in Employment Scheme (YES) has been running since 1977 at the University of Wales, Aberystwyth. The University allows students from all disciplines the opportunity to take a year out to work in industry, commerce or the public sector either in Britain or abroad.

The number of students graduating each year from university is increasing. This is making the job market extremely competitive. Graduates realize that they need to have something extra to offer an employer if they are to stand out. Graduate applicants need not only good academic qualifications, but also transferable personal and professional skills to enable them to secure employment and then succeed in the

workplace. Key Skills qualifications have been introduced in skill areas such as problem solving, working with others and communication, skills that employers feel many school leavers and graduates lack when they enter employment. The Year in Employment Scheme allows for an undergraduate to develop the necessary employability skills. The students graduate with a degree which has been enhanced by their work experience.

Each year, a First Destination survey finds out what students do after graduation. The results of these surveys highlight how work experience has enhanced students' degree class and job outcomes. For the year 2000 survey, the results showed that YES students had a twenty five per cent higher employment rate than those students who had not taken any kind of work experience. Twenty one per cent of YES students gained firsts compared to eight per cent who had not participated in a work experience programme. Interestingly, only nine per cent of YES students went into postgraduate study. This suggests that students with work experience find securing employment easier than those with no such experience, and are keener to enter employment immediately after graduation.

This year, the YES scheme will be piloting a work experience qualification. This will allow students to gain formal recognition for the skills they develop. It seems that the way forward is for academic qualifications and practical work experience to be run alongside each other. The students returning from their year of work experience say that they feel more confident and prepared for the world of work, and that they benefit from putting the theory taught in their degree into practice and test in their chosen career. This may be one of the reasons why YES students secure employment more easily – they are clear about the direction they want to take and about the skills they can offer to employers.

**JOANNE BULLOCK**, YES Project Officer, University of Wales, Aberystwyth

*‘The work-based approach is successful because learning can be directly integrated with the workplace environment and because the learning can be made specific to the individual’s needs.’*

# Defining and addressing employability: A FRESH APPROACH

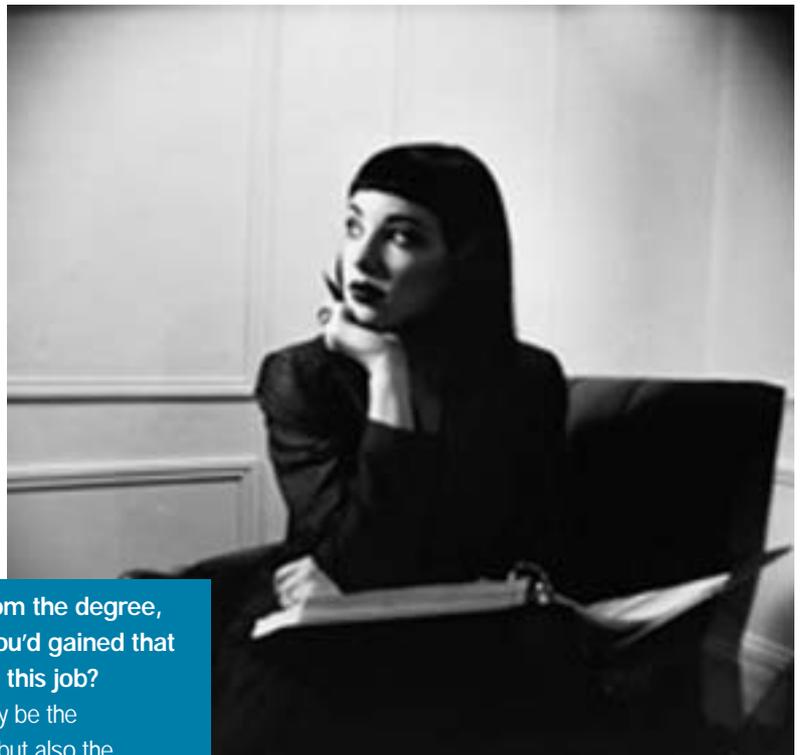
Ongoing research indicates that undergraduate employability is fostered through focussing on giving students control of their learning through curriculum design. **Peter Knight** and **Mantz Yorke** explore the issue with reference to the *Skills plus* project they are running.

## Higher education and employability

'Knowledge economies', such as the UK's, need people who understand a subject or area; who have skills (subject-specific and general; 'soft' and technical); who believe that good thinking and hard work will enable them to make a difference in most situations; and who think about what they know and can do, how they learn and what they need to learn. In other words, highly employable people need USEM, as defined below:

- Understanding of a discipline or professional field
- Skills of various kinds
- Efficacy beliefs, especially a belief in their capacity to make a difference
- Metacognitive fluency, an awareness of how they act and learn and develop their capabilities.

Seen in these terms, higher education's contribution to employability and, more generally, to work-related learning, involves promoting this complex mix of outcomes. We suggest that this view of employability is compatible with many descriptions of good learning in general, and is not just to do with learning in, about and for work.



**Interviewer:** So, from the degree, what do you feel you'd gained that enabled you to get this job?

**Informant:** It'll not only be the computer packages but also the ability... to pick up new skills quickly because the different modules I was doing... you didn't really have that great length of time to pick up the skills needed to complete the modules... basically, you were kept on your toes and having to learn to go and do your research... (Graduate No. 108)

**PETER T KNIGHT**, Director, Centre for Outcomes Based Education, The Open University

**MANTZ YORKE**, Professor of Higher Education, Liverpool John Moores University

Higher Education Institutions (HEIs) have already responded to encouragement to promote employability, such as the government's 'Enterprise in Higher Education' initiative and the 'Higher Education for Capability' initiative sponsored by the Royal Society of Arts. However, despite these successes, there has been sustained pressure on HEIs to do more.

One obvious way to make higher education (HE) more work-related is to provide more programmes focusing on 'relevant' subject matter. However, not only does this leave students who want to do non-vocational subjects out on a limb, it also misses the point that many employers are interested in *general* learning outcomes. This fits with new thinking about the first cycle of higher education, usually undergraduate study, which is being defined less as a vocational passport and more as an enabling device for future learning, with an emphasis on the development of generic skills, qualities and dispositions.

Other approaches to meeting the employability agenda are to enrich the undergraduate experience by means of:

- **Work experience** There are variations in quantity and quality of work attachments and in documented learning benefits. It is not easy to incorporate work attachments routinely in *all* degree programmes. Nor is it necessarily sensible to require those entering HE with previous work experience to undertake placements. We note, however, that almost all of the 97 graduates interviewed in the Skills *plus* project who had done work placements said how important their placement had been in their claims to employability.
- **Modules to develop skills of entrepreneurship** Detached, one-off modules can be valuable, but they are also likely to be marginal, particularly if they are optional.
- **Careers advice** Good careers advice helps students to compete well in the job market. However, careers advisors may find themselves advising students whose programmes have done little to help them make strong claims to employability. Good careers

advice is highly desirable, but cannot, on its own, make up for inadequacies in programme design.

- **Portfolios** (or profiles, or records of achievement) Portfolios should get students reflecting on their achievements; collecting and presenting supportive evidence; identifying and then acting on priorities for development. They therefore should assist graduates to construct applications and to present their achievements at interview. As with careers advice, portfolios cannot rectify programme shortfalls.

Whatever their strengths, these enrichment activities are seldom integral to three or four year programmes. They can be more like transient events than the sustained learning processes that are necessary to underpin the complex learning achievements that employers expect of new graduates. Further, such activities are typically not based upon what we know

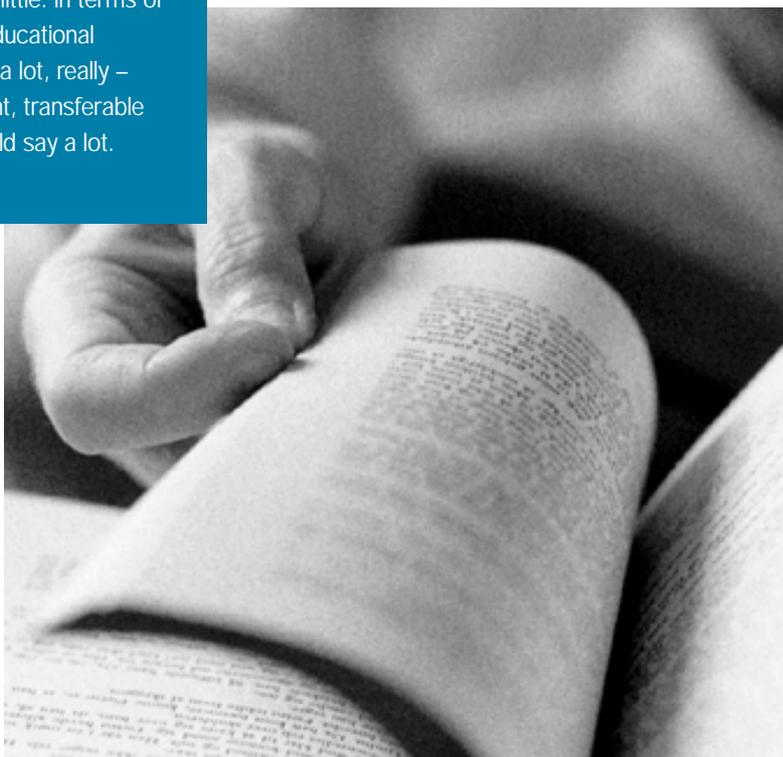
about how complex learning takes place.

#### Complex learning

Higher education has always been concerned with complex learning, but taking

**Interviewer:** Can you estimate whether your degree programme contributed to your being employable for this job a lot, a moderate amount, a little, or not at all?

**Informant:** In terms of what I studied and what I do now, a little. In terms of my general sort of educational development, I'd say a lot, really – personal development, transferable skills, IT skills – I would say a lot. (Graduate No. 161)



employability policies seriously makes its task all the more formidable. Even a glance at the research on employability shows that higher education is expected to foster, among other qualities:

- willingness to learn
- self-management skills
- communication skills
- effective learning skills
- the ability to explore and create opportunities
- action planning
- networking
- coping with uncertainty
- self-confidence
- team-working
- managing others
- critical analysis
- being able to work under pressure
- imagination and creativity.

We make five comments about this and similar lists:

- These attributes and abilities are 'fuzzy' and complex, in the sense that they cannot be captured in neat formulae or simple criteria.
- They could fit as well in a History or Fine Art programme as in Engineering, Medicine or Accountancy; these outcomes of learning are not the sole preserve of vocational subjects.
- Employability and good learning should complement one another – they are not rivals for curriculum space.
- These achievements are bound up with one's sense of self – with what we have referred to above as efficacy beliefs and, more generally, with a person's self-theories.
- There is a definite risk of fragmentation in modularised curricula, which can thwart attempts to create programme-wide learning cultures, making it hard to develop the complex outcomes of learning which we believe give rise to 'employability'.

So how can we improve the odds of such achievements coming from the undergraduate years? Useful insights come from three directions:

- From a growing understanding of the importance of non-formal learning and of the workgroups and communities in which learning happens. Some kinds of learning depend upon the social settings in which people do tasks.
- From developments in networked learning. Scholars interested in effective on-line learning are concerned with the design of whole learning environments that encourage complex achievements. Whole programmes, not single modules, are important.
- From theories of complex learning. Research into 'slow learning' insists that some learning, particularly the sorts of things we have associated with employability, takes years. Think programme-wide.

#### Skills plus and work-related learning

Our interviews were with 97 recent graduates and 117 of those who work with them. These interviews

(see boxes for examples)

suggest that the USEM model of employability is a fair way of describing the range of work-related learning that graduates had done, or wished they had done, through their undergraduate programmes and otherwise. This gives a tool for thinking about planned undergraduate learning experiences – especially if the aims are to enhance student claims to employability, and to foster traditional but

complementary outcomes such as greater wisdom.

We have also built on some North American research. This work suggested that people with malleable self-theories – that is, people who incline to

'It's about their [applicants'] commercial awareness and their interpersonal skills, their communication... we do want people coming on board who take responsibility... we need people who are able to cope with prioritising... someone who essentially will try and plan and organise but is able to cope with last minute requests... [and] our core competencies are customer service, teamwork... integrity.'  
(Supervisor No. 41)

*'... new thinking about the first cycle of higher education... is being defined less as a vocational passport and more as an enabling device for future learning, with an emphasis on the development of generic skills, qualities and disposition.'*

believe that achievement is more associated with effort and good thinking than with fixed abilities or circumstances – are more likely to succeed when faced with novel challenges. By contrast, however clever they might be, those who have fixed self-theories are more vulnerable to learned helplessness than those who see circumstances as more malleable.

We surveyed first and final year students (2269 responses) to explore this. A substantial majority appeared to see themselves as self-efficacious in a number of ways – that is, they felt that they were able to make a difference and exercise control both in HE and in life in general. Their general level of belief in a malleable self-theory was less marked. However, for most questionnaire items there was a minority of sufficient size to suggest to us that it would be worthwhile to build into curricula some form of bolstering of self-theorising and self-efficacy (the 'E' of USEM).

We found that 70% of the variance in their self-ratings could be related to the extent to which they felt they had some control; to the degree to which they explained what happened to them in terms of luck or effort; and to the importance they attached to finding stimulus and opportunities for learning in what they do. We concluded that, if we want to help students towards 'learned optimism' and away from 'learned helplessness', then the areas to concentrate upon are control, effort and learning.

There is evidence that self-theorising and self-efficacy can be accelerated by well-devised programmes. This leads us to suggest that it would be possible for higher education to contribute more decisively to the development of two important qualities; metacognition, that is awareness of one's own capabilities; and persistence.

Our work has taken such research insights and shown how HEIs could use them in programme re-design. We have worked with 16 departments to develop low cost, high gain ways of 'tuning' and refining existing programmes to enhance their contribution to student claims to employability.

Reports from these departments say that there is value in treating employability as a whole-curriculum issue that calls for good learning. One of the most

important outcomes has been that academic staff, who can be sceptical about such ideas as enterprise, skills and employability, find the USEM model intelligible, sensible and compatible with their priorities as subject specialists. Through this curriculum development work we have developed and tested advice on tuning the undergraduate curriculum to enhance its contribution to student claims to employability.

### Two strategic implications

The strategic implications are straightforward and yet radical. Straightforward, in that we believe that a coherent model of curriculum (USEM) and some high-leverage, low-cost work on programmes can make a lot of difference to the quality of students' claims to achievement.

Design work with our partner departments has provided some evidence that our thinking is on sound lines, and that there appears to be potential in USEM and its application. Radical,

because this approach directs attention to departments, programmes and curriculum, and so to learning, teaching and assessment systems. The challenge of employability through the curriculum will not best be met by funding more single-issue projects, but rather by bringing informed academic leadership to bear on curricula.

Having used scientific knowledge that is seldom cited in the employability literature, our studies have offered a fresh view that appears to be valid, useful and stimulating. Above all, it offers a way of thinking systemically about student learning for employability and other complex outcomes of the undergraduate years. Instead of employability being seen as an addition to the curriculum, *Skills plus* puts it at the centre.

*A series of working papers can be found at the Skills plus website <http://www.open.ac.uk/vqportal/Skills-Plus/home.htm>*

'... it's a matter of being able to think things through... education helps you think through the issues... it's more than just thinking around things, it's thinking things through.' (Graduate, No. 197)

# The UNDERGRADUATE and TERM-TIME WORK

Term-time work for students can be part-time in parallel with their studies or on a full-time work placement scheme. The articles in this two-page section address the benefits of work placement schemes from employers, students and academics' points of view.

## GOOD REASONS FOR EMPLOYING A PLACEMENT STUDENT >>>

**Views from both a large and a small employer, gathered by John Wilson, about the benefits employers can enjoy when taking students on placements.**

**T**wo very different employers – large and small – regularly take placement students from the Business School of the University of Central Lancashire (UCLan).

William Hill in Leeds, the large internet and offshore betting arm of the bookmaker, currently have their third UCLan student. William Hill reports that students bring fresh ideas and enthusiasm. The company makes full use of these qualities by recruiting students with specific knowledge and skill which would not normally be found in regular employees, the latter being more likely to be specialists in the betting field. Students bring a learning mindset, and are not slow to contribute. The company sees each student as having a specific area to develop – for example, setting up a customer service department in Ireland, helping out in a time of major growth, and, currently, helping to set up a Chinese website.

The other employer, the Responsive

College Unit in Preston, which does research for colleges in the FE sector, by contrast has only some 12 regular employees. The Unit has supplemented this with either one or two placement students each year for several years. As with William Hill, placement students are seen to bring enthusiasm and fresh ideas to the business. Students also contribute much-needed IT knowledge and skills. A measure of their value is that the Unit now employs, full-time, four out of six ex-placement students.

Both employers see placement students as good value for money. The only slight drawback to taking placement students is that it can be difficult to fill the gap left by someone who has performed an important role during their time with the company.

**JOHN J WILSON**, University of Central Lancashire

## THE VALUE OF A GAP YEAR PLACEMENT >>>

**I** took a gap year after two years studying physics to work for British Nuclear Fuel Ltd (BNFL). My placement was arranged by the Year In Industry (YII) organisation that co-ordinates gap year placements predominantly for school leavers.

During the year I was placed alongside people who were highly experienced in their fields, and expected to work with them and also create new ideas. I found the demands placed on me to be extremely challenging yet highly rewarding, especially when I went back to University knowing that I made a difference in BNFL. The experience taught me not only about the nuclear industry, but helped increase my confidence, changed my approach to academic work and

*'As with William Hill, placement students are seen to bring enthusiasm and fresh ideas to the business.'*

made me more aware of what employers demand.

I was able to gain so much from the year as I had undergone a three week business management course, organised by the YII. The course covered many areas, such as health and safety, accounting and corporate law. This helped me to understand how the business operated and gave me an opportunity to see the ideas behind business being put into action.

Overall the year allowed me to develop a greater understanding of business and to expand my own personal development. I can now understand how to fit into business groups and work well as a team to achieve the final goal and my final year of study has been much more meaningful.

**JOHN O'HARA**, University of Leeds

## BOTH SIDES OF THE WORK PLACEMENT COIN >>>

**Ronwen Emerson and John Jolliffe each describe a work placement experience from their own perspective; that of employer and employee.**

### The employer's perspective

**F**our years ago, our small organisation which employs under 20 employees, the Council for Industry and Higher Education (CIHE) needed help and took a student on work placement to address the need. We preached work placement in the particular sense that we had been awarded a two-year EU Leonardo contract to set up a Trans-national Consortium for Work Experience (TNCWE). As the project involved universities in several European countries we decided, in the first instance, to employ a French graduate. The experience was so encouraging we

*'The experience taught me not only about the nuclear industry, but helped increase my confidence, changed my approach to academic work and made me more aware of what employers demand.'*

subsequently employed two other students – German and English.

John Jolliffe came to us via a project sponsored by Lloyds TSB. The project aimed to persuade their small business customers of the value of taking students on work placements. The remit we gave John was to liaise with our European partners, research work experience websites, compile a newsletter and generally offer help as and when needed. John quickly adapted, and contributed well with creative ideas. He learned that there is a sizable gulf between the worlds of learning and work. His confidence grew, and when he left us he had relevant work experience to demonstrate when applying for jobs.

Our experience of student/graduate work placements has been very positive. The students have been productive, and we have benefited from their enhanced IT skills and creative ideas. The main lesson we have learned is that what you get out is equal to the amount of effort you put in. Furthermore, it is very important to keep the momentum going right to the end of the contract, so that both sides benefit practically from the placement.

**RONWEN EMERSON**, Manager,  
Université-Entreprise Europe EEIG

### The employee's perspective

**I**nfant to adult, child to parent, poacher to gamekeeper: there are a lot of difficult and important transitions in life. But there can't be many

as traumatic and fraught as the transition from student to worker. There are vast differences between the student's expectation of working life and the employee's experience of it. The student entering work often meets shocks, surprises and uncertainties which can slow their progress.

I avoided a lot of these pitfalls by working for three months on a placement at CIHE on the TNCWE project. I was put in charge of writing, researching and editing the newsletter for TNCWE and its seven European partner organisations. This might sound like an intimidating amount of responsibility. Looking back, I realise that I wasn't intimidated. Perhaps I should have been. However, I was made to feel comfortable by an enjoyably relaxed working environment and by a supervisor who would point me in the right direction and then leave me to do the work. What made it unlike other first jobs after university was that I was given a realistic workload and trusted to complete my work in a professional manner. I was even trusted to present my newsletter to the representatives of TNCWE's partner organisations at the conference in Helsinki. If there is any first job that gives you comparable responsibility, training and opportunities then I'd like to hear about it!

**JOHN JOLLIFFE**

Further details about the TNCWE can be found at [www.tncwe.org](http://www.tncwe.org)

Working during term has its benefits, but **Susan Curtis's** research shows that a balance between work and study needs to be reached.

## The undergraduate experience of university life now includes **TERM-TIME EMPLOYMENT**

**S**ince the changes in funding for undergraduates in the early 1990s, increasing numbers of students have been working part-time during term-time. There are now over one million schoolchildren and students working whilst studying, and this number is projected to increase. By the year 2011, there will be 156,000 more students working than in 2000.

The average number of undergraduates working during term-time in many universities is close to fifty per cent. This represents an army of part-time workers contributing to the UK economy. According to the Labour Market Trends, of the 2.6 million women without dependent children who work part-time, 21.2 per cent are students and 33.6 per cent of the 1.3 million men who work part-time are students (Labour Market Trends, 2001).

### The benefits

Many students are discovering that pulling pints or waiting on customers in restaurants is not what they want to do for the rest of their lives. However, they are benefiting from their work experience. Every student who works during term-time develops work-related skills such as handling cash, rotating stock and dealing with customers – around 90 per cent of student workers interface directly with customers in service industries. Other skills being acquired include survival skills such as how to get along with others and handle one's boss.

Some companies provide admirable training for their part-time workers, with many students having considerable expertise in areas such as how

mortgages work, what information call centre data bases contain and how to protect a store from shoplifters. Some students are given management responsibilities at work. One 18 year-old student working at McDonald's carries out staff training for ten city centre restaurants and is responsible for the training of 750 staff. Marks and Spencer have encouraged a student who has applied for their graduate scheme to join a regional development group for advisors across ten stores to develop skills to equip her to be a section manager. Another student working part-time at Halifax Direct's call centre was identified as being so good at her job that she was asked to train new staff and write the script for other staff. Students value the praise and recognition they receive at work which enhances their confidence and self esteem. Students make friends at work and perceive it as an extra social life.

Term-time working lets undergraduates experience a wide variety of jobs; including negotiators in estate agents, clerical workers in offices, packers in warehouses and cleaners. Some students utilise skills which they are developing as part of their university courses in their part-time jobs. Some national chains provide students with the opportunity to work for them both in their home town during vacation periods and in their university town during term-time.

*'Students value the praise and recognition they receive at work which enhances their confidence and self esteem.'*

Work experience gained during term-time is very valuable for enhancing student CVs, as it helps to emphasize their orientation to work and the fact that they have the self-discipline required to do 'real' work. The skills and experience gained in part-time work are also useful in interviews for full-time permanent work on graduation.

### The drawbacks

Despite the undoubted advantages of students taking part-time employment, there are consequences. The effects on academic study vary; some students do not experience any noticeable effect, whilst others find that it has a negative effect. Students who are working late in nightclubs and restaurants may well be tired the following day, and sometimes are late for lectures, find it difficult to concentrate in lectures, or miss lectures altogether. A very small proportion may fail to submit coursework, although the most common adverse effect is the perception of the students that they would have performed better on coursework assignments had they not been working.

Many employers do not understand the demands of full-time study, and may pressurise students to work longer hours than they would wish. One employer actually telephoned a lecturer at a college to request that the timetable of a student he was employing be changed so that she could work when he needed her to.

Many students are not granted time off by their employers during crisis periods of approaching coursework deadlines and examinations. Employers often insist that the number of hours which constitute the part-time job are not negotiable, and that the job is, for example, 25 hours per week and no less. The student will often have to resign before their employer will allow them to work fewer hours. Most students can judge for themselves how many hours they can comfortably work without harming their studies, and will not take on so much work that their long term objective of getting a degree is jeopardised.

In addition to the stress of juggling work and study, the work itself is often stressful for students. Some students work in pressured environments where there is a shortage of staff, their work is monitored constantly, they have to exercise considerable tact and diplomacy in dealing with customers and they are often set difficult targets to achieve.

The industries in which students are employed tend to be non-unionised and are characterised by low pay.

*'The skills and experience gained in part-time work is useful in interviews for full-time permanent work on graduation.'*

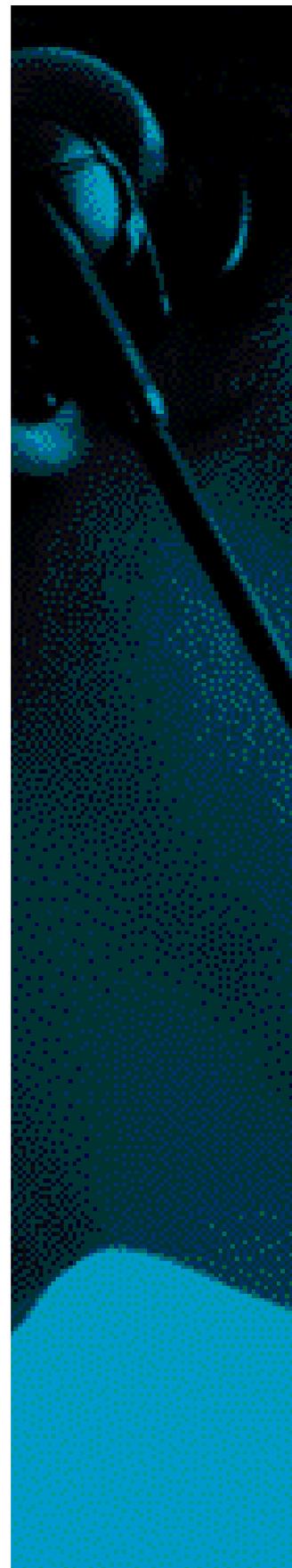
TUC research into students working part-time found that average pay was £4.37 per hour. The majority of students do not receive sick pay or holiday pay (these are generally lacking in low paid jobs). Some students in work face serious health and safety hazards. Students can suffer harassment from their employers and have to deal with abusive and violent customers. Students who work late at night in large cities are also often concerned about safety during the journey home.

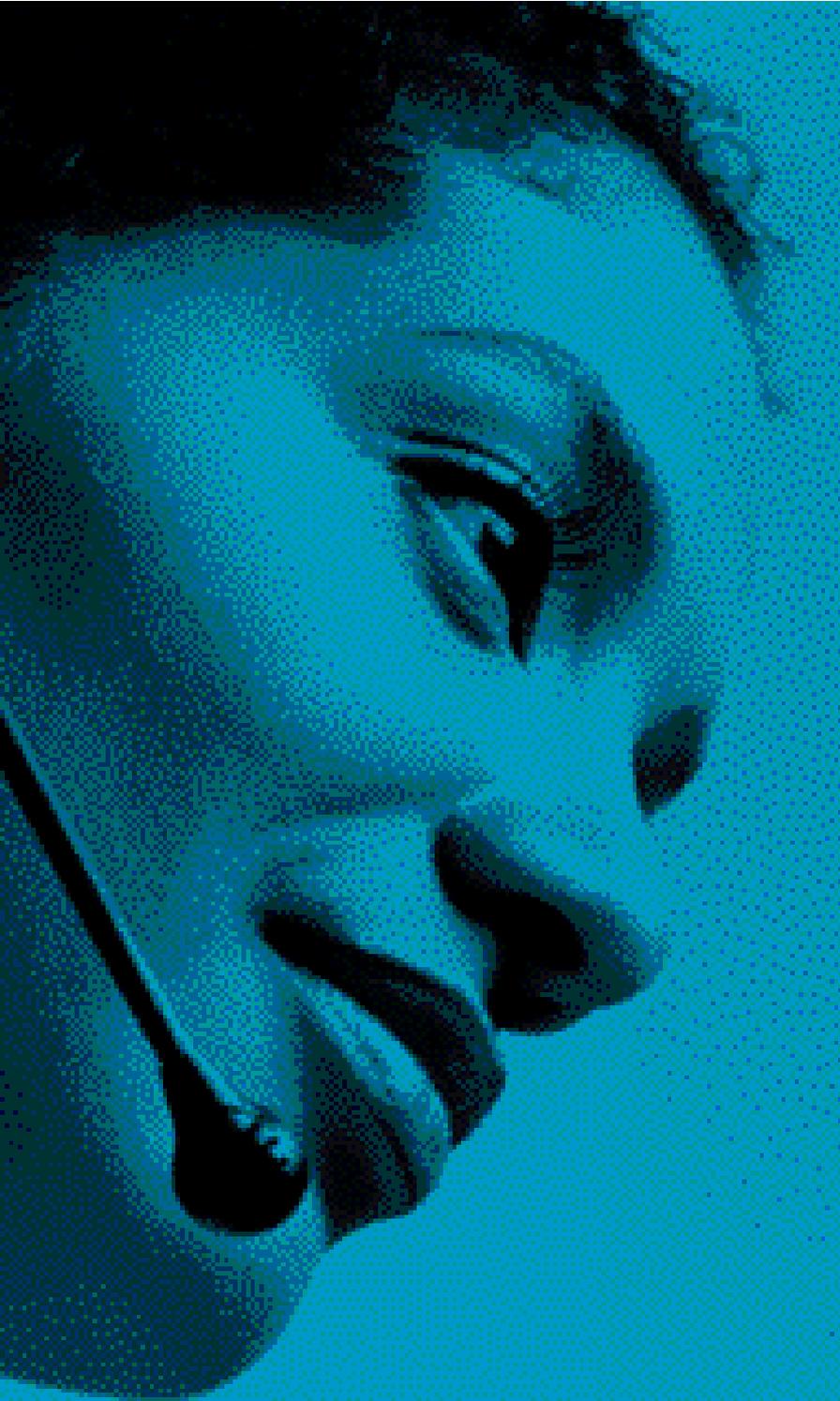
### Reasons for student term-time employment

Some students are used to combining work and study, having worked since their GCSE days, and it has become part of their weekly routine. Many students keep the same job for several years, and have a friendly relationship with their employer and work colleagues. Some students work as a result of peer pressure; all their friends work and tell them about job vacancies, making it easy to take a job if the extra money is needed.

Some students do not receive any parental contribution, and their parents are keen for them to support themselves whilst at university. Research in four centres of higher education in South Wales revealed that 48 per cent of students received no parental contribution. Surveys of student income and expenditure have consistently found that there is a shortfall of over £2,000 per annum in student incomes. Students are, therefore, very often not working for luxuries, but to provide for basic necessities.

Students work 16 hours per week on average – twice the amount worked in the traditional 'Saturday job' of years gone by. These hours, combined with the low pay available in student jobs, do not allow students to earn very much beyond the amount they need to cover living costs. Barclays Bank estimate that average debts on graduating are around £10,000, and state that thirty nine per cent of new graduates have insufficient earnings to qualify them to repay





*'Working has a positive effect on academic studies, confidence and interpersonal skills. These benefits are acquired fairly rapidly, and can be achieved by working around 10 hours per week.'*

loans. Therefore, undergraduates need to work in order to prevent debts from escalating as it cannot be assumed that they will easily be able to repay loans on graduation. Many students are working long hours and still have mounting debts.

#### **Support from universities**

Some universities are attempting to provide support for students in their efforts to find work. There are over 70 Job Shops based in UK universities – employment agencies for part-time term-time work which help students by insisting on reasonable wages and deterring employers from stipulating hours beyond the maximum 16 per week.

Apart from this help, support from universities and academic staff is very varied. Many lecturers are unaware of what happens to students outside of lectures. Changes in lecture times at short notice cause distress to those students who have carefully organised their rota slots at work to fit in with university lectures. Support from universities is possible in the form of flexibility in the timetable, lecture notes available on the web or intranet, academic counselling for students and skill development lessons. There is very often no university policy on support for working students. Individual academics can provide some support within the system, but cannot redesign courses, or change the differential between full and part-time status.

#### **Summary**

Working has a positive effect on academic studies, confidence and interpersonal skills. These benefits are acquired fairly rapidly, and can be achieved by working around 10 hours per week. Adverse effects, however, continue to accrue with longer hours worked. Around thirty per cent of students work more than 16 hours a week, and this significant minority are in danger of underperforming, of gaining a lower degree classification than they are capable of, or of dropping out of university altogether. Student term-time employment provides benefits to the UK economy, but is not the answer to student's financial difficulties. Improvements in support from universities for working students does not address the underlying issue of funding and the changing experience of university life.

# MENTORING —

## an approach to supporting both staff and students

**Ann Morton** and **Jill Allen** describe how mentoring can be used to promote change in the workplace and to support students with special needs.

### HOW CAN MENTORS PROMOTE CHANGE IN THE WORKPLACE? >>>

Reflecting on learning at work for mentors and mentees can help them see the opportunities for developing employability and work-related learning for students. Ann Morton examines what mentoring can achieve.

I have been involved in various ways with mentoring for the last nine years. My ideas and views on mentoring, particularly in relation to its potential to promote change, have changed significantly over that time.

In the beginning I viewed mentoring as something we did to people. My first job was to set up a mentoring scheme for new lecturers as part of their development programme, and its main purpose was to check lecturer quality. Mentors were asked to write a report on 'their' lecturer. This report was used to help determine whether the new lecturer received a permanent appointment.

This caused me problems. The literature on mentoring that I was reading unequivocally stated that the role should be non-judgmental. I spent time talking to mentors, and discovered that many of them had been mentoring informally for sometime, and that this informal mentoring had captured the spirit of mentoring described in the literature that I had been reading. Their informal mentoring was supportive; they gave advice and guidance; they acted as a sounding board, a mirror, a listener. They asked questions to promote reflection.

Further, some mentors spoke of the effect that being a mentor had had on themselves. It had allowed them to step back and review their own perspectives. This insight was the most profound for me. Mentoring was promoting change, both in the mentor and the mentee and it was the work of Julie Hay that finally crystallised this for me. Hay defines mentoring as a developmental alliance, in which both parties are learning from the experience. Her book 'Transformational Mentoring' (Hay, 1999), considers the impact of this type of mentoring in promoting change within an organisation. I refer you to her work for a detailed account, but the attractiveness of this approach for me is that I have seen its effects firsthand. It changes the individuals involved and the organisation in which they work.

The strength of this transformational mentoring approach lies in sharing and in valuing the experience of others, and the promotion of reflection on actions. Mentoring is not something to be done to you by senior colleagues, but rather is a process of engagement with the future and the possible. Ideally, we avoid the 'cloning' model, where the intention is to produce another good employee with the same views and ideas as their predecessors. Instead we adopt a developmental model that allows for, and encourages,

*'Students note their overall confidence has improved through talking to a person independent from the University.'*

change. Not only is this important in relation to the personal development of staff, but within the HE sector it has the added benefit of encouraging staff to review their ideas in relation to the learning experience of the students they teach or support: a reflective employee is much more likely to promote learning activities which encourage reflection and development of the students themselves.

Mentoring is divorced from judgments, divorced from management decisions, and has change and development at its core. Within an HE institution mentoring has the capability to promote change because it has the potential to impact on both staff and students. At a national level this approach is seen in the Association of University Administrators (AUA) Continuing Professional Development Award where the mentors are appointed from outside the organisation of the mentee. The intention here is to support and advise the mentee, but also to share experience between the two parties. I am confident that this will also be an effective vehicle for change and development within the sector.

A list of references relating to this article can be found at [www.exchange.ac.uk](http://www.exchange.ac.uk)

**ANN MORTON**, Acting Director of Staff Development, Staff Development Unit, The University of Birmingham

### STUDENTS WITH SPECIAL NEEDS AND THEIR MENTORS: A MUTUALLY REWARDING RELATIONSHIP >>>

**A mentoring scheme at Staffordshire University seeks to enhance employability and challenge prejudice towards students with special needs, as the co-ordinator of the scheme describes.**

Since 2000 I have been co-ordinating a mentoring programme for 18 students with disabilities at Staffordshire University. After approaching local and national employers, we have matched each student with a mentor, that is an individual with professional experience who can open a window of opportunity to an undergraduate with special needs. The initiative aims to ease the transition

*'... we adopt a developmental model that allows for, and encourages, change... it has the added benefit of encouraging staff to review their ideas in relation to the learning experience of the students they teach or support.'*

into employment by equipping such students with the necessary confidence and skills they require to be effective in the workplace.

The programme is located within the University Careers Service. From there we can enable students and mentors to complement their mentoring experience with full access to useful information and materials. Activities include workplace visits, mock interviews, CV preparation and confidence building. We have established a website ([www.staffs.ac.uk/ssmp](http://www.staffs.ac.uk/ssmp)) where participants and visitors can find links to the many organisations supporting graduates and students with disabilities.

At an evaluation event in February this year we asked mentees and mentors separately to think about what they are getting out of the scheme. This allowed sharing of experiences within a peer-group, and also a chance for socialising and networking. The lessons we learnt from this event are as follows:

- the scheme is progressing, and students use mentoring time wisely
- all participants took part in Disability Equality training and mentors received additional input for communication skills. This proved very beneficial as demonstrated by one mentor: "I have applied what I learnt from the training in all aspects of my life as well as it preparing me for mentoring"
- students note their overall confidence has improved through talking to a person independent from the university
- mentors report their fears about disability have been quashed through mentoring a student with a disability. The experience has 'demystified' their perceptions. They now see the person rather than the disability. This is a positive response as we try to overcome the many barriers to progression – including attitudes – for students with disabilities.

**JILL ALLEN**, Project Co-ordinator, Staffordshire University

**Margaret Noble** and **Barbara Paulucy** highlight the challenges for institutions introducing work-based learning (WBL) in the curricula. And **Mick Healey** sets out what you need to know to ensure WBL is relevant to students with special needs.

# THINK THROUGH

## the implications of work-based learning

**A**t both local and institutional level there has been an increasing interest in work-based learning over the past decade. A growing number of work-based and negotiated learning programmes have been developed as part of the flexible learning agenda as HE institutions respond to a number of drivers for change.

### Challenges to universities

The developing emphasis on work-based learning presents a number of challenges to universities. It has implications for their mission, learning environment, organisational culture and curriculum development. Some of the greatest challenges face staff, both teaching and administrative, who must provide an appropriate support infrastructure for work-based learning. Staff engaging in work-based learning may question the context, language and epistemology of work-based learning. They may also challenge its processes, involving, as they may, year round enrolment, the need for new tracking and monitoring mechanisms and individual learning routes.

### The nature of work based learning programmes

Work-based learning takes several forms. These include learning for work, which characterises work related learning within full-time undergraduate teaching programmes; learning at work, which incorporates in-house training and development in the workplace; and learning through work. Two

particular types of work-based learning are programmes for employees, and learning through and at work.

The first type involves the translation of discipline-based university programmes into forms which can be delivered through the workplace. For example in the mid 1990s the University of Teesside developed its MBA programme into a management practice masters programme delivered for a range of regional organisations.

The second type, learning through and at work, are those programmes where the focus and context of the curriculum is primarily designed by the learner. These tend to be less discipline based and less pre-structured, and are arguably a very pure form of work-based learning. Theory informs practice rather than being the driver in the curriculum – indeed, it can be argued that the workplace has its own curriculum. It is this type of programme that most challenges many of the traditional academic, intellectual and social assumptions, which can be seen as contributing to building blocks of teaching and learning within higher education.

*'A growing number of work-based and negotiated learning programmes have been developed as part of the flexible learning agenda as HE institutions respond to a number of drivers for change.'*

### Challenging staff

Arguably, the model of work-based learning facilitating a learner centred approach presents the greatest challenge to staff within higher education. It questions many notions of learning and also the appropriateness of existing structures and processes to facilitate such learning.

Recognition of the challenge of work-based learning for university structures and staff is not new. In 1992 the DfEE report on Learning through Work recognised that 'if work-based learning is to be more readily accepted... there will need to be a commitment by senior managers and a shared vision about its place'. Ten years on, similar questions are being asked, and the challenge for staff, and the need for staff development, is still evident. Recent developments such as foundation degrees have further raised interest in work-based learning, and mean that many of the challenges must now be addressed.

### Some implications for academic staff

Adoption of work-based learning requires staff to develop what may be a new set of skills, behaviours and competencies in relation to learner support. Facilitation, networking, brokerage and negotiation are all essential parts of the skill repertoire. Negotiation is fundamental, and requires staff to refocus away from prescriptive curriculum and value judgements. Staff supporting learning through work are more likely to assume the role of the facilitator, with an understanding of the context of the workplace environment and a willingness to take risks and explore new forms of learning. Failure to make such a change can result in confusion on all sides.

Staff need to re-evaluate the basis and form of learning and knowledge creation and to ask a series of pertinent questions. What constitutes a comparable learning experience to an experience of work-based learning? Is it important, or appropriate, for the learner to produce a traditional piece of work with for example a review of the literature, a series of chapters and a conclusion? Is it not more appropriate for alternative forms of assessment to be adopted, for example involving reflection, evidence and focused project-based activities?

New means of supporting learners will be required. The use of learning contracts and agreements is not new, but their use is not widespread. If the learner is

Engaging in work-based learning has implications at a number of levels for staff. Issues raised include:

- Is work-based learning simply another mechanism for learning, or is it a field of study in its own right?
- What is the role of work-based learning within staff development programmes?
- How can work-based learning be established as a major aspect of best practice amongst staff?
- How can credit values be allocated to work-based learning?
- What learning models, methodologies and approaches best describe work-based learning?
- Are staff roles changing, for example from deliverer to facilitator?
- Does work-based learning require a shift to focus on learning outputs rather than inputs?
- How do contact patterns with students change?
- What are the implications of work-based learning for the focus of knowledge, authority and power?
- What are the roles of discipline boundaries in work-based learning, as knowledge creation within the workplace creates its own boundaries?

setting their own learning outcomes, proposing assessment criteria and determining the curriculum through work-based learning, the institution will need to consider how these are to be approved.

Mainstreaming work-based learning requires ownership by all staff, understanding and commitment from senior management, its embedding in mission, strategy and objectives and the identification of work-based learning champions across the institution.

Identifying and developing a group of staff committed to work-based learning has particular staff development needs. It must be recognised that not all staff will have the capability, or indeed the wish, to make the transfer into facilitating work-based learning. Staff focusing on work-based learning may best be located in a single department or centre with the capacity and capability to provide a facilitating role on behalf of the University. Experience from a number of HE institutions suggests that designated staff are needed to facilitate and

*'Experience from a number of HE institutions suggests that designated staff are needed to facilitate and support the development of work-based learning...'*

support the development of work-based learning, particularly in the early stages of development. Their roles might focus on student support for programme planning and the negotiation process, facilitating and advising on the accreditation of prior (experiential) learning (AP(E)L), the production of learner support materials, development of on-line/ICT support environments, advice on work-based projects and the construction of learning agreements and contracts. The experience of some institutions has been that there is a need for ongoing support of such activities with many academic staff feeling most comfortable in containing involvement primarily to subject based input, preferring what may be regarded as more generic issues to be undertaken elsewhere.

The merits of such an approach require debate within institutions. There is a strong counter-argument that maintaining high levels of support via such a central team of work-based learning staff may militate against more widespread ownership and adoption among staff. However, it can be argued that widespread adoption is not necessary, and that work-based learning is an alternative approach to learning, not a replacement for current systems.

#### Implications for administrative and academic-related staff

Work-based learning normally involves a closer working relationship between administrative and academic related staff than hitherto. Both have a vital role to play in its successful adoption. However, the needs of administrative and academic related staff in the implementation of work-based learning are often neglected. Work-based learning generally requires a different set of structures and processes and a need for staff to understand the process and student journey from initial engagement to completion. Typically, work-based learning programmes operate in open time frames, not confined to the traditional start dates of the beginning of the academic year or the second semester. Indeed, many students are attracted to work-based routes due to



#### Case Study

The University of Teesside has been involved in work-based learning for a number of years and has developed the following three programmes:

- Programmes for company clients, through the adoption of the existing masters level curriculum in management
- Individual programmes of study which enable students to construct bespoke programmes based primarily around taught University modules
- Sixty credit awards available at levels 1 to M. These involve only one core taught module, together with a mixture of managed personal learning, negotiated learning, in-company programmes, AP(E)L, work-based projects and taught models. These awards were developed with 'Universities for the North East Lifelong Learning Awards' (Angie Francis' Lifelong Learning Award is one of these – see box on page 30)

Drawing on these three strands, a market was identified for the development of a flexible framework enabling consideration of work-based and independent learning, university-

taught modules and other accredited learning including AP(E)L, NVOs, in-company programmes etc. A major aim was to develop a framework capable of university-wide use that would become embedded and gain ownership and adoption across the whole University. Development of such a framework presented a number of challenges of which the major one was undoubtedly to gain support from a wide number of schools and departments. Methods adopted to achieve this wide support included:

- identification of representatives to form a development team
- removal of perceived concerns about diverting student demand
- quality assurance of learning over which staff saw themselves as being less in control
- meetings with all schools by the Deputy Vice-Chancellor and the Director of Lifelong Learning
- gaining support from senior management
- individual meetings with school directors
- developing a programme of staff development.

### Ten ways to enhance the experience of students with special needs undertaking work-based learning

Students with special needs should have equal access to opportunities in higher education – that is the main principle behind the QAA Code of Practice – Students with Disabilities and the Special Education Needs and Disability Act (2001). This includes access to work-based learning (WBL). “The delivery of programmes should take into account the needs of disabled people or, where appropriate, be adapted to accommodate their individual requirements” (QAA Code, precept 10). To do so can be challenging, but in most cases such access can be relatively easily achieved with appropriate planning and sensitivity. Here are ten steps you can take to help students with disabilities have a good experience of work-based learning.

- 1 Ensure that the students themselves are involved throughout the process. After all, they are the best source of information about the barriers they face. Despite sharing the same impairment, students differ – for example, not all blind students use Braille.
- 2 Plan for the WBL experience at the pre-entry stage to HE. Make this planning part of the discussion of the students’ needs and abilities for the whole course.
- 3 Promote WBL opportunities positively with the students.
- 4 Emphasise the abilities of the students in discussions

with work placements, rather than their disabilities. Only pass on information about disabilities for which the students have given consent.

- 5 Keep regular contact with the placement providers. Suggest ways in which they can reduce the barriers faced by students with disabilities.
- 6 Negotiate written learning agreements between the institution, the placement providers and the students. Include in these agreements details of responsibilities for adjustments or for provision of necessary additional support.
- 7 Undertake access and transport audits for students with mobility difficulties. Develop communication plans for students with impaired vision or hearing.
- 8 Stay in touch with the students and with the providers during the placement. Evaluate their experiences once the placement is finished. Use the results of the evaluation to inform future practice.
- 9 Keep in regular contact with the institution’s Disability Advisory Service. Ensure that all the staff involved in arranging placements have undertaken disability awareness training.
- 10 Embed policies and actions for addressing special needs within the general strategy and processes of the department and institution.

A list of references relating to this article can be found at [www.exchange.ac.uk](http://www.exchange.ac.uk)

**MICK HEALEY**, Professor of Geography, University of Gloucestershire

personal and work commitments which prevent engagement with more traditional programmes.

The tracking of student progress may also be more complex due to greater choice in modules or units of learning that may form part of a programme; incorporation of credits from prior learning; and study across several schools or departments.

Communication may make greater use of electronic means than in more conventional programmes, and may therefore require staff to understand and use the virtual, managed or open learning environment through which such communication might be made.

For all these reasons then, administrative support for

*‘Communication may make greater use of electronic means than in more conventional programmes, and may therefore require staff to understand and use the virtual, managed or open learning environment through which such communication might be made.’*

work-based learning may need more administrative staff support than conventional methods, particularly in the early stages of development when procedures are being created and tested. Working-based learning may present challenges to information support systems, and require staff to develop individual student tracking systems unique to work-based programmes. Approval and quality assurance of work-based learning is also of major significance, and may challenge existing quality assurance frameworks.

One or more members of senior administrative staff need to be closely involved in staff development for work-based learning so that they have a developed understanding of the processes involved. This understanding might include AP(E)L, familiarity with use of learning contracts, negotiation and quality assurance processes. Participation of staff in work-based learning as a means of gaining a qualification is an ideal way to gain the necessary familiarity, and has been successfully adopted at Middlesex University.

Staff development for work-based learning needs to be an on-going process. It needs to start with sessions focussing on the nature and form of work-based learning to regular support for AP(E)L and use of learning contracts etc. One session at Teesside involved staff from another institution. This was important in enabling staff to discuss issues with an impartial outsider, to recognise that what was being proposed was not unique to one institution, and to debate approaches to resolving what are clearly a set of common issues – securing resources, approval and quality assurance arrangements, and gaining commitment.

Work-based learning raises a number of issues and debates. It identifies a need for action on a range of systems, structures and resource issues. Ownership by staff and commitment by senior management are essential requirements for successful adoption. If the University is to move

### **Lifelong Learning Awards foster expertise and enthusiasm: a witness account**

Universities of the North East designed and validated a framework for accrediting learning outside traditional degree courses. The learning could be at any level from 1 to M and the award is known as a 'Lifelong Learning Award'. Margaret Noble refers to these in her armoury of activities carried out at Teesside University to address the demand for work-related learning and Angie Francis describes her experience in studying for one of those awards at Northumbria University.

Angie Francis, a BBC archivist, relates how studying on a customised course for the BBC was fun and good for both her and her managers.

'When I was first asked if I would like to study for a Lifelong Learning Award (LLA) in the workplace, I have to admit I wasn't keen. It sounded to me like going back to university, only without the fun.

The course proved challenging, but always interesting. We often had lively debates about the way the BBC archives its documents and about the role it envisages for its archivists in the future. Our LLA seminar group developed as a team as we shared ideas and helped each other with

projects. Studying the theory behind our day-to-day jobs enabled us to question and improve our working practices. It also let us take work issues back to our tutors and seminar groups for discussion. The sense of motivation and drive amongst myself and my peers increased as we realised that our department was in a transitional phase, and that our input was not only valued but considered essential to the future of the department.

The final presentation of our coursework to tutors and managers in the BBC was a nerve-racking but ultimately very rewarding experience. It gave us a chance to show the management team what we were capable of. All left the event very impressed at our expertise and enthusiasm.

So ultimately my doubts had proved unfounded. The course had been fun, but in a practical way as we could relate our studies directly to our work rather than simply study Records Management in theory. But more than fun, the award gave all of us a sense of achievement, team spirit and a desire and motivation to put our studies into practice which was quickly recognised by the management team.

And then of course there was the graduation party...'

beyond being an organisation for learning to meet the needs of those who seek learning through work and in work then, it clearly needs to address the agenda of what is required from a position of knowledge in action by undergoing an intellectual transformation to a learning organisation.

# The LTSN Subject Centre for ART, DESIGN & COMMUNICATION

**T**he Subject Centre for Art, Design & Communication (ADC) is one of the network of 24 subject-based centres that form the Learning and Teaching Support Network (LTSN). It has a particularly wide remit, supporting learning and teaching in Art and Design, History of Art and Design, Media and Communication. Based at the University of Brighton, it has a regional network of partners around the UK, including the Universities of Coventry and Ulster, Cumbria Institute of the Arts, Falmouth College of Arts, Plymouth University, the Surrey Institute of Art & Design, University College, Swansea Institute of Higher Education and Thames Valley University. It aims to create and support a vigorous practitioner network, to promote and share good practice in learning, teaching and assessment in its subject areas, and to broker knowledge across the practitioner network and with other professional and subject associations.

Among ADC's activities, some of which are common to all the LTSN Subject Centres, are:

- departmental visits on request and in-house workshops tailored to individual departments' particular concerns
- a telephone and email advisory service
- an online Resources Database, including a bibliography of pedagogic resource in the subject areas, searchable case studies and reviews of resources such as textbooks, CD-ROMs and even museums
- a newly-launched refereed journal, 'Art, Design and Communication in Higher Education'
- small-scale funding for activities such as

curriculum materials or action research reports from a Learning and Teaching Project Fund

- a Pedagogic Research Fund to support the building of pedagogic research capacity (see box).

The idea of 'brokerage' lies at the heart of the LTSN. ADC is participating in a large-scale project on brokerage together with eight other Subject Centres and the LTSN Generic Centre. Participants will share ideas on knowledge management and on what does or does not work. ADC sees its role as that of a change agent, facilitating change through the better use of information and knowledge residing in the HE community, which like many other institutions, suffers from an information overload. Linda Drew, the Centre's Manager, says: "We take the view that, being in a position that has some distance from the regulatory frameworks of the QAA, but is informed by national policies and research agendas, we have some gravitas but are not perceived as part of the 'quality police'. We can work in tune with departmental and subject association cultures and subcultures."

The first aim was to understand the role

of brokerage, knowledge networks and networking within the LTSN. This work will obviously be of interest to senior staff in HE who have similar roles within their organisations, as well as to people who also act as change agents, internal consultants and opinion leaders who understand the 'messiness' of change within their own contexts. Outcomes of the brokerage project include resources that further explore:

- communities of practice/knowledge communities
- whole organisation views of brokerage
- brokerage and leadership
- the broker as market maker
- building up knowledge of processes and examples of what works.

The key resource developed is a 'brokerage toolkit' which can be downloaded from the Generic Centre website at <http://www.ltsn.ac.uk/genericcentre/docs/BrokerageToolkit.rtf>.

Further details are available from the Centre Manager, Linda Drew, at [adc-ltsn@bton.ac.uk](mailto:adc-ltsn@bton.ac.uk), or from the ADC website at <http://www.bton.ac.uk/adc-ltsn>.

## Pedagogic Research Fund

In May 2002 ADC made six awards of up to £5,000 from the Pedagogic Research Fund which is intended to support the building of pedagogic research capacity. Such research is relatively new to the subject communities. The fund will be targeted at key research questions and supported by expert research mentors, who will assist with research methodology and practical concerns such as project planning and writing up. They are Dr Keith Trigwell, Institute for the Advancement of University Learning, University of Oxford and Dr Roger Murphy, School of Education, Nottingham University. Outcomes of the research will be disseminated to support the scholarship of teaching in these disciplines through publication in the journal 'Art, Design and Communication in Higher Education'; in ADC-LTSN occasional papers; and research seminars and symposia, nationally and internationally.

# Living the life of a FELLOWSHIP HOLDER

THIS ISSUE: CLAIRE DAVIS

Continuing a series of profiles of active and prominent individuals in the world of teaching and learning, Sarah Claridge introduces **Claire Davis**, Senior Lecturer at the University of Birmingham and a National Teaching Fellowship winner in 2001.



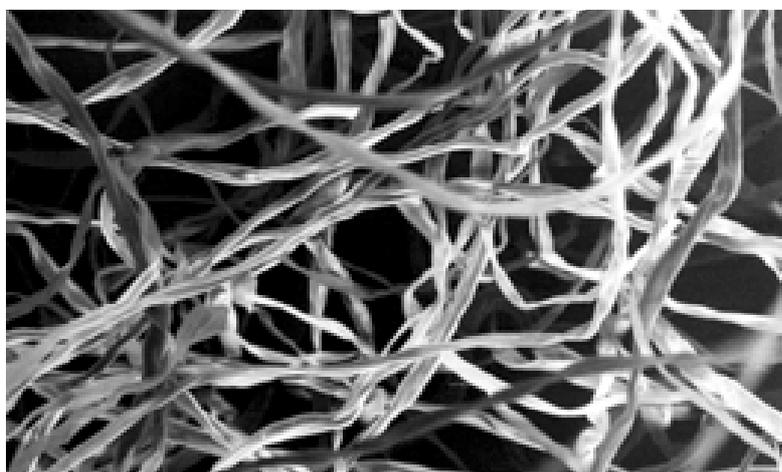
**DR** Davis is... a creative and innovative teacher... her enthusiasm, commitment and energy is dedicated to the development of a fundamental shift to more innovative approaches in a subject area where traditional approaches generally still prevail." These words from Professor Rex Harris of the University of Birmingham, Claire Davis' home institution, succinctly express the contribution this National Teaching Fellowship holder is making both to the teaching of her own discipline – Materials Science – and to teaching and learning generally.

Materials Science – the study and improvement of existing materials (metals, ceramics, polymers and composites) and the development of new materials – is largely a research-led subject. The discipline has been traditionally didactic in its approach to teaching – students have in the past received a grounding in theory early on, with the expectation that this newly-acquired knowledge can then be put into context and applied to real-life scenarios during the later years in their studies.

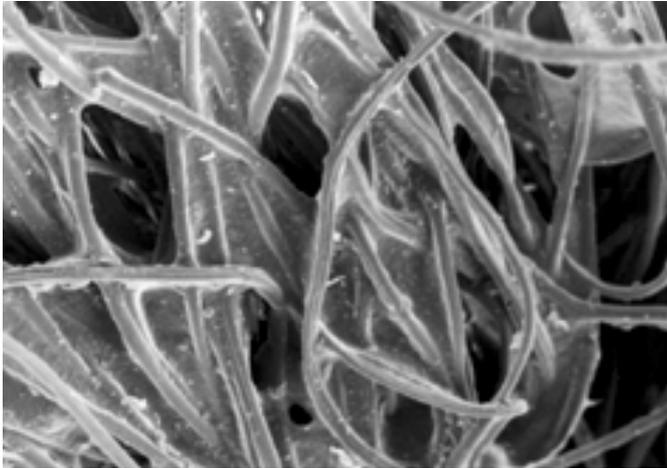
Claire and colleagues in Birmingham's Materials Science Department are working to challenge this method, turning the approach on its head by introducing real-life scenarios – case studies – in the early stages of the undergraduate course. This fresh approach has been found to increase students' motivation and sense of ownership of the subject. By being able to put concepts and knowledge into context, using examples of actual industrial or social applications, students are able to appreciate the value and relevance of their study more quickly.

One such example Claire uses is that of the manufacture and processing of chocolate. Working in small groups, students are encouraged to explore the processing and synthesising of the material. Blind taste tests and other activities are designed to encourage the analysis of such things as particle size, sugar content, milk content, and why and how European chocolate varies from that found in the UK and the USA. Not only do students gain an insight into their subject area and its uses in society through this style of study, but in addition gain an understanding of the dynamics of team and group work.

The analysis of such everyday materials, Claire finds, opens students' eyes to the breadth of applications that their growing knowledge of materials allows, from the worlds of sport and cosmetics to that of heavy industry and construction. Factors affecting



Above and above right: SEM images of household materials



student motivation are many and complex. However, Claire believes that such contextualisation and insight into the possibilities for career opportunities often go far to inspire a student to become fully involved in, and take ownership of, their learning.

The money awarded to Claire as a Fellowship holder is enabling her to examine and pursue her ideas and work in this area in more depth. Having appointed a Research Assistant in the Autumn of 2001 Claire is steering the project towards the production of a website. This will contain case studies and a series of briefings on the value and uses of case studies, both in Materials Science and in other disciplines in HE. Beginning with the collation and evaluation of the case studies used in her own department, Claire will then go wider to seek contributions from other HEIs, using help from her LTSN Subject Centre to capture this material. Once gathered, the material will be assessed in order to identify key issues in the use of case studies and areas where the project can make a difference.

The case studies will be rigorously and continually tested by students and staff, and feedback will then be incorporated to fine-tune the material. In addition, more generic information will be extracted to provide advice on how to adopt and run a case study approach to teaching Materials Science. Once the material is available on the website, it will continually be reviewed and updated, adding new case studies as they become available. By integrating this project into her institution's teaching and learning strategy, Claire is confident that the motivation to maintain the website will prevail.

Key to the success of Claire's project is the desire both to inform and to use the work of others. She is

determined, not only to disseminate her findings to others, but also listen to, and make use of, the experiences of others exploring case study teaching. Her strong relationship with both the Materials Science and the Engineering Subject Centres is helping her to reach this community – booklets on good practice in case study teaching are being planned in conjunction with the two Centres. In addition, topics in a new course in Technology, being developed by Birmingham University for introduction in September 2002, are directly applying much of her work in the case study led approach.

Clearly committed to and passionate about teaching, Claire puts her devotion to teaching down to the rewards of seeing students genuinely engaging with and becoming inspired by her discipline as the subject area comes alive for them. She takes pleasure in seeing 'eyes light up' when the realisation dawns that they can use what they are learning to make a real impact on society.

Claire's enthusiasm extends beyond the classroom. In her involvement with student recruitment she is equally committed to engaging with pre-university students. She promotes the merits of her discipline in magazine articles, on residential courses and school visits and by helping to bring materials alive in museums.

In Claire's own words: "It is important to try to understand the motivation for individual student learning, to recognise student diversity, and to provide a supportive environment to allow all students to achieve their full potential... I have adapted my lecture courses and teaching style to encourage a deep approach to learning and to inspire students."

*'Clearly committed to and passionate about teaching, Claire... takes pleasure in seeing 'eyes light up' when the realisation dawns that they can use what they are learning to make a real impact on society.'*

# Events

A selection of forthcoming events examining issues surrounding learning and teaching



## LTSN-ICS Conference 27–29 August 2002, University of Loughborough

*Delegates:* Information and Computer Science academics

*Details:* Una O'Reilly, u.oreilly@ulst.ac.uk, www.ics.ltsn.ac.uk/events/conf2002

## Learning communities and assessment cultures: Connecting research with practice 28–30 August 2002, University of Northumbria, Morpeth

*Delegates:* researchers, lecturers, teachers and other educational practitioners; research students at Masters, doctoral and postdoctoral level; curriculum and qualification managers; those with responsibility for quality assurance and enhancement

*Fee:* £365 (including accommodation and meals)

*Details:* Anne Middleton, anne.middleton@northumbria.ac.uk,

[http://online.northumbria.ac.uk/faculties/art/learning\\_communities/index.htm](http://online.northumbria.ac.uk/faculties/art/learning_communities/index.htm)

This conference is jointly organised by the EARLI Special Interest Group on Assessment and Evaluation and the University of Northumbria. The conference will bring together people from compulsory and post compulsory education (including higher education, further education and adult learning).

## Shared visions

1–3 September 2002, Brighton

*Details:* Kath Bowden,

k.m.bowden@bton.ac.uk,

tel: 01273 642815,

www.lancs.ac.uk/palatine/shared\_visions

Learning and teaching on the borders of architecture, art, communication, dance, design, drama, landscape, media, music, performance and theatre. The aim of this collaboration between the three arts-based LTSN Subject Centres is to enhance the knowledge and practice of learning and teaching in the creative arts discipline.

## ALT-C 2002: Learning technologies for communication

9–11 September 2002, University of Sunderland

*Delegates:* lecturers, staff developers, information professionals, IT and learning technology support staff, educational researchers, senior managers with learning or IT portfolios.

*Fee:* 'earlybird' option (until 30 June 2002) ALT members £275, non-members £315; thereafter ALT members £315, non-members £355.

*Details:* www.alt-c2002.org.uk/index.html

## Widening participation in Physics and critical thinking

12–13 September 2002, University of Leeds

*Details:* www.physsci.ltsn.ac.uk

Debate and discussion of teaching and learning initiatives amongst university physicists.

## Competing for space: Can immigrant and indigenous linguistic minorities coexist?

2nd Southampton Symposium to celebrate the European Day of Languages

26 September 2002, University of Southampton

*Details:* Sue Nas at llas@soton.ac.uk or register online at www.lang.ltsn.ac.uk

The LTSN Subject Centre for Language, Linguistics and Area Studies, together with Southampton University's School of Modern Languages, will be hosting this symposium on a current topical language issue.

## Learning outcomes and assessment 24 October 2002, University of York

*Delegates:* all law teachers who wish to learn more about learning outcomes and assessment

*Details:* www.ukcle.ac.uk/events/outcomes.html

A workshop by the LTSN Centre for Legal Education.

## Computer-aided assessment: objective questions

25 November 2002, Aston University Library

*Details:* www.ukcle.ac.uk/events/caa.html

This workshop by the LTSN Centre for Legal Education will focus on how objective questions can be adapted to assessment in law.

# Related PROJECTS

Listed here is a range of projects nationwide exploring the issues surrounding employability

An additional listing of further projects exploring employability can be found at [www.exchange.ac.uk](http://www.exchange.ac.uk)

## Employability Co-ordination Team

The Higher Education Funding Council for England (HEFCE) is appointing an Employability Co-ordination Team later this summer to promote the integration of employment-relevant learning into HE provision. The team's role will be to draw together the lessons learned from a range of recent employability-related initiatives and to develop information, advice and guidance on a range of issues.

The new team will work with the LTSN and other key partners to promote and disseminate this advice and guidance. It will also build partnerships and capacity in the sector to sustain co-ordinated developments in this area.

HEFCE expects the team's main focus to be on the integration of employability skills and attributes into the curriculum at generic and subject levels. It also expects the team to work on 'extra-curricular' areas (such as work experience, volunteering and personal development planning) that can enhance learning for employability; vocational and work-based provision; institutional strategies relating to employability; regional issues; promoting partnerships with employers; and staff development.

## Graduate Employability University of North London

Dr Barbara Page: [b.page@unl.ac.uk](mailto:b.page@unl.ac.uk)  
Develops evidence-based actions to enhance the employability of non-traditional students.

## RAPID 2000 Project Loughborough University

Alan Maddocks: [a.p.maddocks@lboro.ac.uk](mailto:a.p.maddocks@lboro.ac.uk)  
Seeks to enhance the skills of undergraduates in the Built Environment and Civil Engineering disciplines through the use of the Web-based RAPID Progress File.

## DEBS: Developing Business Skills within Land and Property Management Courses De Montfort University

Martin Hill: [mphill@dmu.ac.uk](mailto:mphill@dmu.ac.uk)  
Producing a specification of business skills appropriate to the new demands of business-orientated surveying programmes and developing appropriate teaching, learning and assessment strategies.

## Professional Scholarship Programme for the Land-Based Industries Harper Adams University College

Dr Abigail Hind: [amhind@harper-adams.ac.uk](mailto:amhind@harper-adams.ac.uk)  
Developing a professional scholarship programme designed to enhance the key skills, career management abilities and scholarship required by autonomous professionals in a learning society.

## Learning to Work: Working to Learn Kingston University

Dr Sarah Sayce: [s.sayce@kingston.ac.uk](mailto:s.sayce@kingston.ac.uk)  
Establishing periods of work-based learning and building mechanisms for universities to work with employers to equip graduates with the skills needed to engage in lifelong learning and continuing professional development.

## BALANCE University of Loughborough

Lesley Davis: [l.davis@lboro.ac.uk](mailto:l.davis@lboro.ac.uk)  
Embeds existing good practice in developing methodologies to generate an engineering community to which more balanced numbers of women and men are recruited and retained. Builds upon existing initiatives and studies to engender an environment in which staff, students and employers understand the attitudes and perceptions specific to women.

## Integrating Work-Related Learning into the Curriculum University of Newcastle

Dr Mike Adey: [m.a.adey@ncl.ac.uk](mailto:m.a.adey@ncl.ac.uk)  
Distributes guidance on good practice for the implementation of work-related learning and commissions enhanced practice in a number of institutions.

## The Keynote Project Nottingham Trent University

Mr David Allen: [david.allen@ntu.ac.uk](mailto:david.allen@ntu.ac.uk)  
Identifies, disseminates and develops the key skills of textiles, fashion and printing students, thereby enhancing their employability. It is undertaking an audit of best practice in 50% of the institutions offering courses under the Materials Technology subject area, and piloting the best practice to emerge from this across a range of courses in nine institutions.

## EMSIE: Embedding Matching Sections in Engineering Nottingham Trent University

Professor Roger Hawkins:  
[roger.hawkins@ntu.ac.uk](mailto:roger.hawkins@ntu.ac.uk)  
Working with engineering institutions, industry and other universities to develop a Best Practice Handbook for further learning. A benchmark standard for further learning is to be developed, which is now part of the educational requirements to become an incorporated or chartered engineer.

**The National Co-ordination Team**

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