GEES Learning and Teaching Guide

Employability within Geography, Earth and Environmental Sciences

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Abbreviations used

CETL Centres for Excellence in Teaching and Learning
CSR Corporate Social Responsibility
DLHE Destination of Leavers from Higher Education Survey
HEFCE Higher Education Funding Council for England
HESA Higher Education Statistics Agency
ICT Information and Communications Technology
NGO Non-Governmental Organisation
PDP Personal Development Planning
QAA Quality Assurance Agency for Higher Education
SME Small and Medium sized Enterprises
TNC TransNational Corporation
VLE Virtual Learning Environment
WBL Work-Based Learning
Preface

One of the principal purposes of modern higher education is to produce graduates who are able to succeed in the workplace and who can go forward to make worthwhile contributions in the organisations where they are employed. Such aspirations are widely held in government, across employers and, not least, amongst students themselves. As a result, a key question for academics is how to design curricula and learning experiences which will enhance our students’ employability. This guide aims to address this question, principally at undergraduate level. In doing so it draws on the existing literature in the field, on relevant pedagogic research, on case studies of good practice and also on the personal experience of the authors.

The time and the resources to prepare and produce the book have come from Brian Chalkley’s National Teaching Fellowship and from the support of the UK’s Higher Education Academy Subject Centre for Geography, Earth and Environmental Sciences (GEES). Although the volume is focused principally on these three closely-related disciplines, many of the ideas it contains will have considerable relevance to other subjects also. For this reason, although the guide’s primary target audience is higher education staff in the GEES disciplines, we hope that it will also be read with interest by practitioners from other disciplines and, of course, by other groups such as educational developers and careers advisers. Similarly, although the guide has, for the most part, a strong UK focus, we hope that it will enable overseas readers to learn about British practice (both its strengths and its limitations) and to compare this with their own experiences.

The volume opens with a brief discussion of what is meant by employability and why it has become such a key issue in today’s higher education and not least among the GEES disciplines. Later chapters deal with questions such as curriculum design, the role and potential of work-based learning, the particular qualities and attributes for which employers are looking and how to develop students’ career management skills. The text is intended to provide a mixture of principles and practice, with general ideas being illustrated by particular examples and case studies. Although no claim is made that the text is comprehensive, it is hoped that the reader will emerge with an understanding of the wide spectrum of different ways in which employability can be enhanced. The authors recognise that ‘what works’ will depend on local circumstances: moreover, although our discussion tends to generalise across the GEES subjects, we do recognise that the three disciplines, and in particular their sub-disciplines, do have distinctive characteristics and emphases. We also acknowledge and celebrate the fact there is much good practice already in operation: indeed, in one sense the aim of this guide is simply to encourage its wider adoption and in this way to give our GEES graduates the best possible basis for proceeding to worthwhile and rewarding professional futures.

We know from the new National Student Surveys (conducted in undergraduates’ final year) that GEES students are already exceptionally well pleased with their courses and the quality of teaching; in both 2005 and 2006 the GEES subjects overall were very close to the top of the discipline league tables. This volume aims to build on this success and to help ensure that GEES students can be equally well pleased with their subsequent career opportunities and professional development.

In approaching the question of employability, we are conscious that some higher education staff see the new vocationalism as a threat to traditional academic values. And certainly we would agree that there is much more to higher education than simply preparing students for the world of work. More positively, however, it is our view that the development of students’ academic knowledge and skills can often bring employability benefits: these two agendas should be seen not as conflicting so much as being potentially synergistic and complementary. While acknowledging that no undergraduate programme can comprehensively prepare students for the workplace, the challenge is to conserve the best features of a rigorous academic education and at the same time to prepare students as effectively as possible for the demands of professional life. It is hoped that this guide will make a contribution to the achievement of this ambition.
About the authors

Sharon Gedye
I joined the GEES Subject Centre in 2003 funded in part by Brian Chalkley’s National Teaching Fellowship and in part by the Subject Centre. My remit was to develop resources on delivering employability and to research undergraduate and graduate opinions and experience on the employability value of their degree. In this time I have also been involved in supporting staff in the implementation of PDP for the University of Plymouth (where the GEES Subject Centre is based) and in supporting the University’s Skills Plus Strategy. Previous to my GEES life, I was a lecturer in geography for seven years at Edge Hill University in Lancashire. At Edge Hill I taught environmental change and hydrology (my PhD being concerned with variations in carbon balance in peat in response to hydrological disturbance). I was particularly involved in skills teaching (subject specific and generic), PDP and e-learning, delivering one of my level 3 modules using a VLE. I now work part-time because of the arrival of my daughter Rowan. I am an enthusiastic cook, an armchair football fan and an apathetic jogger and gardener.

Brian Chalkley
I am a human geographer with two jobs. The first (0.6 post) is as Director of the Higher Education Academy’s Subject Centre for Geography, Earth and Environmental Science (GEES), which is based at the University of Plymouth. The second (0.4 post) is as Professor of Geography in Higher Education also at Plymouth, where I continue to teach parts of the geography degree programme, particularly those related to employability and careers education. I am also responsible within the University for ‘Skills Plus’ which is in effect the University’s employability strategy. I am a member of the Editorial Board of the Journal of Geography in Higher Education (JGHE) and have recently completed a three year period on the Council of the Royal Geographical Society with the Institute of British Geographers (RGS-IBG). The work for my National Teaching Fellowship focused on employability and provides the background to this guide. I am married with three grown-up children and try to avoid gardening, DIY and looking for the Plymouth Argyle results on a Sunday morning.

Acknowledgements
We are grateful to all our GEES Subject Centre colleagues for their encouragement for our work on employability and to all those academics and support staff locally and nationally who have contributed to our knowledge of the field. Special thanks are due to Val Butcher of the Higher Education Academy and to Claire Rees at the University of York, both of whom provided detailed and helpful comments on an earlier draft. Thanks also to Jenny Blumhof of the University of Hertfordshire and to Neil Thomas of Kingston University who are the Subject Centre’s Senior Advisers for Environmental and Earth Sciences respectively. As the two authors of this volume are geographers, it was especially helpful to receive comments relating in particular to the other two GEES disciplines. And finally this guide is enriched by several case studies and examples, and so we are grateful to all those (staff and students) who were prepared to share their practice and experience with us and have it included here. Despite all this help and advice duly acknowledged above, the volume’s weaknesses and omissions are, of course, the responsibility of its two authors.
Executive Summary

Much of the value of this guide lies in the details of its commentary on curriculum design and learning and teaching: and certainly for GEES practitioners the case studies and examples are likely to be of particular interest. Nonetheless, the authors recognise that higher education staff are busy people and so we have prepared this executive summary for those who need the 'five minute fix’. We hope, however, that most of you will use it as a 'taster' and as an introduction to the chapters which follow.

1. Employability, Higher Education and our Subjects

- Although ‘employability’ is still contested territory and the concept is open to different interpretations, it has emerged as one of the dominant agendas for modern higher education.
- In a highly competitive subject marketplace, the GEES disciplines need to give more attention to the design and delivery of curricula which will strengthen further students’ career prospects.
- There is already much good practice which needs to be celebrated and shared. Indeed, in a world in which adaptability, environmental sustainability and global perspectives are becoming ever more important, GEES graduates have many natural advantages. However, imaginative curriculum design will be necessary to ensure that our graduates capitalize on the inherit merits of the GEES disciplines.

2. Curriculum Development, Design and Delivery

- When approaching curriculum development for employability, begin by asking what prospective employers are looking for and what a curriculum designed for employability should therefore include.
- Then audit your existing curriculum to identify both your programme’s strengths and also those areas in need of further development. The audit procedure set out in section 2.2 is in many ways the most important part of the book.
- Remember that employability will not be your only curriculum goal and also that employability need not be at odds with traditional academic values and practices. Don’t jeopardise your students’ enthusiasm for their subject but do harness it so that they learn through the subject as well as about it.
- Think in terms of a three/four year employability curriculum, interwoven with and embedded in subject knowledge and skills. Key ingredients in the curriculum could include work experience and work-related learning, career management, key skills and personal development planning.
- By no means all of your students will in their professional lives make direct and extensive use of their subject knowledge. Acknowledge the importance, therefore, of transferable skills, work experience and personal attributes and, where possible, seek to foster them in the curriculum.
- Provide the students with learning experiences which will enable them both to develop and also to evidence the attributes employers are looking for.

3. Delivering Employability and Learning through Work

- Professional-level work experience can significantly enhance your students’ employability.
- It can also help them to clarify their career aspirations and plans. Remember that few GEES students enter higher education with a well-defined view of the job(s) they want.
- There are many different forms of work-based learning (WBL) which can be considered for inclusion in the curriculum. One of the most common is the WBL module.
- There is lots of guidance and support available to help you design and launch WBL. Inevitably, the demands on staff time are considerable but there are ways of reducing the load.
4. Careers Management and Workplace Understanding

- An understanding of careers management and ‘transition skills’ (CVs, interviews etc.) is important both in helping students to obtain their first position and in underpinning their subsequent professional development.

- There is a clear trend towards embedding careers education in the curriculum, as for example in careers modules taught jointly by academic staff and colleagues from the institution’s Careers Service.

- In preparing for professional life, students also benefit from an understanding of business awareness and how organisations function. Fieldwork, workplace visits, guest speakers and case studies can all be helpful in this respect.

- The government is also encouraging higher education to give more emphasis to enterprise and entrepreneurship. Some pioneering GEES departments are already doing excellent work in this area.

5. Developing Employability: Skills and Attributes

- The GEES disciplines have established a strong record in terms of promoting students’ key skills, not least through field and project work. These skills are often valuable for both academic study and professional life.

- Best practice involves a clearly articulated and embedded skills curriculum in which the skills required are taught, practised and assessed (the ‘TPA’ model).

- In a labour market dominated by the service sector, employers are increasingly demanding qualities such as self-confidence, good interpersonal skills, creativity and a readiness to take initiatives. This is in a sense the new frontier for the skills agenda and although many academics are hesitant about becoming involved in what they see as ‘personal attributes’, some GEES staff are already engaged in providing student learning activities explicitly designed to foster these qualities.

6. Employability and Personal Development Planning (PDP)

- Since September 2005 it has been UK higher education policy that all students should have opportunities for PDP. This is an area closely related to employability because PDP can be used to help students reflect on their career goals and their general preparedness for the world of work (or postgraduate study).

- Some students do not warm readily to the reflective learning and personal action planning which lie at the heart of PDP. Making explicit the links with employability can help. For example, PDP has much in common with the staff appraisal and performance management systems widely used in professional life. PDP can, therefore, be an important ally for employability, while at the same time employability can be used to strengthen student and staff commitment to PDP.

- On entering higher education few GEES undergraduates have a strong commitment to a particular career. Indeed, the GEES disciplines offer the benefits of deferred career choice, and can potentially lead to many different career avenues. It is for these reasons that students in subjects such as the GEES disciplines often need extra guidance to assist in career choice and in helping them to make the transition from higher education to the world of work. This guide is intended to help ensure that our students are equipped to make that transition successfully and, in their professional lives, to take maximum advantage of their undergraduate education.
I. Employability, Higher Education and our Subjects

In recent years higher education has begun to give more attention to ensuring that its graduates are employable and ready for the demands of professional life. This opening chapter provides a general examination of employability in higher education (HE), particularly from a Geography, Earth and Environmental Sciences (GEES) perspective. After considering what is meant by ‘employability’, an explanation is given as to why it has become such an important concern across higher education and how it links to other key HE agendas, including widening participation, student retention and lifelong learning. The chapter concludes by analysing data on the employment of GEES graduates and what former GEES students say about the extent to which their degrees prepared them for the world of work.

1.1. What is employability?

The term employability is open to somewhat different interpretations (Rooney et al., 2006) but for those of us in higher education in essence it means:

“a set of achievements – skills, understandings and personal attributes – that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy”.

(Enhancing Student Employability Coordination Team (ESECT), 2003, p4)

Within HE, delivering employability is presently understood to entail the development of:

- experience, skills, attributes and knowledge of value to employers;
- self-promotional and career-management skills;
- a willingness to learn and reflect on learning.

We can ‘flesh out’ this understanding of employability by looking in more detail at the qualities sought by employers and known to be useful in career success. These include (adapted from Harvey and Knight, 2003, p7):

‘Higher-level’ academic attributes/knowledge

- Analysis, critique, synthesis and lateral thinking - attributes often subsumed by employers under ‘intelligence’ or ‘creative problem-solving’.
- Subject-related professional knowledge - considered important by many employers, not only in its own right, but also as a vehicle for the development of other attributes. Employers in areas directly related to the GEES disciplines (such as environmental management and planning) certainly value subject-based knowledge, although even here, the key is understanding core principles rather than empirical details. ‘Knowing things’ is generally less important than knowing how to find things out.

Key skills

- Interpersonal skills and emotional intelligence - getting along with other people, tact, diplomacy and being aware of other people’s views and concerns.
- Team-working - the ability to take appropriate roles in different situations and to develop and progress a project through discussion, negotiation and leadership.
- Written and oral communication skills - written communication can encompass everything from the ability to produce project reports, bullet-pointed briefings, newspaper articles, press releases, letters, e-mails and websites; oral communication ranges from formal presentations at conferences and in meetings to informal communication with colleagues, negotiation and the ability to ‘network’.
• Numeracy - involves the ability to handle, display and interpret numerical data accurately and appropriately. It includes being able to conduct basic mathematical and statistical operations and to work with numbers in formats such as tables and graphs.

• ICT proficiency - almost all employers seek competence in word-processing, file maintenance, spreadsheets, presentation, e-mail and web-use.

**Career management skills**

• Self-awareness - graduates need proficiency in articulating what they have to offer and in selecting areas for further professional development.

• Self promotion - the capability to define and promote one’s own agenda and strengths.

• Opportunity taking - the ability to identify, create, research and seize opportunities.

• Planning - the ability to identify, implement, monitor and evaluate the steps needed to reach a goal

• Networking - includes making and maintaining links with people through face-to-face, written, electronic and telephone communication.

**Personal attributes / ‘soft’ skills**

• Self-confidence, self-reliance and self-management, including time management - this is about ensuring graduates are able to cope, compete and be successful in their chosen career and can manage their time effectively.

• Flexibility, adaptability, initiative and risk-taking - there are fewer ‘jobs for life’ and the world of work is changing ever more rapidly. Being able to respond to change is essential and being able to anticipate change is even more useful. Knowing when to show initiative and take risks and when to play safe is also valuable.

**Business awareness**

• Organisational awareness - understanding how an organisation operates and how it is influenced by local, national and global circumstances.

• Commercial awareness - appreciating financial and resource constraints and being comfortable in working with budgets.

• Political awareness - understanding the hidden tensions and power struggles within organisations. Awareness of the location of power and influence within organisations.

• Entrepreneurship and intrapreneurship - the art of developing a business or working within an organisation to effect change and innovation in products or processes.

• Sustainable development - of particular relevance to GEES graduates is environmental awareness and knowing how to ‘green’ organisations. This connects to the growing interest in corporate social responsibility (CSR), an area of professional life likely to assume increased importance in the future.

The above lists are, of course, ambitious and perhaps in total beyond the scope of any single degree course to deliver. Certainly, many students will need to acquire at least some of the necessary experience and attributes outside their formal academic studies, either through other aspects of university life or through activities such as part-time jobs, voluntary work or travel. Indeed, in a highly competitive graduate labour market, students will often need evidence of more than academic success to secure their preferred position. Nonetheless, the university experience as a whole should substantially advance students’ career prospects with staff encouraging students to develop the well-rounded CV most employers prize.

Harvey (2003, p6) provides a neat summary of what typical employers are looking for:

>“Despite concerns that some graduates are not work-ready, employers repeatedly say that they do not want ‘trained’ recruits. They want intelligent, rounded people who have a depth of understanding, can apply themselves, take responsibility and develop their role in the organisation. Employers want graduate recruits
who are educated and can demonstrate a wide range of attributes, not least the traditional high-level academic abilities of analysis, reflection, critique and synthesis. Employers do not want graduates trained for a job, not least because jobs change rapidly.”

**Key Points**

- Many of the ingredients necessary for academic success (such as problem analysis and good time management) also enhance graduate employability. There need therefore be no conflict between education, subject study and employability.

- Academic success, however, is by no means enough to secure employability. Employers are looking for much more than subject knowledge and a good degree.

1.2. Why is employability an important issue for higher education and for the GEES disciplines?

As many GEES departments have experienced, there are moves within HE to give greater attention to the issue of graduate employability. There are a number of reasons for this:

- In the UK, the world of work has altered significantly since the 1980s. Knowledge-based service industries now dominate and these must compete in an increasingly global market. Rapid technological and organisational change characterises the workplace and people can no longer expect to have a job for life or a linear career progression (Harvey *et al*., 2002). Definitions of ‘graduate-type’ jobs have become blurred as graduates increasingly enter small and medium sized enterprises (SMEs), work freelance and become self-employed (Harvey *et al*., 1997; Elias *et al*., 1999, p97; Prospects, 2003). In such circumstances, there is a clear need for a workforce which is both highly qualified and adaptive (Harvey, 2003, p6).

- Partly in response to these workplace changes, there has been a steady shift towards increased numbers of students in higher education. The massification of HE has led to an increasingly competitive graduate labour market. Whilst, at present, there are many graduate employment opportunities available, the large numbers of graduates means that a degree is no longer enough to secure the best jobs on leaving university. The degree has become simply an essential pre-requisite for many occupations, with employers increasingly concerned with the skills, qualities and experience graduates can offer over and above their formal qualifications. The government, keen to see a return on its investment in the expansion of HE, is also concerned that graduates are equipped with the attributes necessary to propel forward the knowledge-based economy.

- Students (and their parents) are now expected to make a significant contribution to the cost of higher education. They are, therefore, paying ever closer attention to the employment benefits a degree provides before choosing what to study and where. Unless a degree subject or an institution can demonstrate they have the potential to significantly enhance career prospects, students are likely to vote with their feet and opt for courses that lead to more financially lucrative career outcomes elsewhere. Increasingly, this choice is aided by the publication of employment performance data. For example, in England, employment outcomes are included as one of the performance indicators for HE as compiled by the Higher Education Funding Council for England (HEFCE). This data is used in the HE league tables that regularly appear in our newspapers (e.g. *The Guardian University Guide*, *The Times Good University Guide*).

- Employers often express dissatisfaction that graduates are not equipped with the types of skills, experience and attributes they want. For example, Robins and Gowar (2003) report that 70% of employers surveyed were unimpressed by the general employability skills of graduates. According to the CBI Employment Trends Survey (2003), whilst over half of employers are satisfied with the basic skills of their graduate employees, 47% were dissatisfied with their business awareness and 27% with their self-management abilities. A report for the
Guardian (2005) found that only 26% of employers feel that graduates are better equipped for the workplace than non-graduates and that 56% have broader recruitment strategies for bringing young people into the workplace. This begs the question – why go to university and accumulate a significant debt? The government is conscious of this skills deficit, highlighting it as a cause for concern in the White Paper, *The Future of Higher Education* (DfES, 2003). It therefore appears that HE is not yet sufficiently meeting the needs of employers, and therefore students, when it comes to delivering employable graduates. Indeed, the UK’s skills deficit is soon to be highlighted again in the forthcoming Leitch report.

In addition to being generally a key higher education issue, employability is also a particular concern for the GEES disciplines because:

- Within HE there has been a market shift away from academic disciplines towards more overtly vocational courses. Statistics on the numbers of students accepted onto environmental science programmes have shown significant long-term decline, whilst geography and geology numbers are relatively static but, in an expanding HE system, now occupy a smaller market share (UCAS, 2006). For geography, declining GCSE and A level

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**Key Points**

- In an increasingly competitive labour market it is important that GEES graduates are able to offer what employers need.
- Students need to be informed about trends in the employment market, so they can take strategic action to enhance their career prospects.
candidature and the rather old-fashioned image of the subject (Rawling, 2005) is part of the problem. The situation is likely to worsen as the funding costs for students entering HE rise, with tuition fees in England typically having reached £3000 per year in September 2006. This trend away from academic disciplines is already underway and we may take as a further warning the experience of Australia, where a shift towards substantial student funding of HE occurred earlier than in the UK. This has led to students moving away from the GEES subjects (and other academic disciplines) resulting in departments being rationalised and merged. In Australia very few remain that are devoted solely to one of our GEES disciplines. We are already seeing the first signs of similar rationalisation in the UK. It therefore seems imperative that our subjects strengthen their vocational appeal in order to help maintain student numbers and ‘healthy’ departments. Between 80 and 90% of GEES undergraduates enter higher education with the aim of improving their career prospects (Gedye et al., 2004). Their particular choice of course or institution will be based on subject preferences and other individual circumstances but the drive for employability is for most the prime goal for entering HE. However, unlike vocational courses, students entering GEES programmes generally have no fixed career in mind. They, therefore, need a curriculum which will be particularly rich in career insights and guidance. In this way the GEES disciplines for 17 and 18 year olds can offer the benefits of deferred career choice (an important consideration) alongside an education rich in employability skills and opportunities.

In terms of occupations six months after graduation, the overall GEES record, relative to other subjects, tends typically to be neither really encouraging nor alarming. Unemployment rates (about 6%) are about average, but although geology is the strongest performing of the GEES disciplines, all three are above the national average in terms of graduates working in non-professional organisations (categories M to P, Table 1.2 below). Data obtained six months after graduation through the Destinations of Leavers from Higher Education Survey (DLHE, formerly the First Destination Survey (FDS)) are unlikely to be a reliable long-term predictor and almost certainly undervalue the employability of GEES graduates for whom the breadth of possible career areas may well mean they take a little longer to settle into a chosen professional career. Indeed, the GEES Subject Centre Graduate Employability Survey (http://www.gees.ac.uk/projtheme/emp/employ.htm) indicates that within one year of graduating, 90% of employed GEES graduates are in graduate level employment. Nonetheless, the DLHE data are widely studied and it is, therefore, important that our disciplines perform better on this indicator and that our graduates are fully equipped ‘to hit the ground running’.

Key Questions

- What is the rank position of your programme in university league tables with respect to graduate job prospects?
- How will you sell the employment benefits of your degree programme to prospective students?
- What hard evidence do you have to support your programme’s employability claims?

In response to the drivers outlined above, employability across higher education is being given increased prominence in quality assurance mechanisms. A variety of reports and guidance have been produced that advise on how HE is expected to respond to graduates’ changing employability needs. One of the first of these was the Dearing Report (NCIHE, 1997) which, based on the research of Harvey et al. (1997), emphasised the need for HE to develop key skills and provide enhanced opportunities for students to undertake work experience. Subsequently, the Quality Assurance Agency (QAA) has produced guidelines that outline institutional and departmental obligations to address employability and careers education (Box 1.1).

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1. UCAS statistics on acceptances to degree programmes shows that ‘Environmental and other physical sciences’ declined from 3536 in 1996 to 2062 in 2001. From 2002 onwards Environmental Science degrees were re-grouped to join ‘Physical and terrestrial geography’ thus making more recent Environmental Sciences trends difficult to establish.
As a result, many institutions have produced, or are in the process of preparing, an employability policy and departments are therefore likely to have to address employability through validation, annual monitoring and quality review documentation. Indeed, those responsible for advising on best practice in HE are calling for employability to be dealt with, not only within self-contained employability strategies, but as a core theme across all relevant institutional policies (McNair, 2003).

1.3. GEES graduates' employment record

It is obviously important that we understand the employment record of our graduates so that we may identify and address any areas of concern.

Destinations of leavers from higher education

The main source of data on graduate employment comes from the information gathered on former students approximately six months after graduation (the DLHE). Statistics on the destinations of GEES graduates and the types of work GEES graduates find employment in are reproduced here (Tables 1.1 to 1.2) with permission from the Higher Education Careers Services Unit, derived from the Higher Education Statistics Agency (HESA) DLHE survey data. The data show slight variations from year to year but the figures presented below are fairly typical. As indicated above, this information is open to criticism in that it only shows a snapshot of student destinations a short period after graduation.

Although GEES graduates clearly show lower than average levels entering employment, this is explained by the high levels undertaking a higher degree or studying for a diploma, certificate or professional qualification. Geography graduates have the fourth lowest unemployment levels across all subjects (Prospects, 2002). Geology has the highest levels of graduates who are believed to be unemployed of the three GEES disciplines (8.4%), although this figure is only 2.3 percentage points above the average for all degree subjects.
Table 1.1. Graduate Destinations (2004/05). Data comes from the Higher Education Careers Services Unit, and is derived from the Destinations of Leavers from Higher Education Survey 2004/5 from HESA. The data shown in this table relates to UK graduates only.

<table>
<thead>
<tr>
<th></th>
<th>Geography</th>
<th>Environmental, physical geographical and terrestrial sciences</th>
<th>Geology</th>
<th>All degree subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>In UK employment</td>
<td>57.1%</td>
<td>58.2%</td>
<td>51.3%</td>
<td>61.0%</td>
</tr>
<tr>
<td>In overseas employment</td>
<td>2.3%</td>
<td>2.3%</td>
<td>2.3%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Working and studying</td>
<td>7.3%</td>
<td>6.6%</td>
<td>5.7%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Studying in the UK for a higher degree</td>
<td>9.7%</td>
<td>10.9%</td>
<td>20.4%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Studying in the UK for a teaching qualification</td>
<td>5.4%</td>
<td>3.9%</td>
<td>1.1%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Undertaking other further study or training in the UK</td>
<td>2.9%</td>
<td>2.8%</td>
<td>1.9%</td>
<td>4.8%</td>
</tr>
<tr>
<td>Undertaking other further study or training overseas</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.9%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Not available for employment, study or training</td>
<td>8.0%</td>
<td>7.0%</td>
<td>5.8%</td>
<td>5.1%</td>
</tr>
<tr>
<td>Believed to be unemployed</td>
<td>5.2%</td>
<td>6.2%</td>
<td>8.4%</td>
<td>6.1%</td>
</tr>
<tr>
<td>Other</td>
<td>2.1%</td>
<td>2.1%</td>
<td>2.3%</td>
<td>2.7%</td>
</tr>
</tbody>
</table>

Examination of the data on the types of work GEES graduates enter (Table 1.2) reveals the categories of employment that are most significant for our subject disciplines. For geography, 19% of graduates find initial employment in 'other clerical, and secretarial occupations'; 19.1% of geology students are employed in 'scientific research, analysis and development occupations'; whilst environmental, physical geographical and Terrestrial Sciences graduates are evenly split, with 16.4% entering 'other professional, associate professional and technical occupations', and 16.4% occupied in 'other clerical and secretarial occupations'.

Many GEES graduates take interim jobs and travel before embarking on their career and we know from other research (see below) and anecdotal evidence that our students do well in the job market over the longer term. These first destination data should therefore be treated with a pinch of salt, particularly for academic disciplines such as GEES, where students have a wide range of possible career avenues and may take some time to choose. However, since the HESA figures are the only widely used employability indicator, we do need to pay attention to how our subjects perform as this is how (in part at least) we will be publicly judged.
Table 1.2. Types of Work (2004/05). Data comes from the Higher Education Careers Services Unit, and is derived from the Destinations of Leavers from Higher Education Survey 2004/5 from HESA. The data shown in this table relates to UK graduates only.

<table>
<thead>
<tr>
<th>Type of Work</th>
<th>Geography (as a social science)</th>
<th>Environmental, Physical Geographical and Terrestrial Sciences</th>
<th>Geology</th>
<th>All degree subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Marketing, sales and advertising professionals</td>
<td>5.7%</td>
<td>3.7%</td>
<td>2.6%</td>
<td>4.5%</td>
</tr>
<tr>
<td>B. Commercial, industrial and public sector managers</td>
<td>12.5%</td>
<td>11.4%</td>
<td>7.7%</td>
<td>9.5%</td>
</tr>
<tr>
<td>C. Scientific research, analysis and development occupations</td>
<td>0.5%</td>
<td>2.0%</td>
<td>19.1%</td>
<td>1.1%</td>
</tr>
<tr>
<td>D. Engineering professionals</td>
<td>1.4%</td>
<td>1.9%</td>
<td>7.9%</td>
<td>3.0%</td>
</tr>
<tr>
<td>E. Health professionals and associate professionals</td>
<td>0.4%</td>
<td>0.4%</td>
<td>0.6%</td>
<td>13.2%</td>
</tr>
<tr>
<td>F. Education professionals</td>
<td>4.5%</td>
<td>1.8%</td>
<td>1.1%</td>
<td>6.6%</td>
</tr>
<tr>
<td>G. Business and finance professionals and associate professionals</td>
<td>11.8%</td>
<td>8.9%</td>
<td>4.5%</td>
<td>7.8%</td>
</tr>
<tr>
<td>H. Information technology professionals</td>
<td>1.5%</td>
<td>1.5%</td>
<td>1.8%</td>
<td>4.0%</td>
</tr>
<tr>
<td>I. Arts, design, culture, media and sports</td>
<td>2.2%</td>
<td>2.3%</td>
<td>1.9%</td>
<td>5.8%</td>
</tr>
<tr>
<td>J. Legal professionals</td>
<td>0.2%</td>
<td>0.3%</td>
<td>0.0%</td>
<td>0.7%</td>
</tr>
<tr>
<td>K. Social and welfare professionals</td>
<td>2.6%</td>
<td>1.6%</td>
<td>1.0%</td>
<td>3.2%</td>
</tr>
<tr>
<td>L. Other professional, associate professional and technical occupations</td>
<td>10.1%</td>
<td>16.4%</td>
<td>14.0%</td>
<td>5.3%</td>
</tr>
<tr>
<td>M. Numerical clerks and cashiers</td>
<td>2.6%</td>
<td>2.6%</td>
<td>1.3%</td>
<td>2.8%</td>
</tr>
<tr>
<td>N. Other clerical and secretarial occupations</td>
<td>19.0%</td>
<td>16.4%</td>
<td>11.9%</td>
<td>11.7%</td>
</tr>
<tr>
<td>O. Retail assistants, catering, waiting and bar staff</td>
<td>10.6%</td>
<td>14.7%</td>
<td>11.5%</td>
<td>9.3%</td>
</tr>
<tr>
<td>P. Other occupations</td>
<td>14.5%</td>
<td>14.2%</td>
<td>13.1%</td>
<td>11.5%</td>
</tr>
<tr>
<td>Q. Unknown occupations</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.1%</td>
</tr>
</tbody>
</table>
Other sources of graduate destination data/analysis

A small number of individual GEES departments/programmes publish data on their own alumni. These tend to present a picture of good employment prospects and a high proportion of graduates entering subject-related employment. This evidence may offer some grounds for encouragement although it may indicate a selective picture of alumni success that is not necessarily representative.

A survey by the GEES Subject Centre on graduate employability (http://www.gees.ac.uk/projtheme/emp/employ.htm) provides the most recent and extensive information on GEES graduate experience of employment and their opinions as to the value of their degree from an employability perspective. A summary of the findings of this survey (based mainly on students 2-5 years after graduation) can be found in Box 1.2.

Box 1.2. Summary findings of the GEES Graduate Employability Survey

- 90% of the employed respondents were in graduate level employment
- Approximately 40% of GEES graduates were in GEES subject-related jobs
- The top five aspects of their degree that employed graduates felt were taught to an appropriate level were:
  1. Subject knowledge (95%)
  2. Ability to work independently (93.3%)
  3. Flexibility/adaptability (90.9%)
  4. Intellectual skills (89.9%)
  5. Interpersonal skills / teamwork (89.9%)
- The aspects that were least satisfactorily developed were:
  1. Professional work experience (88.7%)
  2. Business awareness (75.6%)
  3. Entrepreneurship (66.7%)
  4. Career planning (51.5%)
  5. GIS (33.3%)
- 89.2% of respondents agreed or strongly agreed that careers guidance should be an important part of the curriculum
- 92.3% of graduates agreed or strongly agreed that the curriculum should include skills useful in employment
- 75.5% of graduates agreed or strongly agreed that graduates from their discipline often need more vocational training after graduation.

The GEES Graduate Employability Survey studied graduates from three institutions who graduated in 2000, 2001 and 2002. Over 500 former students responded to the postal questionnaire, giving a response of over 30%. Further survey details can be found at: http://www.gees.ac.uk/projtheme/emp/employ.htm
<table>
<thead>
<tr>
<th>Box 1.3. Our students’ voices: some quotes from the GEES Graduate Employability Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Earth Sciences</strong></td>
</tr>
<tr>
<td>I have developed an immense sense of personal confidence and many useful skills. I have made many important contacts with workers in the field which, importantly, enabled me to gain my current position.</td>
</tr>
<tr>
<td><strong>Environmental Biogeoscience</strong></td>
</tr>
<tr>
<td>With hindsight, I would have taken more vocational modules. I would have preferred more pressure to find work experience, to learn about business links with the university, and what other careers I could have gone into. I feel not enough emphasis was placed on practical skills and planning for a career.</td>
</tr>
<tr>
<td><strong>Environmental Management</strong></td>
</tr>
<tr>
<td>A good class degree is what matters more than the subject. Why study a subject you do not love? Surely if you enjoy the subject you will achieve your best.</td>
</tr>
<tr>
<td><strong>Environmental Science</strong></td>
</tr>
<tr>
<td>I would be very surprised if there was a degree that could have helped me more, especially as I was not sure what I wanted to do when I began.</td>
</tr>
<tr>
<td><strong>Environmental Science</strong></td>
</tr>
<tr>
<td>I would not do the same degree again because it doesn’t give enough practical work experience and employers want work experience.</td>
</tr>
<tr>
<td><strong>Geography</strong></td>
</tr>
<tr>
<td>I enjoyed geography, however I think a degree course which incorporated a work placement would have made it easier to get a job.</td>
</tr>
<tr>
<td><strong>Geography</strong></td>
</tr>
<tr>
<td>Geography as a degree couldn’t help you prepare more for employment. So wide-ranging and varied – must be the only degree that covers all of the skills seen as attractive by employers – analytical skills, research, report writing, presentation, teamwork and working on own.</td>
</tr>
<tr>
<td><strong>Geological Science</strong></td>
</tr>
<tr>
<td>I love my subject therefore for me it is a vocation. There are many careers open to geologists and the transferable skills we get are very valuable for non-geological employment.</td>
</tr>
<tr>
<td><strong>Human Geography and Physical Geography</strong></td>
</tr>
<tr>
<td>With hindsight I would choose a more vocational subject such as marketing or business studies. I chose Geography at 18 because I had no idea which job direction I wanted to follow, so I chose a subject I enjoyed.</td>
</tr>
</tbody>
</table>
The only one of our disciplines for which any further substantial research has been conducted is the Earth Sciences, for which a ‘Graduate Geological Scientists Survey’ was published (Ward, 1999) based on 1997 data. This survey showed approximately 40% of earth science graduates entering geology-related employment, either directly from their first degree or after undertaking further study for a higher degree (see the example of Giles in box 1.4 below). The evidence suggests however that, even for arguably the most vocationally-orientated of our three disciplines, the majority of students enter non-subject related employment.

**Box 1.4. The experience of a geology graduate**

Giles is a geotechnical consultant specialising in environmental / contaminated land projects. He graduated with a BSc in Geology in 1993, worked in the geotechnical industry for several years and in 2000 gained an MSc in Engineering Geology.

My BSc course was well taught, very interesting, and a ‘classic’ geology course - unfortunately, however, the vocational aspects of my BSc were limited - the department was heavily research focused. The only employer to visit the department was BP, who at the time was looking for 4 geoscience employees worldwide. The course taught the basic building blocks of geology very well, but lecturers did not discuss potential employment fields. Nonetheless, the course did come into its own later when tempered with a vocational MSc programme and some industrial experience, where the relevance of the basic tools provided became clearer.

I chose to undertake a Master’s course to enable me to pursue a specific career path and it was essential in this regard: the right Master’s course is an important differentiator within industry which can help someone get to the first hurdle to employment, i.e. an interview. The programme was excellent in terms of the way it prepared me for the world of work. The course was well respected by industry and designed specifically to provide skills and knowledge with direct application to professional practice. Close links with employers were emphasised by their incorporation into the taught course, including workshops and presentations to representatives from 6 or 7 major employers.

Although my undergraduate degree lacked workplace relevance, I feel that I would not have got as much from the Master’s programme without the core skills provided by my undergraduate course. However, in essence, my undergraduate experience was almost entirely lacking in a focus upon employability, whereas my Master’s course was almost entirely without irrelevant content.

The skills that I use in my current job include working within and/or directing project teams, client liaison, project management, staff training, data gathering and manipulation, written reporting, oral presentations – these are all key aspects of my work and all of these were to varying extents developed or enhanced by my Master’s course.

I am a strong believer that in this field (ground engineering) there is far more to be gained from working in industry for several years before undertaking a Master’s degree. Unfortunately, more and more people are continuing directly from BSc to MSc without first gaining this experience. Working between degrees in itself provides a frame of reference which makes the learning experience on a vocational MSc significantly more rounded. My fellow MSc students were split approximately 50/50 between those who had worked in industry and those who had not - in almost all cases those with industry experience performed better.
1.4. Employability’s pivotal role

Developing graduate employability is not a priority that exists in isolation from other important HE agendas. By addressing employability, contributions can also be made to the enhancement of widening participation, student retention and lifelong learning. As outlined below, these key issues are in fact closely related.

Widening Participation (WP)

Students from poorer, under-represented backgrounds often have relatively low aspirations, less self-confidence and fewer professional ‘networking’ opportunities. This tends to result in somewhat lower career performance (Brennan and Shah, 2003; Elias et al., 1999; Purcell et al., 1999; Layer, 2004). The main reason why students from less advantaged social class backgrounds enter HE is a belief that a degree will bring better career prospects, earnings and job security (Connor et al., 2001). Unless HE can demonstrate that it can offer real employment benefits to all students, it may be difficult to make substantial progress on WP and participation rate targets.

Retention

Students leave HE prematurely for many different reasons. However, some of the actions that may be taken to combat non-retention are similar to those used to enhance employability, including the promotion of course career relevance, better skills development and a greater emphasis on personal development and support mechanisms. Put succinctly, students are less likely to leave if they are on track for a good job.

Lifelong learning

Being employable requires graduates to be effective and quick learners in order that they can adapt to the demands of a rapidly changing labour market. Students are therefore expected to be reflective and flexible so that they can direct their own learning and update their skills. In these ways, lifelong learning has much in common with continuing professional development. Central to achieving these aims is the recent requirement (from September 2005) that all students have access to personal development planning (PDP). The theme of employability through PDP will be taken up in Chapter 6.

Key Point

In addressing GEES graduate employability, we should consider the employment needs of students who go on to use their subject knowledge directly in their future employment, but also the needs of the majority who do not.

Key Point

If we can get employability right, this will also help in part to meet other key objectives, including widening participation, improving retention and encouraging lifelong learning. Employability therefore occupies a central position in the HE arena and needs to play a central role in curriculum design.
Although the immediate employment record of GEES graduates suggests that there is more work to be done, the admittedly limited longer-term evidence is more encouraging. Moreover, looking at the future, GEES graduates do have cause for optimism. The broad nature of our subjects, the possession of an unusually wide range of skills and the flexibility this gives, global awareness and an appreciation of sustainability should serve our graduates well in the 21st century. However, the substantial potential of the GEES disciplines for enhancing the employability of our students is not yet being fully realised; they come into higher education to enhance their career prospects and arguably, therefore, we need to do what we can to help our students achieve this ambition. This guide is provided to offer support and guidance on some of the ways by which this objective can be achieved.

This volume is, however, just one resource amongst many that provide national support for departments/academics who are keen to develop employability initiatives. The Higher Education Academy includes employability and enterprise as a key ‘Supporting Learning’ theme (http://www.heacademy.ac.uk/Employability.htm) and, through the work of the Enhancing Student Employability Coordination Team (ESECT), it has developed and provided access to numerous resources on this theme. Although still in their infancy at the time of writing this guide (funded from 2005/06 for 5 years), the Centres for Excellence in Teaching and Learning (CETLs) will, over the coming years, develop our understanding of the practice of delivering employability. A number of the 74 CETLs deal either directly or indirectly with delivering employability (http://www.hefce.ac.uk/learning/tinits/cetl/) including, for example the Centre for Active Learning (CeAL) in Geography, Environment and Related Disciplines at the University of Gloucester, and the CETL for Experiential Learning in Environmental and Natural Sciences at the University of Plymouth. All these developments point to the growing interest in employability and to the increasing range of resources and agencies available to provide help and support, not least through the GEES Subject Centre.
2. Curriculum Development, Design and Delivery

At present, few GEES programmes have been designed and validated with graduate employability as a really high priority. If you were to re-design your curriculum, from scratch, placing a strong emphasis on employability, it would probably look different from your current curriculum. What types of design principles should such a programme feature? This chapter will explore approaches to developing, designing and delivering employability through the curriculum. It will consider what elements an employability curriculum should include, how these may be structured into the programme you offer and what broad pedagogic principles should be applied to employability learning, teaching and assessment. The chapter also includes a curriculum audit to enable you to evaluate your current provision - a key starting point.

2.1. What should a curriculum designed for employability include?

On the basis of feedback from employers and graduates (Harvey et al., 1997; Elias et al., 1999; Blasko et al., 2002), an employable graduate will have:

- A 'good' degree (first or upper second)
- A life outside of university (interests, activities, responsibilities)
- Work experience, preferably in high quality employment
- The qualities and skills employers are looking for (such as communication skills, teamwork, initiative, business awareness, enthusiasm, etc.)
- The ability to articulate their talents
- Skills in career planning and management
- Self-awareness and direction

The degree programmes we offer should therefore address these points if we are to enhance the employability of GEES graduates. Specific advice and examples on delivering opportunities for work experience, careers management, commercial awareness, skills/attributes development, and personal development are provided later in chapters 3 to 6. In this chapter we will concern ourselves with how such activities may be designed into the curriculum in a coherent way and what general approaches to the learning culture of a department may be adopted to support and enhance employability.

In approaching the issue of curriculum change for employability, it may be encouraging for UK academics to appreciate that this question is probably rather easier to resolve here than it is in countries which have a stronger commitment to multidisciplinarity and modularity. In the United States and Australia, for example, where students tend to range more widely across disciplines, designing a planned, coherent and progressive employability curriculum can be made problematic by the multitude of different modules (or units) students can take. In the UK there is generally a stronger commitment to defined programmes of study often including a spine of compulsory modules running through the three or four years of the undergraduate programme. This makes it easier to ensure that students progressively develop a broad and balanced set of employability skills and experiences. For readers interested in an international perspective on employability in higher education (especially in geography) we would recommend the recent article by Rooney et al. (2006).

Before embarking on a more detailed consideration of curriculum design issues, it is a good idea first to take stock of existing provision, by conducting an employability audit. By reviewing your current curriculum, you will be better able to evaluate and think through the suggestions made in this and the following chapters.
2.2. Auditing your curriculum

Developing a programme designed for employability is not a simple task. Gaining a curriculum overview and deciding on how to proceed can be made more straightforward by using an audit. Many departments will already be familiar with the process of audit through their use of key skills mapping. An employability audit takes this an important step forward. In particular, using an employability audit is helpful in:

- establishing how and where employability-related learning is already incorporated into the curricula
- offering reassurance to colleagues by highlighting how much is being done already
- identifying any gaps in provision
- providing a programme overview – particularly important in a modularised system
- initiating discussion of employability issues
- encouraging strategic thinking

The employability audit presented in this chapter (Box 2.1) enables programme teams to gain an overview of provision for employability across the whole curriculum, and encompasses themes such as graduate destinations, employer links, work experience, and career management skills/attributes. However, audits come in different shapes and sizes and so please feel free to make changes which will tailor it to your particular needs, priorities and circumstances. In this respect you may find it useful to consult your own institution’s policies on learning, teaching and employability.

**Key Point**

Conducting an audit of provision is a very useful starting point for developing the curriculum to take greater account of students’ employability.

**Box 2.1. Employability audit**

This audit is designed to help you assess the extent to which your existing degree programme(s) deals effectively with employability. It will highlight current areas of strength and also identify areas where some improvements may be needed.

The audit is divided into four sections. These are: (a) the School/Department and its curriculum, (b) the University's Careers Service, (c) relationship with employers and (d) your graduates and their employment record. Within each section there are a number of questions which are, in effect, audit points. You should answer each question according to how well you believe the particular audit point is being achieved. Your answer scores can range from 3 to 0, as outlined below:

- 3: Very strongly achieved
- 2: Quite well achieved
- 1: Weakly achieved
- 0: Not achieved at all

As a result of the audit exercise, some revisions may be considered for enhancing the curriculum and the students’ learning experience. It would be interesting to conduct this self-assessment audit again in say 18 months or two years in order to review the extent and effectiveness of any changes made.
**A. The School/Department and the curriculum**

1. Does the School/Department have an agreed and regularly reviewed policy for promoting employability?  
2. If so, is the policy made explicit to students?  
3. Is there a well-designed and progressive key skills curriculum?  
4. To what extent does your curriculum develop students’ organisational/business awareness?  
5. Is there an effective, careers-related system for Personal Development Planning (PDP)?  
6. How actively are students encouraged to take part in, value and record their extra-curricular activities?  
7. Do the School's/Department's curricula offer sufficient/appropriate opportunities for placements or work-based learning?  
8. To what extent does your curriculum embed the teaching, practice and assessment of career skills, such as job searching, CVs, applications and interviews?  
9. To what extent is the School's/Department's approach to employability designed to address the needs of Widening Participation and other ‘minority’ student groups (e.g. those with disabilities) students?

**B. University’s Careers Service**

1. Is there a close and effective relationship between the School/Department and the institution’s Careers Service?  
2. Do careers staff have a role in your curriculum design and delivery?  
3. Are students explicitly guided, during their course, to make contact with the Careers Service?  
4. Do a high proportion of your students actually use the service?

**C. Relationships with employers**

1. Do employers play a part in your curriculum design?  
2. How much are employers / relevant professionals involved in activities such as giving presentations, careers talks, etc.?  
3. Do your students learn about a wide range of different organisations (e.g. TNCs, SMEs, government departments, voluntary agencies, etc.)?  
4. How far do your final year dissertations normally involve students in liaising with external organisations?  
5. How frequently do employers provide live case studies for student learning?

**D. Your graduates and their employment record**

1. How familiar are the staff with data on your students’ employment record?  
2. How far are your current students aware of the types of employment your graduates enter?  
3. To what extent does your School/Department carry out its own graduate surveys (in order to provide more useful data than the DLHE Survey)?  
4. How commonly do former graduates return to the School/Department to talk to and advise current students?  
5. How active and effective is your alumni network?  
6. Do former students play a role in curriculum design and delivery?

continued...
2.3. Models for the embedding of employability

There are various ways in which activities that enhance graduate employability may be embedded in the curriculum (Yorke and Knight, 2003) and there is no single design model that is suitable for all. Every department has its own distinct characteristics, requirements, circumstances and resources. Putting in place an ‘ideal’ employability curriculum may have prohibitive costs. The best model is that which balances the employability requirements of your students against what is realistically achievable. Possible approaches include:

1. Employability through the whole degree – requiring all modules to make an explicit contribution to a planned and progressive curriculum for employability.
2. Employability through core modules, i.e. a compulsory ‘spine’ to the programme through which all students develop their readiness for graduate employment.
3. Provision of work-related learning, such as a period of work experience (be it long or short) or a work-related project.
4. Employability-related module(s) within the curriculum, i.e. optional modules that, to varying extents, link to particular career areas, e.g. tourism, conservation, planning, mapping, waste management, etc.
5. Work-related learning in parallel with the curriculum, i.e. encouraging students to recognise and value their extra-curricular activities (part-time work, voluntary work, hobbies), possibly through PDP.

Obviously, these models represent a sliding scale in which employability contributes to the curriculum to a greater or lesser extent. Whilst the ‘whole curriculum’ model may have the most potential, it is also the most ambitious, requiring considerable change and a commitment from all staff. Realistically, departments are, therefore, likely to adopt and combine elements of the other approaches. For example, a department may decide to include an employability core across all three years of the programme, focusing on skills and career management, but they may also want to include an optional work-based learning module (i.e. a combination of models 2 and 3).

Many existing GEES programmes already contain elements of the above models and we should not underestimate the extent to which GEES students already benefit from employability-related learning. However, within a modularised system, attention typically focuses on individual units rather than on the programme as a whole, and so employability provision has frequently developed in a somewhat piecemeal way. Whilst the GEES QAA benchmark statements and skills mapping (see Section 5.4 below) have been successful in giving a greater priority to skills development, the delivery of these skills across the curriculum is not necessarily well designed. For example, few programmes offer a fully planned and progressive approach to developing students’ skills in areas such as oral presentations, group work and ITC. They are rarely taught, practised and assessed in a fully systematic way and the same applies to other aspects of employability. The GEES record on skills is therefore good but not perfect.

In part, of course, giving greater priority to student employability simply involves giving clearer recognition to what is already being done. For example, fieldwork, which is a well-established and vital part of most GEES degrees, presents many employment-related opportunities. Students can learn about careers from professionals they meet during site visits. They can develop technical skills which will be of value in certain kinds of jobs. And, above all, they...
can develop transferable skills such as team-working and leadership through field project work. Simply making all this explicit will by itself bring real gains.

**Key Points**

- There are various curriculum approaches that may be adopted to address employability - the choice of model(s) will depend on the individual departmental context - no single model is best for all.

- It is important, however, that the employability curriculum is consciously designed and closely integrated with the GEES subject content

### 2.4. Curriculum design and delivery

Delivering employability can be thought of as consisting of two components. Firstly, it requires the provision of opportunities for developing certain understandings, skills and qualities relevant to employment (e.g. gaining work experience, developing teamwork skills, undertaking a careers module). It also requires attention to be given to the quality of these learning experiences. Employability, as with any learning, will be better enhanced if the teaching ‘works’. For example, students may have the opportunity to give a standard oral presentation within one of their modules. However, a higher quality learning experience may involve the student in delivering an oral presentation at a student-organised conference, alongside employer-practitioners. In this setting, students deliver their presentation in a more ‘high-stakes’ context and can gain peer, staff and employer feedback (see Case Study 5.4). In this sense approaches to delivery, assessment, feedback and reflection are just as important in enhancing employability as the activity itself.
Content

Programme teams and individual module leaders have a choice as to how far they wish to go in adjusting the curriculum to address employability. For some, small ‘tweaks’ to module content may be considered the best course of action. For example, within existing modules, staff can draw students’ attention to careers and employment links and students can be given the opportunity to understand how professionals use this subject knowledge in a real-world setting. Such a strategy is relatively painless, has limited impact on time and resources and can yield significant returns in terms of the ‘flavour’ of a degree. Certainly, there is no need to ‘throw the baby out with the bathwater’. Students have chosen to do your course because they are interested in the subject. They will not be motivated by the over-dilution of content, or by the undervaluing of the intrinsic importance of GEES knowledge and research.

Where programme teams are enthusiastic about employability, there are substantial advantages in adopting a curriculum which embeds employability at a more structural level. For example, modules may be included primarily on the basis of their capacity to link to the world of work and employment. Themed pathways could be developed that link to professional areas such as tourism, GIS, environmental contamination or engineering geology, thereby positioning students to enter certain employment sectors at the end of their degree. Obviously, this type of strategy is easier to implement in departments that are able to offer a large choice of modules.

It is important to acknowledge, when thinking about the content of our degree programmes, that for many students little of the subject knowledge will be used in their professional lives and that what is used will date. Students do not need to know everything there is to know about a given topic. It is more important that they are able to find out and use information. There may, therefore, be areas of the curriculum that can be trimmed, allowing students time to develop intellectual and other transferable and soft skills relevant to their employment prospects. Students will benefit from an emphasis on the quality of their learning experience rather than the quantity of subject matter that can be delivered.

There are many facets of GEES curricula content that transfer well to the world of work, but there are some things we do not do well that we know employers value. GEES subjects are generally good at developing traditional key skills (such as communication, teamwork, IT), but often not so good with soft skills and with business and organisational awareness; a finding borne out by the GEES Graduate Employability Survey (see Box 1.2 above). For example, many of our students will not be sufficiently aware of how organisations are structured and financed or how conflicts and change in the workplace are managed. Neither will they (explicitly at least) be given the opportunity to develop qualities such as self-confidence, creativity, flexibility and initiative. Our students may acquire at least a limited understanding of these attributes if they have the right type of part-time work but they are rarely developed overtly through the academic curricula.

Another aspect that is under-developed in most GEES curricula is careers planning. Typically, the role of the departmental careers liaison officer is not seen as particularly strategic or high status. Despite the QAA Code of Practice on Careers Education, Information and Guidance (CEIG), this area is generally not well supported or co-ordinated and so, for example, careers modules are the exception within the curricula rather than the rule. The challenge for the GEES subjects is to think creatively about how we can strengthen these under-developed aspects of employability within the context of strong subject-based teaching. Box 2.2 provides a set of responsibilities that the departmental careers liaison person may choose to address.

Box 2.2 Key activities/responsibilities for the role of departmental careers liaison

- Have an understanding of how employability may be addressed through the curriculum / teaching and learning and act as an advocate or champion for employability where appropriate (e.g. when conducting programme reviews)
- Liaise with the institution’s Careers Service
- Be informed about developments/resources in careers and employability (e.g. through networks such as the GEES Subject Centre and the HE Academy, etc.)
- Promote the sharing of departmental employment data to colleagues/students; encourage better alumni contact and employment information on alumni
- Maintain the departmental careers information system (in the past this has typically been a careers noticeboard on which employment and further study information is posted but may now include electronic networks of communication)
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Delivery

Enhancing the employability of our students is not just about the content of their learning; it is also about how that learning takes place. One of the most effective ways of delivering employability is to make better use of employers. This can be done either by bringing employers into the classroom or by making more use of relevant field visits. For example, on a soils module, an employer from an environmental consultancy may be invited to take part in a discussion of topics such as land contamination and restoration. The class could also be taken on a field visit to a commercial forest where students could learn about forest soil capability and conservation from a forestry practitioner. The existing employer links of academic staff, through their own research (or consultancy), offer an obvious resource to draw on in this respect and an opportunity also to strengthen the links between teaching and research (another major higher education theme). Burns et al. (1999) explore in detail some common types of employer links (see Box 2.3 for a summary of links), whilst further guidance and examples of good practice in ‘real world’ learning are contained in Chapters 3 to 5.

Box 2.3. Some common types of employer link, (taken from Burns et al., 1999)

- Guest lectures
- Consultancy
- Work placements
- Industrial visits
- Case study materials
- Programme sponsorship
- Employer participation in management steering committees
- Employers’ roles in curriculum design and validation

For readers looking for examples of good practice, some excellent examples of how to develop skills and workplace awareness while working on GEES subject matter (in this case hydrology) have been developed by Prof. Pauline Kneale (see Case Study 2.1 below).

Case Study 2.1. Context 1999-2001 hydrology and geography case studies

The Context 1999-2001 hydrology and geography case studies provide a series of exercises that develop students’ understanding of hydrology whilst at the same time providing opportunities to practise a variety of skills and gain knowledge of ‘real-life’ situations and organisations. The case materials are designed to meet the needs of students for group working, decision making and experience of work. They are based as closely as possible on real work situations and issues (in business, government and the voluntary sector). The cases aim to give students work experience without going to the workplace. Exercises range in length from those that can be delivered in a single session to those that span several weeks. They can also be used with groups of variable size.

Case studies available include:
- Seatons: company pollution management decision making case study
- A National Flood Warning Strategy case study
- River Turn: flood warning case study
- Flood forecasting template case study
- River Lavant: flood forecasting case study
- SusDale: a role-play based on sustainability in Wensleydale
- Median: an intrapreneurial company case study

Full case study details and support materials may be found at: http://www.geog.leeds.ac.uk/courses/other/casestudies/

Contact details: Prof. Pauline Kneale, School of Geography, University of Leeds, Leeds, LS2 9JT.
Email: p.kneale@geog.leeds.ac.uk
Assessment

Opinion is divided as to how possible or desirable it is to summatively assess student performance in the various aspects of employability. When dealing with the complex outcomes that characterise employability development, can these be adequately measured? Some commentators (e.g. Yorke and Knight, 2004) express the view that employability consists of complex achievements that can only be reliably assessed at high cost (e.g. using multiple assessments and multiple assessors). They feel that employability should be developed mainly within a formative assessment framework in which students are assisted in making ‘claims to achievement’ (perhaps using PDP as a vehicle for this process), but where the stakes are low. Others feel that much assessment that already takes place within higher education is centred around complex tasks that cannot be easily measured. As a profession we are therefore accustomed to making subjective judgements about the quality of performance. Detailed marking schemes, second marking and our previous experience are used to help ensure consistency and quality. Why cannot the same principles be used when summatively assessing aspects of employability? Indeed, given that the common experience of staff is that students only ‘do’ that which is assessed as part of their degree, there is a strong argument for using summative assessment: if we value a learning outcome, arguably it needs to be summatively assessed.

Space does not permit an exhaustive discussion here of the relative merits of those alternative assessment strategies: the key concern is that each department should debate these issues (listening to student views) and come to an agreed judgement. While recognising that some aspects of employability are easier to assess more reliably than others, the authors’ inclination is to build on experience and where possible over time to move from formative towards summative approaches. Only ten years ago, assessing presentation skills summatively was seen as adventurous: now it is common practice. Few GEES departments will feel comfortable about assessing attributes such as creativity or self-confidence but assessing performance in mock job interviews or application forms is within our grasp. Similarly, assessing student reflective essays on what they have learned from business placements or how they are developing their career plans is not hugely different from judging traditional subject-based essays. The key is to offer staff the necessary support and guidance, to build in moderation/quality checks, and to proceed at a pace which your colleagues, students (and external examiners!) consider appropriate.

2.5. Making progress

The focus of this chapter has been on general approaches to curriculum design (content, delivery and assessment). Its purpose has not been to cover all aspects of good practice in designing curricula: others such as Jenkins (1998) have done this more thoroughly. Here, we have concentrated on those aspects contributing most to employability. It will be for departments to judge the emphasis to be given to employability vis-à-vis other priorities.

Until now, attempts to enhance the employment prospects of students through the curriculum have generally been undertaken by employability champions. Having such pioneers is extremely important in shifting expectations and establishing innovation: some changes will, however, require a more co-ordinated approach or at least the consent (or acquiescence) of less committed colleagues. Whilst a curriculum-wide, team approach to employability is obviously beneficial, individual academics working within modules also have a role to play. Many of the examples of practice offered in the following chapters are suggestions that can be taken up by individuals.

However, for the majority of academics, the idea of working with employers, providing career-related opportunities and developing an expanded set of student skills and attributes will present an interesting but challenging prospect. Some GEES staff have little directly relevant experience and will need support in developing fresh expertise. Many have not had professional careers outside academia and may well feel that they do not have the experience or the skills to contribute substantially to the employability agenda. Some will see themselves first and foremost as specialist, subject-led researchers. Given that employability works best where there is a curriculum-wide approach, winning hearts and minds will be important, as will staff support and encouragement. There are plentiful sources of guidance available.

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2. Further information on assessment strategies can be found in Hughes and Boyle (2005).
In addition to the ideas set out in this guide, additional staff support, development opportunities and information may be obtained via:

- Learning from the good practice of colleagues
- Institutional staff development opportunities and workshops
- Working with the institutions’ Careers Service and educational developers
- GEES Subject Centre workshops and resource database (http://www.gees.ac.uk/)
- Higher Education Academy information, tools and resources on employability and enterprise (http://www.heacademy.ac.uk/Employability.htm)
- Relevant Centres for Excellence in Teaching and Learning – CETLs (http://www.hefce.ac.uk/learning/tinits/cetl/)
- The Association of Graduate Careers and Advisory Services (AGCAS) (http://www.agcas.org.uk/)

**Key Points**

- Make full use of the widely available information and support on delivering employability. In particular, work closely with allies in your institution’s Careers Service and your Education Development Unit. They will be able to offer important local help and support. You can also approach the GEES Subject Centre.

- Making employability changes can be done in many different ways and at different scales. You don’t have to wait until all your colleagues are enthusiastic before making a start.
3. Delivering Employability - Learning through Work

Professional quality work experience can make a big difference to enhancing the employability of graduates (Harvey et al., 2002, p30). However, placements are seen by employers and graduate employees as the single most significant missing element of the majority of degree programmes (Harvey et al., 1997, Chapter 8). This chapter explores a range of issues involved in providing work experience including its benefits, the various types of provision which can be offered, and helping students make the most of their extra-curricula work experience and part-time jobs.

3.1. Work experience: the key messages

Why is work experience so important?

☑ Work experience can have a positive impact on students’ academic performance, particularly if it is subject-related (Harvey et al., 1997, Chapter 8).
☑ Students report that work experience significantly benefits their skills, abilities and personal development (Little and Harvey, 2006).
☑ Employers increasingly prefer graduates with work experience, particularly if this is of professional quality.
☑ Your students are more likely to be successful in obtaining employment if they have previously had good quality work experience (e.g. Bowes and Harvey, 2000).
☑ Work experience can act as a driver for innovation and helps connect learning and teaching, research and ‘third strand’ activities (Nixon et al., 2006).

Issues

☒ Not enough GEES students currently get the opportunity to gain high quality work experience as part of their degree. In a recent Subject Centre survey of over 500 GEES graduates, 89% reported that there was little or no professional quality work experience available in their curriculum.
☒ Work experience takes time to set up and manage. This can be viewed as an additional burden on already busy staff.
☒ The assessment of work experience requires different approaches to those commonly used when assessing ‘subject’ knowledge. Many academics feel ill equipped to make judgements on students’ work performance.

It is the purpose of this chapter to provide help and support to staff in delivering work experience opportunities. Setting up and managing work experience is not difficult, it is just different from most academics’ ‘subject’ teaching experience. Certainly, the benefits for your students’ employment prospects, your department’s improved employment record and the potential contacts that can be developed between staff and employers, make the provision of work experience very worthwhile. In the United States, placements, often referred to as ‘internships’, have been a common feature of higher education including in disciplines such as geography for many years (Foster et al., 1979) but recently there has been a strong surge of interest in the UK too.

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3. That is, involving university relations with business, industry and regional agendas.
3.2. Types of work experience

Work experience, or work-based learning (WBL), comes in several different forms. These can be divided into those types of work that are delivered as part of the curricula (and which therefore gain the student academic credits) and those that the student undertakes outside of the curriculum. As staff, our main focus will naturally be on curriculum-based work experience. However, we also need to be aware of how to encourage students to make the most of extra-curricula opportunities, especially if we do not intend to provide work experience through the curriculum. The following diagram (Figure 3.1) shows the most common models of WBL undertaken by GEES students. (It does not, therefore, include WBL undertaken as continuing professional development by employees, though universities may in future become more involved in this kind of provision.)

Figure 3.1 Types of work-based learning (WBL)

3.3. The benefits of work experience in the curriculum

Whilst all work experience is of potential value to students, that which is included as part of a structured programme, integrated into the curriculum, is likely to provide the greatest benefits, not least in enhancing students’ key skills and career awareness (Chalkley and Harwood, 1998; Chalkley, 2000).

For the student, it can:

☑ Develop knowledge, skills and attributes through access to high quality, challenging work.
☑ Allow them to apply subject knowledge and skills in a real life situation.
☑ Enhance their academic performance through the development of skills and attributes and through the building of their motivation and confidence.
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- Develop their subject understanding where the work experience is subject-related, as the student is able to apply their knowledge in a task or problem-solving context, enabling them to make connections between their academic work and the ‘real world’.
- Enable the exploration of different career paths and organisations without long-term commitment.
- Assist in the development of commercial awareness, understanding management structures and in becoming conversant with current work practices.
- Particularly if placed with certain kinds of government or voluntary sector agency, there can be gains in terms of citizenship, community engagement and insights into major issues such as social justice and sustainable development (Buckingham-Hatfield, 1995; Yarwood, 2005).
- Help students understand and acclimatise to the world of work, including its social and cultural aspects.
- Facilitate valuable networking opportunities and develop networking skills.
- Build self-confidence, independence and responsibility and enhance motivation and performance.
- Enable students to improve their CV and gain a good employer reference.
- Provide a route to obtaining an offer of permanent employment.

For the department, it can:
- Enhance the applied aspects of teaching by providing staff with direct insights into subject-related organisations and their work.
- Raise the profile of departments/institutions in the local community.
- Develop useful relationships with businesses, organisations and professional bodies, with potential spin-offs for research and consultancy.
- Improve the programme and enhance the career prospects of graduates, thus providing a selling point for courses and improving departmental graduate employment statistics.

For the employer / host organisation, it can:
- Enable access to knowledge (expertise and resources) and facilities such as laboratory and IT equipment and software. Such access can be particularly valuable to smaller organisations such as small and medium sized enterprises (SMEs), charities and non-governmental organisations (NGOs).
- Enable useful research or project work to be undertaken that the company would not normally have the time, money or expertise to undertake. Again, this is more typically the case for SMEs, charities and NGOs.
- Complement normal recruitment procedures. A significant proportion of students are offered permanent employment with their work experience provider.

Key Point

It should not be assumed that the above benefits will automatically be achieved simply by putting in place work experience opportunities. It is essential that work experience is well designed, supported and delivered.
3.4. Design considerations for curriculum-embedded work experience

Choosing what type of WBL to offer

As we have seen in Figure 3.1, there are three main forms that work experience can take when delivered through the curriculum: work placements, project work and work shadowing/mentoring.

Work Placements

These involve the student working within an organisation as a ‘regular’ employee. Placements may be short in duration (e.g. one day a week over an 8-week period) or long (e.g. lasting a full year). Full-time placements that last between six months and a year are termed ‘sandwich’ placements. They typically occur in a single continuous period but they may involve more than one placement split by a period of teaching. Only a very small number of GEES degree programmes offer a sandwich placement.

Project Work

Students work within an organisation on a specific project, identified as being of benefit to the employer. This differs from a standard placement in which students work for an organisation as a ‘regular’ employee, often with a variety of duties. Project placements typically last no more than a few months. This type of work experience is suited to both individual and group projects. Group placements have the benefit of reducing the number of host organisations needed and they also allow students to demonstrate teamwork and provide peer support. Group work may, however, act as an obstacle for students to more fully integrate with their host organisation and its employees.

A workplace experience can, of course, also be provided where a student undertakes their final year dissertation in association with an external organisation such as the National Trust, a local authority, the Environment Agency or a GIS company. Gordon Clark, a geographer at the University of Lancaster, refers to this approach as the ‘Enterprise Dissertation’ (Clark, 1991). Dissertations of this kind certainly provide a real-world focus and an opportunity to apply academic knowledge and skills in a workplace setting. Their effectiveness in terms of enhancing students’ understanding of professional life often depends on the amount of student contact with the external agency and the extent to which the dissertation research process actually involves time spent in the workplace environment.
Work Shadowing and Mentoring

Work shadowing and mentoring both entail the student being paired up with an individual employee. Work shadowing typically lasts for several days and involves the student following an employee, observing their day-to-day work activities and developing an understanding of what their role involves. Mentoring involves students being ‘teamed’ up with a mentor who provides advice and guidance through a series of meetings that may each last a couple of hours. Advice may be ‘industry specific’ or may involve general guidance on how to get jobs, the attributes employers are looking for, and the development of personal skills. Work shadowing and mentoring provide the opportunity to see what an organisation or occupation is really like, and to talk to those who are working in that environment daily, but without any lengthy commitment on the part of the student or the employer.

Box 3.1. Mentoring example

Anglia Ruskin University offers an optional institution-wide employer mentoring scheme, the positive outcomes of which are highlighted by one of their student participants who says:

“I am very pleased that I took part in the [employer mentoring] scheme. It gave me confidence, improved my CV and provided me with a contact who was willing to discuss how she managed to get where she is today. The scheme helped to lift my motivation levels and maintain my determination to succeed.”

These various types of work experience do not necessarily have to operate discretely. Long work placements, for example, frequently combine elements of work shadowing, mentoring and project work though the design and support mechanisms of the experience.

Work-based learning in any of the above forms may take place within the context of a general WBL module where the learning is entirely or largely derived from the work experience. However, particularly in the case of shorter duration work experience opportunities, it may be linked to a specific module in a ‘sub-discipline’. For example, a GIS module may involve some form of work experience that relates specifically to this skill/knowledge area.

Compulsory or optional?

There are no vocational or accreditation requirements that necessitate work experience being a compulsory part of GEES degree programmes. Whether any work experience is compulsory or optional is therefore a matter for local debate and judgement.

<table>
<thead>
<tr>
<th>Arguments for compulsory work experience</th>
<th>Arguments against compulsory work experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑ It shows a departmental commitment to the value of work experience.</td>
<td>☑ Many students enjoy the academic part of their degree course and are not interested in work experience.</td>
</tr>
<tr>
<td>☑ It adds course distinctiveness and can act as a selling point to prospective students.</td>
<td>☑ Due to problems in placement supply, it may not be possible to guarantee every student a placement.</td>
</tr>
<tr>
<td>☑ Often those students who could most benefit from work experience are those least likely to take it if optional.</td>
<td>☑ It requires considerable staff commitment and time to organise, support and assess placements.</td>
</tr>
<tr>
<td>☑ Work experience is regarded as being of universal benefit, even to mature students with prior experience in the workplace.</td>
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</tbody>
</table>
**Duration, pattern and timing of the WBL**

There are a variety of benefits and drawbacks associated with short and long placements.

<table>
<thead>
<tr>
<th>Short</th>
<th>Long</th>
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<tbody>
<tr>
<td><strong>Advantages</strong></td>
<td><strong>Advantages</strong></td>
</tr>
<tr>
<td>☑ Provide an insight/taste into work/careers without requiring a great time commitment from the provider or student.</td>
<td>☑ Student becomes a ‘normal’ employee and experiences the routine functioning and activities of the organisation.</td>
</tr>
<tr>
<td>☑ May be sufficient to meet the desired learning outcomes.</td>
<td>☑ Can provide a meaningful contribution to the employer.</td>
</tr>
<tr>
<td>☑ Short placements minimise negative experiences in the event of a ‘bad’ placement.</td>
<td>☑ Some aspects of learning will be developed to a greater extent and depth due to the longer-term exposure to activities.</td>
</tr>
<tr>
<td>☑ Short placements are more suitable for local work experience which is generally easiest to organize.</td>
<td>☑ Harvey et al (1997) recommend year-long placements in terms both of employers getting a return on their investment, and students gaining worthwhile experience.</td>
</tr>
<tr>
<td>☑ Some aspects of learning will be magnified through newness – e.g. focus on rapid adjustment and socialisation to the workplace.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Drawbacks</th>
<th>Drawbacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>✗ Too short for the student to feel part of the organisation and make any meaningful contribution.</td>
<td>✗ Requires a considerable commitment on the part of the host, student and HE provider.</td>
</tr>
<tr>
<td>✗ Requires considerable effort to set up in relation to the time spent on the placement.</td>
<td>✗ Possibly diminishing returns of learning outcomes/experience with time.</td>
</tr>
<tr>
<td></td>
<td>✗ Students may not be keen to undertake placements that add another year to their studies.</td>
</tr>
</tbody>
</table>

In addition to the length of the placement, whether it takes place part-time or full-time must also be considered. Part-time placements have the advantage of causing minimal disturbance to a student's other modules, regular part-time job and other extra-curricula activities. However, students can find it difficult to settle into their placement due to the stop/start nature of the work experience. Some employers favour supporting students in a concentrated full-time block of employment, whilst others are not able to provide this intensive support and, therefore, prefer the part-time model.

All of these considerations will need to be taken into account before deciding upon which structural framework you may want to adopt. Consultation with students and employer hosts would be advisable in order to put in place a system that best matches their needs. Obviously, whichever model is adopted will not suit everyone.

**Learning outcomes and agreements**

There are two different levels of learning outcomes that need to be considered with respect to WBL. Firstly, learning outcomes need to be identified that apply to the whole experience. These will be general outcomes that all students undertaking WBL can be expected to achieve. Examples of general learning outcomes for work experience are shown in Box 3.2.
In addition to such general learning outcomes, it is also desirable to negotiate individual learning outcomes to form a ‘learning agreement’. A learning agreement is a statement agreed between the student, the academic tutor and the work experience provider (host). It includes information on the particular type and amount of work to be undertaken and the type and amount of assessment required. It is also likely to address insurance and Health and Safety issues. Box 3.3 outlines the typical contents found within a learning agreement.

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**Box 3.2. Examples of general learning outcomes**

- Demonstrate the application of GEES knowledge and skills to a task or problem completed in a workplace context.
- Evaluate and reflect on the personal learning experience and skills gained through the work placement.
- Demonstrate an understanding of how organisations function including aspects such as management structures, business operation and work culture.

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In addition to such general learning outcomes, it is also desirable to negotiate individual learning outcomes to form a ‘learning agreement’. A learning agreement is a statement agreed between the student, the academic tutor and the work experience provider (host). It includes information on the particular type and amount of work to be undertaken and the type and amount of assessment required. It is also likely to address insurance and Health and Safety issues. Box 3.3 outlines the typical contents found within a learning agreement.

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**Box 3.3. Learning agreements**

A typical learning agreement may contain the following information:

1. Student name, degree programme and contact details
2. Host name, address and contact person (mentor)
3. Academic tutor and contact details
4. List of placement objectives (specific learning outcomes)
5. Activities to be undertaken
6. Assessment details
7. Operational information (e.g. times and hours of work, place of work)
8. Health and Safety information
9. Signatures of the student, host and academic tutor
10. Date

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When developing learning outcomes for work-based learning it is important to consider whether only the end-products of the work experience are assessed or whether the process is assessed as well. As with the setting of any learning outcomes, it is also necessary to ensure that they are at an appropriate ‘level’.

In setting or negotiating learning outcomes remember that the work experience can be used to develop a range of knowledge, skills, attributes and experience. Learning outcomes should ideally reflect this range of learning and not just focus, for example, on the development of skills. Shepherd (1998) argues that skills can often be developed and assessed just as effectively on campus. In providing and assessing work experience it is the ‘value added’ and the ability of the student to transfer their learning to different situations that needs to be emphasised.
Assessment

The assessment of work experience should obviously link closely to the learning outcomes. Box 3.4 provides some ideas for ways in which you can assess work-based learning. As was mentioned with respect to learning outcomes, you may decide to include the assessment of process in addition to end-products/achievements. The assessment of process is best achieved by formative means, providing constructive feedback with no scoring or perhaps only a simple indicative grade. Such feedback during work experience will aid the student with reflection on their learning and progress, and will hopefully assist in the transferability of their learning. However, academic tutors may not be present to observe much of the student’s day-to-day work and so the host mentor may well have to play a key role in this area.

Box 3.4. Ways to assess work-based learning

- Production of a written rationale and work-plan for the placement including the skills to be developed
- Direct observation of the student’s work
- Feedback report by the host organisation on the student’s effectiveness, skills, professionalism, resourcefulness, etc.
- Written review of personal learning objectives and outcomes prepared by students, i.e. what they have accomplished through their placement
- Samples of relevant work products
- Reflective log or work diary charting progress / activities undertaken
- Verbal presentation on one or more aspects of the placement (e.g. personal and professional benefits gained from the work placement)
- Project report on the piece(s) of work or investigation(s) undertaken
- Written report on aspects of the host organisation
- Illustrated portfolio reviewing the placement and the student’s achievements
- Investigative report on a topic relating the placement to the student’s degree subject

3.5. Preparing for work-based learning

Finding suitable employers

One of the first things that needs to be considered is who is going to find the placement, you or the student? Placing the responsibility on the student encourages independence and replicates the job application process. However, some students may find it difficult to obtain placements themselves and popular employers may prefer to receive a single request from an HE department/institution rather than numerous requests from different students. If the students are required to obtain their own placement, provide them with clear instructions and criteria for the placement, as well as information and guidance on organised placement schemes and employers that have previously acted as host organisations. Set them a clear and strict deadline for obtaining a placement so that you have time to intervene if they fail to find one. Make sure there are adequate quality assurance guidelines in place. For example, you may need to indicate to the students the types of work experience considered suitable (e.g. professional or semi-professional) and that it is not normally acceptable to obtain work experience where you will be working for a close relative.

If you need to find placements for your students:

- Start by identifying organisations relevant to your subject area (e.g. planning departments, minerals companies, the Environment Agency, etc.).
- Use your existing contacts and those of your colleagues.
- Use your alumni contacts. Past students are likely to be particularly willing to assist.
• Identify the full range of potential hosts and contacts including commercial organisations, relevant professional bodies, local government, non-governmental organisations, SMEs, community groups, voluntary groups, charities, Chambers of Commerce, Business Link and local enterprise agencies.

• Seek advice from your Careers Service or from any placements unit or service provided by your institution. You will need to consider whether you are going to contact only local employers or if you will make contact with employers from further afield. This will partly depend on the availability of suitable local opportunities. You may also want to consider placements abroad. Your students may be able to obtain financial assistance for foreign placements through programmes such as the Leonardo da Vinci Programme, and the Student Conservation Association in the US. Information on these and the other main national and international programmes to support work experience can be found in Box 3.5. Do bear in mind, however, the extra monitoring difficulties which may arise with students in distant locations.

Box 3.5. Resources for overseas placements

- Leonardo da Vinci Programme

- National Council for Work Experience

- Support4learning
  [http://www.support4learning.org.uk/home/index.cfm](http://www.support4learning.org.uk/home/index.cfm)

- Socrates/Erasmus

- The Student Conservation Association
  [http://www.thesca.org/con_int.cfm](http://www.thesca.org/con_int.cfm)

When you first make contact with potential hosts, you will need to ‘sell’ the placement idea. Give a concise outline of what the placement entails. Clearly outline the benefits of taking a student on work experience, (see Section 3.3) and the particular skills and qualities your student(s) can offer. This might include a brief list of generic skills and qualities, such as an ability to construct and manage databases and ‘fresh ideas,’ but also may include subject-specific expertise such as proficiency with any industry specific software, ability to conduct an environmental impact assessment, etc. In doing this it may be helpful to consult the GEES Employability Profiles which were written with the aim of assisting our students to articulate the subject dimension of what they have to offer employers ([http://www.gees.ac.uk/projtheme/emp/empprof.htm](http://www.gees.ac.uk/projtheme/emp/empprof.htm)).

For employers that are interested in providing work experience you will need to consider if they can offer:

• A discrete project, an identifiable role within a larger project or adequate experience/exposure to a range of activities/functions/departments within the organisation.

• Relevant experience at the appropriate level.

• An appropriate project that is achievable within the time available and within the capability of the student.

Matching students to employers

Unless your students are arranging their own work experience, you will need to allocate them to placements. In order to achieve an appropriate match you will need to be aware of your students’ preferences, requirements and what particular skills and attributes they can offer. One way of allocating placements is by advertising them as ‘jobs available’ for which students apply with a covering letter and CV. For oversubscribed placements you and/or the employer could consider interviewing students. This may be more appropriate for long placements where, due to the duration, it is especially important to pick the right candidate. Where students are expected to produce CVs, covering letters and attend interviews, it is advisable to provide them with guidance on these aspects. You may find it useful to consult your institution’s Careers Service with respect to providing such advice.
Many students have difficulty identifying what kind of work experience they would prefer and what attributes and qualities they can offer. Use resources such as those offered by Graduate Prospects’ Prospects Planner (www.prospects.ac.uk > jobs and work > what jobs would suit me?) that help students develop self-awareness and career (and therefore work experience) preferences. The Careers Service may also suggest other resources which can support the process of placement choice.

Preparing the students

Providing students with information on what they can expect from their placement is an important aspect of preparing for work experience. Most students will be apprehensive about undertaking a placement. Supplying them with the information to answer their questions will help to allay their fears and will also mean they are better equipped to deal with their work experience when it starts.

You can help prepare your students for work experience in the following ways:

• Supply as much information as possible on the organisation in which they are going to work.
• Provide talks from previous placement providers and student participants.
• Make clear what the student is expected to do and by when. This will include things such as: individual and class-based preparatory activities; meeting the prospective employer; negotiating the learning agreement; post-placement de-briefing; and assessment details.
• Guide students through the materials for recording and reflecting on their progress and make explicit the assessment guidelines and reporting procedures.
• Arrange a meeting between the academic tutor, student and employer mentor shortly before the placement commences so that everyone is aware of what they are required to do and any questions can be asked. This is a good time to discuss practicalities and administrative details and to negotiate the learning agreement.
• Provide a list of sources of support, information and contact details. This should include informing students of disability (Special Educational Needs and Disability Act 2001 (SENDA)) and other discrimination legislation (e.g. Race Relations (Amendment) Act 2000).
• Make sure students are clear on how to deal with difficulties whilst on placement and that they know which university services are available to them whilst on placement and how these can be accessed.

In addition to supplying your students with information relevant to their placement, it is also desirable to provide them with a preparatory programme aimed at focusing their attention on how to get the most from their work experience. The National Council for Work Experience (NCWE) has produced a placement officer’s handbook, student guide and company guide which provide information and handouts useful in supporting work placements. All three guides can be accessed through the NCWE website at http://www.work-experience.org/. There are also several Centres for Excellence in Teaching and Learning (CETLs) which are focused on work-based learning and may be able to provide helpful ideas and documents. The full list of CETLs is available at http://www.hefce.ac.uk/learning/tinits/cetl/ (see also p.20 above).

Preparing the employers

Employers need to be provided with clear and appropriate information about work experience provision including information about the student, the programme, their own responsibilities and the support available.

When dealing with the employer it is a good idea to:

• Issue them with a ‘host’ document, which makes explicit:
  ◦ The general aims of the placement or work experience; how students have been prepared and what their expectations will be; the learning opportunities which the students require; how students involved with placement or work experience will be assessed and the provider’s role (if any) within it.
  ◦ University contact details for additional information, and for emergencies.
  ◦ Responsibilities for Health and Safety, insurance and equal opportunities, including race awareness.
  ◦ The university’s willingness to discuss concerns, as well as the procedures for pursuing a complaint.
  ◦ Induction arrangements.
• Ensure that a Health and Safety checklist is completed before the placement starts.
• Where necessary, hold a meeting to explain the specific needs of a disabled student and the additional support available.

The following checklist (Box 3.6) can be used by the student in order to ensure that their induction to the host organisation has been adequately completed.

**Box 3.6. Preparing for work: induction checklist**

Name:...............................................................................................................................................................................................

Employer: ......................................................................................................................................................................................

Start Date: .................................................................

The following items should be included in your induction into the organisation, preferably in your first week. Please check off the items below when they occur and return a copy of this checklist with your first placement report. This list is not exhaustive and other topics may be covered which you can add if you wish.

1. **People**

   Introduced to key people and had their roles explained

   Identified the person(s) you are responsible to:

   Name:...............................................................................................................................................................................................

   Identified the person you notify if absent for any reason

   Name:...............................................................................................................................................................................................

2. **Hours**

   Start and finish times

   Break times

3. **Rules and Standards**

   Dress code

   Car parking

   How to answer the telephone / transfer call etc.

   Post arrangements

4. **Location of services**

   Toilet/washroom, eating/refreshment facilities, places to store belongings
Preparing the academic staff

Being involved in WBL may be a new development for many academic staff. A WBL module will need a module leader who will take responsibility for the WBL programme as a whole. In addition, it may well require engagement from a number of colleagues to share the work of student support, monitoring and assessment. It may also be necessary to obtain the specialist expertise of a particular member of staff with a knowledge of the field in which a particular student is working. For example, a student placed with a GIS company is likely to need an academic with GIS interests to help oversee their work and help draw up the learning agreement. Academic colleagues may also need to be involved in agreeing the general level of student support and contact, and in discussions on assessment arrangements and procedures.

3.6. Managing the work experience

Facilitating and monitoring the process

It is important that each academic tutor to whom placement students are assigned:

- Assists the student in getting as much out of their work experience as possible.
- Helps the student place their work experience in a wider context of learning both in the discipline and more generally.
- Provides personal support to the student, recognising that they are in a new situation and one that may feel isolating and stressful.

5. Health and safety

Emergency procedures

Safety policy received or location made known

Instructions in the event of fire/emergency

Location of any alarm call points/fire marshals

Location and use of fire extinguishers

Location of First Aid box

Name/location of person responsible for providing First Aid

Outline of duties you will be allowed to undertake and any restrictions/precautions e.g. supervision, protective clothing, smoking

Specific hazards and associated procedures

Manual handling and lifting regulations

Display screen equipment regulations/procedures

6. Action Plan

Development Action Plan discussed and agreed with employer/supervisor

Employer/Supervisor Signature:........................................................................................................... Date: ........................................

Checklist taken from The Jewels Project, University of Plymouth.
• Deals promptly with any conflicts and difficulties that may occur.
• Assesses the student on the basis of the evidence presented by the student and takes account of the views of the workplace supervisor.

**Communications and organisation**

The key to successfully managing work experience lies in good communication and good organisation. Most problems occur or are exacerbated due to inadequate verbal or written communications between the student, employer and the academic tutor and also due to poor record keeping.

The work experience module leader can help to maintain good communication and organisation through:

• Providing booklets for students, placement tutors and employers – with concise information relevant to each party.
• Ensuring all placement tutors make contact with their students and employers in the first few days of the placement as this is when most problems occur.
• Ensuring all parties are aware of the importance of communications and try to facilitate a culture of communication.
• Keeping an employer database and up-to-date records of student progress.
• Producing standard letters (e.g. introductory enquiry, confirmation of placement, end of placement ‘thank you’).
• Producing standard forms for use by tutors, students and employers (e.g. learning agreement, record of initial contact/participation, monitoring, final report).

Whilst this list of organisational ‘good practice’ may sound burdensome at first, once the materials are produced and procedures followed, they will help avoid problems and will therefore save time in the longer-term. You can also avoid writing materials from scratch by utilising the resources available from organisations such as the National Council for Work Experience, and by making contact with colleagues from your own or other institutions. Most academics are more than happy to share their resources and provide advice.

**Reflection and de-briefing**

Reflection should be built into the WBL process so that students can learn from their experience and consider how it affects their future decisions including career planning. Reflection is assisted if students have been required to keep a learning log or diary throughout their placement.

Aid reflection by getting students to consider questions such as:

• What did I learn from the placement?
• What additional skills have I developed?
• What were the strengths and weaknesses of the experience?
• What were my likes and dislikes?
• What qualities/knowledge/skills did I use most during my placement?
• How does the experience affect how I think about my course?
• How does the experience affect my career ambitions?

It is also extremely useful for placement students to meet as a group to share their experiences as part of a structured de-briefing session.

The following case study (3.1) exemplifies many of these aspects of good practice in delivering a work-based learning module within the context of geoscience and environmental science degree programmes.
Case Study 3.1. Short work placements as preparation for employment

Summary
Student endorsement is high for a Level 3 module in work-based learning available to students on geoscience and environmental science degree programmes in the School of Biological and Earth Sciences at Liverpool John Moores University. They provide strong evidence of the value of the module both in terms of their academic studies and their career potential and aspirations. The module provides a rigorous and challenging alternative to a traditional honours project. The learning to be achieved is identified in a learning agreement. Assessment, by portfolio and seminar presentation, has proved to be an appropriate discriminator of ability and learning. Anecdotal evidence indicates that the module provides good preparation for employment.

Key features
The work-based learning module runs as a 24 credit, Level 3 module. Each student’s learning is identified through an individual learning agreement. This is drawn up and ratified in dialogue with the student, workplace mentor and university tutor before the placement commences. The learning tasks must be at an appropriate level with content relevant to the aims and objectives of the student’s degree programme. Tasks comprise those that develop subject-specific learning and those that facilitate the acquisition and development of transferable skills. A high degree of independence and autonomous learning is encouraged. All placements will include, where possible, elements of literature review, and a mini research project. All students record, monitor and evaluate their progress by means of a reflective log/diary.

continued...
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Learning tasks are completed predominantly in the workplace although some (e.g. literature reviews) may involve learning activity within both the workplace and the university. A code of practice ensures that all parties understand their respective roles and responsibilities. The workplace mentor monitors and supports learning in the workplace. Regular contact is maintained between student and academic tutor.

Students are assessed by submission of a portfolio that evidences the learning achieved (worth 85% module mark), and presentation of a seminar (15% module mark). Employers are involved in formative assessment by completing an evaluation sheet. The student then reflects on this in dialogue with their tutor.

Evaluation

The module provides advice on challenges at several stages, including finding a placement, drawing up a learning agreement, compiling their portfolio and reflecting on and evaluating their learning. These represent key stages when tutor/mentor support is required.

Feedback from students on the module is extremely positive. The majority report enhanced confidence by the end of the placement:

- “I feel that having employed techniques in the real world I am much more confident in the workplace.” (Physical Geography undergraduate)

The experience enables students to appreciate the value and relevance of material taught in university:

- “I was pleasantly surprised at how work-based learning linked Level 2 and 3 modules and related theory to practice.” (Environmental Science undergraduate)

It motivates students to work harder at Level 3 and allows the acquisition of new skills:

- “I feel that the placement helped me to become more independent in my studies at university.” (Physical Geography undergraduate)
- “New skills were acquired that would have been unattainable in university, e.g. the use of a number of different pieces of laboratory equipment.” (Earth Science undergraduate)
- “The student must become aware of the need to be professional at all times, develop the abilities to plan, prioritise, manage time and become proactive not only in their studies but also while on the placement.” (Environmental Science undergraduate)

There is anecdotal evidence that the placement learning enhances employability:

- “Three months after completing the placement I was asked if they could employ me for the next 6 months. This suggests that I made a very good impression with the team.” (Physical Geography undergraduate)
- “I have been advised to apply for the position of Green Travel Plan Co-ordinator once I have graduated.” (Environmental Science undergraduate)

Employer evaluations are also extremely positive and demonstrate that students cope with steep learning curves in challenging professional environments.

Advice

- Build up a database of potential work placements and establish good university-employer relations.
- Ensure appropriate academic content and rigour by judicious use of learning agreements.
- Staff development is crucial - training in module development, placement support and portfolio assessment is particularly valuable.
- The model has the potential to be applied to different levels by placing emphasis on the identification of relevant learning tasks via the learning agreement.

Contact details: Dr. Jenny Jones, School of Biological and Earth Sciences, Liverpool John Moores University, Byrom Street, Liverpool L3 3AF. Email: j.jones@livjm.ac.uk.
3.7. Policies and procedures

Health and Safety
All HE institutions have a duty of care for their students whilst on curriculum-related work experience. However, students undertaking work experience can also expect the same duty of care as all employees in their host organisation. Academic tutors need to ensure that the placement provider has a Health and Safety policy in place and that they have appropriate liability cover. The type of cover may differ where a student is considered to be a volunteer rather than an employee. It is also advisable to check the terms of insurance cover provided by your own institution, for instance, in relation to professional indemnity or for students studying abroad. It may be necessary for students undertaking placements abroad to take out their own insurance cover. It is a good idea for tutors to contact work experience providers directly in order to make checks. Alternatively, the student may be required to find this information out, and provide clear evidence that it has been undertaken. Tutors need to make sure that students are aware of their health and safety responsibilities, as well as their rights. Similarly, work experience providers need to receive clear information about their responsibilities.

Equal Opportunities
Some students will have special needs with regard to health, disability or religious observance. These needs must be privately discussed and arrangements made, in accordance with the Special Educational Needs and Disability Act (SENDA) (2001). Mature students are likely to have significant prior work experience. They may have different attitudes and expectations of WBL to other students, which will need to be managed. International students from outside the European Economic Area may not be automatically entitled to work in the UK. Eligibility will depend on the ‘conditions of stay’ on the passport and on confirmation from the placement tutor and employer that the work is essential or is closely related to the students’ course. Advice may be obtained from your institution or from Working in the UK. (See box 3.7). For some students, problems may occur where WBL interferes with the part-time job that they have to finance their way through university. This is more likely to be an issue for shorter duration placements that cause a temporary disruption to a student’s normal commitments. A compromise may need to be negotiated to resolve such a conflict as the student may lose their job under such circumstances. Everyone involved also needs to be sensitive to any gender-related issues which may arise.

General problems, harassment and bullying
Students should be encouraged to deal with problems themselves in a diplomatic way if possible before involving the tutor. Any problems should be resolved promptly to avoid them escalating and putting the placement at risk. Where students are not engaging effectively with their WBL commitments, consider using the procedure of a verbal warning followed by a written warning and ultimately removal from the placement if improvements are not made. Placement organisations should have Codes of Practice that cover inappropriate behaviour, and placement students should expect the same treatment as regular employees.
3.8. How to minimise the burden

From all that has been said so far in this chapter, it will be clear that providing WBL opportunities can be a costly business, not least in terms of its demands on staff time. Indeed, one of the main obstacles to its introduction is that departments may consider it highly desirable but regrettably unaffordable. While there is no way of making WBL ‘a free lunch’, there are nonetheless many ways in which it is possible to reduce the burden. Here are some of them:

- Borrow and adapt documentation (for example on Learning Agreements) from existing WBL schemes
- Use university central facilities to find hosts
- Ask students to find their own hosts
- Use host organisations within a reasonable travel time
- Use organisations that have previously acted as hosts
- Minimise meetings – use telephone, fax and email instead
- Encourage students to be independent and autonomous
- Intervene only if significant problems arise
- Where possible, achieve scale economies by placing two or more students with a single organisation
- Offer WBL on a high credit rating, thereby perhaps reducing the number of other modules students take
- Where possible in organising WBL, use administrative rather than academic staff
- Resist the dangers of over-assessment
Obviously it will not be possible for any individual department to secure all of the cost reduction measures listed above: much will depend on local circumstances. However, careful management and good planning can ensure that the benefits of WBL substantially outweigh the costs. When first introducing a WBL module, it is probably wise to begin on a small scale and with a limited number of students and placements. The set-up period is bound to involve quite a lot of work and so keeping student numbers at modest levels is one way of offsetting the burden. Once you become more experienced at managing WBL, it may be easier to grow the system and to give more students the opportunities of learning in the workplace.

3.9. Extra-curricula work experience

Obviously, academics have considerably less involvement with extra-curricula work experience. However, it is essential that this form of work experience is considered in this guide as academics have an important role to play in encouraging students to make the most of these opportunities, particularly where no work experience is provided in the curriculum. Staff have scope to discuss, encourage and support extra-curricula work experience with their students particularly where effective personal development planning (PDP) is provided (considered in Chapter 6).

Types of extra-curricular work experience

As was shown in Figure 3.1, there are three different forms that extra-curricula work experience can take. These will now be considered in more detail along with advice on how you can encourage your students to get more from these opportunities.

Informal extra-curricula work experience

The majority of your students will be working to earn money whilst studying for their degree, during vacations, part-time during the term or, if they are a part-time student, as part of their normal employment. Occasionally, as with Hayley (see box below), this employment can be of a professional level and important in obtaining a subsequent job and career. Typically, however, informal extra-curricula work experience is in non-graduate type employment and will not be directly related to the degree subject. However, this work is important for the student and provides the opportunity for some useful skills, qualities and understandings to be developed. Employers often complain that students fail to articulate the important learning that has taken place through this type of work. For example, a student may not appreciate the skills and knowledge they have learnt in dealing with customers, working under pressure and developing commercial awareness through their work in a supermarket. Academic staff can help students recognise and articulate their work experience learning through well-designed and supported PDP systems. It should also be noted that some institutions acknowledge the value of extra-curricula work experience by offering students awards for this form of learning. For example, the Universities of Plymouth and Exeter offer students who undertake part-time term, vacation or voluntary work a university certificate on successfully completing an award; this is designed to assist students in optimising and recording their learning from their work experience (Jewels Project, http://www.pedres.net/cgi-bin/searchspec.pl?terms=85).
Volunteering

Voluntary work is an increasingly common form of work experience, and one which many universities are not actively encouraging. It is typically arranged by the student with an organisation or as part of a volunteering scheme. Students may volunteer for altruistic reasons but frequently they use volunteering in a strategic way as part of a career plan. Voluntary work is a particularly important form of work experience for GEES students as our students often express a desire to pursue environment- or development-related careers after graduation. Competition for these spheres of employment is tough and access to employment is often dependent on previous work experience, initially gained through voluntary work. Employers rate voluntary work very highly, expressing the view that this form of work experience shows a greater level of initiative and commitment on the part of the student. Research by Reed Executive (British Firms Rate Voluntary Work - http://www.timebank.org.uk/mediacentre/pr_press_release_details.php?id=76) found that amongst 200 of the UK’s top businesses, three quarters of employers prefer to recruit candidates who have undertaken voluntary work experience and that over half think that voluntary work can be more valuable than paid work. Where possible, it is a good idea to point out the value of volunteering to your students. Box 3.10 provides a case study of a GEES student volunteer who explains why she volunteered and what she gained from her experience, whilst Box 3.11 offers some useful resources about volunteering and volunteering opportunities.
**Box 3.10. Student volunteer case study**

Emily is a Geography student at the University of Exeter who gained experience, knowledge and skills from volunteering and additionally gained a work experience award.

Besides really enjoying doing Conservation Work through the Millennium Volunteers Scheme (linked with the British Trust for Conservation Volunteers), I have also developed interpersonal skills, such as working in a team, leadership and communication, and practical skills, including tree planting and heathland clearance which involves plant species identification. After completing 100 hours work with the scheme that I've joined, you gain an award, which provides a goal to work for and is something interesting to add onto my CV.

Looking ahead, I feel that the conservation work experience that I now have will be valuable for my career job hunting, as I am considering working in the field of ecotourism or in outdoor activity pursuits. But even if I decide to continue with my studies or get an office job, I feel that the voluntary work that I’ve done will help me to get a job, as it reflects personal commitment.

The cost of volunteering can be off-putting when student debt is considered, but some voluntary schemes help to cover costs incurred whilst volunteering. I’m also taking an extended time (2 years) to gain my 200-hour award, which gives me time for my studies and part-time jobs. Besides, it’s good to do a few hours intermittently to provide breaks from studying – and to go outside to do something that I enjoy which feels worthwhile.

**Box 3.11. Resources for voluntary work**

- EarthWatch - promoting sustainable conservation of natural resources and cultural heritage by supporting scientific field research and educational programmes in 25 countries. Some internships / work experience opportunities in the organisation and on expeditions. [www.earthwatch.org/](http://www.earthwatch.org/)
- Environment Job - Various voluntary and permanent positions in the environment sector, including, conservation, renewable energy, sustainability, ecology and environmental education. [www.environmentjob.co.uk](http://www.environmentjob.co.uk)
- Graduate Prospects - Information, statistics, resources and contacts on voluntary work. [www.prospects.ac.uk](http://www.prospects.ac.uk) > jobs and work > explore job sectors > voluntary
- I to I - Volunteer work experience opportunities around the world lasting between one to 24 weeks, including teaching, journalism, conservation and community development work. [www.i-to-i.com/](http://www.i-to-i.com/)
- Millennium Volunteers - Voluntary work opportunities in the UK for people aged 16 to 24. The majority of the opportunities are related to conservation or community development. [http://www.millenniumvolunteers.gov.uk/index.cfm](http://www.millenniumvolunteers.gov.uk/index.cfm)
- Volunteering England - There are a great number of GEES-related voluntary work experience organisations which can be accessed through this organisation. ([http://www.volunteering.org.uk/volunteer/index.html](http://www.volunteering.org.uk/volunteer/index.html))

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Organised paid work experience

Organised paid work experience differs from informal work experience in that the work tends to be of higher quality and is organised by the student for strategic rather than purely financial reasons. For example, a student who wishes to pursue a career in environmental consultancy may make a concerted effort to obtain a summer job working in this field. The effort required to obtain such work is likely to be considerably greater than obtaining informal work experience such as bar work. However, the higher quality experience gained can prove far more valuable than that typically provided by students’ regular paid employment and is more relevant to future career development. Many students are unaware of the support available to them in gaining ‘quality’ work experience; there are many initiatives and national schemes that provide employment experience in a range of sectors, both in the UK and overseas, and a number of these schemes are listed in Box 3.12. For example, through the STEP programme (http://www.step.org.uk/), students can undertake an eight-week placement into an SME to undertake a specific project.

Box 3.12. Resources for paid work experience

**UK**
- Placement UK - Placement opportunities in the UK for EU students and those with a valid work permit. [www.placement-uk.com/](http://www.placement-uk.com/)
- STEP - For students and graduates, summer placements, short placements, industrial placements for 12 months, also projects and case studies, Skills Online to help record your experience and prepare a project report. [www.step.org.uk/](http://www.step.org.uk/)
- Trident Trust - Provider of UK work experience placements. [http://www.thetreidenttrust.org.uk/work_experience/services.asp](http://www.thetreidenttrust.org.uk/work_experience/services.asp)
- Fledglings - A UK resource for students and graduates, offering placement opportunities. [www.fledglings.net](http://www.fledglings.net)

continued...
Overseas

- AIESEC - Exchanges and work abroad programmes, operates also in the UK and Europe, includes articles on work experience issues. [www.aiesec.org/](http://www.aiesec.org/)
- AIPPT - Provides opportunities in the US for international students and opportunities abroad for US students. [www.aippt.org/](http://www.aippt.org/)
- CIEE UK - Various work experience programmes overseas. [www.councilexchanges.org.uk/opportunities/](http://www.councilexchanges.org.uk/opportunities/)
- Transitions Abroad - Online resources including volunteering, internships and work experience. [www.transitionsabroad.com/](http://www.transitionsabroad.com/)
- The Graduate Prospects website - Includes a guide to finding work experience opportunities in over 50 countries. [www.prospects.ac.uk](http://www.prospects.ac.uk)

Your own institution’s Careers Service will be able to tell you and your students about additional regional, national and international schemes.

**Maximising the benefits of extra-curricula work experience**

Work experience is valued by employers and will enhance graduate employability, but only if the student understands and appreciates their experience and is able to articulate it. As Harvey et al. (1998) point out, there may be nothing intrinsically beneficial about work experience, but it is the learning experience that comes from it that is important. Work can have benefits for a student’s academic performance and future career prospects, but only if the student recognises what they have learnt and is able to transfer their learning to other situations including their academic work. This is more easily achieved for curricula-embedded work experience, where activities such as recording and reflecting on the experience are made part of the process. For extra-curricula work experience, the student needs to be encouraged to engage in these activities.

You can help your students make the most of extra-curricula work experience by:

- Talking to your tutees about the work they are doing. Help them reflect on what they are doing and what they are learning. Help them make connections between their paid work and their academic work.
- Making sure your tutees are aware of the value of their work experience to employers. Check that they are able to articulate what they have learnt both verbally and through reviewing their CV.
- Encouraging them to think strategically about their work experience - suggest they look into organised forms of work experience as a way of obtaining better quality work experience, be this voluntary or paid. Your institution’s Careers Service will be able to help them with this.
- PDP is a very useful structured mechanism by which the above can take place.

Box 3.13 provides general resources on extra-curricula work experience that can help you to support your students in making the most of potential opportunities.
Synopsis

The term work-based learning reflects a wide range of learning activities that are part of academic programmes and yet take place in the work environment. In the GEES disciplines the work-based module is becoming an increasingly common curriculum feature and one where the key to success lies in effective student guidance and support before, during and after the placement itself. There is no doubt that work-based learning can bring real benefits to students but, equally, we have to acknowledge that WBL is expensive to organise and that suitable work placements may not always be available. For these and other reasons, therefore, it may be necessary to look for other forms of work-related learning that can take place on campus. So, alongside career management skills, the next chapter explores a number of other ways in which learning about the workplace can be taken forward.

Box 3.13. General resources on extra-curricula work experience

- Hobsons - Offers work experience job hunting advice and a placement search facility. Hobsons also publish an annual work placement guide as part of their career guide series. This can be obtained from your institution’s Careers Service. [http://www.get.hobsons.co.uk/](http://www.get.hobsons.co.uk/)
- National Council for Work Experience - Information and advice for university students, staff and employers, includes vacancies, news, events, publications, advice, also information for academics and employers. [www.work-experience.org/](http://www.work-experience.org/)
- Prospects: Focus on Work Experience - An annual magazine produced by the National Council for Work Experience, available from your institution’s Careers Service.
4. Careers Management and Workplace Understanding

In this chapter we examine two key themes: (a) developing career management skills and (b) learning about the workplace and how business, industry and organisations operate. Developing career management skills involves: helping students understand the employment market; assisting them in developing an awareness of the type of careers they might be suited for; appreciating what they have to offer an employer; and developing knowledge of the job application process. Learning about the workplace and how business, industry and organisations operate can be achieved through work experience (detailed in the last chapter) but also in a variety of other ways such as workplace/site visits, guest presentations from practitioners/employers and classroom-based learning activities that develop students’ industry/business understanding, such as ‘real-world’ scenarios and entrepreneurship simulations.

4.1. Developing career management skills

Why do we need careers management in the curriculum?

Unemployment, and under-employment, within the first six months of graduation can have a significant impact on future career success (Elias et al., 1999, p49). Graduates who are unemployed six months after graduating spend on average 13 months unemployed in the first three and a half years following graduation, compared to one month for graduates employed six months after graduation. They are also more likely to be employed in non-graduate employment in the future than their employed counterparts. If GEES graduates are to be successful over the long-term they must be equipped with career skills before graduation so that they can move swiftly into appropriate employment. Indeed, Elias et al. specifically recommend early careers intervention for students studying non-vocational degrees (p9). Furthermore, 52% of GEES graduates report they are lacking in career awareness and management skills (GEES Graduate Employability Survey), suggesting that this is an aspect of enhancing employability that requires particular attention by our subject areas.
Despite the importance of gaining good quality employment, only a minority of undergraduates take any constructive careers action, such as making use of the institution’s Careers Service or submitting job applications. This is probably due to a complex mixture of factors including the deferral of having to make difficult career choices and actions, and the more pressing need to deal with immediate concerns such as academic work, assessments and their part-time job. Feedback from students suggests that a significant issue inhibiting active career planning is a genuine fear about the future and the increasing competitiveness of the graduate market place. All too often the concerns don’t spur them into action but tend to make them less willing to engage in the process for fear of failure and/or through being daunted by the perceived enormity of the task (Claire Rees, pers. comm.). For others the opposite is true, with some students being complacent or too optimistic with respect to their graduate employment prospects. Anecdotally, careers advisers report that those students most likely to make use of their institution’s Careers Service are typically those students least likely to need careers help.

If our message to students is that careers awareness and management is extremely important, they can rightly expect us to value it enough to include it within the curricula. Career development should be considered too important to leave to students to access on an ad hoc basis. Moreover, it is generally accepted that learning takes place best within the context of the subject studied. Hence, there is a need for careers understanding and management to be developed by departments within their degree programmes. As outlined in Section 1.2, HE programmes will increasingly be judged by quality indicators such as the employment record of their graduates. This will further add to the need for departments to take more direct responsibility for developing students’ career management skills.

There are four main approaches that can be taken to developing careers knowledge and management skills within departments and curricula. These are:

a) Careers modules
b) Departmental careers information systems (e.g. careers resource area, noticeboard, e-mail networks)
c) Within the context of a personal tutorial system, e.g. formally through PDP or informally through tutor support and encouragement
d) Embedded as a theme across all/most modules

A. Careers modules

Careers modules offer a mechanism by which important careers knowledge can be made accessible to students alongside personal career planning. The majority of students conduct little or no autonomous career research or planning before their final assessment. Careers advisers report individual contact with only a small proportion of undergraduates (Glen Crust, Careers Adviser, pers. comm.) and fewer than 40% of graduates undertake any job searching before graduating (Gradfacts, 2002). Careers modules therefore offer a significant opportunity for raising careers awareness and achieving a measure of career planning for all or some students on a programme, depending on whether the module is compulsory or optional.

In terms of content, careers modules typically offer students opportunities to:

• Explore the graduate job market (subject-specific and general).
• Reflect on the personal skills, attributes, knowledge and experience they can offer an employer.
• Consider how their degree programme and life at university helps in the development of knowledge and abilities valued in the workplace.
• Develop job search strategies.
• Examine the job application process and how to present their personal and academic qualities against occupational criteria in making a job application.
• Develop an understanding of recruitment practices in different employment sectors.

It is strongly advised that careers course material is delivered by a team consisting of an academic tutor(s) AND staff from the institution’s Careers Service. The involvement of the institution’s Careers Service is extremely important in the design and delivery of careers modules. The combination of academic and career service staff provides a blend of subject context, teaching experience, knowledge of / familiarity with the students and careers expertise.
The content and delivery of careers modules are often supported by a programme of guest speakers who represent various employment sectors. Alumni speakers, who students may more easily relate to, are also commonly used to discuss their employment and careers experience since graduation.

A variety of assessment formats are used in careers modules. These include:

• Self-reflective career diaries/logs
• Career action plans
• CV production
• Mock applications
• Mock job interviews
• Business style reports, oral presentations, essays or exams demonstrating knowledge of specific employment sectors / the general graduate employment sector / workplace and employment trends

A key question for programme designers is whether any careers module provided should be compulsory or optional. Compulsory modules may not be universally popular because some students express the view that they came to university to study their chosen subject and not to participate in careers education. On the other hand, staff who are already involved in delivering careers education frequently report that those students who opt out of careers modules and those who are most vocal in their opposition to careers education are often those who would benefit most. The GEES graduate employability survey shows that, with hindsight, no less than 89% of former students think that careers guidance should be an important part of the curriculum.

Another key issue with respect to careers modules is whether they should be included in the curriculum at Level 2 or Level 3. Students tend to find careers modules more relevant to their needs at Level 3, given that they are approaching the end of their degree and are thinking more urgently about what they are going to do next. However, although students may not be as motivated to consider career planning at stage two, including a careers module at this point in the curriculum provides students with the much needed time to plan and take action with respect to their career. Although perhaps the best known GEES careers modules are those in geography at the Universities of Plymouth (see below) and Leeds, several other GEES courses have also taken steps towards embedded careers education. Further case studies are available in the GEES Subject Centre publication, Planet Special Edition 1, Issue 2 (2001) on embedded careers education.

Case Study 4.1. Plymouth Geography careers module

Summary

For more than five years now the University of Plymouth Geography degree has included a compulsory 10 credit final year module on careers education. It is taught jointly by academic and Careers Service staff. At Plymouth it is one of only two core third-year geography modules, the other being the 30 credit dissertation. The careers module’s principal aim is to assist students in seeking and preparing for employment and postgraduate study. Its main focus is on transition skills such as CVs, applications and interview technique, but it also reviews the changing graduate labour market, what employers are looking for and what kind of jobs and careers geographers tend to go into. (A somewhat similar professional development component at Plymouth for geologists/earth sciences is co-ordinated by Will Diver, Email: w.diver@plymouth.ac.uk)

Key features

The Geography and Careers module is the culmination of an employability curriculum which includes compulsory ‘skills/employability’ modules in both years one and two, as well as many opportunities to practise work-related skills in optional modules, such as work-based learning. It is also closely connected to the School’s procedures for Personal Development Planning (PDP).

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On successful completion of the module students are able to demonstrate an appropriate knowledge of the graduate labour market, prepare an effective CV and application form, give a satisfactory account of themselves at interview and reflect critically on the role and value of a geographical education.

The module is delivered on a two hours a week basis through the autumn term to all final year single and major geography students (typically 150 – 180). A wide range of learning and teaching methods are used and many of the sessions are interactive. In addition to classes by Careers Service and academic staff, there are guest lectures by graduate recruiters and by representatives from a sample of relevant employment sectors (e.g. teaching, town planning, the environment, etc.). There are also short talks from former students now working in a variety of fields. The module has three equally weighted assessment elements. These are: a personal reflective essay on the student’s career plans, a ‘mock’ application form exercise and a ‘mock’ job interview (all the School’s academic staff give individual interviews to 5 or 6 students). To pass the module the student’s personal tutor must also confirm that they have participated appropriately in the PDP process.

Evaluation

Student assessment results are in line with other modules and their evaluations of the module are strongly positive with typically 95% satisfied or very satisfied. Students particularly value the chance to practise their application and interview skills and obtain individual feedback. We no longer have former graduates saying that our degree neglects careers and employability.

However, given the very large number of students involved, the module cannot offer individual careers guidance and counselling to each student. This is available in the usual way through the University’s Careers Service and by personal tutors.

Advice

• Careers modules work best where they are customised to meet the needs of particular courses/disciplines. The subject dimension matters.
• They also need to be well embedded in the degree programme and to form part of a wider employability curriculum.
• Guest speakers, including graduate recruiters and former students, add credibility and variety.
• Students particularly value the opportunity to practise and receive guidance on their CV, application and interview skills.
• A good partnership between academic and careers staff is essential.

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B. Departmental information systems

Providing a careers noticeboard and/or a resources area are two common ways in which departments pass on careers information to students. The information presented needs to be kept up-to-date, relevant and accessible. Noticeboards and resources areas are, however, passive ways of providing careers information. More creative and active approaches can be used, as demonstrated by Imperial College in their use of an alumni network (Case Study 4.2).
C. Personal tutoring systems

Tutors can play an important role in developing their students’ career awareness and management skills due to the opportunities the tutorial affords for personal discussion. Tutors can encourage their tutees to reflect on, research and take career development action. By taking a positive, non-judgemental and honest interest in their tutees’ career aspirations, tutors can do much to motivate and encourage their students. Five suggestions for activities/discussion for use by tutors are provided in Box 4.1.

Box 4.1. Five personal tutoring activities to initiate careers research and reflection

1. Assist your tutee in identifying, articulating and evidencing the skills and experience he/she can offer an employer. Use your tutee’s CV and the list of skills and attributes employers desire (Section 1.1) as a starting point for discussion. Ask your tutee to update their CV in the light of their reflection.

2. Help your tutee think about the type of work for which they would be particularly suited. Through discussion allow them to explore their career aspirations and think through what they might be happy doing. Suggest they use Prospects Planner (www.prospects.ac.uk > jobs and work > what job would suit me?) to refine their understanding of the types of job they are best suited for. This is an excellent tool, not only for identifying personal career requirements and suitability, but also for providing information on thousands of career paths. Use the results of the Prospects Planner as the basis for future discussion. Encourage your tutee to conduct research into the employment area(s) in which they are particularly interested. Encourage them to make contact with the Careers Service.

3. Help your students improve their CV. Employers and careers advisers often complain about the content and presentation of CVs and job applications. Unlike students’ academic work that may get a good mark even if it contains some mistakes, a CV must be near perfect if it is going to get a candidate short-listed for a job.

4. Help your tutees establish a career action plan. Use as the starting point your discussions on their career aspirations and the skills and experience they can offer. What further skills, attributes, experience or qualifications will they need to develop to achieve their career goals? Encourage them by revisiting the action plan in order to keep it high on their agenda. Actions for individual students will, of course, vary: however, in general they are likely to need to conduct specific careers research, obtain good quality work experience, undertake specific training and look for opportunities within the degree programme to develop certain skills/experience (actions may include modifications to module choices or proposed dissertation topics).

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5. Advertise the institution’s Careers Service. As well as helping your tutees research employment fields, careers advisers can help refine job application skills and provide information on many types of work experience opportunities and skills acquisition schemes. Encourage them to make contact with the Careers Service and stress that they do not need to know what they want to do before accessing help and support.

The PDP process operating for your degree programmes may be a useful vehicle for working on the above activities (if they are not already part of your PDP structure). The topic of PDP is taken up in Chapter 6.

D. Embedded as a theme across all/most modules

Where appropriate, staff should take opportunities to make reference to employment trends and career issues in the context of subject study. Careers education should not occur only in a career module ‘ghetto’. For example, a module on hydrology/water resource management could include reference to the types of jobs available in this field, the routes to employment and the kinds of skills, knowledge and experience required to obtain such related employment. Guest speakers can add career ‘value’ if they are encouraged to talk about their own career development and share with students their sector-related career knowledge.

Key Resources

- Graduate Prospects > jobs and work > explore job types. Detailed profiles of a wide range of careers. [www.prospects.ac.uk](http://www.prospects.ac.uk)

4.2. Learning about the workplace and how business, industry and organisations operate

Guest speakers and workplace visits

Practitioners and employers from business, industry and other organisations can be used in the classroom to provide an insight into the nature of their work. When operating successfully, guest speakers can make the curriculum more relevant. They can inform and motivate students and provide a forum in which they can ask questions. Opportunities for using guest speakers to add an applied dimension to module delivery are not always taken. However, although potentially valuable, guest speakers are not always well-received by students who can see them as a ‘bolt on’ and of marginal relevance to the module and especially its assessment.
The use of guest speakers can be improved by:

- Briefing them in advance as to what you want from them and discussing the content of their presentation to ensure that it is relevant and appropriate. Let the guest speaker have a copy of your module documentation so they are aware of its aims, content and assessment. Encourage them to make linkages between their presentation and the module as a whole.
- Exercising your judgement in relation to the quality of the speaker. Do not continue to use a speaker that you feel is poorly received by your students.
- Using the visit as an opportunity to discuss your module and its relevance to the world of work. This can provide valuable feedback and will make your guest feel that their opinions are valued.
- Consider including the material covered by guest speakers in your module assessment(s).

It can be difficult to identify suitable guest speakers. Here are some ideas for finding and retaining them:

- Use your alumni and consultancy/research contacts. This can be very effective; since both groups already know you and your institution, they will probably be more willing to get involved.
- Use your institution’s Careers Service to find out about any established links in cognate disciplines that you may be able to exploit.
- ‘Cold calling’ potential employers, practitioners and professional bodies. Although this method is generally less successful it should not be discounted, particularly if you are trying to obtain guest speakers in areas in which you do not have existing contacts.
- Make the guest speaker feel that their services have been worthwhile. This does not necessarily mean a financial reward. Most guest speakers will offer their services for free. The covering of expenses and provision of good hospitality are, however, appreciated.
- It is a good idea to keep in regular touch with your guest speakers. This could include letting them know about any relevant feedback that was obtained from the students. Try to make your guests feel part of the module team.

Workplace visits, like guest speakers, can be a useful complement to typical module delivery. They provide an experience of ‘real-world’ environments and activities and normally involve practitioners speaking to students in their working environment. As with guest speakers, site/workplace visits can suffer from the tendency to be bolted-on to delivery rather than embedded. To get the most out of site visits, they should clearly link to module learning outcomes, subject content and assessment. Field courses can provide useful opportunities for these kinds of activity.

Some ideas as to organisations that may be approached for workplace visits and guest speakers (and indeed work placements) can be found in Box 4.2.

**Box 4.2. Examples of suitable organisations supplying guest speakers and workplace visits**

<table>
<thead>
<tr>
<th>Local authority planning or environmental departments</th>
<th>Museums and heritage organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservation bodies</td>
<td>Transport companies</td>
</tr>
<tr>
<td>The Environment Agency</td>
<td>Forest enterprises</td>
</tr>
<tr>
<td>Water companies</td>
<td>Health, police and welfare agencies</td>
</tr>
<tr>
<td>Energy companies</td>
<td>Chambers of commerce</td>
</tr>
<tr>
<td>Regional development agencies</td>
<td>Waste management organisations</td>
</tr>
<tr>
<td>Tourism organisations</td>
<td>Geotechnical / Civil engineering consultancies</td>
</tr>
<tr>
<td>Property or estate companies</td>
<td>Mineral extraction companies</td>
</tr>
<tr>
<td>GIS companies (or users)</td>
<td>Hydrocarbon survey/exploration companies</td>
</tr>
<tr>
<td></td>
<td>Professional bodies</td>
</tr>
</tbody>
</table>
Case Study 4.3. Integrating geological site visits into module delivery

A Level 3 module, The Geology of Bulk and Construction Materials, is delivered through a combination of visits to quarries (soft and hard rock) and plants (brick and cement works) and lectures. Site visits comprise at least 50% of module delivery. Site operators provide most of the content in the field and also supply publications and other resources. Lectures are given either in advance of the excursion or subsequent to the visit in order to set the theoretical context. The lectures always refer to the field visits in order to emphasise the linkages between theory and practice. The module is assessed using an industrial style report which links to one of the module topics / site visits (e.g. ‘Limestone utility as an economic resource’). An examination is also used; the exam questions always relate to what students have seen on their site visits or to data obtained from the visited sites.

The students benefit from taking the theory of the subject and applying it to the real world within the economic/political constraints that are not always tangible in the lecture room. Field visits provide the students with a feel for the economic/environmental situation at first hand and enable them to start to appreciate the roles that politicians/government/industry have in making difficult decisions for the wellbeing of both the community and the nation. These underline the diversity of experience and knowledge needed by a modern geologist. The power and value of negotiation and agreement is evident in the theory of what is taught and practised (e.g. permissions to gain access, discussion with the professionals who explain how they manage their operations). Students report in their evaluations that they enjoy the hands-on application of their studies and they appreciate the contact they get with industry.

Substantially linking theoretical knowledge with its practical application is very valuable to the students’ learning experience. However, site visits require cultivation and nurturing. It is important to show your appreciation through feedback and maintaining regular contact, e.g. by sending a Christmas card.

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‘Real-world’ activities

‘Real-world’ activities allow students to experience learning in the classroom that is modelled on activities that take place in the workplace or that stimulate commercial, organisational and workplace understandings. Examples of such activities include students developing a business plan or undertaking consultancy work. More tightly constrained ‘real-world’ activities include role play, case studies, simulations and games, in which the learning environment, content and outcomes are more rigidly defined. In addition to developing workplace awareness and understanding, students also develop skills such as negotiating, decision making, working under pressure and commercial awareness. These various forms of ‘real-world’ activity provide a useful complement to work experience and could be used to prepare students for work experience or, after completing a placement, to practise understandings and competencies developed through work experience.

‘Real-world’ activities in the classroom are obviously not a perfect substitute or simulation for actual placements but they can be used as a useful alternative where placements are unavailable or limited in number. Moreover, if properly devised, they can be rich and intense learning experiences in their own right, and sometimes more ‘tailor-made’ and purposeful than actual work experience.

Enterprise and entrepreneurship

One particularly effective way of enhancing students’ business and organisational understanding is to expose them to what is involved in developing and managing an enterprise and in being entrepreneurial. Encouraging these kinds of skills is an important agenda for higher education, not least because the UK government is recommending that enterprise should be part of the curriculum for students of all ages. Simulating the development and launch of a small business can provide lots of useful insights and enhance students’ commercial awareness.
However, although being entrepreneurial is often expressed in terms of self-employment and the development of new small businesses, it can also take the form of innovative and creative activities by people working in large organisations: this is often referred to as 'intrapreneurship'. Whether our students go on to work in large or small organisations, it is arguably part of the role of higher education to help produce graduates who are creative, imaginative and who can generate ideas and make things happen. The (US) National Commission on Entrepreneurship suggests that entrepreneurs have characteristics such as vision, adaptability, confidence and a willingness to innovate and take risks. Such a broad approach and definition allows academics and our students to recognise entrepreneurs in many different areas of life both within and beyond the economy and the small-business sector. We can, for example, think of ‘social entrepreneurs’ who may identify new opportunities in the voluntary and charitable sectors; and as practitioners in the GEES disciplines, we may perhaps warm to the concept of the ‘eco-entrepreneur’.

One way of encouraging a sense of entrepreneurship and organisational awareness in our students is to include in the curriculum an opportunity for them to identify and develop an idea for an innovation, service or product and, working in teams, to prepare an outline proposal or plan for taking it forward. This kind of approach in the GEES disciplines has already been developed, for example, at the University of Ulster (Maguire and Guyer, 2004) and is currently being piloted at Kingston University (Struder, 2006). At the University of Plymouth the ‘Enterprise Project’ is now a central part of the second year geography core course on employability. It culminates in a ‘Dragon’s Den’ where student groups ‘pitch’ (i.e. present) their proposal for questioning and judgement by fellow students and staff.

These kinds of learning experiences encourage a sense of entrepreneurship while at the same time immersing students in key organisational realities such as markets, funding and planning. Such curriculum initiatives are probably best prepared and launched in collaboration with entrepreneurship specialists (perhaps from the University’s Innovation or Enterprise Unit). However, they are certainly becoming more common in the GEES disciplines as evidenced by the fact that the GEES Subject Centre has recently produced (edited by Helen King, its Assistant Director) an extensive resource pack on enterprise skills and entrepreneurship (http://www.gees.ac.uk/projtheme/entrep/entrep.htm). So, there is advice and support at hand for other GEES academics interested in opening up this interesting new curriculum area. One of the best known and most experienced academics in this field is Pauline Kneale, a Geography Professor at the University of Leeds, who has provided one of the case studies (4.6) below. Pauline’s work here sits alongside a series of case studies on helping students to understand the workplace.
4.3. Case studies in developing workplace understanding

The remainder of this chapter is devoted to a number of case studies that demonstrate how workplace understandings can be developed within the classroom. These examples develop employment-relevant skills and subject knowledge, within the context of ‘real world’ scenarios. One of the case studies (Case Study 4.4) is featured in greater detail in the ‘Real World Project’ (http://www.bioscience.heacademy.ac.uk/projects/realworld.htm). The database for this project contains further case studies relevant to the GEES disciplines. A number of the case studies below connect to entrepreneurship and small business: as indicated earlier, this is an area of growing significance as the government seeks to encourage self-employment, the small business sector and the development of graduates with entrepreneurial qualities.

**Case Study 4.4. Developing an environmental-sector business plan**

Master’s-level students work-up a business plan for a small or start-up environmental consultancy. After sharing their skills and experience, a skeleton plan is produced that is then critically reviewed. Material concerning the market in which a small environmental consultancy functions is analysed and students discuss scenarios in order to identify stakeholders. The shape of a business, the roles played by individuals within it and sources of work and finance are introduced. From this point onwards the module is delivered around a ‘board meeting’ structure. The remainder of the module introduces and discusses clients, writing clarity for more or less erudite audiences, quality issues, model business plans, cash flow and profit and loss accounts. A revised business plan is then developed which is presented to external consultants. Finally, a formal board meeting is held to progress the business plan.

Students are assessed through a short report designed to demonstrate their ability to write for particular audiences. Their initial and final business plans are also assessed. The final plan is presented at an ‘Environmental Consultancy Evening’ at which representatives from local environmental consultancies are present. The feedback from these employers is included in assessment. This event has grown in popularity with external consultants who have begun to value it as a networking opportunity and a chance to look for prospective employees. Students take the event seriously and of their own volition turn themselves out at their best; they get a lot out of talking to the employers in a low-pressure setting, and come back with (a) lots of ideas for MSc consultancy projects and (b) increased confidence to ‘chase’ projects. There now exists a strong base of graduates in the sector who return to this event as representatives of their present employers. This outcome is particularly beneficial to current students who are able to take advice from former students and use them as role models.

Through this framework students learn about business systems, practices, quality management and regulatory frameworks appropriate to the environmental consultancy sector. They also develop skills in business planning, communication and finance/funding.

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More detailed information is available on this case study from the ‘Real World Project’ at http://www.bioscience.heacademy.ac.uk/projects/realworld.htm
Case Study 4.5. Professional practice in geology: a teamwork course shadowing the minerals industry

Summary

‘Professional Practice in Geology’ was developed at Queen’s University Belfast in 1998-2001 as a compulsory half module (10 CATS points) for final year undergraduates on the BSc Geology Honours degree programme. The module aimed to develop (i) an understanding of how geological knowledge and methods are applied in a ‘real world’ industry context, and (ii) transferable skills in team-working, time management, marketing, and oral and written communication. Design and implementation was greatly assisted by a practising professional geologist, Garth Earls, who provided maps, data and first-hand experience of a gold exploration programme (in County Tyrone) that was used as the case study. The module was run as a full-time, ‘short fat’ course of two weeks (10 days) duration, rather like a field course, to emulate the demands of professional staff working in industry. A similar course has subsequently been developed at the University of Brighton, where the author now works.

Key features

The course engaged students in a mineral exploration programme in which they used real exploration data to locate bedrock gold mineralization and evaluate the potential of an ore deposit. Classes were divided into teams (exploration companies) of 4 to 6 students. Teams competed with each other for the award of (nominal) contracts during successive phases of the exploration programme - such as licence area selection, reconnaissance exploration, prospect area exploration, drilling programme, and resource calculation. Matching the number of phases to the number of students per team allowed every student to present their company’s work at least once during the course. Five minute oral presentations were assessed by tutors and peers, with feedback given on both content and style of delivery. At the end of the first week an excursion was arranged to the prospect area to consider at first hand geological, economic and environmental issues associated with mining.

In the second week, one day was devoted to a ‘mock’ public enquiry based on submissions and newspaper reports from an actual public enquiry into a gold mining proposal in the case study area. Socio-economic and environmental issues were examined through role-play by the students, who adopted the stance of the mining company, local landowners, business people in the nearby town, the fishery commission, government departments and environmental lobby groups. On the Wednesday and Thursday of this week, teams worked independently to prepare a report in the form of a company prospectus. On the Friday morning, teams delivered 20–30 minute oral presentations (using PowerPoint) to ‘market’ their company’s exploration work, environmental impact assessment and mining proposals. Presentations were made to a panel of assessors which included the facilitating professional geologist, the tutors and VIP guests including senior staff of the Geological Survey, all of whom graded the content and delivery and selected the winning team. A final prize-giving ceremony was inevitably followed by celebratory drinks, with the winners buying the first round.

Evaluation

In written and oral feedback, students said they greatly appreciated the experience of working in competing teams, which was fun and developed comradeship but also involved hard graft and the hectic pressure of working to deadlines and ‘flying by the seat of their pants’. Many felt that the course improved their time management and confidence in oral presentations and interviews. Costing work programmes, managing budgets and the critical use of data were also identified as key skills engendered by the course. Students particularly appreciated the input of a ‘real’ professional geologist – someone from outside the academic world who shared his experience of applying geology at the ‘coalface’. This encouraged several students to follow a career as an exploration geologist, and many others specifically mentioned the course in their CVs and in job applications.

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Many of these feelings – including the pressure of working to deadlines – were shared by staff involved in delivering the course and assessing the students. Compared with other modules, this one involved much more time and effort – but this was more than offset by camaraderie with each other and with the students. Suggestions for improvements to the course were largely logistical, such as better facilities and accommodation, and provision of funds for photocopying. Students also sought worked examples of exercises and additional advice on budgeting.

Advice

- Run a pilot version of the course with a small group of volunteers before integrating it with your degree programme (we found this immensely useful).
- Arrange planning meetings starting 6 months before the course, and a post-course review.
- Employing the services of an industry-based geologist is very beneficial but has major cost implications. One-off (pump-primer) external funding is relatively easy to find, but annually recurrent costs are best met by securing company sponsorship.
- Make assessment criteria clear and simple, and avoid conservative marking: give real credit to effective teamwork and presentations.
- Balance stress with relaxation – for students and tutors! We arranged an informal field excursion at the end of week 1 and a post-course party in week 2.

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Mr John Kelly, CSA Group Ltd, 6-7 Dundrum Business Park, Windy Arbour, Dublin 14, Ireland. Email: jgkelly@csa.ie

Case Study 4.6. ‘Enterprising intrapreneurship’

Summary

Businesses develop through the enterprise and initiative of staff, but being proactive can seem daunting to younger and newer employees. The research that underpins these case studies has been with employees that have been ‘intraprising’. A series of case-based activities have been created to help students understand the roles that can be played in the workplace.

Key features

Intrapreneurship is the art of working within an organisation to effect change, by developing new ideas, procedures or products, by innovating practice and thereby enhancing the business. Examples of intrapreneurship in a variety of businesses and organisations are used to create a suite of case materials highlighting real, current workplace practices. The business examples make them suitable for use in all GEES disciplines. The cases encourage students to:

- realize that they can be creative, innovative, commercially aware, intraprendurial and self-motivated within businesses and organizations; and
- build confidence in their graduate skills including networking, managing awkward situations, creativity, understanding decision making, negotiation, team-working and writing.

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The cases make real links with employers, and bring workplace experience to many students. They could be used for example with students in preparation for work placements. Students need experience of employment, but work placements can be very variable, quality control is difficult and learning outcomes vary widely; using these case materials can develop students’ understanding of the workplace in a consistent way.

There are nine cases to date and others are being developed. The case studies are supported by two fully scripted PowerPoint lectures (50 and 20 minutes) which introduce intrapreneurship. There is also a reading and resources list. The materials follow the format of Tutor Notes and Student Materials; these are self-contained and easily reproduced as Word or PowerPoint documents. The intention is that tutors can cut and paste the Student Materials section to their own handouts. The Tutor Notes give full information on running an activity and include feedback from sessions where the cases have been used.

Cases may be used within modules. I have used cases in Master’s level hydrology modules, undergraduate modules in hydrology and in careers and employability. The sessions have been used as stand-alone items in ‘skills’ sessions by skills officers and in staff training events. They have also been used with the general public and a couple have been used with pre-university groups. Two of the cases were used with Masterclass summer school groups.

Evaluation

Students’ post-case reflections have been consistently positive:

- “It shows you can make a difference even as a temporary employee, I hadn’t thought before about how I could get my ideas across effectively.”
- “Being the newest person at work always made me feel unconfident and I can see that putting these ideas in … would make me feel more involved and more confident.”
- “I hadn’t thought about networking at all, but this really showed you can get a lot from being a bit organised, although I’m not usually that way.”
- “I found having to make the decisions when we didn’t know half of what was going on really stressful, having the … [company representative] … explain that working in an organisation with 6000 people but only really knowing about 40 and realising that people make decisions this way was a real shock.”

It is important to keep the group running to time and encouraging groups that are slow to get involved. Ice breaker activities at the start are suggested in some cases.

Advice

Running cases for the first time can be daunting but good fun. It is important to encourage students to interact and to keep talking. It is vital to leave time at the end to debrief the case so the students understand what happened in the real cases, the information is in the notes, and that they understand the processes they have used. If you do not debrief them they remember a jolly afternoon but do not realise they have been practising networking, teamwork and debating skills. Each case has an example reflection sheet for use at the end of the case to help focus people’s thoughts.

All case studies and support materials can be found at: http://www.geog.leeds.ac.uk/courses/other/casestudies/

Contact details: Prof. Pauline Kneale, School of Geography, University of Leeds, Leeds, LS2 9JT.
Email: p.kneale@geog.leeds.ac.uk
Case Study 4.7. Cultivation of wild growing plants simulation game

This simulation game introduces students to the topic of medicinal plants and their cultivation. Students learn about the biotic and environmental factors that influence plant growth but within an applied, business context. In this way students develop a commercial as well as a theoretical knowledge of their subject.

Before embarking on the game, students can work through an introduction to the topics via a series of menu driven screens. These screens are graphically rich and interactive. When students feel ready, they can then begin the simulation. The game is based upon the start-up of a UK business growing introduced medicinal plants. The new business is given €5,000,000 in start-up money and must survive for twenty years (the virtual duration of the game), meet market needs and make a profit. After completing the simulation, students can test what they have learnt through a self-assessment quiz. A plant gallery and index is also available to consult.

The simulation game, whilst designed for the biosciences, is also suitable for the environmental sciences and students of biogeography.

Authors: Kath Huckbody, Henk van Wilgenburg and Ian Hughes

Contact Details: Prof. Ian E. Hughes, School of Biomedical Sciences, University of Leeds,
Email: i.e.hughes@leeds.ac.uk
5. Developing Employability: Skills and Attributes

This chapter will deal with the development of skills and attributes known to be useful in the workplace. After briefly reviewing the competencies desired by employers, consideration is given as to how they can be further developed through the GEES curricula. Attention is focused on those competencies considered important by employers but typically given less attention in GEES degrees. A number of case studies are provided which demonstrate how employment-relevant skills and attributes can be developed through innovative subject teaching.

5.1. Why do we need to make further progress with skills development?

Over the last decade our subject areas have given considerable attention to the development of key skills (also known as core or transferable skills) through the curriculum. This has been in response to calls for a more employment-relevant higher education (e.g. NCIHE, 1997). The GEES subject benchmark statements all include reference to key skills (QAA, 2000a; 2000b) and it is now the norm for skills such as oral presentations and IT competencies to be taught and assessed alongside subject material, often to the enhancement of subject learning. Several publications have been produced for GEES academics on key skills including Chalkley and Harwood (1998), Thomas (1998), and Gravestock and Healey (2000), all of which deal with the topic of key skills in more detail than can be provided here.

However, within this curriculum focus on skills teaching, the types of skills developed through GEES degrees are typically those we value most as academics rather than those that are most needed in the workplace. There are many skills and attributes that employers and graduates report as requiring better development. Many of these are soft skills, and include qualities such as negotiation, working under pressure, self-organisation and managing responsibility (e.g. Brennan et al., 2001; Owen, 2001). This may be for a number of reasons:

- As graduates have become more skilled in some areas, employers identify different competencies that are still to some extent lacking.
- Changes in patterns of graduate employment and a rapidly evolving workplace mean that new competencies are now valued.
- Degree programmes, whilst making improvements, are not providing sufficient opportunity for the development of the most relevant competencies.

In order further to enhance the employability of GEES students, it is therefore necessary to re-examine (and continue to re-examine) current information as to what employers want from graduates so that these needs can, where appropriate, be incorporated into subject learning. This soft-skills area is the next big skills issue on which HE will need to focus. There are no complete answers to developing soft skills in the curriculum as yet – this is work in progress or still on the horizon. However, the case studies provided later in this chapter may help by illustrating how some GEES academics are beginning to address this issue.
In 1997 Clarke and Higgitt (date) reported that, for most key skills, geography graduates felt these had been under-taught. The more recent GEES survey of graduate employability (see Box 1.2) demonstrates that our subjects have made significant progress in addressing many of these skills deficits. For example, whereas oral presentation skills, IT skills and time management were all considered under-taught in the research of Clarke and Higgitt, in the recent GEES Employability Survey graduates considered that all of these skills were given about the right level of attention. However, with respect to soft skills, our subjects were still not sufficiently addressing graduate needs, with leadership, problem-solving and business awareness all showing up as areas in which improvements could be made.

5.2. What skills and attributes do employers want?

Although there is no single definitive list of the skills and attributes employers desire, numerous surveys exist, showing a broadly similar set of competencies (e.g. Harvey et al., 1997). Section 1.1 listed the competencies desired by employers, as identified by ESECT. In order to provide us with a complementary insight into employer needs and priorities, the findings of Brennan et al. (2001) are also provided here. Brennan et al. identify the ten competencies required by employers and, most importantly, also those top ten competencies for which employers identify skills shortfalls.

Table 5.1. (a) Top ten competencies required in current employment in the UK; (b) Ten most common shortfalls in competencies between what employers want and what graduates offer (Brennan et al. 2001).

<table>
<thead>
<tr>
<th>(a) Top ten competencies required in current employment in the UK.</th>
<th>(b) Ten most common shortfalls in competencies between what employers want and what graduates offer.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Working under pressure</td>
<td>1. Negotiating</td>
</tr>
<tr>
<td>2. Oral communication skills</td>
<td>2. Taking responsibilities</td>
</tr>
<tr>
<td>3. Accuracy, attention to detail</td>
<td>3/4/5. Planning, co-ordinating and organising; Assertiveness, decisiveness, persistence; Time management</td>
</tr>
<tr>
<td>4. Working in a team</td>
<td>6. Applying rules</td>
</tr>
<tr>
<td>5. Time management</td>
<td>7/8. Computer skills; Leadership</td>
</tr>
<tr>
<td>6. Adaptability</td>
<td>9. Oral communication skills</td>
</tr>
<tr>
<td>7. Initiative</td>
<td>10. Working under pressure</td>
</tr>
<tr>
<td>8. Working independently</td>
<td></td>
</tr>
<tr>
<td>9. Taking responsibility and decisions</td>
<td></td>
</tr>
<tr>
<td>10. Planning, co-ordinating and organising</td>
<td></td>
</tr>
</tbody>
</table>

Both of these surveys relate to the competencies required by employers in general. They are applicable to the GEES disciplines in that (a) a significant proportion of GEES graduates enter non-subject related employment and (b) the competencies identified as being relevant to employers in general will be largely the same as those necessary in subject-related employment. In addition to the above generic list, Penn (2001) identified five further competencies that are desired in geological-related careers. These include:

- Numeracy
- Innovation/creativity
- Project/task management
- Research/investigative skills
- Professional skills/knowledge
Although there is not space in this volume to deal comprehensively with all the competencies identified as useful in employment, the examples of practice provided later in this chapter will pick up on a number of the skills highlighted here as most valued by employers.

**Key Point**

It is important to reinforce the message that many of the skills and attributes desired by employers are also of value to academic study. Providing opportunities to develop these employment-related skills and attributes will therefore complement and enhance students’ education and subject study.

### 5.3. Advancing key skills

All three GEES subjects have made good progress with the development of key skills, the nature of the subjects providing rich opportunities for them to be practised (cf. the GEES Graduate Employability Survey). Certain skills (e.g. oral communication skills, IT skills) are now widely taught and assessed alongside subject knowledge and understanding. Whilst these improvements to skills development within our subject teaching are acknowledged, several issues still need to be addressed in order to enhance the employment-relevance of the competencies of GEES students.

**Improving skills and attribute development**

- Students need to be given frequent opportunities to practise, develop and gain feedback on their skills and competencies. For example, written communication is repeatedly practised and assessed. However, many programmes consider it sufficient to provide only one or two chances to practise and gain feedback on oral presentations.
- Although students now receive a more skills-rich education, attention needs to be given to helping them recognise, evidence and articulate these competencies. Tutors have a role to play in identifying and ‘selling’ these skills through module documentation and delivery. PDP can also be extremely useful in facilitating this process (see Chapter 6).
- Considerable progress has been made in those skills areas that derive directly from the study of our disciplines (such as intellectual skills) and those that can be more easily taught and assessed (e.g. IT skills). However, more problematic competencies such as soft skills (e.g. self-management) have often been neglected.

Table 5.2 highlights some of the challenges surrounding the teaching of soft skills and provides responses as to how we can address these challenges.
### Table 5.2. Why some skills and attributes are considered more challenging to teach and develop

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some competencies are less familiar to academics and do not derive directly from the study of the subject.</td>
<td>The skills that appear on lists of ‘what employers want’ are competencies we as academics also value. Whilst their development in our teaching may require a higher degree of creativity in their implementation, this is not to say that their inclusion is inappropriate. Less familiar competencies, and modes of developing/teaching them, become less challenging when examples of their practice are available.</td>
</tr>
<tr>
<td>Many of the competencies valued by employers relate to personal attributes and attitudes (e.g. self-confidence or creativity). Whilst most staff recognise that some of these are developed in vaguely defined ways through the curriculum (and the general experience of HE), staff have little or no experience of explicitly developing them through the curriculum.</td>
<td>As noted above, difficulties in developing skills and attributes through lack of experience can be addressed through the use of examples of practice. There are a number of case studies in this chapter that demonstrate the development of employer-valued attributes such as self-confidence.</td>
</tr>
<tr>
<td>Some people question whether it is possible or appropriate to assess personal attributes and attitudes.</td>
<td>Given a clear and systematic approach, assessing soft skills and attributes need not be significantly more problematic than assessing intellectual and academic qualities. Many widely used and well established assessment methods are open to subjectivity. Even traditional forms of assessment (such as essays) have been shown to be open to significant problems in reliability (Knight and Yorke, 2003). Such ‘soft’ competencies and attributes can be satisfactorily handled through assessment, particularly formative assessment, where feedback rather than grading is the objective.</td>
</tr>
</tbody>
</table>

### Key Resources

5.4. Mapping skills in the curriculum

Only a brief consideration of skills mapping will be provided here as curriculum audit and design issues have been previously discussed in Section 2.2. Several previous publications have also dealt with this topic (e.g. Chalkley and Harwood, 1998, and Livingstone and Matthews, 2000). However, it is useful to consider the more specific tool of skills auditing in addition to a general curriculum audit as a way of examining the finer detail of skills provision across the curriculum.

Using audit as a tool for mapping skills development is now common practice. Auditing is beneficial in that it allows us to model what should be in the curriculum, examine in reality what is there in practice, and action plan to work on those areas where gaps are identified. Auditing has proved effective in highlighting what skills are developed, where they occur (are some skills absent from certain levels or degree pathways?) and how often they appear (which skills are under-taught and which are over-taught?) thus facilitating curricula to be re-designed and adjusted in response to identified weaknesses.

Audit as a prompt for curriculum development is dependent on the questions that are asked. In selecting what skills to audit it is important to ask:

- How important is this competency with respect to subject study, employability and students’ personal development.

It would be fair to say that most audits concentrate on subject skills and those key skills that automatically derive from subject study, rather than featuring all the qualities desired by employers. In order to enhance the employment relevance of curricula skills and attribute provision, it is therefore advisable to:

- Re-examine and update your existing skills audit checklist (if you have one) - does it incorporate the competencies known to be most important for employability? Use the information on employer requirements provided in this guide as a starting point (see Sections 1.1 and 5.1). A further list of employability skills and attributes that you may like to consult can be found in Yorke and Knight (2004, p22).
- Consider what programme changes you need to make in response to your revised audit.

Difficult decisions may need to be taken with regard to time and space for subject and competency development. This does not necessarily imply a reduction in teaching of subject content. Instead, it may involve prioritising some competency/skill areas over others where they are considered to be of greater importance or where some skills are considered over-taught. It should also be stressed that teaching that focuses on the development of particular competencies is almost always conducted within the context of teaching subject knowledge and understanding. There is therefore no necessary ‘trade-off’ between the two.

5.5. Case studies in skills and attribute development

The remainder of this chapter is devoted to case studies in skills and attribute development. As will be seen from these examples, teaching innovations that enhance skills and attribute development typically involve complex learning and achievement. Multiple skills and attributes are developed through these learning activities. Another feature these case studies have in common is the positive impact they have on subject study, as reported by both staff and students. Innovative teaching that enhances skills and attribute development can also enhance subject study.

For each of the case studies presented, the main skills and attributes developed are highlighted in order that the reader can easily identify which case studies develop which qualities and competencies.
Case Study 5.4. Student-practitioner conference

Main competencies developed

- Working under pressure
- Oral communication skills
- Teamwork
- Time management
- Independence
- Planning, co-ordinating and organising
- Self-confidence
- Organisational awareness

Summary

As part of a final year module in Geography, a conference event provides exciting opportunities for students to engage with the world of work. Independent group research with a local/regional context is conducted in collaboration with external agents who include professionals and academics. The research findings are disseminated to a mixed audience in a one-day conference towards the end of the module. Student presentations are given alongside those of invited professionals and academics. Assessment of the presentations is by the audience, i.e. visitors, staff and students, using criteria provided by the module leader.

Key features

‘Coastal Zone Environments and Management’, part of the Geography and Earth & Environmental Science programmes at Edge Hill University, uses the Sefton Coast on Merseyside, North-West England, as the focus of and location for much of the teaching and learning materials. Alongside formal introductory lectures students work in small teams, conducting research projects devised and designed by them. Part of the research process necessitates direct contact with relevant public and private organizations, including land managers and other coastal professionals. The teams must carry out the research, analyse the data and report the findings to the conference audience which is made up of their peers, staff, representatives from the external agencies and visiting academics from other higher education institutions. Whilst the conference is largely organised by the module leader, volunteers from the whole student group help with the production of conference materials. Within this framework of a professionally-styled conference, skills such as independent thinking, team-working, effective time management, meeting deadlines, organisation (self and team), as well as formal conference presentation, are an integral part of this innovative approach and are much favoured by prospective employers. Students must prepare a group research proposal by week 4 of the semester and provide a group abstract 2 weeks ahead of the conference day. The module leader assesses each of these elements and then the abstract is submitted for printing and inclusion in the materials available for the audience on the conference day. The audience members (who gave prior agreement), assess the oral presentations with marking criteria and guidelines provided by the module leader.

Evaluation

Evaluation of the conference experience by students and visitors has highlighted some significant benefits for the undergraduates but also for the tutors and the external agents. The students are able to experience the world of work through contact with external agencies within the context of their independent research and can develop personal links with these agencies. The conference strongly enhances the confidence of the students in terms of public presentation and it allows them to experience conference preparation (e.g. devising research projects and meeting deadlines) and organisation (e.g. preparation of conference materials); experience that they would not normally get until in formal employment. Much closer relationships between staff and non-academic professionals develop as a result. Indeed, using the conference in this way to support and develop teaching and learning is a win/win situation for everyone involved.

continued...
Case Study 5.5. Planning negotiation

Main competencies developed

<table>
<thead>
<tr>
<th>Negotiation</th>
<th>Teamwork</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decision making</td>
<td>Creativity</td>
</tr>
<tr>
<td>Problem solving</td>
<td>Business awareness</td>
</tr>
</tbody>
</table>

Summary

The purpose of the exercise is to develop students’ negotiation skills. In the first part of the exercise they have an introduction to negotiation as a means of dealing with conflict. It is pointed out that negotiation is an everyday skill and it is used at the highest political level. In a professional context, negotiation is a means of getting what you want for yourself or your organisation. It is preferable to aggression or passivity. Students are encouraged to analyse an issue in terms of interests not positions. They are given examples of the use of creative thinking to explore alternative means of maximising benefits and mutual gain (Whetton and Cameron, 1991).

continued...
Key features

The negotiation exercise is based on a real case study of a proposal to build a lorry factory near to junction 18 on the M6 in Cheshire on the edge of the town of Middlewich. The proposal is controversial. The whole of the site is open countryside, although part of it is allocated for employment development as an expansion of an existing industrial estate. The development would affect the viability of a farm and would involve the demolition of a farmhouse. The siting of the building might also have an adverse effect on a watercourse. The Environment Agency wants to ensure that built development does not encroach onto the valley because this area has regional ecological significance. The Agency also wants to secure the long term maintenance of this land.

The company and the District Council want the proposal to go ahead, because it would create good quality jobs in a company with an international order book. By granting planning permission they could get a financial contribution towards the construction of a section of the Middlewich bypass – a long term goal of both the District and the County Councils.

The students role-play the negotiation over a two week period. In groups of two or three they take the parts of the interest groups: developer/owner of the land and the industrial estate, the lorry company, District Council, County Council, residents, farmer, English Nature, Environment Agency and a local wildlife group.

The aim is to reach a negotiated agreement on the scheme. They have an initial round of discussions to determine the interests of each of the parties. Then they must decide who might have a mutual interest and with whom they wish to have further meetings.

At the beginning of the second week the groups all get copies of a letter from the Department for Culture Media and Sport which declares that the farmhouse has been listed as being of architectural or historic interest. This in effect means that it cannot be demolished and imposes another constraint on the negotiations.

The students have a location map, a map of the whole site and a proposal map. The handouts include basic information about the surrounding area and the issues relating to the site and the proposals. The assessment is an essay which encourages the students to reflect on negotiation as a means of solving disputes.

Evaluation

The exercise is used with first year students in the second term. Students are frequently reticent at first and need to be encouraged to go and talk to the other groups. However, once the initial shyness is overcome, they appear to enjoy it. It helps if they are in a flat room with space to move around and to talk to each other. They learn to develop a high level skill, which is useful in many situations; they start to appreciate that there are many different points of view on a problem and that there are ways to overcome aspects of the problems through discussion and negotiation.

Advice

It helps to know a friendly architect or town planner. Alternatively, look in the local paper for controversial planning proposals. The files can be viewed at the local council offices and copies of documents can usually be obtained for a fee. Maps of varying scales can be printed from www.multimap.com or from Digimap if you are registered with Edina at www.edina.ac.uk. Be aware that copying architects’ drawings will be subject to copyright. However, the name of the architect or agent will be in the planning file and the owner of the drawings may be amenable to letting you use their plans for educational purposes.


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Case Study 5.6. The ‘Vertical Project’ – environmental project planning and management

Main competencies developed

<table>
<thead>
<tr>
<th>Teamwork</th>
<th>Project management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership / Taking responsibility</td>
<td>Time management</td>
</tr>
<tr>
<td>Independence</td>
<td>Planning, co-ordinating and organising</td>
</tr>
<tr>
<td>Business awareness</td>
<td>Interpersonal skills / Emotional intelligence</td>
</tr>
</tbody>
</table>

Summary

The ‘Vertical Project’ enables students from all Levels (i.e. years 1, 2, 3 and 4) of the BSc Environment programme at Glasgow Caledonian University to work together on various environmental projects. It offers a valuable learning experience which allows students to develop skills, knowledge, practical experience and improve personal transferable skills within a realistic context. Staff and students participate in interdisciplinary approaches and partnerships with other academic and research institutions, non-governmental and governmental agencies and industry. Students benefit from developing their knowledge within a real-life context.

Key features

Students from different years of the programme work together on various environmental projects. The real-life projects are relatively short and can be proposed by staff, external partnerships or final year students. Several of the projects have successfully developed into consultancies. Examples of projects undertaken include:

- Wind farm development in a local Social Inclusion Partnership
- Developing a remote system for a weather station
- Developing plans for a reed bed sewage system for an isolated field centre
- Energy audit for a local council
- Vegetable box scheme for the University

In each group the final year student takes a management and leadership role (chief executive) while the other students participate in the planning and execution based on interest and knowledge. The students are able to learn from each other, develop teamwork skills and consolidate their taught material. The whole student body on the programme develop a sense of identity and act as a coherent group to progress their work.

Assessment is based on four items of group work: a project plan, log book (including minutes of meetings, etc.), oral presentation and report. The project manager is awarded marks for all four elements. Group members are only assessed for the presentation and report. All members of the group are awarded a mark that is based on the learning outcomes relevant to their level and moderated in relation to peer assessment, which takes into account individual participation and performance in the project.

Evaluation

Students enjoy working together on these projects. They use their academic knowledge to inform their project work and teach each other appropriate skills (e.g. internet searching; use of GIS in data analysis). The students take responsibility for their project and contact outside agencies and industries in a professional manner (according to feedback from the external partners). This professional attitude is carried forward to assessment where students provide exacting judgements on their colleagues through peer review. Staff and student evaluation indicates that student confidence in project work and problem-solving is developed through the process, and that their motivation and retention is also improved through this experience.

continued...
Case Study 5.7. Interdisciplinary project work

Interdisciplinary teams of engineering, marketing, accounting and design students work together on product development projects for small companies. The combination of disciplines parallels the expertise used in ‘real world’ product development. Teams gain considerable interpersonal, team, problem-solving, leadership and communication skills as well as business awareness. Such a model could be potentially adapted to link GEES students to those from other disciplines in various applied contexts.

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6. Employability and Personal Development Planning (PDP)

From 2005/06 all students in higher education are expected to receive guidance and support in their Personal Development Planning (PDP). Whilst not exclusively aimed at career development, enhanced employability is a key element of PDP. This chapter explores the links between PDP, careers and employability. It discusses the need for careers development to be made explicit in selling the concept of PDP to students and suggests a number of activities that can be included to give PDP a careers focus. The chapter ends with a case study that demonstrates how PDP can be customised and embedded into GEES provision to enhance career, academic and personal development.

6.1. What is PDP?

Personal Development Planning (PDP) is defined by the QAA (2000c) as:

‘a structured and supported process undertaken by an individual to reflect upon their own learning, performance and/or achievement and to plan for their personal, educational and career development’.

More specifically, PDP is:

- concerned with learning in an holistic sense (both academic and non-academic);
- something that an individual does with guidance and support: the support needed is likely to decrease as a person’s capacity to manage their development grows;
- a process that involves self-reflection, the creation of personal records, planning and monitoring progress towards the achievement of personal objectives;
- intended to improve the capacity of individuals to communicate their learning to others who are interested in it (e.g. academic staff and employers).

Through a process of monitoring, building and reflecting on their personal development, PDP is intended to help learners:

- become more effective, independent and confident;
- understand how they are learning and relate their learning to a wider context;
- improve their general skills for study and career management;
- articulate their personal goals and evaluate progress towards their achievement;
- develop a positive attitude to learning throughout life.

PDP complements GEES subject study by:

- asking students to reflect on what knowledge/skills/qualities they are developing through their GEES degree;
- offering the potential to improve academic performance;
- encouraging students to think about what they want to do with their GEES degree and the steps they are taking to enhance their employability and readiness for the world of work.

6.2. How does PDP relate to enhancing employability?

PDP contributes to the enhancement of an individual’s employability in three key ways. It assists students in:

- the initial refinement of their career goals / career planning;
- actually getting a job – the recruitment process;
- subsequently developing professionally within their career.
Refining career goals and career planning

PDP can aid students in refining their thinking about the career they would like to follow and assist them in working towards this goal by helping them:

- reflect on their personal and career goals;
- think about what they have to offer, i.e. what they are good at / skilled in;
- establish their personal preferences, e.g. likes to take a leadership role;
- take a pro-active approach to their own development therefore encouraging careers research, planning and action.

In these ways PDP can lead to:

- more efficient and focused career research and planning;
- more considered and appropriate career choices;
- strategic action to meet career ambitions.

PDP does not offer an instant solution to discovering the ‘ideal job’. However, for the many students who have no more than vague notions about the career path they would like to follow, it can help them gain a better understanding of the type of employment for which they are suited, be this GEES-subject related or not.

Getting a job

Sooner or later after graduation, students are faced with the daunting prospect of getting a job, whether they know what they want to do or not. To land the best job they can requires successful personal marketing through their CV, application, graduate recruitment assessment centres and interviews. University/college careers advisers report that students often sell themselves short in these various elements of the recruitment process.

PDP can assist students in getting a good job in the following ways:

- acting as a record of skills, achievements, qualities and experience, i.e. a source of evidence to back up claims made to employers;
- through reflection on their competencies, PDP can encourage students to recognise their learning as being of value to employers;
- through recognising, valuing and evidencing their competencies, students are better able to articulate what they have to offer;
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by broadening their understanding of their competencies, students are better able to transfer their thinking to new situations and address new tasks and challenges – these qualities are especially beneficial for assessment centre performance;

• greater self-awareness and practice in reflection can benefit students' ability to handle employers' questions, particularly in interviews.

Professional development

Once in employment, graduates need to consider their own professional development. Individuals who are successful in this will be more effective in developing their career, be this rising up the career ladder, or managing changes in career direction as needs or personal goals shift.

PDP acts as a useful prelude to professional development and staff appraisal processes, inducting students into the skills, practices and attitudes necessary to effectively manage their career. Specifically it:

• develops an individual's self-management skills;
• encourages a proactive attitude to development, leading to the taking of strategic action;
• promotes positive attitudes to lifelong learning and self-directed learning, both necessary for acquiring new competencies in the workplace.

6.3. Selling PDP to students: making explicit the career development benefits

Despite its clear benefits, current experience of delivering PDP suggests a sometimes rather lukewarm reception by students. There are a number of reasons for this. One contributory factor is that students perceive PDP as lacking relevance; they cannot see what is in it for them.

Explaining how the various facets of PDP link to career development is one way in which the relevance of PDP can be emphasised (see Case Study 6.2. Motivating PDP by linking student performance development planning to employability). Including activities that have a career focus and which directly benefit students in their career planning (e.g. CV writing) gives PDP added value and use. Students can also be shown that PDP is a very good rehearsal for the performance management / appraisal systems which are now such a common feature of professional life. Box 6.1 provides a few ideas of activities that can be included in PDP to give it a career focus.

Box 6.1. Some suggested PDP careers activities

1. On-line audits are commonly used in PDP to establish personal preferences, motivations, skills and interests. Rather than write your own, why not use an off-the-shelf one such as that available through www.Prospects.ac.uk (the official graduate careers website). Follow links to “What job would suit me?”

2. Build CV writing into your PDP. Ask students to update their CV at the end of each academic year. Use the CV to facilitate discussion of the competencies students can offer employers.

3. Employers tend to ask similar sets of questions on their application forms (Edwards, 2001). Assist your students in preparing for job applications by asking them to respond to some of the main lines of questioning including:
   • overcoming difficulties and sticking to task;
   • most significant achievement;
   • experience of team-working and organisation of others;

   continued...
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- reasons for applying and career interests/aspirations;
- extra-curricula activities;
- positions of responsibility.

4. When employers are recruiting graduates, applications are normally sifted in relation to structured checklists of key competencies. Ask your students to evidence what they have to offer a potential employer with respect to some or all of the following ten competency areas (based on Whiddet and Hollyforde, 2000).

- flexibility, adaptability and the capacity to cope with and manage change;
- self-motivation and drive;
- analytical ability and decision making;
- communication and interpersonal skills;
- team-working ability and skills;
- organisation, planning and prioritisation abilities;
- customer focus and service orientation;
- ability to innovate / change things;
- mental and physical resilience;
- leadership ability.

5. Utilise the GEES Employability Profiles within your PDP system (http://www.gees.ac.uk/projtheme/emp/empprofs.htm). This resource has been written to assist our students in articulating the subject dimension of what they have to offer employers, i.e. what their degree was about and what qualities and knowledge it has helped them develop. The pack provides advice for students and staff as to how the profiles may be used to enhance graduates’ job seeking preparedness. Use and adapt the suggestions and encourage your students to make use of the profiles independently.

6. Consider making reference to the ‘chartered status’ award available at a professional level in each of the GEES disciplines. By highlighting this professional status accreditation to your students you will be able to reinforce the importance and widespread practice of continuing professional development in later years and therefore enhance the relevance of PDP as a process.

- Chartered Geographer: Royal Geographical Society with the IBG http://www.rgs.org/OurWork/CharteredGeographer/Chartered+Geographer.htm
- Chartered Geologist: Geological Society http://www.geolsoc.org.uk/template.cfm?name=fellowship_cegol
- Chartered Environmentalist: Society of the Environment http://www.socenv.org.uk/

Students should obviously be encouraged to take action in response to any of their perceived weak areas. More advice on using PDP to assist students in developing their employability can be found in Higher Education Academy (2005a).

**Key Point**

- PDP can be a useful vehicle for encouraging students to reflect on their career preparations as well as their academic progress. Including a focus on employability can enhance student commitment to the PDP process.
6.4. Models of PDP practice

There are a variety of models of practice that can be adopted for the provision of PDP. It is not the purpose of this guide to go into detail about PDP design, however, in general PDP tends to be either:

- in the form of an institutional model OR individually designed/customised by departments to meet programme needs;
- delivered through core modules OR supported through the personal tutoring system.

Further information on general aspects of PDP design and delivery can be obtained from the Centre for Recording Achievement (CRA), www.recordingachievement.org, Higher Education Academy (2005b) and Gosling (2003).

Although all PDPs inherently link to career development, staff designing a PDP system can choose to strengthen its career orientation. The following is an example of a PDP in which careers development, research and action planning are actively promoted.

Case Study 6.1. Using PDP to market the degree award

Summary

The Physical Geography (BSc) programme at the University of Glamorgan utilises PDP as a marketing tool both externally and internally. Prospective students are shown why they should choose the degree, and what type of personal development they might expect. Likewise, undergraduates are shown clear personal developmental pathways from 1st to 3rd years, and beyond graduation. The aim is to produce undergraduates with higher level skills. Particular attention is given to meeting individual potential and providing a route to successful graduate employment.

Key features

Each module offered in Physical Geography has been assessed for the key skills it contains, with these skills identified in course handbooks and module outlines. As students progress through their programme they reflect on how their experiences have enabled them to reach a standard of confidence and competence in a particular skills category, their relative strengths and weaknesses, and areas in which they consider themselves particularly adept. These records and reflections are maintained in a PDP File.

In the first week new students are introduced to the concept of transferable skills and they complete an on-line key skills questionnaire. This is then used to structure an informal interview with their personal tutor during the first residential field course (early in the term). This enables staff to instruct the individual student where to seek help and advice for numeracy, literacy and ICT issues and also serves as an ice-breaker between staff and students.

PDP is further promoted by embedding transferable skills within core 1st year Physical Geography modules and teaching them in a geography-based context. A series of study skills seminars are scheduled. The materials to support the seminars, notes students make, and their eventual work is held in the Progress File. Having utilised a Progress File extensively in the 1st year, the following years rely on the individual student to maintain it. By ensuring each module’s key skills are presented to the students, PDP is continually marketed.

This is continued in the 3rd year, where the focus is as much about employability and life after graduation as successfully completing the final exams. All Physical Geography students entering the 3rd year are invited to attend a voluntary course that addresses job hunting, CV writing, application forms, and interview techniques. This course is well attended, but requires the submission of a CV and an up-to-date Progress File. The course, like PDP, uses a reflective approach when considering what plans a student may construct when making the transition from undergraduate to graduate.

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Case Study 6.2. Motivating PDP by linking student performance development planning to employability

This approach to PDP aims to enhance student personal development planning through the use of performance and review documentation from a range of companies and organisations (charity and voluntary organisations, large to small companies, government, local government and professional bodies). Examples of original documentation from the companies are used as the basis for activities that encourage students to understand workplace cultures and practices. The overall aim is to help the student make a connection between their own required portfolio planning and the staff performance development plans that are used in the workplace.

Materials are available free of charge for staff who are interested in using this approach to PDP at: http://www.geog.leeds.ac.uk/courses/other/performance/pdpindex.html

The agreement is that anyone using the materials must acknowledge the organisation or company origins of the materials to the students. In reproducing documentation for student use, the company titles or logos must be kept in place.

The website has four sections:

1. Student Activities - Activities for use in individual, small or large group sessions working on reflection and personal development planning skills. They follow a Tutor Notes and Student Materials format.

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PDP is promoted as giving ‘added value’ and consequently there is no assessment of the Progress File itself although this could change in the future.

Evaluation

Students have reported that they welcome the opportunity that PDP provides to discuss their skills development as well as other concerns related both to their studies and, sometimes, social and family issues that might hinder their studies. It appears that job seeking has been made less traumatic and more purposeful for the graduating cohort having completed this course, with the Progress File providing a vital record of achievement. Benefits have also been seen in terms of quality of academic work submitted, reduced drop-out rates, and greater student commitment to the subject. Overall drop-out rates for Physical Geography are significantly lower than the University average.

Advice

Essential to the success of PDP in marketing the degree award is that it is seen to represent a mainstay to the curriculum rather than something which sits externally. In order to ensure the success of this approach, students must be convinced of its use. This is achieved by embedding the teaching of key skills in 1st year modules, promoting student reflection of skills development in the 2nd year, and focusing on PDP for employability in the 3rd year.

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Synopsis

Although the general rationale for PDP and the principles underpinning it are clear and generally agreed, the procedures for delivering this kind of learning experience are in practice highly varied both in form and effectiveness. Although it is now a formal requirement, PDP provision is in practice rather patchy both in the GEES disciplines and more generally across HE. What emerges from the discussion in this chapter is that developing the links between PDP and employability can strengthen both these agendas. An integrated approach can bring real benefits. Indeed, as evidenced in many parts of this volume, an holistic and outward looking approach to employability is advantageous in that it will open up lots of opportunities, encourage ‘joined up’ thinking and enable students to see links between different parts of their academic studies and also the connections between their academic studies and other areas of student life. Although there should always be much more to higher education than preparing for the workplace, employability can be a positive unifying theme.

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