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# Linking employability and sustainability skills through a module on 'Greening Business'

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## Abstract

This article describes the development of a module on 'Greening Business', which aims to provide practical and skills-based sustainability education to students from any subject discipline and provide students with the knowledge, understanding and skills to drive positive environmental change in their future workplaces. The module proved popular particularly for students on Geography, Earth and Environmental Sciences (GEES), and business-related courses, providing an alternative and complementary angle to their chosen degree routes. Students perceive modules of this nature to be useful to them in their future careers, potentially giving them an advantage in the job market. Curriculum developments in this area can help develop both sustainability-specific and generic employability skills. It is also an area where the GEES community can play a key role linking the wider employability and sustainability agendas in higher education, in addition it contributes to a more sustainable society through developing the sustainability understanding and skills of its graduates.

## Background

Many organisations are now beginning to realise the benefits of addressing their environmental and sustainability responsibilities, and are responding to governmental and customer demands for more sustainable business practices. Organisations across the public, private and voluntary sectors are now looking for graduates who can help them adapt their policies and practices to meet these sustainability objectives (Chalkley, 2002), making sustainability literacy a growing area of employability skills.

It is generally accepted that the formal education sector has a role to play in skills-based learning for sustainability; however this has mostly been through Continuing Professional Development (CPD) education rather than through mainstream higher education curricula (Blewitt, 2006). Despite an increasing emphasis on employability

in higher education and a growing awareness of the contribution to a sustainable society that higher education can make through the skills and knowledge of its graduates (HEFCE, 2009/03), there is a current paucity of courses clearly linking employability and sustainability within the higher education curricula. Although there are many examples of sustainability-related modules as part of specific degree programmes (see, for example, chapters in Roberts and Roberts, 2007), there is a growing requirement to provide opportunities for sustainability education to students from *all* discipline backgrounds. As all businesses and organisations are required to address environmental and sustainability issues, curriculum developments focussed around generic business practices are applicable to *all* students and have the potential to engage even non-environmentally-minded students. With the GEES disciplines seen as 'torch bearers' for sustainability education (Chalkley, 2002), these disciplines have much to contribute, bringing and applying their environment expertise to non-GEES students and industries. This paper describes the development and evaluation of a module on 'Greening Business' run from within the GEES disciplines and highlights the benefits of such developments to students, institutions and employers.

## Module description

A level one module entitled 'Greening Business: Employability and Sustainability' was developed at Keele University and run for the first time in September 2008. The module was open to level one undergraduates irrespective of the subjects that they study. The Greening Business module has been developed and taught in close collaboration with environmental professionals in local industries and organisations in order to ensure the relevance of the syllabus to the real working environment. The module is designed to provide students with a framework to enable them to drive positive environmental change in the area of their future employment. In particular, the module covers: the environmental responsibilities of businesses and organisations; the benefits of (and barriers

to) implementing environmental and sustainability practices and policies within an organisation; an understanding of basic sustainability concepts such as life cycle analysis; and a basic training in environmental auditing (covering resource efficiency/waste management, utilities management (energy and water), purchasing and transport) and developing action plans and strategies for the implementation of environmental and sustainability improvements. This 'applied' material is underpinned by coverage of fundamental 'environmental knowledge' relating particularly to the carbon cycle and human impacts on the environment. Core material is supplemented by case studies delivered by contributors from within, and external to, the university.

The module is assessed by a series of workbook exercises developing topics introduced during the taught sessions and a group project involving investigation of a part of the university's environmental and sustainability practices. The range of different workbook activities includes:

- Quantification of different components of an organisation's carbon footprint and identification of priority areas and strategies for action
- Interrogation and evaluation of publicly accessible environmental policies, corporate social responsibility reports and life cycle analysis reports
- Short environmental auditing activities based on a specified area of the university campus
- Carbon footprinting of students' own lifestyles
- Consideration of product life cycles

A selection of teaching resources and further details relating to these activities is available at: [www.esci.keele.ac.uk/greeningbusiness](http://www.esci.keele.ac.uk/greeningbusiness).

The major part of the assessment load for this module is a group project investigating different aspects of the university's environmental and sustainability practices. All projects are required to be well-researched and as quantified (considering potential carbon/energy and financial savings and costs) as possible, depending on the chosen topic. The project topics include:

- *Sustainable campus vehicles*: investigating the most 'sustainable' options for university vehicles (covering estates use and corporate cars).
- *Building or administrative office environmental audits*: environmental auditing of existing practices within a building on the university campus (e.g. leisure centre, students' union, academic department) or administrative office and the development of strategies for improvements
- *Recycling audit*: auditing of different recycling

practices around the university, identification of apparent barriers and development of strategies for improvements

- *Sustainable transport campaign*: development of strategies for encouraging the uptake of more sustainable transport options, including investigation of the barriers (and solutions) to uptake of sustainable transport options and evaluation of sustainable transport schemes elsewhere.
- *Water management plans*: investigating current water use and management practices on the university campus and development of strategies for more sustainable water management.
- *Energy saving devices*: investigating potential applications of different energy saving devices
- *Cleaning product purchasing policies*: investigating the environmental impacts of different cleaning products and development of a case for 'environmentally-friendly' alternatives.
- *Carbon footprinting of field courses*: investigating the carbon footprint of different field courses (using the field course carbon calculator developed by the University of Chester) within GEES programmes and the development of strategies to reduce the environmental impact of field courses

Students presented their project findings both as a technical report and at a poster presentation session (with a five-minute oral summary), attended by members of the university's senior management and estates teams and local industry representatives.

## Evaluation

### Reasons for choosing the greening business module

Forty mostly first year students registered for the Greening Business module, of which 14 were taking GEES-related subjects. Other subjects studied by students choosing this module included Law, Economics, Business Administration, Human Resources Management, Management Science, Marketing, Finance, Sociology, Politics, Information Systems, Education Studies, History, English and American Literature, Maths, International Relations, Media Communications and Culture, Psychology and Philosophy. The greatest proportion of students (over 50%) who chose this module were studying a business/finance/management-related programme.

At the beginning of the module students completed a questionnaire asking why they chose the module. Reasons for choosing the module could mostly be grouped into three categories: 1) because of perceived employability benefits (14%); 2) because

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of perceived fit with their chosen degree route (43%) and 3) because it sounded interesting or enjoyable and related to current issues (40%). For some students, the module relates explicitly to their potential career paths (*'[I]t is an area I am thinking of focusing on after university. I am maybe thinking also of self employment as a 'greening business' consultant'* Geography and History student; *'Because [in] my future job I would like to go into HRM and personnel so it would be part of my job to help reduce costs'* Business Management and Human Resources Management student). Students from both GEES and business/management-related backgrounds chose the module because of perceived relevance to their degree route (*'I hope to learn how my studies of the environment can be applied to business'*, Applied Environmental Science and Physical Geography student; *'I am doing some business modules and would like to know what businesses do to be 'green''* Information Technology Management for Business student).

Students were asked an open-ended question about how important they thought the Greening Business module would be to their future career. 87% thought that the module could be important in some way to their future careers, with several students believing that it would be very important. The remaining students were unsure whether it would be important or not. Several students believed that this module may give them an advantage in the workplace and the recruitment process. One student writes *'I will gain practical knowledge and skills that help the performance of companies, this will hopefully gain me an advantage against other prospective employees'* (Human Resource Management and Marketing student) and another writes *'I will be more informed than most of my future peers so I will have the advantage at work'* (History and Politics student). One student felt that the module would be important *'as sustainability and environmental concerns can only increase'* (American and English literature student). In addition to improving their employment chances one student believed that the module would allow them to make their career *'more sustainable and environmentally friendly'* (Geography and Sociology student).

### **Post-module evaluation**

The module was evaluated by a project evaluation questionnaire (19 students responded), a course evaluation as part of internal university QAA procedures (27 students responded) and a focus group for more detailed discussion of students' viewpoints on the module (3 students attended). Students attending the focus group received a modest financial reward.

The majority of students (60%) responding to the project questionnaire said that they would definitely recommend the module to another student (28% of students were unsure). An even higher proportion of students (78%) believed that there should be some sort of sustainability-related courses available to all university students (no students thought that modules of this nature should not be made available). This highlights that there is a demand from students for sustainability teaching across the higher education curricula; a demand which is rarely being met.

Almost 40% of students said that this module had changed their *own* environmental behaviour. The majority of students who claimed that their behaviour had not changed, or were unsure whether their behaviour had changed as a result of this module, either stated that they already felt that they were doing as much as they could, or made reference elsewhere to having gained a greater awareness of sustainability issues. Specific changes in environmental behaviour/practices include a greater sense of responsibility for the environment, greater consideration of packaging on products, and greater consideration of resource wastage. One student writes *'I am more concerned about the environment ... after this module'* (Applied Environmental Science and Physical Geography). One student described how as a result of carrying out the recycling audit project she now recycled batteries due to becoming aware of available recycling facilities on campus and a greater understanding of the benefits of recycling these materials.

Both the project evaluation questionnaire and focus groups showed that several students had expected the module to approach issues from a different angle, but in different ways, depending on whether students were from a GEES or business/management background. One student (Applied Environmental Science and Geology) thought that the module was more 'businessy' than they had expected, whereas two other business-related students expected the module to be more *'business involved and not just the environment'* (Marketing and HRM student). However, it should be noted that despite the different focus of the module to that expected, students valued seeing issues from these different perspectives. The student who had expected a more 'environmental' module believed that this applied aspect of their environmental understanding is an important area for environmental science (and other GEES) students to cover. It was suggested that the module could be developed as a 3rd year Environmental Science-based option, highlighting that this is potentially an important part of environmental science education

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that is not necessarily being tackled in many GEES curricula.

### **Benefits of a module on 'greening business'**

A 'Greening Business' module has a wide range of potential benefits to students, institutions, employers and wider society. These include:

- Students' acquisition of knowledge, understanding and practical skills necessary to drive environmental improvements in the workplace contributing to enhanced employment prospects (and through the application of these skills and knowledge, helping to contribute to a more sustainable society)
- Increased student awareness of sustainability-related job opportunities
- Development of valuable generic employability skills including; numeracy, report writing, oral and poster presentation, negotiating and action planning, research and evaluation and observation, monitoring and recording skills
- Engagement in sustainability education of non-environmentally-minded students due to the practical emphasis on workplace issues and employability
- Greater insight of students into local industries and organisations and awareness of the practices carried out by the university
- Greater linkages between campus and curriculum sustainability developments (with many students working directly with members of the university's estates team as part of their project research)
- Informal auditing of the university's environmental and sustainability practices from which further sustainability initiatives may arise and opportunities for students to drive positive environmental change on campus
- Positive changes in students' individual environmental practices/behaviour resulting from enhanced awareness of environmental issues.

### **Conclusions**

In order to meet HEFCE's vision of higher education contributing to a more sustainable society through the skills and knowledge of its graduates (HEFCE, 2009/03), students from all disciplines need to have sustainability-education available to them. The GEES disciplines have traditionally been the 'keepers' of environmental knowledge and therefore play a key role in sustainability education within higher education through the application of this environmental knowledge to practical situations that all learners feel is applicable to them. Experience running a module focused on issues of 'greening business' shows that this is a popular area for

students studying both GEES- and business-related subjects, but may need to be made more clearly marketable to all students, including those not attracted specifically to 'environment' or 'business' related courses.

Students clearly see the link between sustainability and employability and the importance of such modules to their future careers. This points to the importance of the GEES disciplines as core contributors to both the employability and sustainability agendas in higher education and to developing a more sustainable society through the skills and knowledge of its graduates.

### **References**

**Blewitt, J. (2006)** The ecology of learning: Sustainability, lifelong learning and everyday life. Earthscan.

**Chalkley, B. (2002)** Setting the Sustainability Scene. Planet, special edition 4, p. 3.

**HEFCE (2009/03)** Sustainable development in higher education: 2008 update to strategic statement and action plan. Available at: [http://www.hefce.ac.uk/pubs/hefce/2009/09\\_03/09\\_03.pdf](http://www.hefce.ac.uk/pubs/hefce/2009/09_03/09_03.pdf)

**Roberts, C. and Roberts, J. (2007)** Greener by degrees: Exploring sustainability through Higher Education curricula. University of Gloucestershire.

### **Related web resources**

Greening Business teaching materials:  
[www.esci.keele.ac.uk/greeningbusiness](http://www.esci.keele.ac.uk/greeningbusiness)

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