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HAVE YOU SEEN THIS?

Disability Update

Special Education Needs and Disability Act (SENDA) 2001

Introduction

The Special Educational Needs and Disability Act (SENDA) finally received Royal Assent in May 2001. The new legislation will require higher education institutions to:

- Not treat disabled students less favourably, without justification, than non-disabled students;
- Make reasonable adjustments to ensure that people who are disabled are not put at a substantial disadvantage compared with people who are not disabled in accessing higher education.

The legislation will have important implications, not only for estates departments and physical access but also for learning, teaching and assessment practices. It will impact on areas such as:

- Course content and validation
- Work placements
- Teaching arrangements
- Communication or learning support services
- Materials in alternative formats
- Staff training

It is intended that most of the legislation will be brought into force by autumn 2002, with provision of auxiliary aids and services (such as interpreters) being implemented by autumn 2003, and physical adjustment provisions in 2005.

A Code of Practice, which gives guidance to providers of post-16 education in the implementation of the new law, is currently out for consultation, and is available on the Disability Rights Commission website at <http://www.drc-gb.org>.

Learning from Experience

Last December I undertook a study visit to Australia where similar legislation has been in place since 1993. The Australian system of disability support is remarkably consistent with UK practice; the majority of services are organised from student support/welfare departments who liaise with academic departments on issues concerned with learning and teaching. Interestingly, since 1993, the majority of legal cases that reached court where the judgement has gone against the university, were directly related to learning and teaching issues. This includes direct discrimination in not allowing access to courses; the inability to make reasonable adjustments to teaching and learning practice and access to timely materials in alternative formats.

Current Work

The HEFCE recently commissioned a 'map' of existing resources related to the learning and teaching of disabled students in higher education. The map will locate pedagogical development materials, pedagogical research and resources including organisations/networks or people within institutions. It is expected the report will be published soon and will assist academic staff in locating resources and advice to support good practice. The LTSN Generic Centre (<http://www.ltsn.ac.uk/genericcentre/default.asp>) is also hoping to fund a project that will build upon the outcomes of the mapping exercise.

Individual subject centres are also starting to address disability. For example, the subject centre for Geography, Earth and Environmental Science (GEES) held a conference in October for their communities on the new legislation and how best to support academic staff in ensuring compliance. The conference was well attended by academics and support staff from the disciplines. In addition, a special themed edition of PLANET is also being produced on special education needs and will be disseminated to all GEES departments in the Spring of 2002 (contact Steve Gaskin for more details: sgaskin@plymouth.ac.uk). The subject centre for Engineering (<http://www.ltsneng.ac.uk/>) has seconded a Disability Advisor for one day a week to produce a series of disability awareness booklets about specific areas within engineering; the booklets will contain contributions from disabled people who are either engineers or engineering students.

This type of activity is critical if the learning experience of disabled students is to match that of their non-disabled peers; subject centre developments will be important to achieve this necessary change.

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Editor's Note

Readers may also be interested in the article by Healey et al. on fieldwork and disability (in the main papers section), and also the short article written by McCarthy on TechDis, which follows in this section of PLANET.



GEES Headline News Service

Want to keep up-to-date with Subject Centre activities, developments and projects through email? Then join 'GEES Headline news' by emailing the Subject Centre on info@gees.ac.uk

TechDis

Technology for Disabilities
Information Service

Technology and Usability in the GEES disciplines

Introduction

Other articles within this issue of PLANET have already outlined issues surrounding the Special Educational Needs and Disability Act (SENDA) 2001 (e.g. Adams; Roberts and Healey), but it is also worth noting that there are specific technological issues associated with this legislation, as well as other drivers behind the use of technology to provide equal opportunities for all.

Part of making 'reasonable adjustments' and not treating disabled students 'less favourably' will be to ensure that institutional websites and intranets meet the appropriate guidelines, in order that they can be accessed by disabled students using assistive technologies (such as screen readers, which convert text to audio). This good design also has the effect of making websites more easily usable by everyone – for example the navigation can become simpler and you will not have to wait an age for images to download over a slow connection. TechDis and other groups are presently raising these generic technology issues, so we shall not expand further on them here, but will point you to the TechDis website (<http://www.techdis.ac.uk>) for more information.

GEES Specific Technology Issues

Subjects use technology in different ways; within the discipline areas covered by GEES (and some other subject centres) 'virtual laboratories' and 'virtual fieldwork' are, or are becoming key technological tools. The potential advantages are often stated – they can provide a cost-effective training tool, prompt exploratory learning and develop skills of scientific experimentation. Many of these technologies are in a stage of infancy. However, as both pedagogical and technological boundaries are explored, this provides a key opportunity for both developers and users.

The new SENDA legislation referred to above will apply to websites and other resources. Many of these are already well established and so their redesign will require significant effort and guidance from bodies such as TechDis, the LTSN and the National Disabilities Team. It is far easier to keep in mind usability issues at the initial design stage; not only is this more cost effective (redesign of resources is expensive), but it has the other advantages outlined above.

In the 'virtual' field we do not face the same momentum as with other established technologies, and by designing (rather than retro-fitting) environments which are usable by as many students as possible we are not only complying with legislation, but also enhancing the learning experience for *all* students. This may well take the format of common sense features, such as optional captioning for audio features, alternative text for images, or the capacity to magnify relevant features.

How can TechDis help?

TechDis can provide several services. Where we identify a skill or knowledge gap, we can commission research or disseminate existing good practice nationally, internationally, or in other sectors such as Further Education or industry. This dissemination can take the form of articles in

newsletters or journals (such as this edition of PLANET), pieces for our website, case studies (we are currently seeking case-studies, please see our website for details) or via our register of expertise, "TechDis connections".

We are working closely with the LTSN to ensure that subject specific areas are addressed effectively. Much of the work involving new technologies such as those identified above will take place within the Joint Information Systems Committee (JISC) Technologies Centre as a whole, which is looking into new technologies and their potential for learning and teaching. (Further details can be found at <http://www.technologiescentre.ac.uk>).

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Editors Note

Readers may also be interested in the main article by Healey et al. on fieldwork and disability (in the main papers section), and also the previous article written by Adams on special education needs and disabilities, in this section of PLANET. Also see the article by Clarke in this edition of PLANET.

CAL-laborate

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October 2000

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Educational Activities, Developments and Projects

All change on the Quality Front

A few months is a long time in the life of the Quality Assurance Agency (QAA). In the last issue of PLANET I wrote a 'Beginners Guide' to the then expected new quality system called Academic Review. Although this system has indeed now been put into practice in Scotland, elsewhere it has been stopped before it has begun.

The sudden and unexpected demise of Academic Review was announced by David Blunkett a few weeks before the general election. Although no well thought-out alternative was then ready to be put in its place, the Secretary of State had apparently been persuaded that a comprehensive system of departmental reviews was both too expensive and too burdensome.

Following a period of intense discussion in the corridors of power, a proposed new quality procedure then emerged in July with the issue of a consultation paper (01/45). However, the proposals it contained were too lightweight for John Randall, the Head of QAA, who resigned in August in protest. The new 'light touch' procedures will greatly reduce the scale and scope of subject-level review. Instead, reliance will be placed on an institution-level audit which only rarely will involve 'drilling down' into individual degree programmes. Subject-based Academic Review will be largely confined to a small sample of departments or to cases where there are serious concerns about a department's academic standards. How either the sample or the areas of concern will be identified is as yet uncertain.

Although those GEES departments in Scotland who have already experienced Academic Review may perhaps have mixed feelings about all of this, most GEES academics elsewhere will probably welcome the demise of comprehensive subject-level inspections. However, before opening the champagne, it is important to recognise one important stumbling block. In the mid-1990s all three GEES disciplines were reviewed under a TQA system in which (with a few exceptions) only departments claiming 'excellence' were actually inspected by a team of external reviewers. Many GEES departments have therefore never been visited. Under the terms of the 01/45 consultation document, it is quite possible that these departments could still be subject to the otherwise generally abandoned system of Academic Review, (or at least something rather like it). Their fate remains undecided and unclear.

Although the Funding Councils' are now engaged in a second consultation exercise, it is already clear that the principal features of the 01/45 proposal are very likely to be agreed and implemented. Institution-level audit, therefore, looks certain to be the future focus of quality assurance. Even in Scotland, it now appears that there will be major moves in this direction, so as to produce something at least approaching a UK-wide unified system.

Few academics will shed tears for Academic Review but it seems that every silver lining has a cloud. TQA and its successor systems have certainly stimulated many improvements in curriculum design and in learning and teaching. And without them we will face a higher education system in which there will be externally managed subject review of research (the RAE) but in most cases no externally managed subject review of teaching. One wonders what this might mean for the status of teaching and, ultimately, for HE students and courses. Ways will need to be found of promoting, recognising and rewarding good teaching and good courses. Safeguards and incentives will be required to ensure that the new light

touch does not become seen as a soft touch. Without the clout of subject review, teaching may need new advocates and champions if its voice is to be heard.

On a somewhat different note, however, the financial difficulties surrounding the RAE just might mean that the long-standard dominance of research could be drawing to a close, at least in some institutions. It seems that in relation to both research and teaching assessment, we live in interesting times!

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LTSN-GEES Pedagogic Research and Fieldwork Research Programme

September 13th and 14th 2001 Workshop, Coventry

The best parts of the workshop for me were: *"Networking with other like-minded individuals. Realising I had got a contribution to make. Being involved in such an exciting project."*

What I feel about the programme as a whole is: *"It is very dynamic - lots of good ideas generated in an open and supportive environment."*

These comments are typical of the responses to a two-day workshop held in September as part of a GEES research programme funded by the LTSN. The aim of the programme is to develop the capacity of our communities to undertake research into teaching and learning. This is being done through working together on a series of pilot projects all concerned with fieldwork, a key mode of learning for students in geography, earth and environmental sciences. Developing pedagogic research capacity is a key issue, which has been recognised in recent initiatives by the Economic and Social Research Council (ESRC). All the projects are adopting a common theoretical framework, based on the idea of constructive alignment (Biggs, 1999). Five distinct projects are being undertaken, which together involve about 50 people. Mick Healey (University of Gloucestershire) and Alan Jenkins (Oxford Brookes) are leading the programme. Critical to its success is the contribution of two pedagogic research consultants – Liz Beatty and Glynis Cousin (Coventry) who ran the two-day workshop in September. Further details of the programme are available at: <http://www.gees.ac.uk/pedresfw/pedresfw.htm>.

Reference

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Further copies of PLANET are available in a variety of different formats - if you would like any further information please contact the Subject Centre: info@gees.ac.uk • (01752) 233530

Guides to support learning and teaching in Earth and Environmental Sciences

LTSN-GEES is embarking on a new project which aims to develop guides to support learning and teaching in Earth and Environmental Sciences. The project is an extension and adaptation of the very successful Geography Discipline Network (GDN) Guides. The authors of the new guides will be discipline specialists working in close collaboration with the original GDN authors. The plan is to develop guides for teaching staff on the following topics:

1. Learning Outcomes and Assessment in Earth and Environmental Sciences;
2. Learning and Teaching with C&IT in Earth and Environmental Sciences;
3. Fieldwork in Earth and Environmental Sciences;
4. Practical and Laboratory work in Earth and Environmental Sciences.

The fifth guide will be a discipline-focused skills guides for students to give them a flavour of Earth and Environmental Sciences at university, helping them with the transition into higher education.

Two regional 'Good Learning & Teaching Ideas' Swap Shops will take place in 2002 to gather case study material for the guides. Contributions can be related to any of the topics covered by the guides' titles. The first Swap Shop will take place on **Tuesday 26th February 2002** at the TechnoCentre in Coventry. The second Swap Shop will take place at the Millennium Glasgow Hotel on **Monday 29th April 2002**.

Log on to the GEES website (<http://www.gees.ac.uk>) for further information on these events, or contact Marianne Hall (m.hall@herts.ac.uk). We would like as many people as possible in the GEES disciplines to contribute.

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Forthcoming Workshop

Time to reflect? Promoting reflection among students and staff

Tuesday 5th February 2002 University of Gloucestershire

Many would claim that reflection is the defining characteristic of higher education. However, most students and some lecturers don't know how to reflect. At this conference delegates will have an opportunity to review what is reflection in geography, earth and environmental sciences, and discuss how to develop reflective learning exercises in their courses.

The event will take place in Cheltenham and is hosted by the LTSN Geography, Earth and Environmental Sciences (GEES) Subject Centre in association with the Geography and Environmental Management Research Unit and the School of Environment, University of Gloucestershire.

Conference Programme

There are three elements to the conference:

- presentations from UK teaching and learning experts;
- an overview of the GEES project on reflective learning;
- a series of workshops on promoting reflection among students & staff.

Presentations

Norman Jackson from the LTSN Generic Centre will open the conference. He is involved with several national initiatives that emphasise the role of reflection in Higher Education, and like most practitioners Norman is committed to uncovering just what reflective learning means to specific disciplines. John Cowan, author of *On Becoming an Innovative University Teacher – Reflection in Action* and someone with a wealth of experience in how to develop the skill of reflection in students and staff, will give the keynote address.

LTSN-GEES project

During 2001 the project team working on the LTSN-GEES funded project on reflective learning undertook a questionnaire survey of departments to discover how, where, and to what extent, reflective learning was promoted explicitly in geography, earth and environmental science undergraduate courses. In addition, the project team in association with colleagues at the University of Gloucestershire developed various reflective learning exercises in a Level 2 research methods module. Members of the team will present the findings of the project, answer questions and share with delegates their understanding of what reflective learning means to the GEES disciplines.

Workshops

Colleagues from across the UK and at Cheltenham will lead workshops on reflective learning. Proposed workshops include:

- Personal and Professional skills in Geology and Earth Sciences;
- Reflecting on skills for a dissertation in Geography;
- Reflective diaries in a multilevel project;
- Team building and reflection in Environmental Sciences;
- Introducing reflection to students.

Plenary

The plenary session of the conference will be led by Brian Chalkley, Director of LTSN-GEES. Delegates will receive feed-back from all the workshops and there will be an open discussion focusing on how the GEES disciplines can further help and support one another in the promotion of reflective learning.

For further information, a provisional programme and booking details visit <http://www.gees.ac.uk/confref.htm>

ARTICLES WANTED!

Would you like to contribute to a future issue of this publication? If so, we would be pleased to receive your articles, case studies or news items. Alternatively, you may like to comment on a previously published article, or suggest ideas for future editions. Whatever you decide to contribute, we would be pleased to hear from you. Contact Steve Gaskin on 01752 233535 or sgaskin@plymouth.ac.uk

The Committee of Heads of Environmental Sciences (CHES) Annual Conference 2002

CHES will be holding its Annual Conference and AGM on the **18th and 19th March 2002** at the University of York. The conference will focus on increasing the recruitment of students to Environmental Sciences in HE by exploring strategies to raise the profile of Environmental Sciences. These include ways of promoting interest in Environmental Sciences within schools and liaising with the media to present a positive image of environmental issues and professionals.

The conference fee is £100 and non-CHES members are very welcome. The fee covers overnight accommodation, meals, refreshments and the conference dinner, which will be a medieval banquet at St. William's College, adjacent to York Minster. To book a place or get more information please contact Christine James (email: c.james@rgs.org Tel: 0207 591 3028).

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The Future of Fieldwork

As legislation, bureaucracy and costs make fieldwork more difficult, does fieldwork have a future in the academic curriculum? This issue of the newsletter will include theoretical versus practical arguments.

Environmental Impact and Sustainability of Fieldwork

As some fieldwork sites become over run with students and teachers, what effect is this having on the surrounding environments and is it sustainable? This issue of the newsletter will investigate ideas and possible solutions to protect these sites.

The effect of Tourism on the Mountain Landscape

As we celebrate the European Year of the Mountain, this article will investigate the impact of people on mountain environments, especially post 1945. As society has more leisure time, will this have an irreparable impact on the mountain habitat?

The newsletter will be freely available through the *Virtual Montana* Web Site (<http://www.virtualmontana.org>) and also by email subscription.

The newsletter is the latest development in the *Virtual Montana* Project, which has sought to develop online resources to support Geographical Fieldwork in three locations. Since 1999 the project partners, Liverpool Hope, University of Bucharest, University of Lyon 3 and the Field Studies Council, have developed web resources aimed at undergraduates to support fieldwork in mountain environments, focusing on North Wales, the French Alps and Romania.

Further initiatives have allowed the development of a Schools section of the web site to support Key Stage 3, Key Stage 4 and Advanced Level Geography Fieldwork. Plans are also well underway to establish an International academic online journal focusing on research in Fieldwork Studies.

For further details about the project, information on submitting an article, or if you have any items of news, information, favourite field sites, hints and tips, or recommended Web links etc. for the newsletter please email the authors below.

Editor's Note

Readers may also be interested to hear about the LTSN-GEES special research project which is assessing ways in which the educational effectiveness of fieldwork can be enhanced in the GEES disciplines. See the earlier short piece by Healey in this section of PLANET.

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YOU to Review!

LTSN-GEES holds an archive of new learning and teaching software and texts. If you are interested in reviewing any of this material then please contact the Subject Centre on 01752 233530 (info@gees.ac.uk). We will then commission a review that will be published in a future issue of PLANET.



Virtual Montana Newsletter

Liverpool Hope University College, the coordinating partners of the three-year EU funded *Virtual Montana* Project, will launch the first issue of the *Virtual Montana* Newsletter in November 2001. The project, which originated in 1999, has been supported under the Minerva Action of Erasmus. The aim of the *Virtual Montana* newsletter is to provide a source of information and up-to-date communications about fieldwork issues and research, predominantly in the fields of Geography and Environmental Studies. Along with the latest news, details of events and reviews of resources, each issue will have a features section focusing on a specific theme.

Some proposed themes for future issues are:

Fieldwork Constraints

The problems faced by lecturers, tutors and teachers when organising fieldwork, especially relating to cost, access, expertise, health and safety and organising time. This issue of the newsletter will address possible solutions to these problems.

Fieldwork Impact

Sociological Interaction. This issue of the newsletter will address the effect of fieldwork within modules on the students' learning experience, considering both learning impacts and social developments.



Geography Discipline Network

Learning Support for Disabled Students Undertaking Fieldwork and Related Activities

Web-based Guides for Tutors in Higher Education

The following Web-based guides are the result of the '*Learning Support for Disabled Students Undertaking Fieldwork and Related Activities*' project, funded by HEFCE's *Improving Provision for Disabled Students Funding Programme*.

- Issues in Providing Learning Support for Disabled Students Undertaking Fieldwork and Related Activities
- Providing Learning Support for Students with Mobility Impairments Undertaking Fieldwork and Related Activities
- Providing Learning Support for Blind or Visually-impaired Students Undertaking Fieldwork and Related Activities
- Providing Learning Support for Deaf or Hearing-impaired Students Undertaking Fieldwork and Related Activities
- Providing Learning Support for Students with Mental Health Difficulties Undertaking Fieldwork and Related Activities
- Providing Learning Support for Students with Hidden Disabilities and Dyslexia Undertaking Fieldwork and Related Activities

<http://www.chelt.ac.uk/gdn/disabil/index.htm>



Good Practice in Work-Related Learning – The RealWorld Project

Gordon Robertson
University of Sunderland

Jeremy Hills, Mike Adey, Iain Nixon and Paul Freeman
University of Newcastle

Introduction

The Real-World Project is supported by the HEFCE Fund for the Development of Teaching and Learning (FDTL). It has the principal aim of enhancing the employability of students integrating work-related learning into the curriculum. This article builds on a previous Real-World paper in PLANET Issue One.

One of the outputs of the project to date is a conceptual framework that aims to provide a structure for developing work related learning. The framework is available from the project's web site (<http://www.careers.ncl.ac.uk/realworld>). Examples of good practice in work-related learning activities are also available.

The value of work-related learning in addressing the employability agenda has been established and is reinforced through the political commitment to such approaches in learning and teaching. Initiatives such as the Fund for the Development of Teaching and Learning (FDTL) provide opportunities for innovation in such areas through stimulating developments in teaching and learning.

Definition of Work-Related Learning

The project team considers work related learning to be an extension of other, more recognised terms such as work experience and work-based learning. An initial workshop organised by the project and attended by academic practitioners indicated ambiguity in the interpretation of the term work-related learning.

The framework therefore aims to provide a clear definition of work related learning, a recognition of the processes involved and a practical model which identifies good practice in achieving work related-learning outcomes. Work-related learning is all-inclusive, in that it can include activities over and above placements (commonly associated with the term work experience) and doesn't limit the location of activities to the workplace (often referred to as work-based learning).

In the light of this, the Real World project initially defined work-related learning as:

'Learning and teaching activities which reflect and embrace the world of work'

Testing the definition

When examined closely two distinct components emerge which do not combine easily in one term. This tension arises, in part, because *learning* can be interpreted both as an activity in which knowledge and skills are gained as well as the outcomes of the activity.

The tension is further aggravated by the categorisation of *learning* as work-related. Is it the activities that are work-related or the knowledge and skills? In practice the term work-related learning appears to be used in both senses – usually at the same time!

To develop the framework there is a need to clarify what is meant by learning and teaching activities that reflect or embrace the world of work and also the domain described by knowledge and skills learnt in the context of the world of work.

There are some difficulties with this. A literal interpretation of learning and teaching activities that reflect or embrace the workplace might limit the activities to those, which actually take place in the workplace or can be simulated as workplace activities. If, however, the desired outcomes are used as the driver then all activities that enable the student to acquire the desirable knowledge and skills in the context of the workplace can be included. Clearly some activities will be more appropriate and successful than others but all activities could be included as long as they provide the appropriate context.

Figure 1 illustrates some of the work-related activities which might encompass both work-based or non-work based learning and that are likely to deliver good practice. The interrelationship between the two environments is established through a continuum of possible learning and teaching activities.

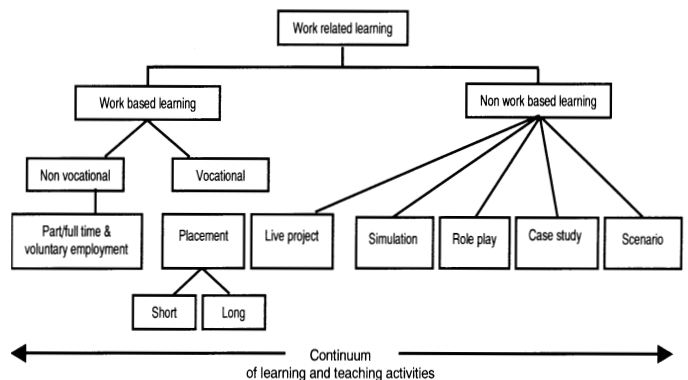


Figure 1 The Environment of Work-Related Learning

The success of an activity can be assessed by the degree to which its outcomes are achieved. The outcomes to be considered are the skills and knowledge learnt in the context of the workplace. The context becomes the crucial distinguishing feature of work-related learning. It is not the skills and knowledge which are unique to work-related learning, it is the context in which they are developed.

One such example of development in context was featured in a previous edition of PLANET. The Local Sustainability Project, part of the BSc Environmental Studies at the University of Sunderland, involves students in mixed level research groups looking at various aspects of sustainable development in collaboration with a Local Authority. Findings are presented at a public conference attended by local politicians, external partners and community representatives. In this instance, the work-related outcomes for the module relate to developing and demonstrating skills in research, group working, communication and reflection while contributing to a project with a 'real world' orientation.

Other examples, such as the Food Marketing Project module, part of the BSc Food Marketing degree at the University of Newcastle, are available on the project web site.

These examples in broad terms demonstrate that the conceptual framework has practical benefits in identifying and implementing good practice in work-related learning.

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The JISC Technologies Centre – what does it do?

The Technologies Centre performs the technology transfer function for the Joint Information Systems Committee (JISC) in relation to learning and teaching. We support a co-ordinated approach to the use of new or near-market technologies in learning and teaching across UK Further and Higher Education by working closely with a range of appropriate bodies such as LTSN and the Regional Support Centres for FE. This is achieved by identifying the key issues for the educational community relating to the interaction of technology and teaching, and collating and disseminating information on these.

In particular, the JISC Technologies Centre:

- Provides technical expertise to the Further and Higher Education communities in the support of learning and teaching;
- Investigates and assesses the effectiveness of emerging technologies for learning and teaching;
- Co-ordinates intelligence across the FE/HE sectors and the constituent parts of the UK regarding learning technologies;
- Provides a conduit between the JISC and the teaching community;
- Identifies gaps and promotes the communities learning and teaching technology needs to industry.

The primary form of dissemination is the JISC Technologies Centre Website which can be found at: <http://www.technologiescentre.ac.uk>

The site contains information and resources for the community including papers, articles and discussions on the current learning and teaching themes; news; frequently asked questions; a searchable Glossary of technical terms and a searchable database of educational technologists in the community. The educational technologists database is designed to help people locate others working in the same area (either by subject or by location).

JISC Technologies Centre Themes

This year the efforts of the Centre will be concentrated on the following themes outlined below. We are also able to fund reports on innovative work in these areas in addition to having limited funds available for commissioning of case studies aimed at highlighting and disseminating good practice.

Virtual laboratories

We will be covering a wide range of practical activities in virtual media, such as field trips, surgery, manufacturing, distributed design teams, performance art, as well as scientific experiments. We will report on best practice and experiences in implementing virtual laboratories.

Remote laboratories

We will look at learning opportunities in which equipment can be controlled remotely for learning and teaching purposes. This could include remote operation of space probes and off-world experiments, underwater geology, underground engineering work, or remote network diagnostics.

Computer Aided Assessment

We will be looking at new technologies in CAA, and in particular how

CAA can extend the types of assessment available to improve the effectiveness of assessment and how these will feed back into the curriculum.

E-tutoring

We will publish papers on good practice in this area and on the design and delivery of effective on-line learning and the support required.

Broadband and wireless technologies

We will look at take-up rates, technology, convergence (cable, satellite, xDSL, Bluetooth) and consider the implications for on-line learning, lifelong learning and widening participation.

Glossary Entries needed

In order to create a glossary database with the broadest coverage for the Educational Technology community, we are calling for entries from those working in the field. If you would like to write an entry, on any appropriate topic within educational technology, we will reward you with a £10 book token for each entry used. We are looking for a short précis of the topic, followed by an approximately 400-600 word complete definition.

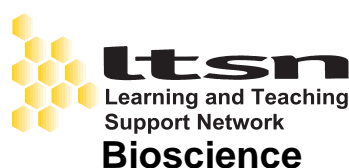
Contact Details: The Technologies Centre is located in York alongside the LTSN Executive and LTSN Generic Centre.

JISC Technologies Centre, Genesis 3, Innovation Way, York Science Park, Heslington, York, YO10 5DQ, Tel: 01904 434027 Fax: 01904 434247, Email: asktc@ltsn.ac.uk, Web: <http://www.technologiescentre.ac.uk>

The Technologies Centre is a JISC funded initiative. The Joint Information Systems Committee (JISC) promotes the innovative application and use of information systems and information technology in Higher and Further education across the UK.

Mike Clarke

Project Officer
JISC Technologies Centre
mike.clarke@ltsn.ac.uk



Where there's life, there's the LTSN Centre for Bioscience!

Introduction

The LTSN Centre for Bioscience, based at the University of Leeds, is the subject centre for the life, food and agricultural sciences. There are obvious overlaps between LTSN-GEES and Bioscience subject centres in areas such as applied biosciences, ecology and soil science. If you are one of those caught with a foot in both camps, such as a lecturer in genetics teaching environmental scientists or a biogeographer teaching biologists, congratulations, you have the benefit of drawing on the expertise of two subject centres! This is just one of the advantages of having a network-based organisation such as the LTSN at your disposal; you can pick and choose from the selection box of support services and resources available from both subject centres.

Of course, the academic communities supported by LTSN Bioscience and GEES not only have an overlapping interest in the academic content of the disciplines they teach, but also in the specialist teaching areas of laboratory practicals and fieldwork. Practical classes are a vital component of degrees in our disciplines and are under considerable pressure due to reduced funding, increased student numbers and diversity of student abilities. Both subject centres have developed initiatives to help our academic communities to deal with these pressures.

Outlined below are three projects LTSN Bioscience is undertaking that will not only be of benefit to bioscientists and those teaching at the interface but also those involved in learning and teaching across a variety of discipline areas, including GEES.

LTSN Bioscience projects of interest to PLANET readers:

Imagebank

When asked, eight out of ten lecturers said they'd prefer a Bioscience Imagebank! A slight exaggeration maybe, but a Bioscience Imagebank came out top in our recent conducted needs analysis. Imagebank aims to provide a shared image resource, which will be freely accessible and copyright free for educational purposes through the LTSN Bioscience website. If you are interested in contributing images such as research or teaching photographs, diagrams, electron micrographs, computer generated micrographs or even video clips please contact LTSN Bioscience.

Promoting innovation and good practice in practical classes

The compilation of a 'Compendium of Good Practice and Innovation in Bioscience Practical Classes' will create a significant resource for the community - providing laboratory and fieldwork practicals in complete packages. The compendium will also include evaluated examples of alternatives to working in the laboratory and field such as computer-based simulations, data-analysis exercises, demonstrations and equipment workshops. In addition, we are setting up communications networks to engage with the other members of practical teaching staff - demonstrators, teaching fellows and teaching technicians.

Knowledgebase

Where are all these resources going to be stored? Answer: In our on-line information service, the 'Knowledgebase', accessed through our website. We aim to make the knowledgebase much more than a catalogue - it is developing into a rich resource with value added by comments and experiences from the community using and developing such resources.

The easiest way of keeping up to date with these initiatives and the activities of the LTSN Centre for Bioscience is to 'Join the LTSN Bioscience network!' You will be receive LTSN Bulletin three times a year and monthly electronic updates of Centre news and events. You can join the network on our website or by contacting the Centre. We look forward to hearing from you.

Contact details: LTSN Centre for Bioscience, School of Biochemistry and Molecular Biology, University of Leeds, Leeds, LS2 9JT. Tel: 0113 233 3001. Fax: 0113 233 3167. Email: ltsnbioscience@leeds.ac.uk
Web: <http://bio.ltsn.ac.uk/>

Heather Sears
Subject Specialist
LTSN Bioscience
ltsnbioscience@leeds.ac.uk

Higher Education Research and Development Society of Australasia (HERDSA) 2001 Annual Conference, Newcastle, Australia

The Higher Education Research and Development Society of Australasia (HERDSA) encourages and promotes quality learning and teaching in higher education, provides a forum for the exchange of information on higher education, develops and publishes material for higher education teachers, and has a large Australasian and international membership. The Annual Conference in 2001 in Newcastle, Australia was attended by Steve Gaskin, Mick Healey and Alan Jenkins, who all work for the Subject Centre in various capacities.

The theme of the conference was 'learning partnerships'. Over 170 papers were presented, and many had an innovative approach to addressing the conference theme. Papers ranged from considering different approaches to academic staff development, to student motivation and assessment.

The HERDSA 2002 conference is to be held in Perth and has as its theme 'Quality Conversations'. Before the main conference, the 4th world conference of the international consortium for educational development in Higher Education (ICED) is also to be held in Perth. The theme for this conference is 'Spheres of Influence: Ventures and Visions in Educational Development'.

Further details on HERDSA 2002 can be found at:
<http://www.edu.edu.au/conferences/herdsa>

Further details on ICED can be found at:
<http://www.csd.uwa.edu.au/iced2002/>

A discounted rate is available if you would like to attend both conferences.

Finally, if you are attending a conference overseas with a learning and teaching theme, why not act as an ambassador for learning and teaching in the UK, by requesting a LTSN-GEES Subject Centre publicity pack?

Steve Gaskin
LTSN-GEES
sgaskin@plymouth.ac.uk

The Global Geographic Inquiry Challenge (GGIC) project

The Global Geographic Inquiry Challenge (GGIC) project aspires to build international teaching and learning collaborations for global geography education. At this time, we are seeking faculty to participate in university classroom trials of the first GGIC module, Migration.

The Migration module features four lessons that are designed to enhance global perspectives and interest in geography through collaborative, problem-based inquiry. Each lesson employs a variety of Internet-based technologies to support international collaborative learning. The module is suitable for use in introductory human and world regional geography courses as well as in upper division courses such as population geography.

It is anticipated that faculty collaborators will begin and complete instruction between March 1 and April 30, 2002. We recommend that instructors allow students 3-4 weeks to complete the module. The GGIC staff will be on hand to help faculty prepare the module for local implementation and for technical assistance throughout the trials.

The Migration module will be launched in January 2002 and include a full set of student and instructor materials. Faculty and students will have access to a complement of Internet-based communication technologies.

Additional information and a registration form is available at:

<http://www.swt.edu/~ms32/ggic/>

Registration deadline: **January 14, 2002**

Please direct questions to the project director below.

Michael Solem

Southwest Texas State University
ms32@swt.edu

The GEES Guide.....to some e-resources

Learning and Teaching Resources

The **Geography Discipline Network (GDN)** website provides and holds a wealth of pedagogic case studies for geography, earth and environmental sciences in higher education.

The URL is <http://www.chelt.ac.uk/gdn/>

TALESSI (Teaching and Learning at the Environment-Science-Society Interface) has a substantial portfolio of on-line teaching and learning resources covering active learning and critical thinking.

The URL is <http://www.gre.ac.uk/~bj61/talessi/>

Gateways and Portals

Gateways and portals are websites that offer organised collections of web-links to Internet sites. They tend to be aimed at specific subjects, thereby providing a quick and easy way to surf the web for relevant URLs in the subject of your choice. In most cases the internet resources that these gateways direct you to have been evaluated for quality and subject relevance and are kept up to date. For those of you unfamiliar with the available information gateways and portals, below are a few that may be of use when looking for information relevant to learning and teaching, and for subject material in Geography, Earth and Environmental Sciences.

PSigate covers subjects in the physical sciences. These include earth sciences, chemistry, physics, materials science, science history and policy, and astronomy.

The URL is <http://www.psigate.ac.uk>

SOSIG covers subjects in the social sciences, business and law. These include business (including management), economics, education, environmental sciences and related issues, ethnology, ethnography, anthropology, European studies, geography, government and public administration, law, philosophy, politics, psychology, social science general, social welfare, sociology, statistics, women's studies.

The URL is <http://www.sosig.ac.uk/>

BIOME covers subjects in the life, health and medical sciences. Amongst other areas it deals with the biological sciences, including zoology, botany, natural environment, agricultural sciences, forestry and horticulture, biochemistry, microbiology, molecular biology and genetics.

The URL is <http://biome.ac.uk>

HUMBUL covers subjects in the humanities. Of possible interest to the GEES disciplines are archaeology and philosophy.

The URL is <http://www.humbul.ac.uk/>

Gateways and Portals Under Development

A number of gateways and portals are under development at present and we will keep you up to date on progress.

Tellus - will cover learning and teaching materials for Geography, Earth and Environmental Sciences (i.e. practical solutions and ideas to help enhance learning, teaching and assessment).

The URL is <http://www.tellus.ac.uk/index.html> (a holding site).

The **LTSN GEES Resource Database** will hold details and reviews of learning and teaching resources relevant to the GEES disciplines (Books, CDs etc) along with abstracts of interesting and effective teaching, learning and assessment practices in Geography, Earth and Environmental Sciences.

The URL is <http://www.chelt.ac.uk/el/philg/gdn/resdata.htm>

GEsource - will cover subject content resources for Geography and Environmental Sciences (resources that can be used by both students and lecturers).

The URL is <http://www.gesource.ac.uk/index.html> (a holding site).

The **LTSN Generic Centre Portal** will have information, advice, case studies and materials on generic aspects of learning and teaching.

The URL is http://www.ltsn.ac.uk/about/generic_centre.asp (a news update).

A Place to look for more Gateways and Portals

PINAKES provides links to all the major subject gateways and may be a good place to start exploring the gateways and portals that are available.

The URL is <http://www.hw.ac.uk/libWWW/irn/pinakes/pinakes.html>

Data Resources

MIMAS (Manchester Information and Associated Services) is a national data centre providing the UK higher education community with access to key information resources to support teaching, learning and research. MIMAS hosts a number of dataset services, which can be grouped into 6 categories: bibliographic reference, electronic journals, scientific data, socio-economic data, software for spatial and socio-economic data analysis, and spatial data.

The URL is <http://www.mimas.ac.uk/>

And Finally...

The **Resource Discovery Network Virtual Training Suite** is a set of tutorials where you can learn how to use the Internet to help with coursework, literature searching, teaching and research. There are two GEES subject specific training tutorials "Virtual Earth Scientist" and "Virtual Geographer", both of which take about an hour to work through.

The URL is <http://www.vts.rdn.ac.uk/>

Mike Sanders

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Journal of Geography in Higher Education

EDITORS

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The *Journal of Geography in Higher Education* was founded upon the conviction that the importance of teaching and learning has been consistently undervalued in higher education. Devoted to geography teaching in all institutions of higher education throughout the world, it provides a forum for geographers and others, regardless of their specialisms, to discuss common educational interests, to present the results of educational research, and to advocate new ideas.

This journal is also available online.

Please connect to <http://www.tandf.co.uk/online.html> for further information.



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Webbed Foot

Columbia University's Center for International Earth Science Information Network CIESIN Gateway: <http://www.ciesin.org/>

This Centre works at the intersection of the social, natural, and information sciences. It specialises in on-line data and information management, spatial-data integration and training, and interdisciplinary research related to human interactions in the environment. A metadata search system enables users to identify databases, information systems, and other resources pertinent to the study of global environmental change, human interactions in the environment, and sustainable development.

The rich website includes details of all the Centre's activities, including its two major programmes:

- (1) **Socioeconomic Data and Applications Center (SEDAC)** one of eight Distributed Active Archive Centers (DAACs), and the only one to focus on socioeconomic data. The role of SEDAC is to act as a bridge between the earth and social science research communities. The data it provides complement the Earth science and remote-sensing data being distributed through the other DAACs.
- (2) **Global Change Research Information Office (GCRIO)** serves as the information dissemination arm of the United States Global Change Research Program. The GCRIO site contains numerous on-line publications and links related to global environmental change and includes the "Ask Dr. Global Change" service.

A regular "In the Spotlight" item on the CEISIN website featured, in early October 2001, is the LandScan data set, a worldwide population database compiled on a 30" X 30" latitude/longitude grid. Census counts (mainly at sub-national level) were apportioned to each grid cell based on probability coefficients, which are based on proximity to roads, slope, land cover and night-time lights. LandScan 2000 has been developed as part of Oak Ridge National Laboratory (ORNL) Global Population Project for estimating ambient populations at risk. The LandScan data files are available free of charge, although users must first register.

CIESIN has many on-line educational resources. The following are just a small selection to indicate the broad coverage and depth of this website:

CIESIN Fact Sheets, in PDF, provide overviews and instructions for selected on-line data resources, including instructions for use:

- CIESIN Projects and Internet Resources (overview of major on-line resources)
- Gridded Population of the World (GPW)

Thematic Guides on the Human Dimensions of Global Environmental Change offer overviews of some of the key topics and issues that pertain to the human dimensions of global environmental change. The guides are designed to complement data-access tools like the CIESIN Gateway by providing context and background information.

Environmental Sustainability: Perspectives on the World is a multi-media teaching module. It includes talks, video clips of presentations by Columbia University scientists on the environmental systems and human responses that make up environmental sustainability, and an on-line mapping tool with data from the Environmental Sustainability Index. Issues covered include climate change and past civilizations, human impacts on the Arctic environment, sustainability in the Sahel, sustainable design, industrial ecology and international environmental regimes.

Metropolitan East Coast (MEC): Regional Assessment Education Module is one of eighteen regional components of the U.S. National Assessment of the Potential Consequences of Climate Variability and Change, organised by the U.S. Global Change Research Program. **The MEC Educator's Pack** is a package of GIS software, datasets and lesson plans designed for educators who are interested in using GIS technology to explore global climate change issues. The package includes a free GIS software program called ArcExplorer® created by Environmental Systems Resource Institute (ESRI). The datasets available include much of the data used in the MEC project such as the climate change models, GIS data from ESRI and the US Census Bureau's TIGER Files. Also provided are two lesson plans that use ArcExplorer® to view the data and produce a series of maps to study climate change predictions in the MEC region.

See also: **U.S. National Assessment of the Potential Consequences of Climate Variability and Change.**

Inevitably, with the wealth of web resources developed in the USA, many of the useful sites for PLANET readers do have a North American bias, as with the Virtual Sciences Professor featured in the Webbed Foot item of Issue 2. A useful complement to this is:

Ian West's Geology Directory

<http://www.soton.ac.uk/~imw/index.htm>

This is one of the world's largest geological web sites with more than 200 web pages, comprising a directory, geological field guides and bibliographies. The directory is of Internet links on geology and earth science topics. Major sections of geology such as fossils and palaeontology, minerals and mineralogy, stratigraphy, and sedimentology are in some of the separate web pages that form the directory. Individual sections have their own more detailed indices. This geological directory is fully searchable, regularly updated and sites are checked and reviewed where possible. A series of downloadable **Geological Field Guides to the South Coast of England**, with associated bibliographies, has emphasis on Dorset, Hampshire and the Isle of Wight and is being progressively enlarged and extended. Jurassic, Cretaceous and Paleogene strata are exposed on this coastline. This 'personal' Website is constantly evolving and has proved a popular resource for earth scientists from far and wide.

Geomorphology from Space:

Finally, a collection of geomorphological images from around the world is a valuable resource that the web has enabled to be rescued from oblivion.

http://daac.gsfc.nasa.gov/DAAC_DOCS/geomorphology/GEO_HOME_PAGE.html

Is an out of print 1986 NASA publication edited by Nicholas Short and Robert Blair, designed for use by the remote-sensing science and educational communities to study landforms and landscapes. The core of this book is a gallery of space imagery consisting of 237 plates, each treating a geographic region where a particular landform theme is exemplified. Commentary, photographs, locator maps, and sometimes a geologic map accompany each plate.

Geoff Robinson

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Further copies of PLANET are available in a variety of different formats - if you would like any further information please contact the Subject Centre:
info@gees.ac.uk • (01752) 233530

Diary Dates - January 2002 to July 2002

This section lists some specific learning and teaching conferences and workshops, and other conferences with learning and teaching sessions. For further information and registration, visit the website addresses provided. A continually updated list can also be downloaded at <http://www.gees.ac.uk>

January

2 - 6 Jan

RGS-IBG Annual Conference 2002
Venue: Queen's University Belfast
<http://www.qub.ac.uk/geog/documents/ibg/>

11 -12 Jan

C-SAP Interdisciplinary Conference 2002
The New Higher Education? Learning and Teaching in a "Knowledge Society"
Venue: Birmingham
<http://www.c-sap.bham.ac.uk/>

22 Jan

Association for Learning Technology: one-day workshop on the comparison of VLE implementation in diverse institutions
Venue: University of Huddersfield
<http://www.alt.ac.uk>

February

5 Feb

Time to reflect? Promoting reflection among students and staff
Venue: University of Gloucestershire, Cheltenham
<http://www.gees.ac.uk>

26 Feb

LTSN-GEES/CHES Environmental and Earth Sciences swap-shop.
Venue: Coventry
Further details to be announced at: <http://www.gees.ac.uk>

March

18 - 19 March

CHES Annual Conference and General Meeting 2002
Venue: University of York
<http://www.her.ts.ac.uk/natsci/Env/ches/newches/whatsnew/ContNew.htm>

19 - 23 March

Association of American Geographers 2002 Annual Conference
Venue: Los Angeles, USA
<http://www.aag.org/>

19 - 23 March

International Network for Learning and Teaching Geography in HE (INLT)
Venue: Los Angeles, USA
<http://www.colorado.edu/geography/inlt/index.html>

20 - 21 March

National Disability Team Annual Conference 2002
'Strategies and resources for improving provision for disabled students'
Venue: The Royal Court Hotel, Coventry
<http://www.natdisteam.ac.uk/ndtconfinitialpub.htm>

April

8 April

New Legislation, New Opportunities - implementing the new disability legislation
Venue: Loughborough University (organised by LTSN Engineering)
<http://www.ltsneng.ac.uk/nef/events/disability>

11 -12 April

Supporting and Evaluating Change: enhancing the practice and scholarship of learning, teaching and assessment
Venue: Dublin
http://www.seda.demon.co.uk/dublin_01.html

29 April

LTSN-GEES/CHES Environmental and Earth Sciences swap-shop
Venue: Glasgow
<http://www.gees.ac.uk>

May

20 - 21 May

LTSN-GEES Residential Workshop for Recently Appointed Lecturers
Venue: University of Birmingham
<http://www.gees.ac.uk>

June

26 - 28 June

Institute for learning and Teaching in HE Annual Conference 2002
Venue: University of York
<http://www.ilt.ac.uk>

July

3 - 6 July

The 4th World Conference of the International Consortium for Educational Development in Higher Education (ICED) 'Spheres of Influence: ventures and visions in educational development'
Venue: Perth, Western Australia
<http://www.csd.uwa.edu.au/iced2002/>

7 - 10 July

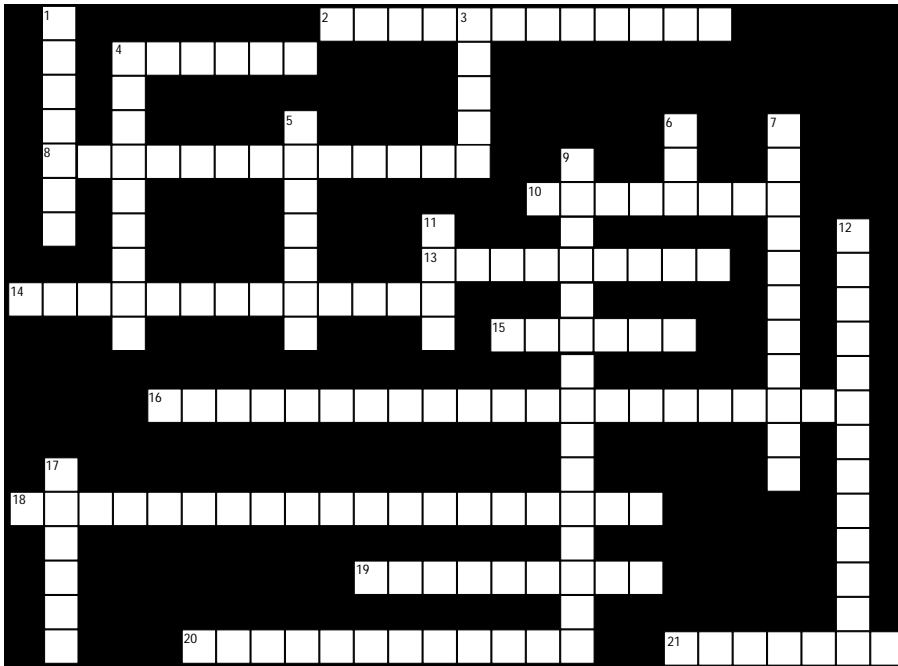
Higher Education Research and Development Society of Australasia (HERDSA) Annual Conference 2002 'Quality Conversations'
Venue: Perth, Western Australia
<http://www.ecu.edu.au/conferences/herdsa>

10 - 11 July

Hertfordshire Integrated Learning Project Third Annual Skills Conference
Further details to be announced at:
<http://www.gees.ac.uk>

10 - 12 July

Forum for the Advancement of Continuing Education (FACE) Annual Conference 2002
Venue: University of Glamorgan
<http://www.sbu.ac.uk/face/keyevents.html>



Planet

CROSSWORD

CLUES

ACROSS

- 2 Learning derived from experience (12)
- 4 A mafic igneous rock (6)
- 8 Formal procedures giving students certification after completion of studies (13)
- 10 Home of the LTSN-GEES Subject Centre (8)
- 13 Mountain range in NE Afghanistan (9)
- 14 Gaseous pollutants found in vehicle exhaust (5, 4)
- 15 Written report of variable length submitted at the end of a postgraduate programme (6)
- 16 Special requirements of a learner, stemming from medical or behavioural or emotional difficulties, or a combination of these (7, 11, 5)
- 18 An economic appraisal which examines the total costs and benefits to society often used in the environmental sciences (4, 7, 8)
- 19 The process by which objects increase in size by the addition of material to their surfaces (9)
- 20 The management of forests (12)
- 21 A common soil and water conservation method (7)

DOWN

- 1 Location of RGS-IBG annual conference 2002 (7)
- 3 Radioactive gas produced by uranium decay in bedrock, which is the most important source of ionizing radiation exposure (5)
- 4 A term originally borrowed from industry (... and a site of know elevation) (9)
- 5 An isolated hill surrounded by lava (TV series and son?) (7)
- 6 Pertaining to the earth (3)
- 7 Former head of the QAA (4, 7)
- 9 University of? (formerly Cheltenham & Gloucester College of HE) (15)
- 11 Acronym for main HE academic newspaper (4)
- 12 A very informal activity in which people put forward any ideas that occur to them at the moment (13)
- 17 State capital of Tasmania (6)



**Ordnance
Survey**

www.ordnancesurvey.co.uk

Important news for lecturers of secondary geography PGCE students

Ordnance Survey is pleased to be able to offer a free teacher-training opportunity.

The use of GIS in schools is expanding rapidly. All newly qualified secondary geography teachers should now begin their career with a basic understanding of GIS and how it can be used to satisfy the ICT requirement for their subject.

Experienced members of Ordnance Survey's Education Team can come to your HEI premises to run a workshop for your trainee teachers, explaining how digital map data can be imported and used in a variety of school GIS. The sessions also include an update on both web and traditional resources available for education from Ordnance Survey.

Resources to run these courses are very limited, so book early to avoid disappointment.

Contact Ken Lacey on
Phone: 023 8079 2012
Email: klacey@ordsvy.gov.uk

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- Introducing computer assisted assessment
- Developing and using Science CAL materials
- Training Science postgraduates for effective teaching and demonstrating



The SEED Programme, Faculty of Science, University of Plymouth.
Supported by the Higher Education Funding Council for England,
through the Fund for the Development of Teaching and Learning.



Information for Contributors



The Editorial committee of PLANET welcomes all material of interest to academics and support staff in the fields of learning and teaching across the three disciplines of Geography, Earth and Environmental Sciences. Generic submissions from other disciplines and submissions with an international dimension are also invited. PLANET also welcomes learning and teaching 'work in progress'.

The audience for PLANET is academics, support staff and educational developers. Articles accepted for publication may be subject to editing.

Types of Contributions

Short research papers, notes or short communications, case studies of learning and teaching practice, annotated web-links, software and book reviews, forum commentary, and letters to the editor commenting on an article previously published in PLANET, or on current higher education issues.

Main Paper Submissions:

General: Manuscripts must be typewritten. The author(s) should provide contact details, including email addresses. All submissions should be in electronic format.

Paper Length: Main papers should normally be in the order of 1000-2000 words, although longer articles may be considered. An abstract of no more than 200 words should also be provided. Notes, or short communications, annotated web-links, book and software reviews, forum commentary and letters to the editor, should be no longer than 400 words.

Referencing:

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All articles with any accompanying figures, tables, diagrams and photographs, should be submitted in electronic format to:

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