



**Global Vision, Local Action: Education for Sustainable  
Development and Global Citizenship**

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## Forward

Chris Shiel

This collection of papers draws together some of the presentations that were made at Bournemouth University's (BU's) fourth International Education for Sustainable Development and Global Citizenship Conference entitled 'Global Vision, Local Action', September 2011.

The overarching aim of the 2011 conference was to build on the themes of sustainable development, global citizenship and internationalisation addressed in previous conferences (2005, 2007, 2009), and to explore the interconnections between the themes, and the relationships between the local and the global. Adhering to the belief that these are not separate issues (holistic approaches that encompass all aspects of university life are important if higher education is to contribute effectively to global sustainability) the conference welcomed participants from a variety of disciplines, educational roles and backgrounds.

As the Earth Charter quote suggests, there is much to learn. Collaboration may enable the development of new ways of seeing; working together may enhance the power of local actions.

*'As the world becomes increasingly interdependent and fragile (...) we have much to learn from the ongoing collaborative search for truth and wisdom.'*  
(The Earth Charter)

Over two days, these themes were explored from a number of perspectives, including literature, religion, health and business, to name just a few of the subject disciplines represented. An exciting aspect of the conference was the diversity of interests represented: ranging from the environmental science end of sustainability, to values and the cross-cultural capabilities necessary as part of global citizenship. Poetry, film and game theory served as vehicles to engage participants, offer new insights and illustrate innovation.

David Willey, Deputy Vice Chancellor at Bournemouth welcomed delegates; Chris Shiel, the Director of the Centre for Global Perspectives facilitated the two days and delivered a keynote 'Are we there yet' which updated on progress at Bournemouth and reviewed the previous conferences. She suggested that while considerable progress has been made in developing the concepts and taking forward the agenda, there is still a long journey ahead.

Keynote speakers, included Dr Douglas Bourn from the Development Education Research Centre, Institute of Education who brought a research perspective<sup>1</sup>. Doug is Director of the Development Education Research Centre, at the Institute of Education of the University of London. He has had numerous articles published on themes such as education for sustainable development, young people as global citizens and theory

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<sup>1</sup> Keynote slides available at [http://www.bournemouth.ac.uk/about/the\\_global\\_dimension/centre\\_for\\_global\\_perspectives/conference\\_2011.html](http://www.bournemouth.ac.uk/about/the_global_dimension/centre_for_global_perspectives/conference_2011.html)

and practice of development education. Doug suggested that globalisation and sustainable development represent major challenges for universities but also opportunities. He commended the work undertaken at Bournemouth which had been the touchstone for drawing themes which are often regarded as separate concerns (sustainable development and internationalisation) together, before he moved on to discuss the tensions and his own work with the professions (pharmacy, engineering, medicine, veterinary science) and students.

Theo Sowa CBE followed Doug with a presentation designed to remind the audience of the reality of the global context and how that can be much harsher than a reality which is imagined. Theo, who was born in Ghana, is a UK Charity Commissioner and International Advisor. She has worked as a consultant, policy advisor and trainer for more than 15 years and spends a substantial amount of her time in Africa. Her work focuses mainly on African social development, children and youth issues and HIV/AIDS. The International development perspective she provided of Africa served as a reality check, reminding the audience that conceptions of the global and sustainable development are often framed by a western world view. As one participant commented, Theo's presentation was '*a highlight and very inspiring.*'

Professor Michelle Barker from Griffith University shared the experience of developing global citizens 'down under.' Michelle is Deputy Head of the Department of Griffith Business School in Griffith University, Australia. Her research expertise includes internationalisation of the curriculum; intercultural awareness; adjustment and communication. She described the work at Griffith University and how sustainability was being addressed. She suggested that sustainability and globally responsible leadership are two sides of the same coin; the challenge is to teach about, and for, sustainability. Participants commented on the '*value of the Australian perspective*' and the benefits of '*sharing ideas with colleagues from other institutions and other countries.*'

After two days of stimulating presentations and workshops the conference was drawn to a close with a presentation highlighting BU's Vision and Values, 2018: '*With a continual sharing of ideas, cultures and knowledge our staff, students and alumni will gain a global perspective and participate as global citizens in addressing societal challenges and shaping society.*' It was suggested that taking forward education for sustainable development is vital but challenging; holistic approaches are necessary but not easy within university structures. Much of the progress is being made by champions who may frequently feel dispirited but should not give up. The conference ended with a reminder about perspective: when it seems like a struggle it is important to reflect on notions of 'hard' which may not compare to the significant challenges and difficulties faced by others across the globe.

The feedback from the conference was overwhelmingly positive '*It was a stimulating, varied and extremely well organised conference.*' Many participants commented that the venue for the conference dinner, The Green House Hotel was not only appropriate (it gained the Greenest Hotel Award) but served the '*best conference dinner ever*' with Fairtrade wine and locally sourced food.

Included in this publication are the abstracts from conference presentations and full papers, where these were submitted. Power Point presentations from the conference are available at:

[http://www.bournemouth.ac.uk/about/the\\_global\\_dimension/centre\\_for\\_global\\_perspectives/conference\\_2011.html](http://www.bournemouth.ac.uk/about/the_global_dimension/centre_for_global_perspectives/conference_2011.html)

## **CONFERENCE ABSTRACTS**

### **Interdisciplinarity and ESD**

**Authors and HEIs: Simon Bignell (Derby), Ian Fairweather (HEA HLST), Debbie Flint (ADM-HEA), Ingrid Mainland (UHI), Adam Mannis (HEA UKCME), Lindsey McEwen (Gloucestershire), Simon O’Rafferty (UWIC), Colin Reid (Dundee), Zoe Robinson (Keele), Ros Taylor (Kingston), and Heather Luna (HEA)**

Employers are increasingly seeking well rounded graduates who have breadth and depth in knowledge, who have an appreciation of different disciplinary perspectives and approaches and who are able to work in multidisciplinary teams. Interdisciplinarity in undergraduate higher education is a hot topic which can present challenges for traditional HE courses yet Education for Sustainable Development by its very nature provides a helpful focal lens to look at this area. In 2010/11, the Higher Education Academy funded seven projects looking at interdisciplinarity and education for sustainable development (ESD) in the curriculum. The reports are complete and this workshop will:

- analyse areas of commonality and difference among the projects, and highlight emerging issues; and
- allow participants to engage with the project holders on issues and concerns that the individual and overall results have raised.

The seven projects were as follows:

#### *ESD in the Professional Curriculum*

This project utilised the wide range of professionally-accredited undergraduate degrees within one university to explore the ways in which interdisciplinary awareness of sustainability issues is encouraged or prevented by professional requirements and is, or might be, provided within professionally accredited curricula.

#### *Interdisciplinarity, Design Thinking & Sustainable Development*

This collaborative project explored the context and opportunities for interdisciplinary learning and teaching for sustainability across design (e.g., product, graphic, engineering, fashion, art) as well as non-design disciplines (e.g., science, social sciences, geography).

#### *Interdisciplinary Learning in ESD at Taught Postgraduate Level: Research-informed capacity building for curriculum development*

This project researched student and staff experiences of interdisciplinary learning in ESD at taught postgraduate level to develop a strong evidence base that can inform and build interdisciplinary (ID) postgraduate curriculum development. It explored what students bring from their disciplinary homes to ID co-learning environments and how these students perceive and approach different IDL environments and activities including assessment.

### *Making the Transition to Interdisciplinarity: Effective strategies for early student support*

This project explored the experiences of undergraduate students studying interdisciplinary, sustainability-centred degree programmes and developed and evaluated a set of interventions aimed at supporting students in their transition to interdisciplinary study.

### *Problem-based Learning in Virtual Interactive Educational Worlds for Sustainable Development (PREVIEW-Sustain)*

A JISC-funded project developed immersive collaborative tutorials and materials in the 3D online virtual world Second Life. The current project reused and transferred these proven teaching methods to introduce the sustainability agenda to academic staff and students across two university subject groups using customised problem-based scenarios.

### *Real-World Learning for Sustainable Environmental Management*

This project systematically evaluated the benefits of real-world learning in courses and facilitated wider discipline participation. Activities brought together students from Design, Law, GGE, Surveying & Planning, Engineering and Social Sciences in 'live' local consultancy projects.

### *Sustainability: Past, Present, and Future*

This project facilitated interdisciplinary curriculum development of ESD focusing on Archaeology, Environmental Science, Geography, Anthropology and History. Opportunities were identified for interdisciplinary pedagogic development to embed ESD within Humanities/Environmental Sciences curriculum across a network, which include scoping for the development of a Masters course in Sustainability Studies.

### *Exploring Museum Spaces and their Collections as Tools for Interdisciplinary ESD*

This project examined how interdisciplinary groups of students can utilise museum spaces, collections and other resources to expand student (and staff) understandings of sustainability and SD. Students from Anthropology, Art & Design and Materials Science came together in three museum contexts to share their disciplinary perspectives on sustainability through exploration of museum objects. The outcome is a model for how HEIs can use museum spaces, collections and other resources to aid interdisciplinary ESD.

## **First-year attitudes towards, and skills in, sustainable development**

### **Author: Elizabeth Bone**

This paper will report on the findings of an online survey of 5763 first-year HE students carried out by the NUS on behalf of the Higher Education Academy. The survey sought to establish the level of knowledge of sustainability issues (although it was not presented as being a survey about sustainability), and their expectations of university education in terms of skills and employability. Respondents were asked about their motivations for applying for their chosen university of study, about their experiences of sustainability initiatives during their secondary and previous tertiary education, their understanding of sustainability and the skills required to be sustainably literate graduates. They were also asked to consider the

demand for such skills in any future job market, and how important working for a 'green' company would be.

Having established some of the evidence, the report also includes an extensive literature survey; the paper will consider the implications of this important benchmarking survey to HE institutions in terms of their recruitment policies, and what it says about the identity of first year students at the point of entry into HE.

In addition to generating very specific evidence about sustainability, this paper will also show that the outcomes of survey also deliver some more broad messages about the attitudes and expectations of students.

### **Internationalisation: building the academic community and enhancing the student experience**

**Authors: Dr Heather Clay and Dr Catherine Minett-Smith**

The expansion of transnational education (TNE) in the UK is changing the role of academic staff in many institutions. The presenters will give an overview of the impacts this has had on their own institution and its staff, using the outcomes of their own research and published literature to highlight the challenges and opportunities facing staff managing the delivery of a UK designed curriculum in a TNE context.

The UNESCO and OECD (2005) code of good practice for TNE articulates an expectation that the TNE providers are 'responsible for the quality as well as the social, cultural and linguistic relevance of education provided in their name'. Ziguras (2008) and Lovett (2010) explain the tension this creates in trying to replicate home campus conditions in off shore campuses whilst maintaining pedagogic principles of tailoring the experience to suit the culture and context in which students are learning. The challenge for institutions is to develop and support academics working in remote communities of practice and consequently enhancing the student learning experience, both at the home institution and overseas.

International collaboration has a beneficial effect on students regardless of location. For the home campus the learning derived through working with overseas academics aids internationalisation of the curriculum thereby enhancing the student learning experience. In overseas partnerships and campuses the opportunity to study a curriculum developed in a different educational system and often exposure to different learning, teaching and assessment strategies offers an international experience that they might otherwise be unable to access.

The potential to raise international and global awareness across the remote community of learners via international collaboration presents an exciting opportunity to enhance the student experience. Currently the impact is largely through the development of an international curriculum as a result of academic staff collaboration and team work across borders. Expanding collaborations to explicitly include students working in international teams is more challenging but a desirable outcome of international delivery.

This workshop will be highly interactive and participants will be invited to share their experiences in an open discussion, the focus of which will be developing curriculum

for international delivery, supporting staff in this activity and the impact on the student learning experience. Exploring how can we use theory to inform and enhance practice at both an institutional and individual level.

Key questions to be considered.

- What skills do staff need to develop to lead effective cross global teaching teams?
- How can we exploit international delivery to enhance the student experience?
- How do we move towards student collaboration across borders?
- How do we develop remote international communities of practice?
- Are the challenges and solutions discussed common across the higher education sector?

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Ziguras, C. (2008) *The Cultural Politics of Transnational Education: Ideological and Pedagogical Issues for Teaching Staff*. Teaching in Transnational Higher Education. Routledge.

### **What's it got to do with me? Internationalising the social work curriculum for global citizenship**

**Authors: Dr Sara Ashencaen Crabtree and Professor Jonathan Parker**

The drive of HEIs towards internationalisation as an attractive student option in an increasingly competitive marketplace in higher education is discussed in this presentation, with reference to the outcome of a three-year British council funded research project promoting UK student mobility. This funding stream served to support an evolving programme of international placements for social work students at Bournemouth University, in keeping with the University's strategic aim of the internationalisation of the curriculum. These placements were undertaken in Malaysia under the auspices of Universiti Malaysia Sarawak in East Malaysia and Universiti Sains Malaysia in Penang, which has generated a formal platform for continuing collaboration via Memoranda of Understanding.

However, the issue of sustainability of such placements carries a number of dilemmas that require careful consideration, particularly in reference to the perceived benefits of participating institutions, together with the issue of ensuring individual academic reciprocity, and finally, the value of international placements in terms of pedagogic gains embedded in such exchanges. Furthermore, the need of students to be able to adjust to and make use of these international experiences in their future practice appears to require a flexible outlook towards uncertainties as a means of negotiating novel and challenging situations.

Our research focused on the process of student learning when immersed in an unfamiliar cultural context. Students were required to keep a written daily log and to produce a critical incident analysis from this data. The anthropological concept of liminality provided a useful prism to understand some of the transitions experienced by students in practice learning. Student responses to the new cultural environment and adaptation to it were explored in relation to the dialectic confrontation with professional and personal values, examining how these differed from or were congruent to their own. These encounters were subject to reflection in terms of the mediation of the domains of familiar and unfamiliar 'cultures' and disciplinary practice, within the context of the potential risk of imposing hegemonic cultural values and knowledge in often poorly understood cultural settings.

### **Online Peer Communities and Education for Sustainable Development: online discussion into offline action**

**Authors: Jacky Crook and Ronald Macintyre**

This paper explores student experience on an entry level undergraduate, open access, wholly online distance learning module called Sustainable Scotland that was developed by the Open University in Scotland. With over 200,000 students at any one time the Open University (OU) is one of the largest providers of open and distance learning in the world. It is not just scale that makes the OU unique, our open access policy and our commitment to promoting social justice means that our student body differs from other HEIs.

Sustainable Scotland sits within the Maths, Computing and Technology (MCT) faculty. The two technology departments have a long history of developing curriculum on environmental issues while also addressing the OU's wider mission to promote social justice. Uniquely the OU operates across all 4 nations of the UK. It has not tended to develop separate modules within each of the nations. Sustainable Scotland was selected as one of the first to be developed because of Scottish Government's commitment to developing a 'green economy'. It is a low cost entry-level course that is suitable for personal study, continuing professional development, and as part of a programme of degree study. It has attracted a broad range of students from: public agencies; private firms; social enterprises; non departmental public bodies, non governmental agencies; young applicants in schools; and people interested in Scotland and sustainability from across the world.

The development and design of the module was informed by the idea that peer communities play a vital role in aiding our understanding and promoting action on difficult issues like sustainability. Creating a learning space where online communities can develop needs careful consideration. This paper explores those considerations, and using examples from the module, highlights best practice in online pedagogy.

As a technology course Sustainable Scotland addresses technological aspects. However, the use of Scotland as a lens through which we can view aspects of sustainability has resulted in a more holistic and (perhaps) more radical reading of sustainability. It asks students to consider the three pillars of sustainability (ecology/society/economy) in relation to their own lives. Many students find the

materials personally and professionally challenging. The design of the module promotes discussion of these troublesome aspects within a peer community, and the diverse student body means that students encounter, engage and share a broad range of views. This paper explores the role that these – sometimes troublesome - peer communities play in developing students' understanding of sustainability as a 'wicked problem'.

The module development was informed by the idea that ESD is about changing people's behaviour – online discussion, offline action. Facilitating individual behaviour change and promoting local action is embedded in the content and the assessment strategy. The formative activities ask students to consider their own lives and how they might change them. Evidence of participation in these formative components is part of a summative end-of-module assessment. In addition, the use of discrete local examples from Scotland to illustrate wider aspects of sustainability serves as a model for the end-of-module assessment where students have to identify an issue local to them and develop a case study that explores different aspects of sustainability. Thus the assessment strategy 'places' the module material in a local context. This paper looks at how the module makes those links between the online discussion and offline action from a design perspective. It then explores what that means in practice for students, and explores the changes that students have made to their lives, to their workplaces, and within their communities.

### **Students as Knowledge Drivers in Accounting, Environmental Issues and Sustainability**

**Author: Andrea Dunhill**

Accounting as a discipline and the accounting skills of practitioners may have much to offer in facilitating transparency of environmental and social (referred to as sustainability issues) utilising the existing annual reporting mechanism as a platform for dissemination and awareness. Gray et al (1996) refer to accounting as a “mechanism for discharging accountability” and Unnerman (2007) suggests an holistic approach in which accountability is owed to all including future generations and non humans and Covalleski et al (1996) describe accounting as a “ceremonial means for symbolically demonstrating commitment” to rational action. New initiatives in “connected” (integrated) reporting are emerging although these ideas are not yet embedded in professional examination or most HE syllabi. This emerging subject area therefore remains hidden from the mainstream accounting curriculum and HE may have a valuable contribution to make in developing relevant skills and awareness.

A new module, Accounting, Environmental Issues and Sustainability, in the Department of Accounting and Finance at Kingston Business School, attempts make a contribution to the perceived curriculum gap in accounting for sustainability issues. The module is an elective choice and in 2010-11 was selected by 14 accounting and finance postgraduate students from 9 countries.

The module content brings together contributions from different theories, subject disciplines and perspectives. Topics included: accounting history and capitalism,

economic theories of externalities and ideas on how these may be reported, accounting in less developed countries, corruption and ethics, responsible management and transformational leadership.

The module approach to learning was developed from social theories of learning akin to the approaches articulated by Hager (2004, 2004a), Gherardi et al (1998) and Nahaj et al (2011). Hager (2004a) views learning as a process and incorporates social, cultural and political dimensions and which changes both the learner and the environment of which the learner is a part. This approach is supported by Gherardi *et al.*, (1998) who advocate learning that takes place among and through others by mutual participation in groups and contribution to a world which is socially and culturally structured. Nahaj et al (2011) refer to a bottom-up, self determination philosophy of “mutual discourse and participatory learning”.

A skeleton module outline and weekly lectures form the basis for the subject content framework. In the absence of a course textbook subject depth is achieved through students creating their own “texts” by engaging in after-class research and recording this in weekly (assessed) logs, student presentations, student class contributions and discussions, a module newsletter and a conventional essay assignment on a title and topic of the students own choice.

The aim of this research is to produce an evidence based case study on the module learning outcomes and to develop an understanding of the experiences of this cohort of students including the extent to which the social learning approach had enriched their studies and their relationships with each other in a different way to that achieved in conventionally taught modules.

The research methodology was qualitative content analysis of two student focus groups drawn from participants in the module on a voluntary basis.

The research shows a deeper student engagement, accelerated personal development, a confidence in learning from each other and an academic maturity that they can proceed to drive their own knowledge path as they sought to new create a new subject beyond the lecture content and without text books. From the module leader’s perspective coherence from various subject disciplines has been successfully channelled into an emerging subject area.

### **Global Citizenship in Higher Education: A critical analysis of the BEIR model for vocational students in Hospitality, Tourism and Events Management**

**Author: Ms Miriam Firth**

This presentation will offer a critical examination of 13 participant discussions on a new model of Global Citizenship in UK Higher Education. Interviews were conducted in August 2010 with current academic staff in MMU to discuss how Global Citizenship is incorporated and developed in curriculum for vocational students in Hospitality, Tourism and Events Management in MMU.

A model was created prior to the interviews encapsulating key tenets of Global Citizenship derived from recent literature (Based upon models and information from

Hoskins, 2008; Jansen *et al*, 2006; Joseph and Vehuis 2006; Mascherini, 2009; McKenzie *et al*, 2000; DEA, 2000; Oxfam, 2006; DfES, 2005; Organ, 1987; Baum, 2006: QAA, 2008 and People 1st, 2008). This model suggested that Behaviour, Experience, Impact and Responsibility were key areas needed in the development of GC for these vocational students. (The full model is noted on the following page). Subsequent to analysis, participants agreed with the key areas, but noted two key additions:

- Engaging students in participation and action happens in a “*cotton wool environment*” (P6), suggesting that the education cannot be wholly realistic to life experiences. Thus, GCE in HTE can only be developed to a certain level, and cannot offer a true representative experience from which to generate entrepreneurial graduate Citizens. This argument offers further quandary as to whether the GCSE and A-Level GCE can truly develop the soft skills required by the EU and UK governments.
- Political and legal knowledge is not stipulated in the model. Discussions on this led to the addition of risk within the model.

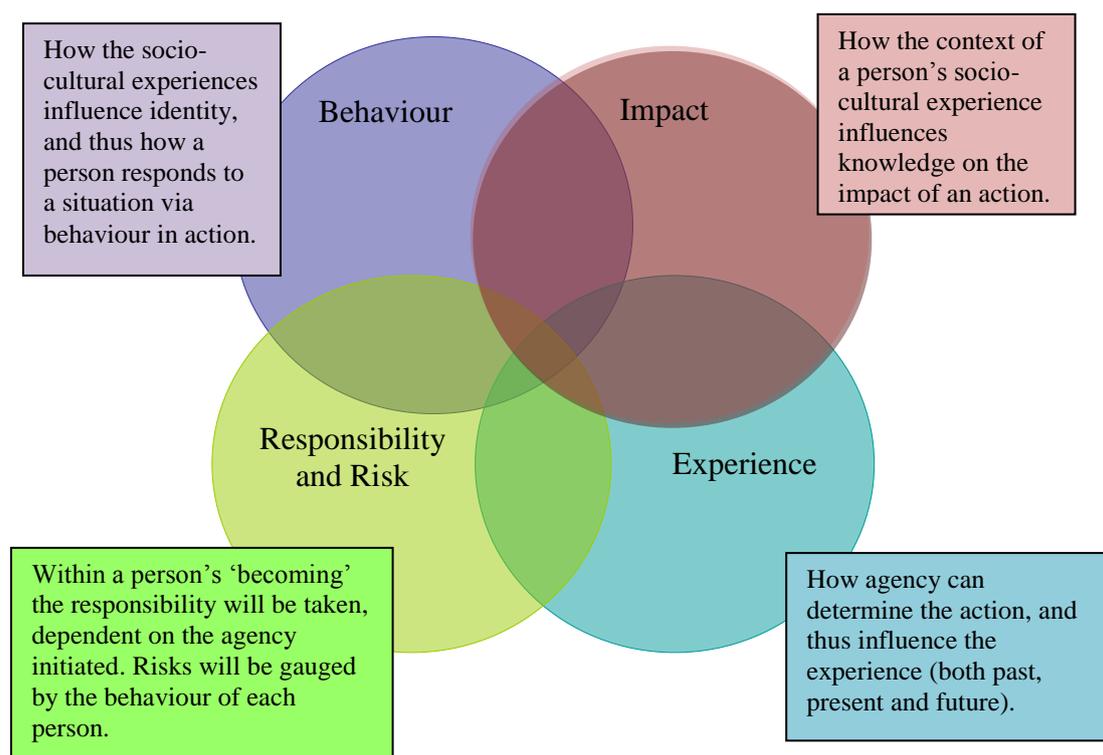
Clearly there are difficulties in engaging and developing Global Citizens in traditional academic settings. Therefore, the presentation will also question how academics currently develop their curriculum and content to engage in experiential learning for GC. Questions will also be purported on the levels on soft and hard skills needed, as the BEIR model mainly focuses on the soft skill development. Further and figure 1 identifies how the BEIR model uses socio-cultural theory on developing identity and human agency in students. As the focus for this research was on vocational students, their ability to develop global awareness in a variety of consumer environments is noted as an imperative graduate competency.

**Table 1 – The BEIR model for HTE courses in Higher Education**

<b>GCE in HTE Area</b>	<b>Defining questions to identify relevance to the HTE industry</b>	<b>Lesson planning</b>	<b>Learning Outcome</b>	<b>Assessment</b>
<i>Behaviour</i>	What staff behaviour is needed in industry to satisfy guest needs and support company strategy? Is staff behaviour enforced by company culture?	Should their behaviour be controlled and confined to the classroom? What resources do you have available?	Do you want students to be reflective, participatory or active?	Does it allow behaviour/experience/impact and responsibility to be assessed? If so, how? Is it in an appropriate and safe setting with clear assessment criteria?
<i>Experience</i>	How does staff experience influence their behaviour and skills? Does this affect or influence the training provision?	What type of students do you have; socio economic, cultural, age and gender?	Do you want students to gain a new experience or build upon previous ones?	

<i>Impact</i>	Does the company know how they impact their community? How are staff informed of this?	Which impact are you interested in; cultural, social, political or environmental?	Do you want the outcome to be reflective or active?	
<i>Responsibility</i>	What responsibility will staff and management have? How does this relate to the Citizenship agendas?	What are the students responsible for? Are they aware of this?	Should students finish with a greater sense of ownership or do you just want them to be more aware?	

**Figure 1 Identity and Agency within the BEIR model**



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## **Global Citizens United**

**Presenter and co-author Susan Gebbels**

**Authors: Francis K.E. Nunoo, Stewart M. Evans, Susan Gebbels and Lynne A. Murphy**

(This article has been published as: Nunoo, F. K.E., Evans, S.M., Gebbels, S. and Murphy, L.A. (2009). Act local, think global. *Biologist*, 53, 164-169).

The world has suddenly become a much smaller place. Nowadays Europeans can think of Australia or New Zealand or countries in the Far East as holiday destinations or as stopping-off places for ‘gap years’ and, even those of us who do not travel, can enjoy world sporting events that are beamed into our living rooms by satellite television or can communicate instantly with distant relatives via the internet. Social mobility too, and consequent multiculturalism, has brought a range of new

experiences, influencing our eating habits or interests in various forms of art, including music and literature. However, the global dimension of life also brings a host of pressing human and environmental issues to the fore. Problems, such as sustainability of natural resource exploitation, conflict resolution, human rights, poverty, democracy and inequality, are seen as part of the global agenda. They have high educational priority and schools now find themselves with the responsibility of bringing citizenship, especially in its global context, into the classroom. But how can they do so in ways that will enable young people to understand the links between their own lives and those of people in other countries, and motivate them to seek a more just and sustainable world?

The problem is probably not one of designing the global curriculum itself, except that some might argue that there are too many issues and insufficient time to crowd them into brim-full teaching programmes. However, presenting real world issues in relevant and exciting ways does present a challenge. Perhaps a key approach, as Barton *et al.* (2005) have argued, is to focus on students' own interests and experiences as a starting point. We believe that international schools' links present huge opportunities for using this approach and this article considers the benefits that have already occurred, and are still occurring, from a link between Epinau Business and Enterprise School in Jarrow (South Tyneside, UK) and the University of Ghana Primary and Junior High School in Accra (Ghana). It describes the development of the link, the initial activity (an environmental citizens day), which helped to create a bond between pupils from the two schools, and curriculum development that is now taking on a life of its own.

### **Youth Engagement with Global Current Affairs: Lessons from a 2<sup>nd</sup> Year Multi-Media Journalism Unit**

**Author: Roman Gerodimos**

This presentation will report on the lessons emerging from the delivery of a 2<sup>nd</sup> year undergraduate (Level I) unit in BA (Hons) Multi-Media Journalism. The unit, entitled "Global Current Affairs", aims to engage students with a comprehensive range of key global issues and debates in international politics, while also encouraging them to reflect on the various challenges facing journalists who cover international affairs.

The main pedagogic tools employed in this unit include:

- a responsive and engaging current affairs-oriented curriculum which links news and global developments to historical and theoretical approaches
- an emphasis on demonstrating the interdependence between/amongst issues (e.g. climate change, food prices, poverty, development, water management and conflict)
- intensive use of the VLE (news/background articles, scholarly papers, maps, podcasts, transcripts, images) as the main learning resource
- an innovative assessment scheme incorporating an in-class written test (multiple choice quiz; familiarity with key documents; evaluation of reportage) and an investigative and reflective portfolio, part of which requires students to pick a global current affair of their choice and link it to a (any) local community through a photo-essay.

This learning and teaching strategy draws on the findings of a much broader and more in-depth research project on online youth civic engagement, which explored the role of political, social, cultural and technological factors in motivating young people to engage with public and global affairs. The presentation will review the main lessons emerging both from the delivery and from the (so far enthusiastic and constructive) student feedback, as well as its implications for journalism education.

### **Marrying ESD and employability to create sustainability literate graduates**

**Author: Simon Kemp**

Education for Sustainable Development (ESD) and employability are two agendas of great current prominence across UK Higher Education Institutions (HEIs). One of the main recommendations of the Leitch Report (2006) was to improve engagement between employers and universities, whilst the UN Decade for Education for Sustainable Development (2005 to 2014) has the aim to “integrate the principles, values, and practices of sustainable development into all aspects of education and learning” (UNESCO, 2008).

Acceptance of their importance to students and society has led to many initiatives across the sector. Whilst both agendas are of value individually, the successful fusion of both into the curriculum and extra-curricular projects has much potential in creating sustainability literate and skilled graduates for the emerging ‘green economy’.

A postgraduate module in Environmental Management Systems is one of the examples used to demonstrate the multitudinal benefits that can occur from integrating ESD and employability through innovative teaching and assessment methods. Employer engagement through the involvement of local but nationally recognised companies allowed the development of sustainability literate graduates and enhanced sustainability activities within the partner organisations. The pedagogical approach adopted was to embed employer engagement into the module through a combination of lectures, company site visits, company correspondence, consultancy progress presentations, group feedback sessions, class discussion forums, company presentations, group blogs and wiki sites. The primary outcomes of the case study were enhanced student employability profiles for sustainability work, and company certification to the international standard ISO14001:2004 through the production of EMS manuals by student consultancy teams. This module will use the University of Southampton as the case study company to assist in the implementation of ISO14001 across the whole institution as an example of how an imaginative pedagogical approach can enhance the experience of domestic and international students, colleagues, and enable a University to use the educational outcomes of a host module for its own operational and financial benefit. It is Education for Sustainable Development in practice. Additional mutual beneficial outcomes of this case study will be discussed to illustrate the wider implications of this approach.

University waste audits provide valuable professional development opportunities for students whilst helping to green the campus, reduce scope 3 carbon emissions, and reduce expenditure. Student participation in educational outreach activities has

improved local community relations, developed communication skills and experience of students, whilst educating local schoolchildren in sustainable development. Student driven local council partnerships have led to an enhanced culture of social responsibility through community environmental health projects and improved employability profiles. Each of these are examples of how extra-curricular volunteering activities can be used to integrate ESD and employability.

This paper will explore the synergies between ESD and employability through a number of case study examples of teaching and assessment innovation, student engagement, volunteering, employer engagement and campus greening. The difficulties in blending ESD and employability in the HE sector will be highlighted. The paper will conclude with a discussion of the potential benefits for students, HEIs, employers, and society from marrying ESD and employability to create sustainability literate graduates.

### **Cross-Border Education in Hong Kong: Management, Issues, and Sustainability**

**Author: Kim Fong Poon-McBrayer**

Cross-border education has rapidly grown in Hong Kong. The colonial past with the shortage of higher education opportunities has well positioned Hong Kong for cross-border education which is offered in every form described earlier, ranging from delivery of parts of the programs in the importing country, in the satellite campuses in Hong Kong, shared teaching in the local institution facilities, pure distance learning mode, and joint degrees. Several years ago, Hong Kong already had an estimated student population of around 50,000 with an annual expenditure on tuition fees in the region of US \$1 billion dollars (Wong, 2005). According to the most recent figures of the Non-Local Course Registry (NCR) (Education Bureau, 2011), a total of 1,167 cross-border programs are being operated in Hong Kong with 34% (396) of them registered after an assessment process and 66% (772) of them exempted from registration. Its scale of operation and the increasing participation rate warranted the need to examine its current status for future sustainability. This paper examined the current management policies and practices, issues identified, and implications for future policies to facilitate sustainable development of this sector with quality assurance and consumer protection at the core.

The management of cross-border education in Hong Kong is legislation-based. Enacted in June 1997, the regulatory framework commonly referred to as Cap. 493, consists of the Non-local Higher and Professional Education (Regulation) Ordinance and its subsidiary legislation. The main objective of the legislation is to protect Hong Kong consumers by guarding against the launching of cross-border education programs that do not fulfil the registration criteria in Hong Kong while allowing the industry to be market-driven with a wide variety of choices.

Despite having a seemingly comprehensive legal regulatory framework imposed upon the operation of cross-border education in Hong Kong, issues affecting its sustainability have been identified from the current practices of registration assessment and annual returns, the lack of mechanisms to gather and release data pertinent to quality assurance and consumer protection, the non-recognition of such

qualifications, and the financial burden on the local tax dollars through the continuing education fund scheme.

Several areas should be addressed to improve the management of cross-border education in Hong Kong. First, develop a mechanism to consistently collect and release data in a timely manner to potential/existing consumers and other relevant stakeholders on student enrolment numbers and patterns, tuition fee sums and trends, registration status such as providers' delayed applications of annual returns, and employment status of graduates as an indicator for learning outcomes. Second, the government should refine the regulatory policies and practices, especially in the areas of annual returns where time lag has permitted quality assurance and consumer protection to slip. Third, tougher penalty against unscrupulous marketing and low level of provider ethics in ensuring program operation and arrangements for paid students as identified by the CEF office must be installed.

As a definite development trend, cross-border education is the core means of globalizing the higher education sector. Though issues have been identified and draw concerns, the overall benefits outweigh its disadvantages. Intensified diversification and commercialization of higher education will continue to challenge the quality and quality assurance of the international as well as Hong Kong's cross-border education provisions. To enhance its sustainability and safeguard program quality, Hong Kong must strive toward more effective management by increased international collaborations and unifying the efforts of the government, quality assurance agencies, and providers. It is, after all, about Hong Kong's manpower supply and future economy.

### **Student Community Engagement: A Framework for Learning**

**Author: David Owen**

Education for Sustainable Development emphasises the need for collaborative learning, for engagement with others; at the same time it provides the space for new strands of knowledge, awareness, values and attitudes to be developed and assessed through the curriculum. However the realisation of these aims is not without its challenges for the people and institutions involved, whether these are students, academics, publics, universities or a range of external organisations and placements where students learn.

Beacons for Public Engagement was launched in 2008, a £9.2 million initiative funded by the UK higher education funding councils and Research Councils UK (RCUK), in association with the Wellcome Trust, to establish a co-ordinated approach to recognising, rewarding and building capacity for public engagement. The project led to the launch of the Manifesto for Public Engagement which calls on universities and research institutes to recognise they have a major responsibility to contribute to society through their public engagement, and that they have much to gain in return.

Given that much of what is sought after in education for sustainable development is realised through engagement with the public, primarily through 'real world', contextual and collaborative learning experiences, this session will provide the

opportunity to reflect on the learning from this project and its contribution to the sustainability agenda. It will particularly focus on the attributes framework for engagement, exploring the synergies between the qualities that you may look to develop in both staff and students in Higher Education, and the support you might provide in order to embed the sustainability agenda within the institution.

### **Bursting the Bubble: Students, Volunteering and the Community**

**Author: David Owen**

Very little is known about the dynamics of volunteering by students, for example what are the demographics of those who volunteer, and those that don't? Is university a barrier to volunteering given that students may move away from their local community in order to study, or does it provide an opportunity for engagement with social action for the first time? Furthermore student volunteering is often discussed as a 'triple win' for universities, communities and students. It can sometimes be seen as a panacea for employability and skills development, with very little exploration of the costs to communities who work with students and help provide these benefits, or the costs to universities who can provide the spaces and support for students to reflect on their experiences in order to connect their volunteering to deeper learning.

The National Coordinating Centre for Public Engagement's inspired student's programme was established to provide evidence of the benefits of volunteering to students, universities and the community, and to encourage universities to recognise the value of student volunteering as part of their core activity. As part of this programme we commissioned one of the largest studies of student volunteering in England to date - involving over 8,000 students and graduates across six universities in England. This presentation will cover some of the headline findings of this study, and provide the space to reflect on the implications for policy and practice within Higher Education.

The study can be downloaded online in advance of this session:  
<http://www.publicengagement.ac.uk/how-we-help/our-publications>

### **Green Academy: Curricula for Tomorrow**

**Authors: Alastair Robertson (HEA) and Heather Luna (HEA)**

The Higher Education Academy (HEA), in association with the Environmental Association for Universities and Colleges (EAUC) and the National Union of Students (NUS), developed and ran a very successful change programme, aimed at helping institutions embed sustainability holistically into the student experience through the curriculum. This session will give an overview of the process, the outcomes of the various institutional projects and the lessons learned with following discussion to explore the issues and challenges arising.

Higher education (HE) in the UK is undergoing a period of significant change, unprecedented for a generation. In the coming years, public funding is to be cut drastically, students may become increasingly consumer-focused, and the market is set to drive quality of provision. Within this challenging context, there is a growing need for the HE sector to rise to the sustainability challenge in more strategic and

holistic ways and to consider how best to embed sustainable development into the overall student experience. Learning, teaching and curricula are core to this with the intention of ensuring future graduates are globally aware and responsible citizens in the 21st century. There is evidence that Employers are increasingly demanding sustainably-literate graduates and the UK Government's vision for a new "green economy" presents a range of opportunities and demands from the workforce. Students, too, have increasing expectations around future-proof skills<sup>2</sup>.

To that end, the HEA's Education for Sustainable Development (ESD) project launched a new change programme for this year, in association with the Environmental Association for Universities and Colleges (EAUC) and the National Union of Students (NUS), to help institutions achieve these goals. This was founded on the principles of the HEA's flagship change programme, Change Academy, but with a developmental focus on ESD.

Eight HEI teams, representing a diverse range of institutional size and type, took part in the programme, which included two team leader meetings and a two-day residential for all team members. The institutional teams comprised of the PVC of teaching & learning (or equivalent), an elected student representative, at least one academic champion, and two additional people, depending on the particular interest of the HEI.

The teams were supported through general facilitation as well as a specific "critical friend" (a range of experts were drawn from across the sector) who provided support and guidance throughout the six month process. The overall programme was led by an overall expert facilitator, Jimmy Brannigan (ESD Consulting), and although the structure was designed to support institutional development specifically with regard to ESD there were components which were more widely applicable for organisational development.

This session will begin with a brief presentation on the aims and nature of the change programme, as well as some of the outcomes and feedback from participating HEIs on the process. Following this, delegates will be given an opportunity to engage in an activity that was run as part of the Green Academy, and, finally, there will be an opportunity for participants to discuss how this might be of use in their own institutions.

**A 'Wicked' Approach to a 'Wicked Problem':  
Developing ESD in the curriculum at Canterbury Christ Church University**

**Author: Stephen Scoffham with Keith Gwilym, Phil Poole, Peter Rands, Sylvia Rasca and Peter Vujakovic**

This paper considers on-going developments to the curriculum at Canterbury Christ Church University. It begins with a brief review of the need for curriculum change and the way that Canterbury Christ Church University (CCCU) is starting to respond

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<sup>2</sup>

[http://www.heacademy.ac.uk/assets/York/documents/ourwork/sustainability/FirstYearAttitudes\\_Final\\_Report.pdf](http://www.heacademy.ac.uk/assets/York/documents/ourwork/sustainability/FirstYearAttitudes_Final_Report.pdf)

to wider environmental, social and political challenges. It considers some of the obstacles and barriers to implementing change. It concludes by outlining the approach which is favoured by the university and explains the thinking behind it.

Underlying principles, theoretical problems and practical issues are woven together in the discussion. CCCU has for the first time ever included an aspiration to develop the environmental literacy of staff and students in its new strategic plan (CCCCU 2011). The challenge which now arises is how to translate this objective into action. Our present thinking is informed by previous initiatives within the university. We have also drawn on the experience of others. We note, for example, that Van Ween (2000) argues that evolutionary and piecemeal change has little chance of success. We recognise along with Cortese (2003) that the enthusiasm of a few committed individuals is not likely to be a recipe for success. And we acknowledge, as McMillan and Dyball (2009) argue, that universities can optimise their role as agents for change by adopting a whole-of-university approach.

One of the issues which has absorbed much of our attention concerns dissemination and relationships with colleagues. There are those who are sceptical of the 'green' agenda and see it as tainted with political activism. Others question whether issues to do with the environment and sustainability have a valid place in their particular courses and disciplines. There is a vehement discourse around 'therapeutic education' and what it means to be educated (see Ecclestone and Hayes 2009). Furthermore, we have found that sustainability, because of its holistic nature, fits uneasily into existing university structures.

The discussions which we have had so far have led us towards a more oblique approach. The key question which unites all university educators is what should graduates be able to understand and do in the twenty first century? In other words, we have set our sights on the future. As we have searched for strategies to engage colleagues across faculties and disciplines we have been particularly attracted by the notion of 'wicked problems' (Horst et al 1973). We hope to use these to engage colleagues in identifying problems within their own domains that will help students to engage critically and creatively with some of the major issues of our age. We are also actively exploring ways of acknowledging a much fuller spectrum of student experience beyond validated courses. We envisage a revised curriculum that is both more porous and more flexible.

Could it be that this is the kind of thinking will lead to a paradigm shift? Fullan (2001) cautions us that finding simplicity amongst complexity is a major problem. He also enjoins us to be wary of the false clarity that occurs when change is interpreted in an over-simplified way. The paper concludes with a note of caution. This is amplified by the challenge of finding sufficient resources in a time of austerity.

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### **Bringing it home - tackling global challenges in a local context**

**Author: Harriet Sjerps-Jones**

The University of Exeter has an excellent reputation for research into environmental sustainability through the Environment and Sustainability Institute and research themes such as Climate Change and Sustainable Futures that contributes to the Intergovernmental Panel on Climate Change. Further, in recent years the University has made significant steps in carbon reduction and the 'greening' of its campuses. In this context, the University's senior leadership identified the need to bring the taught curriculum in line with these achievements and to weave sustainability into the fabric of the curriculum so that all students achieve at least a basic level of sustainability literacy.

The challenge was to strike a balance between the interdisciplinary nature of learning for sustainability and the unique disciplinary excellence of the courses that have a distinct research-led focus. There was a further challenge of striking a balance between the international and global outlook of the University and its regional corporate and social responsibility. A solution was found to set up a 'catalyst' co-curricular programme, the 'Big Dilemmas' project, that integrates problem solving for current complex sustainability dilemmas into the curriculum through life case studies and complementing co-curricular experiential activities.

The project aims to work collaboratively towards solving complex sustainability problems. Students and academic staff from various disciplines across the University are involved in research, discussions, symposia and other activities together with community and businesses. By investigating and tackling dilemmas in relation to global challenges in a local context, the project aims to come to a better understanding of sustainable futures and potential ways forward. This benefits the University community, staff and students, as well as local and regional communities and stakeholders

In the first pilot year, a group of 20 students were selected from across the University, through an application process, to join a think-tank with experts to address issues around the shelved Severn Barrage tidal energy project. Drawing from world leading research in sustainability, they proposed viable ways forward with regards to the future of renewable energy in the UK. Their final presentations at a stakeholder facing symposium were well received by the audience. They are summed up in the following comments:

- "I totally support the organization of this kind of events so big dilemmas can be discussed and showed to the professionally interested and general public. It was very interesting to know that specific studies are being conducted to analyse the Pro's and Con's of implementing controversial measures, like the Severn Barrage.", and  
- "Great stuff - should have engaged the big dilemma approach and students before spending the millions on consultants".

Further to tackling dilemmas with regards to the Severn Barrage, the students acted as change agents. They contributed to a re-think of teaching paradigms for sustainability in the formal curriculum and helped to shape co-curricular learning opportunities that encourage 'future resilient' attitudes. Programmes across the University will now seek to integrate elements of 'Big Dilemmas' learning into the formal curriculum and next year the University is looking to run three interdisciplinary projects with a sustainability focus.

The paper based on this case study seeks to learn lessons from the process of engaging academics, students and stakeholders with this project and explores potential further applications of change agents for the sustainability curriculum in Higher Education Institutions.

### **Enabling graduate engineers to become global citizens – initiatives in HE both for staff and for students**

**Author: Dr S.J. Steiner**

There is a growing awareness, as reported in Steiner and Penlington (2010) of the increasing need for graduate engineers to become more globally aware – both from the time of their undergraduate studies, and forward into their working lives as responsible citizens. Engineers by their profession are persons who “can make a difference”, and it is becoming increasingly accepted that opportunity needs to be provided whilst studying in higher education for students to nurture their global awareness and capability.

This can only be achieved if staff are equally enabled to work with their students toward attaining global competences, as outlined in Bourn and Neal (2008). The Engineering Subject Centre has therefore been a strong supporter and has been a founding partner on the resulting DFID-funded project “A Global Dimension for Engineering Education (GDEE)” – see <http://www.engsc.ac.uk/global-dimension>. The three-year project has already delivered a UK-wide series of seven workshops, each on a specific topic under globalisation – see <http://www.engsc.ac.uk/global-dimension/events>, and this has resulted in a significant repository of pedagogic and teaching resources. Other co-partners to the project are Engineers Against Poverty, Institute of Education, Engineering Council, Engineering Professors Council, along with five pilot universities.

The Centre's engagement on this project builds on its prior work – see <http://www.engsc.ac.uk/sustainable-development> and <http://www.engsc.ac.uk/ethics> in facilitating pedagogic approaches and resources for the embedding of sustainability and ethics into the engineering curriculum (Penlington and Steiner, 2010) and Steiner (2010). The Centre had already been aware of the students' charitable organisation, Engineers Without Borders (EWB-UK), and has since chosen to provide pump-prime funding for the feasibility and establishment of the “EWB-UK Challenge” – see <http://www.engsc.ac.uk/mini-projects/engineers-without-borders-challenge-implementing-the-ewb-challenge-into-uk-university->. This Challenge is now being further funded for '11/'12 by the GDEE Project.

This paper will report both on the work from the ongoing GDEE Project (2009-12) for its efforts in pedagogic developments for staff and the EWB-UK Challenge for

students, where both initiatives endeavour to bring the subject of globalisation equally within the grasp and realisation of staff and students at UK HEIs in engineering. The paper will discuss how the work is developing, and provide conference attendees with the opportunity to have both a reflective and a participative insight for the future of the topic of globalisation into their teaching curriculum. In particular, this paper picks up the conference title in connecting from Education for Sustainable Development (ESD) to Global Citizenship, by its approach of a Global Vision, with Local Action.

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### **Global Citizenship – No Guarantees: Oppressed Knowledges and Privileged Learners**

**Author: Marcelle Townsend-Cross**

Indigenous Australian knowledges, diverse, current and relevant, informed by generations of experiences of eco-cultural sustainability, have much to contribute to the goals of global citizenship and sustainable development. However the violence of colonization, the oppression of racism and the demands of neoliberal globalization have led to an acute socio-political marginalization of unique local knowledges and languages. Racism, ideological assumptions and indifference remain the major socio-political barriers that oppress Indigenous opportunity. Having developed and delivered Indigenous Australian Studies courses and programs for largely non-Indigenous student cohorts in the higher education sector over the past twelve years, it is apparent that anthropological and other uncritical pedagogical approaches can work to justify and sustain socio-political power imbalances and hegemonic ideologies.

Critical theoretical and pedagogical approaches have the capacity to problematise the dominance of Western constructions of meaning-making, as well as challenge what Dei (2008) describes as ‘skepticism’ or ‘epistemological racism’ with regard to Indigenous knowledges. Critical thinking and analytical skills, values that respect diversity and difference, combined with a commitment to social justice, human rights and equity are important critical pedagogical considerations for achieving the goals of graduating competent global citizens. Therefore, critical education can be seen as a prerequisite for global justice (Giroux, 2007). Nonetheless, critical pedagogical approaches for privileged learners are not without limitations because traditional critical pedagogy does not challenge normalized individual identities of social privilege.

Critical pedagogy draws on and is significantly influenced by the work of Paulo Freire and is designed as an emancipatory strategy for oppressed learners. However access to undergraduate and graduate higher education for the oppressed is at best limited and therefore it is the privileged learner who becomes the primary focus for critical education in higher education for global citizenship. Whilst there is a proliferation of literature highlighting examples of successfully engaging critical pedagogy in the context of mass societal poverty, oppression and injustice, there remains a paucity of literature addressing the specific theoretical concerns and practical applications of engaging critical pedagogy for privileged learners. What has been acknowledged is that it is doubtful that critical education can contribute to meaningful social change without analysis or consideration of how privileged learners differ from oppressed learners.

Taking Stuart Hall’s cue (1989), the objective of this presentation/workshop is to open a dialogic space where we can begin to interrogate and reflect on lessons learned about how we can ‘conduct an ethically responsible human discourse and practice about race, without religious, anthropological or scientific guarantees’. We need to explore the common opportunities, theoretical and practical challenges and limitations of engaging critical pedagogical approaches that strive to transform the oppressor, approaches that abet the transformation of privileged learners to become social justice allies. We must explore the holistic, embodied and emotive educative processes of social movements that motivate learners by head, heart and spirit. We must find opportunities for the development of a global ‘critical citizenry’ pedagogy (Giroux, 2007) that could be effective in working towards a more socially just and sustainable world where global citizens equitably share knowledge, power and resources.

### **International development through collaborative evidence-based practice workshops in Nepal: an example of Internationalisation**

**Authors: Edwin van Teijlingen (presenting author), Bournemouth University, UK; Ram Sharan Pathak, Tribhuvan University, Nepal; Padam Simkhada, University of Sheffield, UK; Bhimsen Devkota, Development Resource Centre, Nepal; Julie Bruce, University of Warwick, UK**

#### Background

Evidence-based practice (EBP) is an emerging concept within medicine and health care in many developing countries. EBP refers to the application of the best available

global research evidence to clinical problems at the individual and population level. One fundamental aspect for EBP to work is that someone collates analyses and interprets the best possible evidence in the field at any given point in time.

There are various factors that contribute to the lack of skills and knowledge regarding access to published research and the application of research findings to medicine and healthcare in developing countries. These include lack of funding for the conduct of health-related research; the lack of a research 'culture' within busy clinical institutions and community settings; reliance upon traditional models of medical and nursing education, e.g. textbook-based teaching and/or didactic models of delivery, which in turn does not generate the need to stress the importance of research in the curriculum. In addition, there are practical and economic barriers, such as limited access to the internet to search databases. Internet access is often compromised by slow connections interrupted power supplies, and not least, expensive annual subscription fees for print journals and/or access to electronic materials and specialist bibliographic databases.

In order to reduce this global inequality the World Health Organization (WHO) has brought together 150 of the global academic publishers, to share some of the most up-to-date world literature with researchers and practitioner in developing countries. This collaboration HINARI (Health Inter-Network for Access to Research Initiative) (<http://www.who.int/hinari/en/>) has databases include more than 7,500 information resources which are available to health institutions in 105 countries. HINARI gives access to higher education and government institutions, as well as non-government organizations (NGOs) in developing countries, not to individual researchers or health practitioners. HINARI recognizes two bands of users: (a) institutions in countries with GNI (Gross National Income) per capita below \$1600 are eligible for free access; and (b) those in countries with GNI per capita between \$1601-\$4700 pay a fee of \$1000 per calendar year / institution. Thus an institution based in Nepal has free access and one in Peru pays \$1,000 p/a. Institutions can apply for a password which all their staff and students can use.

#### Intervention

Tribhuvan University (Nepal), the University of Aberdeen, Bournemouth University and the Development Resource Centre, a NGO in Kathmandu formed a Partnership on improving Access to Research Literature for Higher Education Institutions in Nepal (PARI) which is funded by the British Council and DFID. Research started in late 2009 to enable higher education institutions in Nepal to access and utilise research-based information in Medicine, Nursing & Public Health. Since then one of the team members from Aberdeen has moved to the University of Sheffield and another to the University of Warwick.

At a time when many Nepalese students are leaving to study abroad, to increase their individual employability, PARI aims to strengthen the health research capacity which in the long-run may lead to more young people staying.

We started with a curriculum review of health-related courses covering all key higher education institutions in Nepal. In addition we conducted a needs assessment of lecturers, librarians and students of these universities to identify gaps in knowledge and skills around gathering existing research information.

Year two (2010-11) focused on the development learning networks to spread the evidence of best practice, and the final year will focus on the wider research dissemination. This presentation focuses on the workshops we conducted all over Nepal in the December 2010 to January 2011.

#### The workshops

Workshops topics included: (a) the principles and importance of EBP; (b) study design and research evidence hierarchy; (c) principles of literature searching and bibliographic databases; (d) regulations and access to HINARI; and (e) an introduction to systematic reviewing and meta-analysis. Workshops were delivered by academic staff from three UK institutions (EvT, PS, JB) and were held in five cities with health related higher education institutions across Nepal, namely: Kathmandu, Dhulikal, Dharan, Chitwan and Pokhara.

#### Conclusions/ Observations

The workshops were very well attended, despite the fact that we did not pay an attendance fee or travel expenses to the participants. A main **finding** was that the concept and methodology of systematic reviewing was new to the majority of Nepalese academics attending the workshops.

Although all institutions had joined HINARI, many staff did not have its password.

### **Didacticism, Syndicate & Experiential learning: getting the balance right in business schools through multi-cultural teams**

#### **Author: John Vaughan**

Berger (1996) proposes 3 methods of learning: Didactic, Syndicate and Experiential. Traditionally the global method has been 'didactic' with an expert lecturing students. In didacticism the expert's culture is seen as more valid than the participants' cultures, thus ignoring the concept of 'cultural relativism', (Hofstede, 2003). Another assumption says that older people's opinions are more valid and perhaps another says that positivist research methods are more appropriate than social constructionist ones in education. (Easterby-Smith et. al.,2002). These assumptions stifle innovative thinking and development of the global citizen. In contrast, the use of multi-cultural teams says that much learning can take place in small self-managed syndicates where group members discuss models directed by a 'Co-ordinator' (Belbin, 1984) who ensures all members contribute. The allowance of different perspectives, it is hypothesised, leads to more creative thinking and a global mindset (Adler, 1997), and these skills allow graduates to be more employable in a complex world. (Burns & Stalker, 1961). The method also enhances the experience of UK and International students who are treated as global, albeit with differing backgrounds, experiences and perspectives. The workshop builds on 16 years of development in Leeds University Business School Accounting & Finance division as well as 3 BMAF presentations and 2 Belbin symposia. This work is moving forward as an Ed. D. at Leeds University entitled: "An enquiry into perceptions of the efficacy of multi-cultural groups/teams for improving learning and employability at business schools."

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### **Developing Leaders in Sustainable Development: Enabling Behaviour Change**

**Authors: Amanda Williams, Patrick Pica, Chris Shiel**

This presentation provides an account of a pioneering small-scale HEFCE Leadership Governance and Management funded project which has been led by Bournemouth University (BU), in partnership with the University of Sussex (UoS).

Both institutions have made substantial progress in engaging with sustainable development, but in common with other institutions this has been largely due to the work of a small group of champions. The aim of the project is to achieve a step change in engagement in sustainable development in both institutions, by offering Board/Council Members and senior management teams the opportunity to reflect on their roles as leaders, considering how they role model leadership behaviour for sustainable development and develop strategies which might broaden engagement.

This unique programme of workshops focused on leadership behaviours for sustainable development aims to secure champions for sustainable development and carbon reduction at every level, with sustainability leadership exemplified from Chair of the Board/Council down, to reinforce a holistic approach, and unite stakeholders in collective action.

This small scale project will also be of wider significance to the sector in a number of ways. A primary aim is to address a perceived gap in terms of engagement with sustainable development of Boards/Councils and the wider senior team, enabling them to lead by example. The project outcomes include a workshop format and materials which have been trialled at Bournemouth University and the University of Sussex and will be cascaded to two further universities to maximise impact. By the end of the project, the approach and workshop materials will be refined and made available for cascading to other institutions. A project report will be disseminated across the sector via various networks.

Working with an external facilitator the project has, to date, delivered two workshops at BU, one at UoS and one at a 'cascade partner' institution.

During the presentation, the action learning approach adopted in the project will be outlined and reflection will be provided on progress so far and learning to date. This will include observations around both the challenges encountered, such as the role of gatekeepers in blocking access to Board members or senior staff, and the achievements to date, such as increased Board/Council support and commitment for

strategies relating to sustainable development. There will also be some reflection on the impact of the different cultural contexts within which we are delivering the project in these distinct institutions.

The presentation will go on to outline the benefits that are expected to result from the project; including increased leadership capability and capacity for addressing sustainable development, with decision-making at the most senior level becoming enhanced by addressing sustainable development issues; sustainable development, carbon and environmental management becoming topics for regular discussion at the top table; increased likelihood of success of carbon reduction strategies; and an increased number of champions for sustainable development across a broader range of areas from the top down. It will also consider how we will measure whether the project has been a success.

### **The role of Education for Sustainable Development in families' sustainable consumption**

**Author: Georgios Zampas**

The main aim of this paper is to bring concepts of Sustainable Consumption and Education for Sustainable Development under a common 'umbrella'; to examine the impact of a programme of Education for Sustainable Development and how it can communicate the message of a lasting pro-environmental behaviour to students, and in turn if and how such a programme can influence the lifestyles of children's families. In essence, this is an evaluation of the secondary effects of an environmental education mechanism; which asks if the rise of students' environmental concern and action and their ability to influence their family members in terms of awareness, concern and action; towards more sustainable lifestyles.

The contribution of this work is to explore the influence of two different age groups, children and adults; through the intergenerational and intrafamily relationships. Focusing on children's contribution to put the environmental 'damage' on hold has resulted in the contention that it is a waste of time to wait until they come of age and take serious action and that a focus on adults would be more effective. The answer to this argument, given through this paper, is that by focusing on children there is a possibility that we can create the environmentally conscious adults of the future and simultaneously; we can influence the adults of the present; as it is known, that children have a more active role in families' decision-making processes now than before.

So, this paper will focus on the connections between Education for Sustainable Development and Sustainable Consumption. This connection has social and educational outcomes or in other words outcomes that regard doing and learning respectively. To be more specific, the aims of Sustainable Consumption are "...to promote patterns of consumption and production that reduce environmental stress and to develop a better understanding of the role of consumption and how to bring about more sustainable consumption patterns" (Agenda 21, 1992, 4.3-4.13), and this is also what Education for Sustainable Development tries to achieve.

### **Methods**

The methodology followed here was a mixture of qualitative and quantitative approaches. Interviews with experts like policy makers and members of academia who work in the area of Education for Sustainable Development, consultants on the Sustainable Schools Strategy as well as teachers and heads of schools of the United Kingdom were held. This was the first step in order to understand the framework around Education for Sustainable Development and its related strategies. After having chosen the case studies (two classes in two different primary schools in the United Kingdom), a participant observation in the classroom took place, observing and helping students with their environmental activities. Afterwards, questionnaires were handed out to students and parents, and then semi-structured interviews with the families and focus groups and brainstorming groups with students took place, discussing the motives and sources of influence in terms of the adoption of sustainable practices in their everyday life. Moreover, the students were asked to take photos of the places and equipment in their houses that relate to environmental practices.

### Results

There are not any specific results yet, since the data are currently being collected; but by the time of the conference I will have more to say.

### Conclusion

In a nutshell, this paper examines whether the cooperation of different generations for environmental protection and sustainability is occurring, as a result of Education for Sustainable Development (ESD); and if so what is its impact on Sustainable Consumption (SC). So, this paper presents the links and overlaps between ESD and SC, as they have been identified through original empirical research with teachers, students and their families, in the United Kingdom.

## **Are we there yet? Developing Global Perspectives at Bournemouth University**

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*'As the world becomes increasingly interdependent and fragile (...) we have much to learn from the ongoing collaborative search for truth and wisdom.'*  
(The Earth Charter)

This paper provides some context for 'Global Vision, Local Action', the fourth 'Education for Sustainable Development: Graduates as Global Citizens' (ESDGC) conference held at Bournemouth University (BU), September 2011 and is presented to share learning. It offers an update on developments at BU, a summary of previous conferences and reflections on a journey which began in 1998, when a group of staff got together to create a global vision for BU.

### **Back ground and update on developments at BU**

As part of the founding work, a formal document a 'Global Vision for Bournemouth University' was developed, which highlighted an opportunity:

*'As we enter the new millennium, the 'real world' is one of globalisation. ... Globalisation means that, in the future, Bournemouth University graduates will have worldwide career opportunities at their feet. Globalisation insists that the successful graduate of the future will need to possess the skills, knowledge and self-awareness to adapt to the dynamic international business environment and to a wide range of cultural circumstances that they will encounter personally and professionally. The inclusion and valuing of global perspectives in all Bournemouth University courses is a forward looking, empowering step that will contribute to the development of graduates who are highly employable in this twenty-first century international scenario' (BU Global Perspectives Network, 1999, p. 1).*

The vision document was endorsed by Senate and was central to the work of the Global Perspectives Group at BU, between 2000 and 2005. Initial progress was focused on the extra-curricular sphere: a range of activities was organised to highlight global issues, global processes and the need for sustainable development; workshops focused on developing cross-cultural sensitivity. At the same time, the idea that all courses might incorporate global perspectives was promulgated through staff development workshops and meetings with senior management. Eventually, working through the Learning and Teaching Development Committee, approval was gained to include global perspectives and sustainable development within BU's Curriculum Development Guidelines.

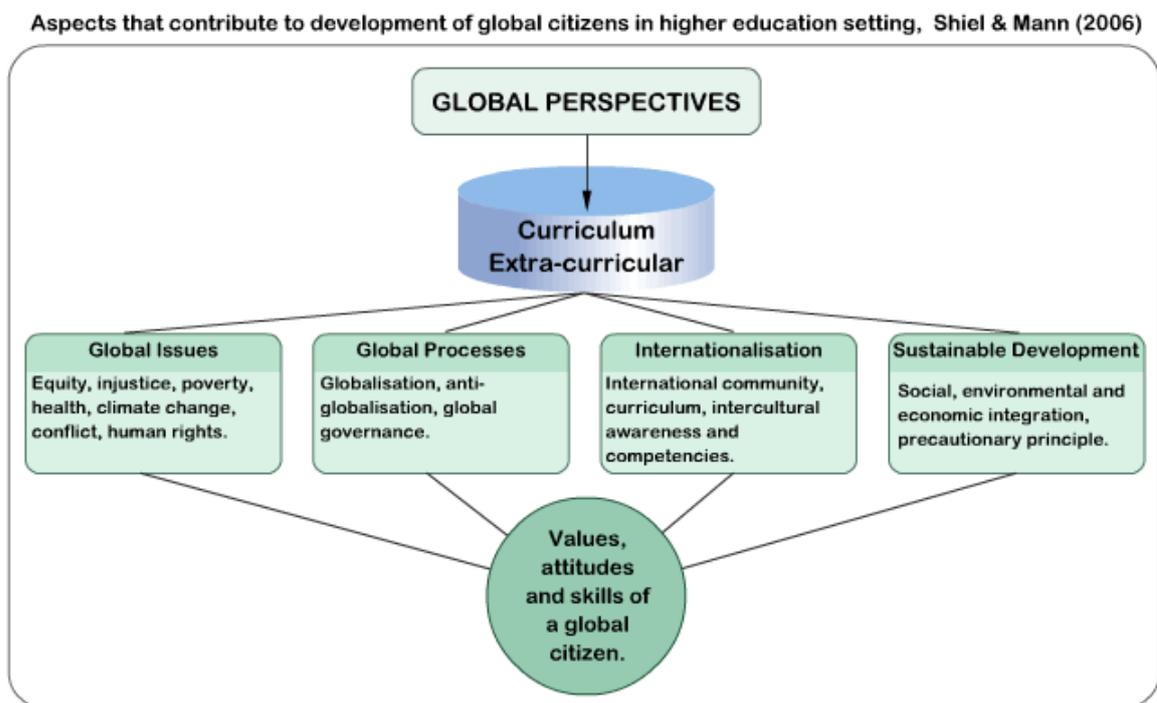
The journey has consumed a substantial amount of energy and required perseverance. The rewards have included a number of successful projects (many externally funded) along the way, including the 'Skills for Life' project undertaken in partnership with Development Education in Dorset (DEED); the Global University Project in

partnership with Think Global (formerly the DEA) and more recently a Higher Education Funding Council, Leadership Governance and Management project which is enabling Board Members and senior management within universities, to consider leadership for sustainable development.

The greatest impetus came from a Leadership Foundation Fellowship awarded in 2005; outputs included a new strategy for developing Global Perspectives and Education for Sustainable Development, and the first ESDGC conference, in 2005. The strategy outlined a holistic approach to the agenda (see Shiel 2007, pp158-173) embracing three themes:

- Corporate Responsibility and behaviour – the university as a global citizen
- Curricula and pedagogy – embedding global perspectives and sustainable development
- Extra-curricular activities to support citizenship and internationalisation

The development of global perspectives at BU has been outlined in a number of publications (Shiel 2006; Bourne, McKenzie and Shiel 2006; Shiel 2007). Early work drew upon the terminology of development education and the work of Oxfam (1997) relating to global citizenship. A number of devices were used to explain the terminology and a diagram was developed to serve as a guiding framework (Figure 1).



**Figure 1.**

The diagram continues to serve a purpose and global perspectives continues to be considered in a holistic way.

Developing understanding of the concepts has been important, but of equal importance, has been the articulation of various rationales to explain how, and why, this work relates to university activity. The need to justify, continually demonstrate

‘value added’, and to show alignment with and enhancement of, other university agendas has been vital but time consuming. The compatibility with the employability agenda including the link with developing graduate skills was articulated from the outset (see Shiel, Williams & Mann 2005). The link to employability has become even more pertinent over time, as research has continued to highlight the changing needs of employers in the context of globalisation.

Similarly, alignment with the internationalisation agenda has been at the heart of BU developments, with the goal of developing graduates who have global awareness, cross-cultural skills and international experience (which then further enhances employability). Reinforcing the connection between developing global perspectives and the University’s International Strategy seemed not only appropriate but was relatively easy to justify, in a context where an increasing number of publications criticised the economic focus and ‘marketisation discourse’ which dominated internationalisation within higher education (for example, Caruana and Spurling 2007). It was a desire to be ahead of the sector, in relation to internationalisation and to respond to research which suggested the need for more coherent leadership of internationalisation (Middlehurst 2006; Middlehurst and Woodfield 2007), which lent support to the endorsement of a proposal to establish the Centre for Global Perspectives (CGP), in 2008. The proposal established that the Centre would play a leading role in internationalisation, address ‘internationalisation at home’ and contribute to enhancing the experience of International and UK students (through global perspectives). The timing coincided with a plan to restructure BU’s International Office, repositioning overseas recruitment within Marketing and Communications. The idea of a ‘centre’ however, (which would work across Schools and Professional services) had been mooted much earlier (2000), and had been formally proposed in the 2005 strategy, evidencing just how challenging, these things can be to progress.

Petford and Shiel (2008) describe the approach adopted at BU and how different concepts (global, international, sustainable development) have been drawn together as part of a ‘work in progress’ in setting up the Centre to function as a hub at BU. The aim *‘to develop cross-disciplinary research and activities to support the development of global perspectives and sustainable development across the University’* is broad; the need for *‘political support’* to *‘challenge institutional hurdles’* is highlighted. Looking back, the journey has seemed a tortuous route to travel a very short distance: the ‘institutional hurdles’ have been frequent and sometimes high, there have been several dead ends along the way. However tenacity and a belief that higher education should make a contribution to global citizenship and sustainable development have yielded some successes, not least the publication *The Global University: the role of senior managers*, which went to every Vice-Chancellor in England.

Since 2008, the Centre has been successful in contributing to a broader vision of internationalisation and ‘global perspectives’ has been a key aspect of the International Strategy. However, the ‘working model’ described by Petford and Shiel (2008) which aimed to combine the ‘academic with the non-academic’ to enhance internationalisation, has proved difficult to maintain within University structures. One year after set-up, a review of Professional Services resulted in those staff responsible for the ‘non academic’ elements of internationalisation within the Centre,

being absorbed by Student Services. This has resulted in a lesser role for the Centre in terms of engagement with overseas students and a weakening of the Centre's envisaged role, in developing International partnerships. The changes not only reflect a backward step in terms of the literature on internationalisation but have also fragmented internationalisation activity. Unfortunately, in parallel, following leadership changes, the focus on the economic aspects of internationalisation and a marketisation discourse, has started to creep back.

Although some aspects of the original agenda for internationalisation have not been realised progress has been made on curriculum development and in relation to student mobility. Research has identified the institutional barriers to mobility and surfaced students' concerns; further partnership opportunities have been explored, and the Global Citizen Awards Scheme was launched in 2010. To date, this has not had a significant impact on the numbers of UK students studying abroad but the number undertaking overseas work placements, engaging in Summer Schools and exploring volunteering opportunities, appears to be increasing. Unfortunately the main institutional barriers to mobility (accommodation, curriculum structure and fees), have not been fully addressed and expanding overseas partnership opportunities, has been impeded by an insistence that overseas partners comply with UK legislation. 'Shifting the paradigm,' to a more collaborative view of partnerships (Luker 2008) remains a challenge.

The curriculum guidelines (developed in 2005 and since revised) have been particularly helpful in influencing curriculum change. All course teams have to consider global perspectives and sustainable development at Course Validation and Review. This does not mean that all teams incorporate the themes equally well, but it does place an expectation that omission will be challenged by validation panels. Course teams have been supported in this, by the Centre through provision of workshops, resources and support in developing appropriate Learning Outcomes. Staff development has been ongoing with formal inputs given to staff induction and the PG Certificate in Higher Education. Workshops have been open to all disciplines and tailored to the needs of particular Schools; the number of staff visiting the Centre, to develop ideas and borrow resources, has increased as a result.

Evaluation through a student survey in 2009 evidences considerable progress made since 2005, with students demonstrating a better understanding of global citizenship and environmental concerns (Shiel 2009). A staff survey, undertaken in 2010, also evidences staff showing an increased understanding of the concepts. Staff responses confirm that a high percentage of BU students will understand global issues, global processes, sustainable development and ethics at graduation; although far fewer will have developed cross-cultural skills. The results suggest progress overall but also flag the need for some caution, as some anomalies are revealed. When asked about the extent to which these concepts are included in learning and teaching and assessment, staff responses indicate that inclusion is not always high and is almost entirely absent from assessment. This is in contradiction to the results which suggest that BU students have extensive knowledge and understanding when they leave, raising the question: where is this acquisition of learning taking place, and how do staff know it has been acquired, if it is rarely assessed?

Focus groups also suggest that sustainable development is covered less in the curriculum than global issues and internationalisation. Workshops within Schools confirm that some staff have only recently tackled 'internationalisation of the curriculum' but have not yet had time to consider sustainability; some are still unsure of how it relates to their discipline. This might be the result of an over emphasis on 'global' and 'international' at the expense of the environmental aspects of sustainable development; planning is underway to remedy this.

The extra-curricular sphere continues to offer an important space to take initiatives forward, within the limitation of resource stretch. Global Cinema (set up in 2005) continues to feature films that address global issues, environmental concerns and which often reflect different cultural viewpoints. The organisation of the programme is now led by students. The Global Learning Seminar series was launched in 2010 to engage staff and students in a range of themes. External speakers have delivered sessions on topics as diverse as human trafficking, Multi-cultural Britain, Transition Towns, FairTrade, etc.; BU academics have contributed their research on global issues. Support has also been given to a variety of student-led projects, often focused on fund raising and campaigning.

Taking forward activity in relation to sustainability outside of the curriculum has been very successful and is down in large measure, to the excellent leadership of the Environment and Energy Manager and the wider work of the Estates team. Partnership working with these colleagues has been rewarding and is an example of how an academic/ non-academic partnership can yield exciting results. Contributions have been made to the Environmental Strategy Group, the Carbon Management Programme group, the Fairtrade Committee and the group responsible for the Universities that Count Benchmarking exercise. Collaborative working has contributed to the Eco Campus Gold Award, the Green League table (a rise to 5<sup>th</sup>), short-listed for a Green Gowns Award and short listed for a Times Higher Award. The most recent partnership initiative involves the BU Environment Manager and the Environment Manager at the University of Sussex, working with the Centre to deliver a Higher Education Funding Council, Leadership Governance and Management project. The project is currently engaging Board Members and senior management teams in an exploration of leadership behaviours for SD and carbon reduction.

Expanding activity within the local community has also been rewarding. This has included work with local schools (citizenship days, for example) and with Bournemouth Borough Council (BBC). BBC is the first local Borough to have endorsed the Earth Charter; the Centre has worked with colleagues (at BBC) to support implementation of the Earth Charter and contributed to subsequent activities which have emerged. The first Symposium to debate the Bournemouth Air Festival, in the context of sustainability and the Earth Charter involved a unique process and was a highly successful event, bringing together stakeholders with radically different perspectives, to explore the inherent tensions within sustainable development. An outcome established a group (which the Centre is supporting) with the express goal of 'greening' the Air Festival. Another Earth Charter event involved working in partnership with Bournemouth 2026 Partnership to host a seminar with the Speaker of the House of Commons. Youth and community representatives had the opportunity to hear the Speaker and consider participation in democracy. An event that considers

local, organic, animal friendly and Fair Trade food in Bournemouth is under consideration for 2012.

### **Looking back over the BU conferences**

Preparing for the 2011, 'Global Vision, Local Action' conference has been a challenging activity over the last year, with the possibility (as ever) that this might be the last. On reflection, the conferences (BU Conference 2005, 2007, 2009) have had a significant impact, on momentum within BU, in developing the external network, and also spurring activities across the sector.

The 2005 conference was loosely themed to draw together participants who came at the topic from various starting points: some with roots in environmental education; some from internationalisation; others development education. Stephen Sterling suggested the characteristics of education for sustainable development and how universities might align agendas, envision a different future and engage in culture change. Doug Bourn outlined the challenge of the 'global dimension' for higher education suggesting how education might better equip learners to address global issues, including sustainable development. Professor Ron Barnett as an expert in education (but not in the concepts), posed some important and challenging questions, putting the concepts under scrutiny. His thesis explored whether sustainability (S) and global citizenship (C) are distinct themes, or whether they share connections which overlap, such as: concern for justice, fairness, participation and concern for others. Explicit in his conceptual examination was the theme of universality (how universal are the claims of S and C); implicit was the theme of 'authenticity' (of individuals wresting themselves from dogmas to come into 'new modes of being'). In drawing tentative conclusions, he proposed that the primary educational hold of sustainability is epistemological, whereas global citizenship with its aim of changing persons, relates to the ontological concerns. Powerful in his conclusion was the reminder that for S and C to be justified within higher education, the concepts themselves have to be open to critical examination; 'otherwise dogmas would give way to (new) dogmas'. He reinforced the challenge of the '*difficult intellectual spade work*' ahead, suggesting that if S and C are exposed to critical treatment, then in the process they '*may just become new vehicles for the realization of the traditional ideals of the university itself.*'

Several presenters in 2005, focused on a critique of internationalisation within higher education (Lewis 2005; Grant 2005; Caruana and Hanstock 2005) linking this to globalisation and the emerging concept of global perspectives. Lewis in her conclusion, based on case study research at several HEIs, concluded: '*It is, however, encouraging to note that the global perspectives agenda (incorporating social, cultural and academic elements) is playing a significant role for some institutions and that there are examples of good practice to be shared amongst those wishing to embrace this alternative*' (Lewis 2005). Other presenters, also promoting holistic institutional approaches (Collins et al 2005, for example) embraced environmental sustainability and Fairtrade certification within their change strategies, explaining how universities could embrace a 'multi-faceted approach' which moved beyond a single theme.

In 2007, the overarching aim was to build on the themes established by continuing to focus on curriculum development but also to extend participation to include those working on the environmental aspects of university management. The themes (curriculum, extra-curricular, Corporate Responsibility and behaviour) were explored from many discipline perspectives including literature, religion, health and business. Poetry, film and game theory served as innovative vehicles to engage participants and offer new insights. As key notes Steve Egan (Deputy Chief of the Higher Education Funding Council) highlighted HEFCE's interests, explaining that their definition of SD was not just about carbon reduction. He outlined some of the broader global issues which have to be tackled, including world poverty and commented that '*HE should not ignore the role it could play.*' He reinforced HEFCE's strong commitment to SD.

An Australian perspective on developing a curriculum which enables students to develop a global outlook and social responsibility was described by Betty Leask. It was refreshing to hear how academics 'down under' are grappling with similar issues and making excellent progress, particularly in adopting such exciting Learning Outcomes to ensure that the concepts are embedded in the curriculum. She emphasised that in order to progress a global perspectives and SD agenda, more work needs to happen '*where the rubber hits the road*' i.e. within the curriculum and across disciplines.'

The 2009 conference covered the themes illustrated in Figure 1 more broadly, placed a greater emphasis on the 'inter-connectedness' between the global and the local and emphasised the importance of the student voice. Student-led initiatives featured prominently and the power of student volunteering to effect change was demonstrated by Espen Berg (a former BU student). A highlight of the event was the 'African Live Link' where delegates were brought in real time to Kenya, to interact with staff and students from BU taking part in a Sports for Development Expedition initiative. The audience also had the privilege of witnessing local children from four Kenyan schools enjoying the launch of a fun run, co-ordinated by students.

Other noticeable features of the conference were that delegates came from further afield (Australia, America, Canada and Ireland), participants from the UK, represented a more diverse range of UK universities, and more 'other organisations' than previously (UYDO, Engineers without Borders, StudentForce for Sustainability, Earth Charter UK, Global Action Plan) attended.

Keynote speakers in 2009 again made an important contribution to critiquing and elaborating on the themes: Stephen Sterling, offered a critical review of sustainable development within higher education and explored the tensions; David Killick offered a theoretical consideration of global citizenship in relation to self-identification and urged educators to help learners '*find their global souls*'; Ann Finlayson shared her perspectives from a life experience of working in SD and particularly her work as a Sustainable Development Commissioner.

Interesting to note, going back through the lists of participants over the years, is that many have continued to lead this agenda within their own institutions; several continue to make contributions nationally, and internationally. Sometimes approaches adopted have been influenced by the champion's academic background; others have been determined and adapted according to what will be accepted within a particular

institutional cultural context. Only a handful of champions has managed to take forward a holistic agenda, which pulls together what might be considered discreet themes, into a coherent university-wide approach.

On reflection, has the intellectual spadework suggested by Ron Barnett (2005) supported change? Are the concepts any clearer? Barnett's thesis suggested that sustainability might be about 'ways of knowing' and thus, curricula (which gives rise to issues about its scope); global citizenship suggests 'modes of being; of self and society' and thus, a relationship with pedagogy. It is this pedagogical connection which suggests that the notion of GC has the potential to be inherently more universal than S. However, the veracity of the statement has to be entirely dependent on how S, is defined. Barnett's thesis, while cogently argued, was also not popular with SD champions, until many realised that his starting point, was in essence, an anti-thesis, intentionally provocative. Subsequent conference presentations have sought to develop the concepts further and respond to Barnett's challenge however, it continues to be the case, that identifying the precise epistemological concerns of SD is not an easy task. This is hardly surprising given that definitions of sustainable development are often highly abstract and the concept embraces consideration of the future, which is in itself uncertain. Identifying the qualities of 'being' (in terms of global citizenship) has been a somewhat easier task, but only if notions of political agendas and nation states can be held in abeyance.

The approach at Bournemouth has been to explain the development of citizens who understand the need for SD, as akin to developing 'critical beings' (Barnett 1997) who might address 'super-complexity' (SD) (Barnett 2000). Bill Scott's work (2005) and Vare and Scott's (2007) have also offered a useful contribution to explanations, through the proposal that ESD 1 develops skills which enable 'reading the world' opening eyes to a 'world of facts, processes, arguments and connections' thus providing the text; ESD 2 develops 'critical literacy' including motivation and the self-confidence to develop as lifelong learners who have the capacity to take action.

The 'intellectual spadework' is by no means complete and there is still much work to be done. The 2011 conference offers a further opportunity to learn collaboratively and engage further. Bournemouth's contribution lies largely in the area of leading institutional change, holistic approaches to global; perspectives and the leadership necessary for sustainable development and Internationalisation.

### **Insights from leading institutional change**

In drawing this paper to a close, it seems important to offer just a few insights from the journey:

- Holistic approaches are extremely difficult and need continued senior management support;
- Alignment with other agendas is logical and increases the chances of success but is difficult in HE, where silo mentality may be reinforced by university structures;

- In trying to develop new ways of working to align agendas, never underestimate the power of vested interests, the ways these manifest and the political behaviour that may result;
- Working with the Environment Manager and the Estates Team creates synergies;
- Never assume one approach will continue to work, be prepared to change tack frequently; learn to dance on a shifting carpet (Moss Kanter 1990);
- The most painful and challenging conversations often result in better outcomes; the easy wins do not necessarily mean progress;
- Securing external funding and awards contributes to sustainability and enhances credibility (as do publications);
- Building internal alliances and external networks is important to sustain momentum;
- Developing resources for academic staff, being professional and always available enhances perceptions;
- Working in the community and with external stakeholders is not only rewarding but brings returns;
- Student energy and enthusiasm should not be under-estimated; it is important to counter deficit thinking, particularly deficit models of International students;
- Avoid developing a capstone unit and/or challenging the funding model.

At this point it is difficult to predict the future of the Centre. It is unclear whether it will continue to exist outside of the traditional academic structure however, what is clear, is that work in developing global perspectives has to be taken forward across all disciplines and will continue. BU has recently published a new Vision and Values 2018, following extensive collaboration and consultation. The document includes values which demonstrate a commitment to global perspectives, the environment and sustainability and the very clear statement:

*‘With a continual sharing of ideas, cultures and knowledge our staff, students and alumni will gain a global perspective and participate as global citizens in addressing societal challenges and shaping society.’*

This bodes well. As Bourn and Shiel suggested in 2009, although *‘some can see the ways that global perspectives might offer a unifying theme for taking forward internationalisation and sustainable development for many it remains a challenge’*. It is hoped that BU will continue to meet the challenge. The real test however will be how this ambition follows through from the Vision and Values, into the various sub-strategies which are currently being developed.

## **Conclusion**

At Bournemouth University global perspectives has been evolving for over ten years. A holistic approach has sought alignment with employability, internationalisation and the environmental agendas. The approach has also attempted to weave the links between education, knowledge transfer and research, which seems particularly appropriate for an institution which talks of ‘fusion’ in its new Vision. The approach

to global perspectives continues to encompass: corporate responsibility and behaviour (the University as a global citizen); curricula and pedagogy (embedding global perspectives); and extra-curricular activities to support citizenship and international awareness. Such approaches are challenging; working across the silos which exist within universities presents hurdles. At BU, work at the corporate level and particularly collaboration with the Environment and Energy Team, has been fruitful and resulted in notable success.

The BU conferences, which have purposely drawn together participants with diverse perspectives and discipline backgrounds, have been particularly inspirational for sharing learning, exploring the theoretical concerns, and stimulating practical approaches to change.

Thus far, BU has made substantial progress in developing its holistic approach to global perspectives with a view that an 'inclusive curriculum' enhances the experience of all students. However, we are not there yet. Some programmes still cater largely to the needs of UK students who consequently could be missing opportunities to learn from the perspectives of others and experience the 'global in the local;' more work is also needed to embed sustainable development within the curriculum. The main threats for the development of global perspectives arise from: not building on the work which was originally established to align global perspectives with internationalisation and the International Strategy; focusing on internationalisation at the expense of sustainability and; not addressing the barriers to inter-disciplinary working. The new BU Vision and Values offers a favourable context for the future however the role of the Centre and global perspectives will depend upon the sub-strategies, particularly the new International Strategy and the Education Enhancement Strategy, which are still under consideration. The opportunities to develop this agenda are substantial with the potential to result in a better environment, new sources of funding and research, and new partnerships, which would enhance the institution as a sustainable, global University.

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# **Youth Engagement with Global Current Affairs: Lessons from a 2<sup>nd</sup> Year Multi-Media Journalism Unit**

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## **Introduction and Aim**

During the last decade the strategic role of education in promoting sustainable development and global citizenship has been highlighted both internationally (e.g. 2002 UN World Summit on Sustainable Development; 2003 UNESCO framework) and in the UK (Osler and Vincent 2002). Instrumental to this effort has been the work of the Higher Education Academy (HEA) and of Think Global / the Development Education Association (e.g. Shiel and McKenzie 2008; Bourn, McKenzie and Shiel 2006; McKenzie et al 2003).

A growing body of academic literature has been looking at the related concepts of global perspectives (GP), global education (GE), global learning (GL), global citizenship (GC) and education for sustainable development (ESD), while efforts have been made to map the links and dynamics amongst those interdependent terms (Anderberg, Nordén and Hansson 2009) as well as outline the main actors, means of youth engagement and drivers of change (Bourn and Brown 2011).

However, this is still an emerging field of scholarship and a review of the literature reveals that, predictably and understandably, a lot of attention has been devoted to strategic, top-down initiatives, case studies of institutional and an introductory “fleshing out” of key concepts. Research on Global Learning in Higher Education is still “comparatively rare” and “very few empirical studies appear to have been conducted” (Anderberg, Nordén and Hansson 2009: 369). Many seminal works take a mostly normative approach (focusing on principles or strategic directions), while the empirical studies usually focus on assessing the adaptation of institutions through the internationalisation of curricula and the implementation of GP/ESD at what we could call the “macro-educational” level (e.g. de la Harpe and Thomas 2009).

This paper takes a slightly different approach, looking at one specific area of global learning – the role of journalism students as both global citizens and critical mediators of global issues. It makes the case for the establishment and nurturing of an interdisciplinary field of research and teaching and learning, which brings together key elements of international affairs, journalism and pedagogy. For the purposes of this paper and case study, and in the interest of clarity, I use the title “global current affairs” (GCA) to refer to this emerging field, as this title most accurately conveys both its substantive content and its pedagogic agenda, although the issue of the field’s name is of lesser importance to its pedagogic mission.

In the following sections, I provide the conceptual context and rationale for the integration of GCA into the journalism/media studies curriculum. I then report on the experience of designing, developing and delivering such a course at the micro-

educational level of a 2<sup>nd</sup> year undergraduate journalism programme at Bournemouth University, as a case study of global learning within journalism education. It is hoped that this bottom-up approach can inform and complement more strategic and comparative reviews into the role of journalism students as global citizens.

## **Context and Concepts**

Advocates of global or cosmopolitan citizenship have for a long time and through multiple normative models made the case for a field of civic participation that transcends the narrow boundaries of nation-states (e.g. Dower 2003; Dower and Williams 2002). In the past this discussion might have been considered as “academic” or abstract, but recent global developments – from international terrorism to the spread of mass epidemics to climate change to civic mobilisation through social networks to the global financial crisis – have been bringing the realities of globalisation closer to home. The effects of globalisation are already visible, while the structures of 19<sup>th</sup> and 20<sup>th</sup> century governance and citizenship are struggling to cope, creating deficits of democracy, legitimacy, policy effectiveness and quality of life – not to mention poverty and global inequality.

A consensus has emerged both within academia and across government, industry and the voluntary sector about the crucial role that universities can and should play in empowering students to become global citizens and in promoting sustainability (Anderberg, Nordén and Hansson 2009) and social justice (Bourn et al, 2011; Bencze and Carter 2011). This could have a range of results, such as (i) well-equipped graduates in the global economy, (ii) critical thinkers who are aware of the complex world that they will inhabit and/or (iii) informed social activists (Bourn 2011; Shiel 2006).

The incorporation of global perspectives into the HE curriculum is one of the main ways of achieving greater student awareness about their role as global citizens. The benefits of this approach have been demonstrated repeatedly and at different levels (e.g. see Bourn, McKenzie and Shiel 2006). Global learning (GL) enhances the development of critical skills, boosts employability, facilitates intercultural understanding and internationalisation, and ultimately transforms not just students but also HE institutions themselves, making them more environmentally sustainable and morally robust. In addition to these pedagogic benefits, global citizenship brings with it all the benefits associated with civic participation both at the micro-social level of the individual (such as increasing efficacy, empathy and trust; Barber 1998) and at the macro-social, systemic one (law abidance, social peace, integration, cohesion and welfare; public policy that is more informed about the needs of the people and thus more effective; a political system that better represents the diversity of the community – see Elster 1998, Nye, Zelikow and King 1997).

Central to global citizenship is an understanding of the fundamental interdependence between the global and the local, and the realisation of the power that citizens have in bringing about social change. In practical terms, it may be the case that the best way to achieve this is by applying the principles, issues and skillsets of GL onto specific fields of study, rather than in a generic, catch-all way. Interestingly, recent studies have evaluated the application of education for global citizenship within individual

disciplines, such as engineering (Bourn and Neal 2008) and social policy (Irving, Yeates and Young 2005), although there seems to be a lack of such application in the field of journalism studies, which the present paper aims to address. Having said that, the similarities across fields, for example in terms of their global implications, or of the challenges faced in promoting global citizenship, can be striking, which only serves to prove that this ongoing, multidisciplinary dialogue is vital.

A related debate has emerged on whether GL should be content- or process-oriented; that is to say, whether it should focus on the substance of the current issues affecting the world or the principles behind global citizenship and sustainable development (see Anderberg et al 2009). However, the gap between the two can be overstated as by far the most effective learning and teaching strategy is the one that combines content with process; engaging students with current affairs in specific localities, while touching upon broader, institutional, systemic or moral debates. It is true that global education should be competence-driven (e.g. Irving, Yeates and Young 2005), i.e. providing students with core skills not just of global citizenship, but also of critical thinking and empathy. However, I argue that the skills-oriented approach cannot be divorced from the context of ongoing events, which, as the case study outlined later in this paper shows, can be an excellent “way in” to more sophisticated and abstract debates.

It has been proven that demonstrating the benefits of civic participation in moral and practical terms is key to boosting a citizen’s sense of efficacy, i.e. an individual’s confidence in the impact of their own actions (e.g. Bowler and Donovan 2002). A cyclical, reciprocal relationship normally exists between efficacy and participation: the more meaningful a citizen feels that their civic action is, the more likely it is that they will be participating, further boosting their sense of efficacy, and so on.

Linking public or global affairs to citizens’ lifeworld, i.e. their immediate, micro-social environment, is particularly crucial in the case of young people. On the one hand – and contrary to contemporary myths – it has been repeatedly shown that young people are keen to engage with global issues (Gerodimos 2010; Bourn, McKenzie and Shiel 2006). On the other hand, many young people feel profoundly disempowered, disconnected from the institutions and processes of democratic participation and ultimately emotionally detached from public affairs. A comparative analysis of youth participation organisations and issue-oriented Non-Governmental Organisations (NGOs) (Gerodimos 2008) and a subsequent analysis of young people’s own responses to NGO material (Gerodimos 2011) showed that NGOs using personalisation and small-scale, tangible civic action succeeded in emotionally engaging young people, while youth organisations failed because they promoted participation in a generic and decontextual way, focusing on a vocabulary and repertoires of engagement that were far removed from young people’s everyday realities.

Based on this analysis, it is argued that a learning and teaching strategy which uses specific issues as the starting and focal points of a global learning curriculum could effectively engage students (while also avoiding conceptualising engagement in the narrow sense of participation or action, as opposed to a broader sense of behaviour that includes the learning process – see Bourn and Brown 2011). As the next section

argues, an issue-oriented curriculum for global learning can be particularly applicable to the field of journalism education.

### **Journalism Students as Global Citizens**

As mentioned earlier, during the last few years we have witnessed the integration of global perspectives across a wide range of disciplines with the aim of enabling graduates to act as global citizens. While the moral, pedagogic and political principle for the conceptualisation of individual students as global citizens applies equally to all disciplines, it is hard to think of a field of study in which a critical engagement with global contexts is more vital. Journalists are not just global citizens – they are also gate-keepers of global agendas, mediators of global change, interpreters of events and current affairs. Journalists constitute the crucial link between often abstract processes of global governance and individual citizens. Thus, they have a dual duty in the global public sphere: professional as journalists and personal as citizens themselves. Hence, the integration of global perspectives into the journalism curriculum and the parallel development of global journalism as a field of epistemology would seem obvious prerequisites for the fulfilment of journalism education's mission.

Surprisingly, many journalism courses focus on the practical skills and theoretical tools but fail to systematically engage their students with global developments in a way that not only would equip them to be active global citizens, but also to go out to the field and cover those same stories as informed reporters. Furthermore, “the concept of global journalism [is] still being undertheorised as a news style” (Berglez 2008: 845). The challenge is not to merely add another – international – layer to journalism, above the local and national ones, but to prepare students for a fundamentally different paradigm of global news, mirroring the increased complexities and interdependence between global, national and local phenomena and actors. Berglez (2008) offers an articulate conceptualisation of what global journalism might – or indeed *does* – look like:

“The national outlook puts the nation-state at the centre of things when framing social reality, while the global outlook instead seeks to understand and explain how economic, political, social and ecological practices, processes and problems in different parts of the world affect each other, are interlocked, or share commonalities” (2008: 847).

Berglez rightly distinguishes the normative discussion on the moral need for a global journalism from the experienced reality of interdependent issues and peoples, and the need to capture, interpret and communicate that reality. The call for the integration of global current affairs into the journalism curriculum is not only a normative one, but a pragmatic response to the realities of globalisation. For example, an understanding of the links between international terrorism, transnational organised crime and weapons of mass destruction is vital in order to interpret events both in remote parts of the world and in our local communities. This includes a basic familiarity with the networks, movements and illegal trafficking of arms, drugs, human organs, minerals, diamonds etc from/to different parts of the world, the flow of money, the impact on

the global economy and governance systems, as well as the direct effects on the security and quality of life in local communities across national boundaries.

Equipping journalism students with the vital skills to become global citizens is (perhaps ironically in this age of globalisation) becoming increasingly difficult due to the crisis facing both mainstream news organisations in general, and foreign reportage in particular (e.g. Altmeppen 2010; Livingston and Asmolov 2010). Morton (2007) highlights the insular character of many local newspapers in America noting that understanding foreign cultures and developments is more important than ever. On a more optimistic note, Rao applies the concept of glocalization to the context of journalism, arguing that local news is transformed but “not to the extent that it ceases to be recognizable as local. Rather, global and local are contexts that mutually affect each other without being absorbed within each other according to any hierarchical order” (2009: 486).

Directly linked to that process of interpretation and reportage is the paradigm of journalism, its traditions, rituals and cultural “baggage”. Therefore, a reflective process of engaging critically not only with the content of global current affairs, but also with the ways and means through which these affairs are reported in different regional or cultural settings should be a vital part of media education. Josephi (2005) found that scholarship has generally favoured the Anglo-American model of journalism, systematically ignoring alternative conceptualisations of professional practices, priorities and ethics.

However, perhaps the most important development in journalism – and one which again highlights the need for the embedding of global learning and media literacy – is the rise of the internet and online news. Due to the emergence of participatory news and user-generated content in particular, journalism has been witnessing a fundamental shift (Allan and Thorsen 2009; Deuze, Bruns and Neuberger 2007; Allan 2006). The processes of news-gathering, selection, editing and transmission, as well as the agents of these processes, are changing. Through the use of social media and first-hand accounts, citizens are becoming amateur journalists with profound effects for both journalism as a profession and the world at large. As Reich (2008) shows, the makeshift practices and firsthand accounts of citizen reporters cannot replace the output of mainstream, professional organisations. Still, citizen journalism poses considerable challenges in terms of editorial standards, ethics, personal safety, market sustainability, innovation etc.

Consequently, journalism graduates must survive within an increasingly volatile and competitive industry, which highlights the need for universities to cultivate their core critical thinking skills as well as their in-depth understanding of complex global situations. With this context in mind, the next section reports on the designing and delivery of a “Global Current Affairs” unit for journalism students.

## **The Case Study: Introducing Global Current Affairs**

### Institutional context

During the last twelve years, Bournemouth University has been at the forefront of the effort to embed global perspectives in the HE curriculum and to enable graduates to become global citizens (Bourn and Shiel 2009; McKenzie et al 2003). Both university- and course-wide initiatives have been implemented in order to promote sustainable development, intercultural understanding and global justice (Shiel 2007; Bourn, McKenzie and Shiel 2006). In 2009, in order to address the opportunities and challenges outlined earlier in the paper, and as part of the revalidation of the BA (Hons) Multi-Media Journalism framework, a 2<sup>nd</sup> year, 20-credit “Global Current Affairs” unit was launched.

### Aim, Philosophy and Intended Learning Outcomes (ILOs)

Global Current Affairs aims to engage students with current debates in international and multimedia journalism, while introducing major global developments and their impact on news reporting. The purpose is to develop students’ judgment and ability to link developments from different localities, periods and spheres of human activity, while dealing with issues of, and challenges to, professional practice.

The unit takes a thematic (issue-oriented) and topical (news-oriented) approach with a view to understanding globalisation in an applied, grounded way. As mentioned earlier, students’ understanding of the complexities and interdependence of global phenomena is vital to any process of pedagogy and development into global citizens. Hence, emphasis is placed on linking both issues to each other, as well as global developments to local contexts. The unit is interdisciplinary and combines elements of politics and international relations, geography, history and sociology in order to provide the theoretical canvas. However, in contrast to other theory-oriented units in the same framework, this particular unit focuses on familiarising students with the main global current affairs, key people, organisations and decision-makers involved, recent developments as well as the historical and institutional background. An important thread of the unit that runs parallel to these global perspectives is the reflective element, which on the one hand encourages students to examine the importance and relevance of issues (as well as their interdependence with each other), while on the other hand it asks them to consider the challenges facing journalists covering these stories. An awareness of the role of journalists as key mediators between the global and the local is central to the unit’s philosophy.

Based on the unit’s ILOs, having completed this unit students are expected to:

1. Show an understanding and critical evaluation of the role of international organizations, multi-national corporations, new social movements, global news agencies, citizen journalists and other global news-makers in the setting of the public agenda.
2. Show knowledge and assessment of global current affairs such as major international conflicts, environmental and energy crises, scientific and technological advances and other pressures facing the nation-state, as well as their impact on the local or regional level.
3. Show an ability to investigate current affairs collecting and synthesizing a range of relevant materials and arguments, leading to rigorous and balanced reportage.

## Learning and Teaching Strategy

Global Current Affairs is delivered mainly through ten two-hour workshops, incorporating lectures by the unit tutor, multimedia screenings, case studies, student engagement through debates and occasional guest lectures by leading experts. A seminar session in the middle of the term is used in order to provide students with training and guidance for the two elements of coursework that make up the assessment for this unit.

GCA covers a wide range of issues and localities. Indicatively, the core curriculum for the 2011-12 academic year features the following provisional headings:

Week 1: The United States at a Crossroads: Obama's White House and a Divided Congress/Country

Week 2: Putin's Russia and the New Cold War (Part 1)

Week 3: The New Cold War (Part 2): Energy, The Race for the Arctic; Iran's Nuclear Programme

Week 4: Developments in the Middle East; Weapons of Mass Destruction, Transnational Organized Crime, Terrorism

Week 5: The Drug War in Mexico; Cyberconflict; The Rise of China; Neo-Colonialism in Africa; Human Rights

Week 6: Global Governance and Citizen Diplomacy: the World in Transition; WikiLeaks and Global News

Week 7: Food, Poverty and Development; Immigration and Exclusion

Week 8: Environment, Climate Change, Pollution and the Water Crisis

Week 9: Global Economic Crisis; the EU Under Attack

Week 10: Revision and Announcement of Revision Topics for Written Test

Even with a cursory reading of these topics the reader would realise that emphasis has been placed on covering a broad range of topics. This was a strategic choice not only because the unit aims to introduce students to a range of key developments, but also because only through covering an adequate breadth of issues could interdependence and complexity be demonstrated in an applied way. That said, workshops are content-heavy and overall this unit constitutes a "crash course" on global current affairs, rather than a "content-lite" approach, which means that attendance becomes of critical importance for successful performance in the unit.

Key to the delivery of the unit are: (a) the production of a dynamic and visually engaging presentation, which employs maps, images and graphs, as well as video and audio clips, in order to immerse students into the issues examined; and (b) the intensive use of the Virtual Learning Environment (VLE), which is the "one-stop shop" for lecture notes, selected news articles, maps, background briefings, links to or transcripts of TV documentaries and journal papers.

In addition to set texts covering global current affairs in extensive depth (e.g. Johnston, Taylor and Watts 2002; Seitz 2008; Smith 2008), newspaper articles have a central role in the learning and teaching process. Press cuttings are used and critically evaluated on all the major themes covered, providing both the background as well as

an outlet of professional reflection. The systematic collation and use of newspaper articles has a number of pedagogic benefits, which are possibly under-researched:

- It provides a useful chronology of key events, which, apart from providing a basic historical framework, also helps students contextualise events by linking them to their own recollections of those events' media coverage
- It demonstrates how complex, ongoing issues are reduced to short, coherent stories that enable readers who are unfamiliar with the background of issues to engage with the narrative of those stories
- It gives us a glimpse of editorial policies and choices, especially in terms of framing and agenda-setting
- It provides students with useful examples of how complex global issues can be personalised or linked to local communities
- It is a useful source of edited maps and relevant images, which are themselves an important object of study as carriers of stereotypes and connotations

Therefore, media literacy through reflective news curation becomes a crucial pedagogic tool in global learning.

### Assessment Strategy

The unique properties of the Global Current Affairs unit required the development of innovative assessment methods that would fully cover the ILOs while also encouraging students to develop the full set of transferable and subject-specific skills and competences that they would have acquired. Assessment for GCA is made up of two formal elements:

- 1) A two-hour Written Test (which counts for 40% of the unit mark). This consists of:
  - a) a multiple choice quiz of 50 factual questions covering most of the topics taught in the workshops
  - b) comprehension and awareness questions on a choice of key documents (such as NGO reports)
  - c) evaluation of reportage on an unseen news report
- 2) An Investigative and Reflective Portfolio (counting for 60% of the unit mark), consisting of:
  - a) a media diary, incorporating basic content analysis on a chosen issue
  - b) a short essay providing the scholarly context for that issue
  - c) a reflective piece on the challenges facing journalists covering that issue
  - d) a photo-essay through which students link the global current affair to a local community of their choice

This assessment scheme has multiple pedagogic benefits: it is comprehensive and thus assesses the full range of topics and skills covered in the unit; it is highly customised and unit-specific, making it extremely difficult to plagiarise; it provides students with a high degree of choice and investigative freedom, thus making it more engaging.

As Sperandio, Grudzinski-Hall and Stewart-Gambino (2010) note, assessing a curriculum that is oriented towards facilitating global citizenship and engagement with complex global issues constitutes a massive challenge. Even the initial process

of translating the intended learning outcomes into tangible assessment criteria can pose difficulties, let alone the subsequent process of measuring the primary or secondary pedagogic, journalistic or civic impact of the curriculum. For the purposes of this unit, a deliberate effort was made to use the assessment scheme not only/primarily as a means of measuring impact, but as a core aspect of the learning and teaching strategy, i.e. as an outlet for the development of GC skills.

That was particularly the case with the photo-essay, which encourages students to link a global current affair of their choice to a local community. This was by far the most successful element of the assessment strategy, with students producing highly thought through work of outstanding quality that demonstrated achievement of the unit's aims. Investigative photo-essays featured topics such as: alternative energy in two local southern coastal city communities, Portsmouth and Southampton [Images 1, 2]; ethical food production at Gonalston Farm in Nottingham [Images 3, 4]; the fishing industry in Hastings [Images 5, 6].

### Student Satisfaction

As mentioned earlier, measuring the long-term impact of GL courses is notoriously difficult. However, based on student feedback as registered both formally through the student unit evaluation survey (Table 1) and informally through comments communicated orally and via email, the unit succeeded in engaging students with the global issues and debates covered. Students almost unanimously strongly agreed that the unit was stimulating, challenging and relevant to current debates, while they also praised the type and amount of resources made available via the VLE. Student attendance remained firmly above 90% (with most sessions being attended by a record-breaking 95% of students). In fact several students emailed the tutor directly (unprompted) after the end of the sessions in order to express their enthusiasm for the unit with comments such as:

“Thank you for all your lectures this term - I've thoroughly enjoyed them and learnt so much. They really have opened up my eyes to the world!!”

“Thank you for making this such an interesting unit and for all the work you put into it - I really do feel like I have learnt a great deal and found the lectures really enjoyable.”

“GCA has been a highlight of my academic year”

These and other comments confirm the view expressed by Bourn, McKenzie and Shiel (2006) and by the author elsewhere (Gerodimos 2010) that young people are keen to engage with global affairs as long as the opportunities and appropriate communicative tools are there for that engagement to take place.

It is worth noting that the only main issue emerging from student feedback was the amount of homework put in by the students themselves, which may or may not be a by-product of the intensity and comprehensiveness of the workshop sessions and/or by the timing of the two assignments (end of term). Other more minor areas for

improvement include the clarity of purpose of the scholarly essay in the portfolio and the intensity of the workshops, which some students found quite demanding.

### **Concluding Reflections**

In this paper I have argued that journalism is an ideal discipline for the application of the principles and methods of education for sustainable development and global citizenship. Journalism graduates are not only global citizens but also *de facto* gate-keeper and mediators between the global and the local. The skills transferred through global learning and media literacy are vital not just for trainee journalists, but for all informed citizens, especially in an era of citizen reporters and user-generated news content.

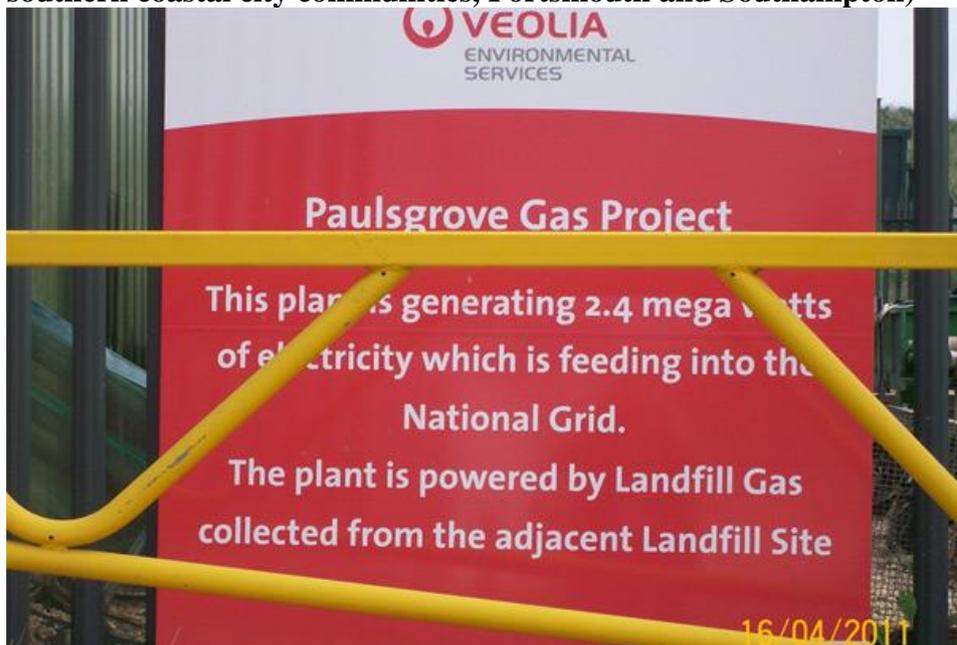
An undergraduate global current affairs unit was presented as a case study of integrating global learning within the journalism curriculum. The apparent success of this project, especially in terms of student satisfaction, passion and output, makes the case for a generalist module that covers major global issues and debates in an accessible way, facilitating students' understanding of the interdependence and relevance of issues to our everyday life. While the outlined learning and teaching strategy requires a certain amount of investment on the part of the institution and tutors involved, the benefits in terms of pedagogy and student experience seem to far outweigh the costs.

In terms of future research, it would be interesting to gauge students' own perceptions of global citizenship (Shiel 2009). Only by giving students the chance to articulate their own conceptualisations of key global debates, will we be able to produce effective learning and teaching strategies. However, global citizenship ought to be about duty, responsibilities and the production of ideas and actions, as much as about rights and the consumption of narratives or products. Recent developments across the world highlight the importance of civic engagement and global awareness, as well as the need to develop institutional safeguards that will legitimise the decision-making processes.

**Image 1: Sample from student photo-essay (alternative energy in two local southern coastal city communities, Portsmouth and Southampton)**



**Image 2: Sample from student photo-essay (alternative energy in two local southern coastal city communities, Portsmouth and Southampton)**



**Image 3: Sample from student photo-essay (ethical food production at Gonalston Farm in Nottingham)**



**Image 4: Sample from student photo-essay (ethical food production at Gonalston Farm in Nottingham)**



**Image 5: Sample from student photo-essay (the fishing industry in Hastings)**



**TABLE 1: Global Current Affairs – Student Unit Evaluation for academic year 2010/11**

Evaluation question	mean
Unit is stimulating and challenging:	4.63
Unit relevant to current debates:	4.79
Workshops interesting/accessible:	4.33
Training seminar helpful:	4.48
Quality/amount of materials on VLE:	4.70
Putting enough hours of homework:	3.11

*Anonymous feedback survey;*

*Likert-scale (1 = strongly disagree, 5 = strongly agree);*

*Covering unit delivery, learning resources, assessment and the student's own role; as well as the opportunity for qualitative comments on strengths, weaknesses and topics that the students would like to be covered.*

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# Gaining New Insights into Interdisciplinary Education through the Lens of ESD

Heather Luna & Alastair Robertson, *Higher Education Academy*

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## Background

In the autumn of 2009, the Higher Education Academy's Education for Sustainable Development (ESD) Project announced funding for a new tranche of small grant projects. It was stipulated that proposals had to include more than one academic discipline and the maximum amount of funding for each project was £5K. We received 96 expressions of interest and invited 25 applicants to submit full applications. Of these, seven were funded and the standard of applications was very high.

Simultaneously, a call went out to the HEA's 24 Subject Centres. Three applications were received and one was chosen to be funded.

All eight funded projects ran from May 2010 until June 2011.

## Summary of Projects

The eight funded projects\* were as follows:

- ESD in the Professional Curriculum
- Real-World Learning for Sustainable Environmental Management
- Problem-based Learning in Virtual Interactive Educational Worlds for Sustainable Development (PREVIEW-Sustain)
- Interdisciplinarity, Design Thinking & Sustainable Development: Strategies for UK Higher Education
- Making the Transition to Interdisciplinarity: Effective Strategies for Early Student Support
- Sustainability, Past, Present and Future: Interdisciplinary Curriculum Development of ESD within the Humanities/Environmental Sciences
- Interdisciplinary Learning in ESD at Taught Postgraduate Level: Research-Informed Capacity Building for Curriculum Development
- Exploring Museum Spaces and their Collections as Tools for Interdisciplinary ESD

They were based in a range of institutions, from UHI and Dundee in Scotland to UWIC in Wales, and dotted around England in Brighton, Derby, Gloucestershire, Keele, Kingston, Liverpool, and Manchester. The projects encompassed disciplines in the humanities, sciences, design, and psychology, as well as looking at the subjects associated with professional bodies.

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\* The project abstracts are in the appendix. The full reports and any accompanying resources are available from: <http://www.heacademy.ac.uk/resources/detail/sustainability/sustainability-projects>

## **Common Themes**

Half the projects had a strong focus on interdisciplinarity, while the other half explored issues connected to interdisciplinarity or multiple disciplines.

The Dundee project on professional bodies reviewed accreditation requirements. The Kingston project evaluating a course that has students auditing businesses made the case for learning in the community. The Second Life project at Derby explored using new technology in delivering resources suitable for multiple disciplines. And the HEA Subject Centres project on museums highlighted the value of museums as free resources, and the use of Personal Meaning Mapping in disciplinary dialogue.

The projects that explored the depths of interdisciplinary learning (IDL) offered key insights into this growing field. UWIC's project on design education points to the need for IDL in the complexity of ESD. The Keele and Gloucestershire projects sought to find effective ways to support students in IDL. Additionally, the Gloucestershire and UHI projects reflected on curriculum development. And UHI also offers research into the demand for IDL.

A common area of struggle was around demands on staff time to develop curricula and infrastructure around IDL. The professional bodies report points out that, if the accrediting body does not require sustainability in courses explicitly, staff with a desire to embed ESD must find the time to do this themselves, creatively. The Kingston project with employers found engaging with students and employers in a meaningful way required huge amounts of time. Offering teaching via Second Life, at first, was time consuming in the development of resources; but once these were turned into ready-made resources, the time demand on staff for learning Second Life technology remained. And, at Gloucestershire, professional staff development for IDL in ESD implied staff investment in time.

Both the UHI and the Gloucestershire projects highlighted institutional barriers to IDL and offered associated recommendations.

## **Key resources**

Several important resources are now readily available in the area of IDL:

- An audit of professional bodies' accreditation criteria (Dundee)
- Case studies of students working with employers (Kingston, coming October 2011)
- A website with resources from the Second Life project at Derby (See: <http://previewpsych.org/>)
- Survey results with key experts in design education (UWIC)
- An online resource for students studying interdisciplinary SD courses (Keele, See: <http://www.keele.ac.uk/iris/>)
- A detailed resource database of student perceptions of IDL in ESD at taught postgraduate level to be made available on Gloucestershire's project web space (See: <http://www.glos.ac.uk/interdisciplinarymasters>)
- A network of staff engaged in IDL (Gloucestershire & UHI)
- Visual representations of student perceptions of sustainability (Subject Centres)

### **Key recommendations**

- Professional, regulatory and statutory bodies (PRSBs) should be encouraged to review their accreditation criteria to consider inclusion of stronger references to the relevance of SD, both the contribution to be made by the profession and the impact of sustainability issues on their work.
- A data bank of case study exemplars of student career development related to employer audits should be built. The case studies would confirm to employers, academic line managers, and student participants and their families, the benefits of real-world learning in an interdisciplinary context.
- Staff should consider utilising the virtual world for filmed, customised, avatar scenarios that can be embedded within and across existing subject teaching materials.
- Leadership of the interdisciplinarity and design for sustainability agenda should be established – defining macro-issues and tackling them through collaborative and applied research programmes (e.g., working with the Design Council).
- Making connections from university learning about sustainability to careers in sustainability-related fields is important so that students can see the relevance of the topics and complex sustainability interconnections they are studying in the ‘real world’.
- There should be peer-supported staff development opportunities in design and delivery of interdisciplinary learning in ESD at taught postgraduate level.
- A Humanities and Historical perspective on sustainability is lacking in current HE provision on ESD in Scotland which could be met by the development of curricula for ESD which integrates Archaeology, History, Sociology and Anthropology with the Environmental Sciences and Geography.
- Many HEIs do not necessarily take advantage of the potential of museums as an aid to student learning. Since some museums are within easy reach of universities, and their resources are generally freely available, it is important for HEIs to explore such potential, particularly in the challenging fiscal context.

### **Conclusion**

The HEA is very impressed with the quality of the reports submitted by these eight projects. The potential impact on the sector is large: offering better insights into the challenges and solutions associated with interdisciplinarity and embedding ESD in the curriculum. We plan to disseminate the results and resources widely and welcome input as to further insights and dissemination opportunities.

## **Green Academy: Curricula for Tomorrow**

Heather Luna (Higher Education Academy), Simon Kemp (University of Southampton) Peter Rands (Canterbury Christ Church University), Alastair Robertson (Higher Education Academy), and Zoe Robinson (Keele University)

### **Introduction**

The Higher Education Academy (HEA)'s mission is to 'support the sector in providing the best possible learning experience for all students' and one of our strategic aims is to 'support universities and colleges in bringing about strategic change'. A key way in which we have been achieving this aim is through our change programmes for institutions. Although the precise nature and format of these programmes varies somewhat, they are all designed to aim to offer conditions that allow institutional teams time and space to think creatively and develop ideas and build capacity for institutional change, through either rapid innovation or longer-term change initiatives. The programmes are all managed and facilitated, and participants have access to a wide range of tools, resources and support, as well as networking and other opportunities for sharing practice with other institutions. Feedback and demand from the sector has been positive, and there is plenty of evidence of impact using this approach to support institutional change.

In the academic year 2010/11, the HEA, with support from the Environmental Association for Universities and Colleges (EAUC) and the National Union of Students (NUS), ran a new institutional change programme aimed specifically at institutions wishing to transform their university's curriculum to address sustainability: "Green Academy". In the midst of climate change and other urgent sustainability issues, transformational change is necessary. The 21<sup>st</sup> century society needs globally-aware, responsible, and sustainability-literate graduates. Green Academy sought to help higher education institutions (HEIs) wishing to embed sustainability into the overall student experience.

### **Green Academy model**

Based upon the HEA's other successful institutional change programmes, such as Change Academy, Green Academy was developed early in the academic year 2010. A call was put out for participants in the autumn and the programme was oversubscribed. Eight HEIs were chosen to participate:

- University of Bristol
- Canterbury Christ Church
- Keele University
- University of Nottingham
- University of Southampton
- Swansea University
- University of Wales – Trinity St David University
- University of Worcester.

Green Academy was a multi-staged process: 1) team leaders met in February to be briefed on the process and what the programme would cover, 2) a 2.5-day residential

of the teams in March, and 3) a final team leaders meeting in May focused on reviewing progress and evaluating the process.

Design and delivery of each of the formal engagements was led by an external facilitator (Jimmy Brannigan, ESD Consulting) in collaboration with the HEA. Jimmy has extensive experience of ESD change management, in both the public and private sectors, and has worked closely with EAUC on a number of projects, although this was the first time he had worked with the HEA. We also utilised the support of a number of 'critical friends' from the sector who offered invaluable, expert input and support to the teams throughout the process. These were:

- Peter Hopkinson, University of Bradford
- Carolyn Roberts, University of Oxford
- Chris Shiel, University of Bournemouth
- Stephen Sterling, University of Plymouth
- Ros Taylor, Kingston University
- Daniella Tilbury, University of Gloucestershire

For the residential, we used an additional number of external facilitators:

- Jamie Agombar, NUS
- Andrew Chamberlain, EAUC
- Sheri-Leigh Miles, ESD Solutions
- Susan Nash, NUS

Institutions had the opportunity to work on their own projects, and were introduced to a range of tools and approaches to be used to further project development at the event but also on return back to their institution.

At the end of the programme, each team will write up their experiences as a case study to be included on the HEA website to share with others. These will be compiled into an overall report with an overview of common issues, challenges and recommendations for the sector. (See Appendix for updates on the experience and outcomes from three of the HEIs – Keele, Southampton and Canterbury Christ Church.)

## **Evaluation**

The external evaluation of the current Green Academy initiative has two distinct phases, as indicated below. It builds on the work of the evaluators in relation to the Discipline-focused Learning Technology Enhancement Academy initiative, and from their experiences of a range of both departmental and institutional change management projects.

Phase 1, a process evaluation, is based on each of the Green Academy 'happenings' – the initial Team Leaders' Meeting (mid-February), the Residential Meeting (end-March), and the final Team Leaders' Meeting (a progress meeting in mid-May) – supplemented by ongoing engagement with all eight participating institutions. There will also be a round of visits to a range of participating institutions towards the end of the period to evaluate initial impact.

Phase 2 of the Evaluation will take place during AY 2011-12. A joined-up approach, in line with the strategy being used for all of the HEA's other Change Programmes run this year, will be taken.

### **Dissemination and Outputs**

A presentation on the GA at the HEA's Annual Conference involving HEA and three of the GA Team Leaders took place on 5 July 2011. Case studies from the participating GA institutions will be produced and drawn together with an overview and a series of recommendations/guidelines for the sector. It is also planned to have a meeting for the Team Leaders "one year on" in Spring 2012 and a dissemination event for the wider sector around whole institutional approaches to embedding ESD in the curriculum.

### **Conclusions**

Overall, all indicators show that the GA has been very successful so far, in terms of both value for money and impact. The capacity in the sector has been enhanced and a strong community of practice amongst the participating institutions established. Valuable lessons have been learnt and areas for future refinement identified. The HEA is committed to ESD as a thematic priority and to the concept of running focused change programmes. The emphasis in the coming year will be on maximising the impact of the current GA amongst both the eight HEIs and the wider sector – with the hope that another GA can be run the following year, 2012-13.

## **APPENDIX**

### **Keele University**

Team Leader: Zoe Robinson ([z.p.robinson@esci.keele.ac.uk](mailto:z.p.robinson@esci.keele.ac.uk))

*This is what Keele submitted in the application to participate in Green Academy:*

Although there are several activities in education for sustainable development throughout Keele, these pockets of activity currently lack cohesion having (until now) not been developed as part of a strategic and holistic vision for the University. More could also be done to integrate sustainability activities undertaken within the campus, as part of the curriculum, and through community engagement. Many of these sustainability activities are focussed in particular parts of the University where there is an existing body of academic interest in sustainability literacy and education for sustainable development.

So there are several key issues we wish to address:

- Should we introduce sustainability embedded throughout the curriculum, or through discrete modules, or both? It might seem obvious that embedding it throughout the curricula should be the preferred model, but the practicalities of achieving this are substantial (e.g. Can one require and monitor the inclusion of appropriate materials within programmes, and can one ensure engagement of both students and staff?).
- If discrete modules, should the taking (and passing) of at least one of these be compulsory, or not?
- How do we best engage the students?
- How do we best engage our colleagues, especially those for whom sustainability is not necessarily seen as a top priority issue?

- Is much of the ‘sustainability curriculum’ better ‘delivered’ through non-credit bearing activities that are central to the University ethos – e.g. recycling schemes based in halls of residence, greener transport initiatives, energy saving schemes throughout campus, voluntary outreach activities?

So what do we see as the benefits of the Green Academy for us? We hope either to:

- create a proposal for introducing sustainability into the curriculum at Keele or
- (perhaps more likely) develop a clear strategy for how best to design the sustainability curriculum, especially addressing issues of student and staff engagement.

We should add that we feel that we have a substantial amount of expertise that we are keen to share with others ... but also that we are aware of many superb initiatives elsewhere. The Green Academy will not only provide everyone there with a great opportunity to share ideas and experiences, but we will also benefit hugely from having two full days in which a small and dedicated team can focus exclusively on these issues without the usual distractions, from which we hope we will be able to propose a successful strategy for embedding sustainability in the curriculum at Keele.

*This is what has been happening post-Green Academy:*

Sustainability has been adopted as a key theme (alongside employability and internationalisation) to run through the curriculum review that is currently being conducted. Therefore:

- We are seeing high-level support for ESD, particularly from the PVC for Learning and Teaching.
- ESD has become an integral part of the already-initiated curriculum review process.
- Staff responsible for the curriculum review are discussing sustainability with all programme directors.
- ESD is accepted more and resisted less than might be expected as part of a wider review and reform process. But it is still less understood than employability and internationalisation.

Unfortunately, as of this conference, no additional resourcing, in terms of time or money, has been freed up.

Keele has a multi-strand approach to embedding ESD. It consists of:

- Staff development
- Integration into undergraduate programmes
- Discrete undergraduate sustainability modules available to all students
- Integration into PGT pro
- Integration into PGR training
- Specific sustainability-related programmes at undergraduate and postgraduate levels
- Integration into the Co-curriculum (the Keele Award)
- Continuing Professional Development activities

Key actions now being actioned include:

- ESD has been integrated into the training programme for new academic staff

- Keele-specific ESD resources for different subject areas are being developed
- An ESD-focused internal teaching conference was held
- Advertising of the undergraduate sustainability module to new students has increased
- The prominence of sustainability programmes and opportunities at Open Days has increased

### **University of Southampton**

Team Leader: Simon Kemp ([s.kemp@soton.ac.uk](mailto:s.kemp@soton.ac.uk))

*This is what Southampton submitted in the application to participate in Green Academy:*

We have a respectable track record of engagement with sustainability and ESD. However, this work is very much fragmented and we welcome support in bringing the many threads together. We feel we have much to learn from the exemplars of best practice in the HE sector, and also from other institutions who hope to participate in this project through the residential meetings and workshops.

As an institution, we engage in a wide programme of teaching along with an intensive research portfolio that involves many activities with potentially detrimental environmental impacts. We would like to be able to benchmark ourselves against similar institutions in comparable locations with the inherent geographical restrictions.

Ultimately we aim to become an exemplar of best practice in sustainability and ESD ourselves. We aim to make best sustainable use of our estate, benefit the local community, enhance our environment, and develop innovative modules and assessments to embed ESD throughout the curriculum. We believe this can be best achieved through participation in this programme and look forward to the opportunities this programme can offer.

The University of Southampton has eight multidisciplinary faculties covering a full range of disciplinary areas. We envisage that participation in Green Academy will enable us to learn from the experience of institutions of a similar size, with a similar broad disciplinary spread (e.g. Edinburgh, Plymouth, Bradford). We would value support in the following areas:

- Joining up pockets of existing practice in ESD. The CIP (outlined in original bid) makes this a timely opportunity for ESD at Southampton. For the first time, students will be able to take modules across the university and there will be an increase in the number of joint and combined degrees on offer.
- Developing strategies to ensure that every student, irrespective of their subject choice, engages with sustainable development and recognises the connections between SD and their discipline.
- Identifying and supporting ESD champions in all faculties and Professional Services (e.g. Estates, IT support, Finance), and developing a university-wide strategy which does not separate Learning and Teaching from the Support of Learning and Teaching.
- Maximising the impact of our world class research in SD, climate change and environmental sciences on the experience of all students, not just those who choose subjects taught by these researchers.

- Ensure that each faculty has a person responsible for ESD and curriculum and that ESD is embedded into all programmes of study.
- Getting ‘buy-in’ from and developing teaching staff so that they can support and identify with an institution-wide ESD strategy.

*This is what has been happening post-Green Academy:*

It is debatable whether timing was good for us. Initial progress was tempered by unexpected resistance and we learned that direct, face-to-face dialogue is more effective than cold documents. But, happily, unexpected success has led to rapid progress. Our key achievements include:

- Our strategy and programme has been approved by the Environment & Sustainability Advisory Group
- We are supported by the Vice-Chancellor and the University Executive Group
- We have received funding for a full-time post to be allocated soon, to commence by the start of 2012.

We have a long way to go but we feel confident that we will achieve our aim over the next five years.

### **Canterbury Christ Church University**

Team Leader: Dr Peter Rands ([peter.rands@canterbury.ac.uk](mailto:peter.rands@canterbury.ac.uk))

*This is what Canterbury Christ Church submitted in the application to participate in Green Academy:*

The University wishes to develop a different approach to embedding ESD within the curriculum by introducing the University-wide initiative ‘Christ Church 2050’. This approach is intended to engage staff from academic disciplines across the University in a way that uses existing specific expertise and knowledge and generic academic skills.

It is anticipated that, as a catalyst, it will result in significant transformations in curriculum content that will make more explicit the links between pure disciplines and the fundamentals of ESD.

However, there are significant challenges in adopting this approach in a university with such a diverse portfolio and programme structure. Integrating a single scheme into the work of the General Modular Scheme (BA, BSc), Education and Health programmes will require the University to be creative in mapping the different curriculum structures to allow an interdisciplinary approach. This also provides an exciting opportunity to innovate and for the different disciplines to learn from each other.

It is proposed that a framework is developed within the Green Academy that will draw on the ‘Christ Church 2050’ initiative which would be used to guide curriculum development for ESD. It would, however, be essential to ensure that it could be adopted across the academic portfolio.

Assessment and credit associated with the programme will be critical in providing the initial motivation for student engagement. Options include embedding credits with the current degree profile or providing recognition through the Higher Education

Academic Record (HEAR). Assessment strategies will necessarily be creative and tuned to an enquiry-based learning approach.

The timescales of the Green Academy fit exactly with those involved in developing our Strategic Plan. Working with the Environmental Responsibility and Sustainability working group for the Strategic Plan and the ESD Committee, our Green Academy team will be interdisciplinary involving academic representatives from across the University, and will be expected, through this programme, to deliver an overarching plan for implementation. Significant University-wide consultation will form part of this process to ensure an enhanced level of engagement and buy-in at an early stage.

The University's objectives in participating are:

- to consider the practical implications of introducing such a framework;
- to develop a draft framework that is applicable across the academic portfolio in line with existing policies and procedures;
- to propose assessment and credit options;
- to propose implementation, monitoring and auditing processes, which exploit existing programme review and validation requirements; and
- to develop a project schedule for implementation through a pilot stage involving work with specific academic departments.

*This is what has been happening post-Green Academy:*

This has been a timely intervention, as we needed to rethink the University's direction. Green Academy strategically aligns with the new strategic plan, which has, as Goal 5, "to promote a sustainable future". The new commitment reads, "...ensuring our students understand the need to address the challenges to our common future...". Additionally, we are receiving holistic senior management support and taking a different approach, namely, an integrated *futures curriculum*.

The Futures Curriculum takes on the notion of 'wicked problems' facing society now and in the future, providing an underlying concept.

- It focuses on the transformation required to embed sustainability principles within the learning experience of every student and member of staff.
- It implies a creative and engaging approach to teaching and learning.
- It resonates with the international and sustainability agendas as global issues.
- It has the potential to position CCCU in respect of student recruitment and employability.

Funding in the first year has been secured for:

- Appointment of senior academic lead
- Curriculum development centres based on the Green Academy model
- Formulation of discipline-related 'wicked problems'
- Capacity building within discipline areas

# **A ‘Wicked’ Approach to a ‘Wicked Problem’: Developing ESD in the curriculum at Canterbury Christ Church University**

**Stephen Scoffham**

with Keith Gwilym, Phil Poole, Peter Rands, Sylvia Rasca and Peter Vujakovic

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## **Introduction**

This paper considers on-going developments and curriculum change with respect to sustainability and environmental education at Canterbury Christ Church University (CCCU). It combines theoretical and practical perspectives to outline a strategy which we are in the process of developing and which we would like to share with others. We recognise that we face a considerable challenge and the active support of colleagues and senior managers will be crucial. In developing an inclusive approach we have decided to focus on a ‘futures initiative’ which will steer the discussion away from ‘green’ issues. Our experience indicates that these have limited appeal, are easy to pigeon-hole and are sometimes dismissed as irrelevant. We intend instead to focus on ‘wicked problems’ (Rittel and Webber 1973). These are problems which involve major social and environmental issues and which can only be understood by combining discipline perspectives. By helping small groups of staff to identify ‘wicked problems’ that are relevant to their own professional areas, we aim to build increasing momentum for change in the culture and thinking of the university, as a whole.

The paper draws on the experience and research of the lead author who has promoted environmental perspectives throughout his teaching career (Scoffham 1980, 1991, 2000, 2010). It is also informed by the collective thinking of the University’s Education for Sustainable Development (ESD) committee and the hard-earned practical lessons of attempting to initiate curriculum change in a large institution over a number of years. Recently two key factors have combined to create a context in which it has become possible to envisage significant curriculum reform. Firstly, under the guidance of a new Vice Chancellor, the university has adopted ‘Environmental responsibility and sustainability’ as one of its strategic objectives for the next five years. Secondly, CCCU was one of eight universities from around the country selected earlier this year to participate in the Green Academy. This programme, run by the Higher Education Academy to support curriculum change in Higher Education, has enabled a small group of colleagues to develop their ideas in a supportive but critical setting and helped to validate the status of environmental initiatives across the university. The inputs from the Green Academy team and the ESD committee, including the ex Chair, are jointly acknowledged in this paper.

## **Context**

Concerns about the global environment and the ecological health of the planet have been growing steadily over the last 50 years. Books such as *Silent Spring* (Carson 1962) and *Limits to Growth* (Meadows et al 1972) served as a wake-up call which alerted public opinion to an impending crisis. By the 1980s and 1990s governments around the world had realised that the environment was a serious issue that demanded

urgent action. One striking outcome was the 'Earth Summit' held at Rio de Janeiro in 1992 which represented a watershed in international co-operation and led to a blueprint for sustainable development (Agenda 21). In the present century governments around the world have recognised the need to adopt increasingly stringent environmental targets, though consensus has been hard to achieve and progress has been patchy. At the same time environmental issues such as land degradation, species loss, pollution and climate change have come to dominate news stories and media headlines. These reports inevitably tend to focus on individual incidents and crises but deeper analysis usually reveals the complex web of connections and inter-relationships which underpin the problem. There is consistent and overwhelming evidence that the planet is under increasing ecological and environmental stress and that human activity is at least a contributory factor, if not the underlying cause. Many commentators have observed that humanity itself is at a tipping point and the way we relate to the planet today could have profound implications for the future. The environment is, as Jones et al. (2010) put it, the meta-narrative of our time.

Universities have a clear duty to respond to the environment crisis given their position in society and their role in forming opinion. There are many questions to ask. On a detailed level, have courses and programmes been modified to take account of contemporary problems? Are tutors finding imaginative and engaging ways of exploring the philosophical, ethical and theoretical dimensions of sustainability? How have universities helped to analyse arguments for and against a particular course of action? The key point is that students who are at university today will be the leaders of tomorrow. Universities need to actively prepare students for the challenges which lie ahead. Furthermore, a participatory democracy requires an informed and engaged electorate in order to function effectively. There is a very real sense that environmental literacy is part of what it means to be educated in the modern world.

The evidence from the UK, Australia and other parts of the world suggests that universities have been surprisingly slow to respond to this agenda. While many now have sustainability policies and are beginning to address issues of estate management, the reform of the curriculum is proving much more problematic. Jones et al. (2010) provide a detailed account of the current state of environment and sustainability education in higher education. The picture that emerges is one of institutional reluctance and luke-warm enthusiasm which reflects 'the academy's stubborn resistance to change' (p1). Our own experience at Canterbury Christ Church largely bears this out. For the past five years a small group of committed enthusiasts have worked through the ESD committee in an attempt to promote change. Although we have begun to build alliances and clarify our thinking, our efforts have only had limited impact and have sometimes fallen completely flat. For example, the take-up for a new starred module on 'Environment and Society' which was launched a few years ago was so poor that the module had to be cancelled. Why should this be?

### **Barriers to sustainability education**

Participating in the Green Academy gave us the chance to reflect on the problems of promoting curriculum reform and to develop a more coherent view. This terrain has been well-rehearsed on a general level but our discussions have focussed particularly on those factors which act as barriers to sustainability education and which therefore

need to be addressed in any new strategy. The following particularly attracted our attention:

- *Tokenism* Issues to do with sustainability and the environment are complicated and involve many links and connections. They raise questions about the way we live our lives, our relations with other people (especially communities in the developing world) and the way we think about ourselves. Small scale behaviour changes such as recycling litter, turning off lights or reducing water consumption are promoted by environmental campaigners but can all too easily be ridiculed as ineffective, insincere or counter-productive. They also sit awkwardly alongside formal, validated courses. We recognised that we needed to wary of promoting over-simplistic and token responses to complex issues.
- *Curriculum relevance* Sustainability and the environment sometimes tend to be viewed as belonging predominantly to a particular discipline such as geography, environmental science or, in a school context, citizenship. The implication is that they will be covered in programmes from these curriculum areas and can therefore be legitimately left out of other courses. We agreed that this is a restricted view which misses the point about the integrative and holistic nature of sustainability education and its impact on pedagogy. However, we recognised that we would need to convince colleagues working in say mathematics or music that sustainability is relevant to their programmes.
- *Contested terminology* One of the features of an emerging domain is that there is considerable debate about terminology. Sustainability, for example, is a contested concept which is open to multiple definitions. It takes on different meanings depending on whether it is applied to environment, society or the economy. There is also considerable uncertainty about how to evaluate sustainability and how to recognise it in practice. Not only is this potentially confusing but we appreciated we would need to be wary about asking colleagues to engage with an agenda which lacks clarity and is hard to define.
- *Criticality* Concerns about the environment have their historical roots in the campaigns and activities of pressure groups and are still seen by some as tainted with activism and doctrine. Educationalists have a deep-seated unease about being drawn into politics and are wary of charges of bias. Criticality and impartiality and central to the ethos of the academy. Colleagues at Christ Church have raised this issue in the past and it led to a lively email debate. Clearly concerns about academic freedom need to be addressed.
- *Denial* The fact that world environmental problems are so extensive can make them seem overwhelming. Their sheer scale and complexity can leave us feeling helpless. Human beings have different ways of coping with challenges they cannot face. One of them is denial. We acknowledged that unpleasant information can have a numbing effect. Sometimes simply saying there is a crisis is not very effective.

- *Values* Any discussion about sustainability and the environment quickly raises questions about fundamental beliefs. Whether or not we think sustainability matters depends on our values. Key questions include: Is it fair that we should deprive future generations of the resources we have inherited? What right do we have to exterminate other forms of life? What responsibilities do we have towards other people and communities? These are all ethical questions. We appreciated that colleagues who are dubious about the importance of principles such as global equity, justice and the rights of future generations would be able to side-step this debate.

These objections taken together represent a formidable challenge. However they are compounded by a host of organisational, bureaucratic and procedural factors which characterise university life, all of which serve to enhance inertia. The division of knowledge into disciplines, and the grouping of disciplines into faculties, is particularly problematic. One of the great strengths of sustainability education is that it cuts across boundaries. However the current division of knowledge rewards specialists rather than generalists and provides little incentive for career academics to make links to other subjects. Sustainability education also resists being compartmentalised on a managerial level. For example, it involves several members of the senior management team at Canterbury Christ Church University and sits rather awkwardly alongside more clearly defined remits. We are currently working with colleagues to explore possible solutions.

Our own review of the challenges and barriers was supplemented by key findings from academic texts and journal articles. We took particular note of the following observations and conclusions:

- 1) Students learn from the entire experience of their university career, not just what is taught within the classroom walls (McMillin and Dyball 2009)
- 2) In order to develop competencies in sustainable development the culture of teaching which traditionally dominates universities should be replaced by a culture of learning in both formal and informal settings (Barth et al. 2007)
- 3) University courses organised around disciplines are not appropriate for developing integrated perspectives. If graduates are to move towards developing solutions to new and complex world problems they will need to work within flexible, multi-disciplinary frameworks (Sibbel 2008)
- 4) To develop education for sustainability, we need to recognise that we are looking in essence at organisational change (Thomas 2004)
- 5) The diffusion model in which already committed individuals are expected to change the entire culture of departments is not going to work (Thomas 2006)
- 6) Universities can optimise their role as agents of change with regard to sustainability by adopting a 'whole-of-university' approach (McMillin and Dyball 2009)
- 7) Rather than relying on evolution, the response to sustainable development which is most likely to be successful is a pioneer approach that involves totally new organisational structures (Van Weenen 2000)
- 8) There are strong arguments to suggest that environmental education requires a radical transformation of the nature of education itself (Bonnett 2004)
- 9) An approach based on 'wicked problems' is of particular value as it recognises the central role of human relationships and social interaction in problem solving (Conklin 2005)

- 10) Finding clarity among complexity remains a major problem. False clarity occurs when change is interpreted in an oversimplified way. (Fullan 1999)

### **Philosophical and theoretical basis**

Any strategy which is going to stand the test of time needs firm philosophical and theoretical foundations. This is an area which will require further development but we have already reached a number of important realisations. The role of ‘wicked problems’ is discussed later but some other ideas which seem to us of particular relevance are considered here.

We recognised that the sustainability is a hybrid notion with a number of different strands which appear at best to be rather loosely related. For example, reducing the carbon footprint of the university buildings and estate is one aspect. Problem solving and Interactive teaching methods are another. Exploring how we build our sense of personal identity through our relationship with the natural world is a third. How can we hope to place such apparently varied activities within a unifying framework? One possible answer is to refer to the rhizome model proposed by Deluze and Guattari (1999) which neatly encapsulates the idea of inter-connected, symbiotic chains. As Deluze and Guattari explain ‘a rhizome is an acentred, nonhierarchical, nonsignifying system without a General and without an organising memory or central automation’ (p22). In contrast to a hierarchy, a rhizome has no particular beginning or end, instead it is always in the middle. Deluze and Guattari propose a number of supporting mechanisms such assemblage and multiplicity in their description of the rhizome. While metaphors can only go so far, this model certainly seems a helpful way to reconceptualise ideas about sustainability and the environment.

The suggestion that sustainability involves new modes of thought can be taken further. The mechanical and linear view of the world in which cause and effect are clearly linked in a hierarchical pattern that has dominated Western thought for several hundred years, has been widely challenged by chaos theory and post modern thinking. Capra (1997) is one among others who discusses the possibility of a paradigm shift in which the assumption of progress through technological and economic growth is replaced by a more holistic and integrated world view. Capra calls for a ‘deep ecological awareness’ which recognises the fundamental interdependence of all phenomena and acknowledges the fact that individuals and societies are all embedded in the cyclical processes of nature. Coming from a completely different professional background (psychotherapy) Carroll (2003) also explores what she calls the new scientific paradigm. Put simply, whereas classical science explains closed systems that behave in ways that are predictable, stable and knowable, the new science attempts to understand dynamic, complex and open systems. Weather patterns are a good example. Here one change leads to another, feedback loops are common and minute alterations in timings and the environment can lead to significantly different outcomes. Carroll argues that the formulation of principles to describe these dynamic, non-linear processes has led to tremendous advances in neuroscience and our understanding of the functioning of the brain. One of the findings to emerge from recent research is that the human mind, rather than having a single control centre, operates through a web of links and connections just as in the rhizome model proposed by Deluze and Guattari.

Any study of sustainability and the environment needs to take account of feedback mechanisms. This is one of the key ideas to emerge from the ecology movement and it is central to our understanding dynamic processes. On a human level feedback is drives the mechanism of self-regulation that enables living organisms to maintain themselves. Carroll argues that if we view human beings in their totality as a single living organism then the feedback we are receiving on a planetary level about the state of the environment can be seen as the information which will allow us to regulate our behaviour. How we respond is critical. If we respond through self regulation this will involve adaption, translation and change in surface structure. If we opt for deeper structural change then self organisation comes into play. These twin concepts – self regulation and self organisation – provide useful ways of making sense of environmental issues. They also open up new ways of thinking.

### **The ‘Futures Initiative’**

How might these philosophical and theoretical perspectives impact on sustainability education? And in what ways might it be possible to circumvent some of the barriers and challenges outlined earlier in this paper? The Canterbury Christ Church team are attempting some form of synthesis within the very real confines of everyday university life and are starting to formulate a strategy. Known as the ‘Futures Initiative’ this strategy has a number of different strands.

*Curriculum* We can see considerable advantages in thinking more holistically about students’ learning experience. While validated course work is undoubtedly crucial, there are many other experiences which help students develop their ideas. Informal conversations, volunteering, work experience and international travel all play a part (see Figure 1). There are also many ‘hidden messages’ in individual life style choices and the way the university estate is managed. Sustainability, because it is about real world problem cannot be easily bounded. We favour an approach in which the curriculum is seen as being both more flexible and more porous than at present and in which the parameters of formal teaching become more blurred. Co-incidentally, the university is in the early stages of developing a ‘Skills Award’ which will provide formal way of celebrating students’ extra-curricular activities and which will contribute to the Higher Education Achievement Record (HEAR). This sits neatly alongside the sustainability agenda.

*Pedagogy* There is a wide consensus that sustainability education is not simply about the transmission of knowledge from tutor to student. It involves the exploration of complicated issue which are necessarily messy and have for which there are no clear answers. Learning in this context is much more likely to be interactive and involve group work, problem solving. and first hand experiences. The tutor’s role will be to provide guidance and structured support. Staff at CCCU have considerable experience of innovative teaching and learning. The active engagement of the Learning and Teaching Enhancement Unit (LTEU) and colleagues from the Faculty of Education will support the initiative.

*Alliances* We recognise that it is a major challenge for a small, largely volunteer, team of enthusiasts to influence the culture and practices of a large institution. However, we are starting to forge alliances with other agencies and groups within the university with similar perspectives and. We are particularly interested in enlisting the support of the Students Union and recognise that this represents a major source of

energy and potential. Students arriving at university today have come through a school system where environmental projects and activities are common-place and have much to contribute

*Estate management* Christ Church already has an established track record for its environmental practices and has won accreditation under the Green Impact scheme. A new initiative – the Bioversity Project – will explore ways of using one of the Canterbury sites (a World Heritage Site) to show how its ecological heritage has implications for the future. This resonates with the whole-of-university approach advocated by McMillin and Dyball (2009)

*Staff Development* Our experience suggests that new initiatives have a much higher chance of success if they have the active support of colleagues and other members of staff rather than being imposed. It has taken a considerable time for our own group to come to terms with the sustainability agenda. Dissemination and structured professional support will be crucial in promoting curriculum change. We plan to develop a programme in which small teams from different departments and faculties begin to discuss how they might modify their courses and pedagogical approaches. Although there will be inputs and formal opportunities to share ideas, the main focus will be for teams to develop their own thinking and ideas according to their particular needs. Ownership and autonomy are central to our thinking.

*Wicked problems.* We are particularly intrigued by the possibility of using the notion of ‘wicked problems’ as a way of focussing discussion about curriculum reform. The idea of ‘wicked problems’ derives from social policy and was first formulated by Rittel and Webber in the 1970s. Rittel and Webber noted that there were a whole range of social planning issues which cannot be successfully treated with traditional, linear, analytical methods of thinking. In contrast to ‘tame problems’ which are well-defined and stable, ‘wicked problems’ are ill-defined, ambiguous and often associated with strong moral, political or professional dimensions. The rioting which broke out in English cities in the summer of 2011 is a good example of a ‘wicked problem’ as is climate change. As Ritchey (2004) explains one of the features of a ‘wicked problem’ is that you don’t really understand the problem until you have developed a solution, but the solution itself changes the nature of the problem. This means there are no stopping rules. Also, there is no opportunity to test out alternatives or to learn by trial and error. How you define the problem is itself part of the solution. We want to encourage colleagues to identify ‘wicked problems’ that are particularly relevant to their academic and professional interests. One of the criteria for selecting a problem is that it should be amenable to investigation with integrity from a number of discipline perspectives. Thus we see ‘wicked problems’ not only as a catalyst for discussion but as an integrative device that will promote more holistic teaching.

*Leadership* Our review of the literature has established that leadership is likely to be a major factor in the success or failure of any initiative. At CCCU there been a clear steer from the Vice Chancellor (supported by the governors) and the President of the Students’ Union is also keen to promote environment and sustainability. Convincing Heads of Departments and Programme Leaders of the validity of our approach is an important objective. In terms of stakeholder analysis we need to recruit as many influential ‘players’ as possible.

### **The way ahead**

We recognise that it is all too easy to become daunted by the sheer scale and complexity and environmental problems. We want to avoid doom and gloom scenarios and to distance ourselves from the scare-mongering and sensationalism that sometimes surrounds environmental issues. Instead we have set our sights firmly on the future. We want to involve students both critically and creatively in the issues and challenges that we face. Exploring different solutions and considering alternatives is a central part of this process. So too is the recognition that learning happens both within and beyond validated courses. Alexander (2010) noted in his review of the primary school curriculum that ‘pessimism turned to hope’ when children’s unfocussed fear of climate change was replaced by factual information (p189). Empowerment matters to all learners whether they are in the kindergarten or studying for a PhD. Sustainability education will never take root if it is founded on pessimism. A sense of hope is crucial.

A focus on the future also offers the best prospect of engaging staff from across the university whatever their discipline. We have decided, where possible, to avoid the use of terms such as ‘environment’ and ‘sustainability’ in any publicity material. They are too heavily loaded and have the potential to trigger negative reactions. Thinking about the future, by contrast, has wide appeal. It directs attention to how the world is changing and the kinds of skills that students might need in order to be effective and live their lives to the full. This opens the door to a discussion about sustainability and the environment but allows it to emerge naturally rather than imposing it from the outset.

We have spent a considerable amount of time considering how validated courses might be adapted to include environmental perspectives. We rejected the bureaucratic option of requiring course leaders to take account of sustainability education at validation as counter-productive – academic staff resent demands of this kind especially when they trespass on their professional expertise. We also turned down the idea of setting up new courses on environmental issues. It would be difficult to recruit students to a voluntary course and a compulsory one, as well as being expensive, would be extremely hard to timetable and staff. The advantages of using ‘wicked problems’ as a catalyst for curriculum reform have become increasingly apparent. This approach is flexible enough to be relevant to all disciplines, it gives staff opportunities to engage creatively according to their skills and interests and it is entirely consistent with the non-linear, rhizomatic thinking.

### **Conclusion**

It is important to conclude on a note of caution. Implementing curriculum reform is notoriously difficult and there are very real limits to what a few committed individuals can hope to achieve. Our initiative is still just ‘one person deep’. While the CCCU strategic plan and senior management are both supportive of the move towards sustainability there are many competing agendas. In addition, universities are facing a very uncertain financial future. The turmoil which may result from cuts and reorganisation could completely disrupt what has been achieved so far. Much depends on the support and engagement of other members of staff and the extent to which it proves possible to enlist their enthusiasm. However, there are also those who have deep philosophical objections to engaging with real world problems.

Among other things they argue that this approach can detract from the disinterested pursuit of truth and wisdom (Ecclestone and Hayes 2009), runs the danger of aligning universities with particular orthodoxies (Knight 2005) and conceals an anti-intellectual and anti-academic bias (Hirsch 1999).

Despite these worries, there are some tantalising opportunities. The discussions which we have had over the last few years and the support of the Green Academy have helped to build a consensus within the ESD committee and to develop a strategy. There can be little doubt that the stakes are high. Cortese (2003) is unequivocal in his assertion that universities have 'a profound, moral responsibility' (p17) to help create a just and sustainable future. Hopefully the ideas outlined in this paper will contribute in some small way towards this end. There are no simple answers. Ultimately the 'wicked problem' of changing the culture and practices of a university requires a 'wicked' solution.

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# Bringing it home - tackling global challenges in a local context

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*with Anka Djordjevic*

## Introduction

The University of Exeter has an excellent reputation in research for environmental sustainability. In recent years it has established interdisciplinary research themes such as 'Climate Change and Sustainable Futures' that works closely with the Met Office and the Intergovernmental Panel on Climate Change (IPPC) and has launched the Environment and Sustainability Institute at its Cornwall campus. During the same period, the University has made significant steps in carbon reduction and the 'greening' of its campuses. In this context, the University's senior leadership identified the need to bring the taught curriculum in line with these achievements and to weave sustainability into the fabric of the curriculum so that all students achieve a basic level of sustainability literacy.

## Challenges of contrasting and competing agendas at universities and colleges in the UK

Over the past decade, Higher Education Institutions (HEIs) in the UK have felt the pressure of balancing research and teaching budgets with the increase of student numbers and quality of provision. Building on a reputation of good quality higher education, HEIs in the UK have turned to recruiting students from abroad to supplement funding and allow for expansion. A cap on the numbers of home students per HEI gave rise to further emphasis on international recruitment.

The introduction of higher tuition fees and a cut in government funding for HEIs following the recently published Browne Review of higher education funding means a further change to priorities at Universities. It is expected that the quality of the student experience (value for money) and graduate employability will get more emphasis (to pay back student debts). The report states that '*Student choice will drive up quality*' and that '*Providing students with clearer information about employment outcomes will close the gap between the skills taught by the higher education system and what employers need.*' (Browne et al, 2010). Herein lay challenges as well as opportunities for Education for Sustainability (EfS).

At the University of Exeter the following priorities that at the surface compete with EfS have been identified:

### **1) Employability**

#### *Graduate jobs vs life long careers*

Each year the Higher Education Statistics Agency publishes statistics of the percentage of graduates per institution that have found employment within the first six months after graduation. With the increase in tuition fees up to £9000 per year, students are expected to pay more attention to league table performances. Universities are sensitive to league table ranking and the University of Exeter is no exception in wanting to do well in league tables as well as wanting to help students to find employment. As EfS focuses on graduate

attributes such as interdisciplinarity, systems thinking, adaptability etc, there is a concern that in the rush for employment specialism for instant jobs will win over more rounded graduate attributes for a lifelong career. The challenge is to link EfS to employability. The Government's chief scientific advisor John Beddington stresses that

“by 2030 the world will need to produce 50 per cent more food and energy, together with 30 per cent more available fresh water, whilst mitigating and adapting to climate change. This threatens to create a ‘perfect storm’ of global events.” (Beddington, 2009)

In less than twenty years current students will be mid career and will probably not have paid off their study debts. Are we preparing students for this perfect storm? Will their careers be resilient enough to cope with these global challenges? Recent research into first year students' attitudes towards sustainable development (Agombar and Bone, 2011) highlights that

“80% of respondents believe sustainability skills are going to be important to their future employers and the majority of first-year students involved believe that it is the role of universities and courses to prepare them for graduate employment.”

Although the emerging ‘Green Economy’ is an obvious opportunity to link EfS with ‘Employability’, the Green economy is often associated with applied skills such as retrofitting of homes and renewable technology. It is crucial to articulate that the Green Economy also requires skills for leading behavioural change, risk assessment, auditing, negotiating dilemmas, creative problem solving etc. Beddington stresses that

“On water, managing and balancing supply and demand for water across sectors requires a range of policy and technological solutions. Meeting the demand for energy, while mitigating and adapting to climate change, will require a mix of behavioural change and technological solutions.” (Beddington, 2009)

And as stated in the recently published UNEP report on the Green Economy we also need to “*rethink and redefine traditional measures of wealth, prosperity and wellbeing.*” (UNEP 2011:624)

This will all have an impact on graduate careers.

## **2) Internationalisation**

### *- International student recruitment vs Global Citizenship*

Because of its associated carbon footprint (long haul flights etc) Internationalisation is often seen as counterproductive in University's ambitions to become more sustainable. However, there is a great opportunity for awareness raising of the global sustainable development agenda through cultural exchange; the internationalisation of home students (learning about global issues through interaction with fellow students) as well as opportunities for international students to learn about sustainability principles and to apply them back at home. For example, the Business School's One Planet MBA (in collaboration with WWF) is a hot bed for international students who will apply insights for sustainability back home. One recent graduate from Brazil offers her vision for her future: “*After graduation, I want to be responsible for a project where I can use my knowledge to help develop some community or country, or maybe even help solve global issues.*” and a student from South Africa: “*I envision myself carrying these experiences forward into post-MBA life – finding ways to*

*create value for society, the environment and the local economy through harnessing peoples' prospects for dignity and full participation in their own lives."*

### **3) Corporate responsibility**

#### *- International impact vs local responsibility*

Although International impact has been identified as an important theme at the University of Exeter, local responsibility remains important too. This is expressed through Research and Knowledge Transfer (RKT) projects with a regional focus, support for the development of the Science Park in Exeter, and the Environment and Sustainability Institute in Cornwall. In particular the latter has a remit to stimulate businesses initiatives in the South West and to strengthen a regional low carbon economy. The Clear About Carbon project ([www.clearaboutcarbon.com](http://www.clearaboutcarbon.com)) that is spearheaded by the Business School is a good example of how that could work. Clear About Carbon is a European Social Fund financed project with a mission to find new ways to increase carbon and climate awareness within businesses and the public sector. Working with staff in Cornish organisations, the project aims to identify the most successful methods of engaging them to green the public sector supply chain.

The University is also demonstrating corporate responsibility through the support of local farmers and cutting co2 emissions through local purchasing. For example, its procurement strategy, to buy local food. '26% of the University's non-pay spend is with local suppliers (within Devon)' already (Sustainable Procurement Strategy, 2010) and the University's Sustainable Food policy commits to preference to source eggs, poultry, milk and meat from Devon (Sustainable Food Policy, 2011). Another example is the University's commitment to promote the reuse of furniture and goods at student halls (Re-use project). The average student generates between 10 and 20 kg of reusable items a year, including stationery, kitchen appliances, books, clothes and bedding. Often these things are thrown away at the end of term, although many are in very good condition. This scheme enables unwanted items to be donated to local community organisations or to existing or new students. This means that as well as cutting waste, the scheme helps provide affordable items to the community. At Exeter, we divert over 3.5 tonnes of material from landfill each year via this project.

### **4) Student experience of teaching and learning**

Post Browne Review there is a clear emphasis on the quality of the 'student experience' as mentioned above, this include the demand for increased contact hours, better feedback and quality of teaching.

#### *- Research intensive vs teaching intensive*

This is a challenge for research intensive Universities such as Exeter. There is a risk that the focus of academics could be diverted too much from teaching in order to achieve 4 star rated research. At Exeter, a way forward has been found in the development of research-led teaching, ensuring that students have access to world leading research and have the opportunity to engage in research like activities.

#### *- Academic freedom vs Academic responsibility*

A popular argument used by those opposing the introduction of centrally driven agendas such as *sustainability* is that it is important to defend the 'academic freedom' of lecturers. The underlying assumption of some academics is that the lecturer, e.g. the expert, knows what is best for the student and therefore should decide what is taught in modules and

programmes. EfS can be seen by some as an unwelcome interference with specialist centric teaching. It also does not help that *Sustainability* and *Sustainable Development* are ‘umbrella’ terminologies that have little appeal to the academic specialist and could be seen as too generic and vague because they include research ranging from climate change to behavioural change. Academic freedom is certainly essential for the sake of independent thought and research, however it is important to balance this freedom with the responsibility lecturers have for students and to also embrace student empowerment. The University of Exeter (QAA, 2010) takes the approach to

“...engage students as partners in shaping and leading their own educational experiences through our successful and growing 'students as change agents' initiative. The key concept is that students themselves take responsibility for bringing about change, based on their own research on aspects of learning and teaching.”

As a consequence there are four approaches to student engagement, the student as evaluator, participant, co-creator/expert and change agent. In particular the latter approach, the student as change agent, enables students to be actively engaged with the processes of change. Based on research and evidence of a need for change, students have the opportunity to lead the way in curriculum development. Students’ interest in sustainable development, as mentioned above under point one, could help challenge those lecturers who use ‘academic freedom’ as an excuse for lack of engagement.

- *Knowledge vs experience and reflection*

EfS requires a review of course contents to give students the opportunity to learn about the latest solutions and approaches to tackle unsustainable practices. Many critics of the current state of Higher Education (HE) argue that it ‘*lacks the ability to respond fully to the sustainability crises*’ (Sterling, 2001) and that it requires different approaches in teaching and learning and to appreciate ‘*the culture of education as an expression and manifestation of the wider cultural milieu*’. (Sterling, 2003). Many EfS practitioners refer back to educational reformist John Dewey who declared that ‘*education must be conceived as a continuing reconstruction of experience*’. (Dewey, 1897) (in contrast to the prevalent ideas of his time, where a student was seen merely an empty vessel, on whom knowledge should be transferred). The social environment and the student’s experience and reflection is very important in the learning process (Kolb, 1984), however more than a century later this paradigm still prevails to some extent in HE. Kolb & Kolb observe that much of the current educational practice is based on the model ‘*where preexisting fixed ideas are transmitted to the learner*’ (Kolb A. and Kolb D, 2005). In contrast they propose six alternative assumptions that are summarised here:

- *Learning is best conceived as a process, not in terms of outcomes.*
- *All learning is re-learning.*
- *Learning requires the resolution of conflicts between dialectically opposed modes of adaptation to the world. Conflict, differences, and disagreement are what drive the learning process.*
- *Learning is a holistic process of adaptation to the world. Not just the result of cognition, learning involves the integrated functioning of the total person—thinking, feeling, perceiving, and behaving.*
- *Learning results from synergetic transactions between the person and the environment.*
- *Learning is the process of creating knowledge.*

This is very much in accordance with the paradigm for EfS. ‘Critical & reflective thinking’ is an important pillar of Education for Sustainable Development in Higher Education Institutions (Dawe et al, 2005) as well as systems and interdisciplinary thinking. The environmental educator and researcher David Orr has argued for interdisciplinary teaching over many years:

“We educate many in-the-box thinkers who perform within their various specialities rather like a dog kept in the yard by an electronic barrier. And there is a connection between knowledge organised in boxes, and the ability of those minds to perceive the causes of degraded ecologies and global imbalance” (Orr, 1994:7)

The sustainability literate graduate will need to have specialist knowledge as well as the ability to understand global systems from different perspectives and disciplines:

“Solving sustainability problems requires expertise. Often multiple, different types of knowledge have to be brought to bear to address sustainability problems which typically involve chemical, biological, ecological, sociological, economic, legal and psychological aspects. Yet the expertise that is necessary to address such problems can often get in the way of finding solutions: people working in particular disciplines can often struggle to hear and understand the perspectives of those working in other disciplines. For this reason the skills and knowledge which are necessary to enable different disciplines to effectively work together – interdisciplinary literacy – are an integral and necessary part of sustainability literacy.” (Tormey et al, 2009)

Universities need to consider to move from a seminar style delivery of the curriculum to an inquiry based reflective learning style to allow students to make sense of sustainability challenges that go beyond specialist knowledge.

### **Reconciliation of agendas and engagement**

So, how to negotiate the aforementioned minefield of competing agendas and create a culture that embraces and promotes EfS? How can we find the right approach to engage academics? How can we empower academics and students in the face of a crowded curriculum? To reconcile these seemingly contrasting agendas at the University two strategies were considered: to agree on a top- down approach with directors of education in each discipline or a bottom-up approach through the implementation of inspirational interventions. The risk of a top down approach is that it is very difficult to reach a consensus of how to instigate changes to the taught programmes and that it could end up as a ‘tick box exercise’. The risk of a bottom up approach is that good practice could stay isolated in pockets without achieving any change at institutional level. However, from an engagement perspective it is more effective to lead through example and illustrate how EfS can inspire the curriculum with concrete examples of good practice.

For these reasons it was proposed to trial a co-curricular interdisciplinary project over a period of two years. Following *Co-operative Inquiry* strategies, that have been proven successful in my earlier work around student engagement with the sustainability agenda (Sjerps-Jones, 2007), academics were invited to be involved with the design of the project from the start. Co-operative inquiry, or *Participatory Research*, aims to “empower people at the second and deeper level through the process of constructing and using their own knowledge.” (Reason, 2003) Although some initial ideas and potential delivery strategies

were offered as starting point, they were encouraged to find solutions to the delivery of the project as well as having an input in the contents. This approach significantly improved 'ownership' amongst participating academics and resulted in a collaborative two-year pilot programme between academics, students and stakeholders that aims to tackle complex regional sustainability dilemmas: the Big Dilemmas Project

### **Case study: Bringing it home - tackling global challenges in a local context**

The project offers students a unique opportunity to learn about the complexity of sustainability challenges and the moral and practical dilemmas that affect any decision making. In the first pilot year (2010 -11), a group of twenty students were selected from across the University, through a competitive application process to join a think-tank guided by academic experts. Most of the participating academics are involved with the University's interdisciplinary research theme Climate Change and Sustainable Futures and have experienced at firsthand how difficult it can be to overcome disciplinary barriers. This was of great help to the students who had no previous experience of interdisciplinary problem solving. The aim of the think-tank was to scrutinize issues and deliberations around the Severn Barrage tidal energy project that was shelved by the Coalition Government in 2010 ignoring the Sustainable Development Commission's '*enthusiasm*' for tidal energy (SDC, 2007). The fact that a contentious 'live' project was scrutinised and stakeholders were invited to explain their positions made it interesting for both academics and students. Focussing on a local project made it easy for students to engage with stakeholders and it made them realise that learning tackling sustainability challenges at a local level is similar to tackling issues at a global level and that in fact it is impossible to separate the local from the global.

At the start of the project, an introductory symposium contrasted priorities around protection of biodiversity with climate change and local economy. This was followed by a series of think-tank meetings and a field trip to the Severn estuary led by broadcaster and naturalist Nick Baker. The field trip in particular made a big impact on students and academics alike. There was a different appreciation of the scale (size) of the project as well as the value of the natural environment. One of the students commented about the fieldtrip:

"I loved it. I really love that sort of landscape, you know, from a poetic point of view, not from an ecologist's point of view. That really, sort of bleak, open landscape. For a human being, it gives you something psychologically that lots of places don't, and I think it's quite important. (...) I think that there is an intrinsic value, but I don't think it's taken into account a lot of a time, because when people do start talking about those intrinsic values, they are accused of being ... overemotional and you usually get bracketed as an environmentalist, which is a really intriguing word for me, is that what I am?"

The opportunity to make a difference in an actual challenging situation and propose a way forward was inspiring and stimulating. The think-tank students acted as champions within their programmes of studies, inviting their peers to symposia and engaging them in discussions. Further to tackling dilemmas with regards to the Severn Barrage, the students acted as change agents. Through their dialogues with the academics, they contributed to a re-think of teaching paradigms for sustainability in the formal curriculum and helped to shape co-curricular learning opportunities that encourage 'future resilient' attitudes. If

anything, they learned about the complexity of interrelated systems and the difficulty of solving sustainability challenges:

“Right at the beginning I thought ‘a big dilemma, we’ll try and solve it’. But even amongst the biologists we couldn’t agree on what the effect on the Severn would be, even with Nick Baker, and certainly with the interdisciplinary aspect of this group, I don’t think we really could definitely say one way or the other. The facts seem to say ‘don’t build it’, but then there is a huge rather persuasive argument that says perhaps we should take a risk and try it. I think we are still very, very split, and that really goes to show that it is a really big dilemma.”

However although the dilemmas were not completely solved, with the help of some guidance from the academics the students came to some sound proposals to approach the developments of big renewable energy projects in the future. They focused on three themes: *Energy Policy & the Business Case, Ecosystem Services and Engaging with the Publics*. It was interesting to see that students did not stick to their own disciplines. For example a mathematics student and biology student joint human geographers to study public engagement and NIMBYism (Not In My Backyard attitudes). Another biology student worked with a mathematics student and economy student on ecosystem services. Their final presentations at a stakeholder facing symposium were well received by the audience. They are summed up in the following feedback comments:

“I totally support the organisation of this kind of events so big dilemmas can be discussed and showed to the professionally interested and general public. It was very interesting to know that specific studies are being conducted to analyse the Pro's and Con's of implementing controversial measures, like the Severn Barrage.”

and

“Great stuff - should have engaged the big dilemma approach and students before spending the millions on consultants”.

### **Summary**

So, what were the benefits of this project in relation to the four competing agendas at Exeter University?

1) **Employability:** *Graduate jobs vs life long careers*. The students involved have increased their direct employability as this co-curricular project is an excellent addition to their CV. Two students secured coveted internships at the Met Office on the back of these projects; others are still continuing their studies so it is early days. They have certainly had a very valuable experience in interdisciplinary thinking and dealing with complexity as well as getting an insight in energy policy and dealing with NIMBYism.

2) **Internationalisation:** *International student recruitment vs Global Citizenship*

Two out of twenty students were from abroad and brought valuable insights to the group. One geography student (MA Climate Change and Risk Assessment) from Trinidad made the group think about the predicament of poorer countries who are facing climate change impacts and have no capital to invest in large renewable energy structures such as a tidal barrage. In his view the economic issues in the UK were futile and in his opinion richer

countries had the moral obligations to invest all they can to reduce green house gasses. These kinds of discussions were equally valuable for home students and international students alike. Equally, this student is now applying the experience and knowledge gained from this project back at home where he is responsible for coastal protection.

3) Corporate responsibility: *International impact vs local responsibility*. Engaging with a contentious regional issue was very valuable for students, academics and stakeholders alike. The University of Exeter can make an impact in developing a low carbon economy in the South West through collaborative ‘stakeholder facing’ projects such as the Big Dilemmas project. It is valuable to draw in the expertise from internationally acclaimed researchers and apply their knowledge at a local level. At the same time lessons learned from local projects can be applied at an international scale where possible.

#### 4) Student experience of teaching and learning

The project was a good example of how interdisciplinary and experiential learning can make a difference and lead to a deeper kind of learning as proposed by Kolb & Kolb and EfS advocates such as Orr and Sterling. The students have gained a lot of confidence in the subject matter of renewable energy, ecosystem services and engagement with publics, topics that link to their discipline but are not typically covered. They have learned to overcome disciplinary differences in research approaches and language and they have also learned to use an inquiry based or research-like approach to learning that equips them not only with transferable skills for employability, but also gives them a taste of what research is about. Further, the project also demonstrates that academics are happy to involve themselves with EfS as long as they are empowered in their academic freedom and are encouraged to approach sustainability from their own research interest’s perspective.

The Big Dilemmas project has demonstrated how EfS can join-up and enhance the many agendas such as employability, research-led teaching and internationalisation. The students and academics’ enthusiasm for the interdisciplinary inquiry-based and experiential learning has been contagious. The approach has offered inspiration to further curriculum development in the Business School and summer school activities across the University. The project is very much in accordance with David Orr’s vision for learning for sustainability:

“I propose that we engage young people and faculty together in the effort to solve real problems. I do not propose such efforts as ‘service’ projects alone but as ways to integrate learning with service.” (Orr, 2005)

However, the challenge remains to make this kind of inquiry based teaching core and not offer it as an add-on, as the programme is currently only accessible to a limited number of students and offers no accreditation.

#### **What is next?**

The case study of the Big Dilemmas project demonstrates that it is possible to reconcile apparent competing agendas at Universities through a co-curricular project. Co-curricular projects have the advantage to allow for curriculum innovation which would be difficult to instigate in the existing curriculum because it is often seen as crowded and conservative in approach. The example of this interdisciplinary sustainability project provides inspiration for an alternative to traditional programme and module design. It not only reconciles agendas that on the surface seem to contradict, but also inspires because a real difference

can be made to local communities. It also offers an opportunity to challenge existing paradigms for teaching and learning and promote experiential approaches. The challenge is to also formalise EfS at a programme review and level and ensure that good practice is woven into all taught programmes. The role of accreditation needs to be explored further too. The competitive nature of the Big Dilemmas project attracted ambitious students who were not depending on awards through study credits. However, if we want more students to take up inquiry based experiential learning, away from the traditional lecture theatre, accreditation mechanisms should be examined thoroughly. Here 'students as change agents' could be involved in the process to develop an appropriate accreditation or award system.

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## **Enabling graduate engineers to become global citizens – initiatives in HE, both for staff and for students.**

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The topic of sustainability (and of sustainable development in terms of protecting our planet for future generations) has been discussed for many years. Over the last 10 years or so, it has moved from simply being something that scientists need to investigate and to solve, to have now become an everyday subject that features in our newspapers, on television, and in our life at home. There is a resultant acceptance that sustainability has also come into everyone's learning - from children in schools, through colleges, to students on degree programmes (and across all disciplines) at university.

The widely accepted Brundtland definition of sustainable development (United Nations 1987, RAEng 2005a) states that "...sustainable development is meeting the needs of the present without compromising the ability of future generations to meet their own needs", and promotes that the social, economic and environmental issues are addressed from a technical base.

There is a long-standing expectation that professional engineers, by way of their training and education, are expected to find solutions to problems of significant complexity by the application of their ingenuity and imagination. Employers aspire to recruit such graduate engineers (Forum for the Future 2000, 2005; Royal Academy of Engineering 2007, 2010a) whereby the graduate is already sufficiently skilled to apply their technical expertise with due consideration to the associated social, economic and environmental issues.

The Engineering Council (EC), which is responsible for overseeing the accreditation of higher education engineering degree programmes in the UK, provides a framework for this accreditation known as the UK Standard for Professional Engineering Competence (UKSPEC). UKSPEC states that accredited programmes must demonstrate both general and specific learning outcomes, where the specific learning outcomes must include the economic, social and environmental context, and in particular, '... understanding of the requirement for engineering activities to promote sustainable development' (Engineering Council 2010, p13).

There is therefore an expectation that sustainability, and sustainable development, should somehow be incorporated into the curriculum for engineering students in higher education. There has been much discussion and study on how best to achieve this – from simply "bolting-on", through embedding, to fully integrating, with combinations thereof - into what is agreed to be an already overcrowded engineering curriculum (Steiner and Penlington 2010), with many cited examples of practice that also promote the need for interdisciplinarity (Manchester 2008, Steiner 2010).

There are complementary developments to this which aim to encourage a broader context than simply having sustainability in the curriculum; for example, the development of staff and their pedagogy, and the wider thinking of the institution. The Higher Education Academy's ESD Project/Planning Group (Academy 2011a)

and its establishment of the Green Academy (Academy 2011b), its working with the Ellen MacArthur Foundation (2011), and the ethos of the Circular Economy (2011) are examples of this thinking, as well as the HEFCE-funded LGM projects such as that at Gloucestershire (HEFCE 2010).

A similar discourse, but to a lesser extent, has now also arisen on complementary topics such as ethics, poverty, risk management, health and safety, and social justice and welfare, which leads the author and others to question whether it is timely to reflect on the curriculum and its purpose, and to consider how we might otherwise look to incorporate these global skills into engineering students' learning (Penlington and Steiner 2010). Again, from UK-SPEC, it states that the specific learning outcomes of an accredited engineering degree programme must include within the economic, social and environmental context: "...Awareness of the framework of relevant legal requirements governing engineering activities, including personnel, health, safety, and risk (including environmental risk) issues", and "...Understanding of the need for a high level of professional and ethical conduct in engineering" (Engineering Council 2010, p13).

### **Moving to become more globally aware, both by students and by academic staff**

As mentioned, there has been significant prior work to facilitate pedagogic approaches and provide resources for the embedding of sustainable development (EngSC 2011a), and to a lesser extent ethics (EngSC 2011b), into the engineering curriculum. Specific examples in sustainable development range from the Royal Academy of Engineering's Visiting Professors' Scheme in Sustainable Design and its publication of Guiding Principles (RAEng 2005b), and initiatives at several HEIs (Northumbria 2007 and 2011, Manchester 2008, Bournemouth 2007, Cambridge 2006, Loughborough 2004) to the work in ethics of the IDEA CETL at Leeds (IDEA 2011a and 2011b), work at the Royal Academy of Engineering in its Survey of Teaching Ethics (RAEng 2005b), its Statement of Ethical Principles (RAEng 2010b) and its Curriculum Map (RAEng 2010c), and casework by Alpay (Imperial 2011a and 2011b) and Harris et al (2009).

These examples demonstrate the current level of adoption of sustainable development and ethics into the engineering curriculum, and more recently identifies the need for further integration and expansion toward globalisation. This need is also noted by others; for example, Short (2008) noted that sustainability goes beyond the environment, and that it is not purely an 'engineering problem'. He argued that work needs to be done that will consolidate the topic of sustainability with further skills and capabilities that will enable engineering graduates to become globally aware, and to work as global citizens in the future.

Similarly, Bourn and Neal (2008) surveyed engineering academics on this topic of globalisation, asking staff what the global dimension meant to them. Responses included:

- the ability to take a broader perspective – and the application of curricula across countries
- an appreciation of what we do in developing countries impacts upon ourselves
- the understanding that our culture doesn't have all the answers and there is more than one perspective and approach
- understanding the local context of development
- coping with uncertainty

- dealing with global issues doesn't necessarily mean going to developing countries
- challenging stereotypes
- the recognition of finite resources in the world and the impact of globalisation
- the potential role of different technologies
- mitigating and adapting to climate change

Student perspectives were also sought through Engineering Subject Centre funded Mini-Project investigations at Northumbria (2007, 2011). These respectively canvassed student perspectives through focus groups on firstly the teaching of sustainable development and then on its evolution toward a global awareness:

*[Sustainable development should] “... not (be taught as) one discrete module. It wouldn't make any sense. It would never occur to me to have it any other way than integrated across the whole course” – student quote*

*“We get a lot of theory but no practical or up to date examples” ..... “Same here. I don't think the lecturer knows enough about the subject to enable us to incorporate it into our work – student quotes*

*“Global dimension of engineering means covering all aspects of impact which engineering might have whether it is economically, environment, health and wealth” - student quote*

*“Ways we can hopefully improve people's lives around the world through engineering solutions” - student quote.*

The report by Bourn and Neal (2008) not only sought the views of academic staff but also canvassed to wider communities in order to make subsequent recommendations for HEIs, government, professional bodies and institutions, employers, and civil society as a whole (volunteer, charity and NGOs). Specifically, the report recommended the establishment of a government-funded project around the concept of the “global engineer”, promoting the need for the professional development of staff and the linking of existing initiatives on sustainable development, ethics and internationalisation.

### **The Global Dimensions for Engineering Education (GDEE) Project**

A proposal was drafted by the NGO “Engineers Against Poverty” (EAP) and the Institute of Education (IoE) at the University of London to establish a three-year multi-partnership project; this was subsequently funded by UKaid at the Department for International Development (DFID) in 2009 as the Global Dimension for Engineering Education (GDEE) Project. It has the specific remit to explore and develop pedagogic approaches and provide resources in developing global skills for HE engineering staff to use with their students. The GDEE Project is managed by EAP, with an original partnership of the Engineering Subject Centre, the Institute of Education at the University of London, the Engineering Council, the Engineering Professors Council (EPC), and Engineers Without Borders (EWB-UK). This partnership forms the Project's Steering Group, with a focus group of 5 HEIs who are engaged in piloting work of the Project.

In establishing the project, it was recognised that a number of lessons could be learnt from prior initiatives in recent years that aimed to facilitate pedagogic approaches and

provide resources in sustainable development and ethics, and in internationalisation. These included (amongst others):

- establishing a framework by which the need for the topic could be brought into HE
- recognising that the topic may covertly already exist in the curriculum,
- attaining recognition for its more formal introduction into the curriculum,
- integrating the topic into the curriculum rather than simply introducing as a “bolt-on”,
- enabling staff to acquire appropriate resources (both pedagogic and teaching) in order to deliver the topic,  
and
- to recognise the student view and that students’ engagement is important to its successful adoption/inclusion.

The Steering Group of the Global Dimensions Project (GDEE) has addressed these lessons where there is a detailed project plan with identified work packages and deliverables, there is a steering group of the partners who work closely with the member HEIs, and there is a developing community of interest and practice. This community originates from the national workshop series run by the Engineering Subject Centre in 2010/11 and which are facilitated by invited internationally-recognised experts in various aspects of the globalisation agenda. The community is supported by a growing repository of pedagogic and teaching resources, and a website that provides a focal point for the Project’s activity (GDEE 2011a). This is now enabling the Project to commission and support new areas of work that engage with a further, wider network of HEIs and academic staff, and to achieve its aspiration of a legacy of provision on conclusion to the Project in June 2012.

### **The national Workshop series**

The Engineering Subject Centre was contracted by EAP to administer and deliver a workshop series where the workshops would be held at participating HEIs around the UK. Each workshop was facilitated by an internationally-known expert in the given topic of the workshop (GDEE 2011b). The topics ranged from Rights, Conflict, Development, Professionalism, and Social Justice, to Ethics, and Sustainable Development.

The workshops were held as given in Table 1, with resources used at the workshops forming the basis of the repository on the website where both were developed and administered by the Engineering Subject Centre (GDEE 2011c).

The full particulars for each event, including a programme, presentations and a report on the event, are available to download by following each of the event hyperlinks.

**Table 1. GDEE Workshop series at UK HEIs (2010/11)**

<b>Workshop</b>	<b>Date</b>	<b>Venue</b>
<a href="#"><u>Diversity and Rights in Engineering Practice</u></a>	6th September 2010	London (Engineering Council)
<a href="#"><u>Engineers Working with Conflict</u></a>	8th October 2010	Loughborough University
<a href="#"><u>Development and Engineering</u></a>	29th October 2010	University of Plymouth
<a href="#"><u>Values and Ethics in Engineering</u></a>	13th December 2010	Inter-Disciplinary Ethics Applied CETL, University of Leeds
<a href="#"><u>Interdependence and Global Professionalism in Engineering</u></a>	7th January 2011	Northumbria University, Newcastle
<a href="#"><u>Engineering and Social Justice</u></a>	28th January 2011	The University of Liverpool
<a href="#"><u>Engineering and Sustainable Development</u></a>	25th February 2011	Queen's University Belfast

### **Resources under the GDEE Project**

The searchable repository of resources (GDEE 2011c) was established from both materials as presented at the workshops as outlined here, and from other resources as recommended by recognised experts in aspects of globalisation. These experts, and nominated others, also appear on a further webpage of the GDEE website (GDEE 2011d), where it is planned that the experts can be contacted by the community for specific support on their specialist aspect(s) of the globalisation agenda. The pedagogic and teaching resources of the repository are searchable by educational classification, keyword and type, and the webpage also has a regularly-updated listing of latest resources from across the sector.

As the repository grows, then a selected Toolkit of the most useful and recommended resources is being compiled, which will highlight a pathway for someone new to the topic of globalisation who might wish to explore approaches in order to bring the topic into their teaching, and to peruse materials to use with students.

### **Supported projects - staff**

The Steering Group of the GDEE Project has recently commissioned a number of more in-depth studies of pedagogic practice on the inclusion of globalisation into the engineering curriculum. The studies range from case studies at participating HEIs, to work by teaching staff at newly-engaging HEIs where the staff have been notable attendees at the workshop series and who now wish to disseminate practice into their own HEI. It is planned that this work, along with contributions from the Project's experts in globalisation, will be collated into a book, for publication in 2012.

### **Student project activity**

In addition, the Project recognises and supports initiatives that engage with students. The Engineering Subject Centre had previously supported, through its funded Mini-Project scheme, the pilot phase of a derivative to the EWB Challenge held in Australia. The EWB-UK Challenge (Liverpool 2011) is a partnership between EWB-UK and academic staff at Liverpool and Nottingham, where the pilot phase has

mapped an approach from the Australian version of the Challenge to a UK derivative. The GDEE Project has since funded the subsequent development that includes engagement with up to 12 partner HEIs.

This latter work is of course complementary to current examples in globalisation by the work of the student-charitable organisations such as Engineers Without Borders – UK (EWB-UK 2011) and Engineers Against Poverty (EAP 2011b), as well as RedR (RedR 2011).

The emphasis in all these initiatives is to encourage students' work to move from enquiry-based activity through problem-based learning toward active project-based learning, by their active engagement in undertaking development projects for the Third World on topics that originate from seeking to address sustainability and poverty issues.

### **A dissemination event**

A dissemination event of the work of the GDEE Project is currently being planned, to be held in Spring 2012, where not only will the aspirations and work of the Project be put into context, but there will be opportunity to discuss the global dimension and disseminate some highlighted aspects of the learning from the Project.

### **Concluding Remarks**

This paper has taken illustrative points from topics like sustainable development and ethics, to consider lessons that can be learnt from their introduction into the curriculum and has discussed how these lessons can be applied to the broader topic of globalisation.

There is an underlying recognition that professionally accredited engineering degree programmes will increasingly expect graduating students to have global skills which will facilitate their worldwide employability.

The DFID-funded Global Dimension for Engineering Education Project has initiated the establishment and development of a community of engaged practice in globalisation amongst both staff and students, with pedagogic and teaching material resources for use with each.

The summative dissemination event of the GDEE Project, scheduled for early 2012, will be the opportunity for both the community of engaged practice to celebrate its work and for HEIs, government, professional bodies and institutions, employers, and civil society as a whole to commit to the continued development of a global dimension in engineering education.

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## **Global Citizenship – No Guarantees: oppressed knowledges and privileged learners**

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### **Introduction**

Indigenous Australian knowledges, diverse, current and relevant, informed by generations of experiences of eco-cultural sustainability, have much to contribute to the goals of global citizenship and sustainable development. Yet the violence of colonization, the oppression of racism and the demands of neoliberal globalization have led to an acute socio-political marginalization of unique local knowledges and languages. Racism, ideological assumptions and indifference remain the major socio-political barriers that oppress Indigenous Australian peoples and their knowledges. Indigenous Australian peoples are the poorest, most marginalised group in Australia, many of whom suffer fourth-world health and living conditions. Indigenous peoples experience unacceptable levels of chronic and preventable disease and have an estimated life expectancy of up to twenty years less than non-Indigenous Australians (Oxfam Australia, 2011).

Indigenous Australian studies has been identified as having the potential to become an important emancipatory tool for combating racism and challenging dominant ideology and there has, in the past decade or so, been a welcome expansion of teaching activities about Indigenous peoples and their knowledges in Australian university education. An increasing number of Indigenous studies subjects and courses have been developed, and ‘Indigenous perspectives’ have been included across subjects and courses, referred to as ‘Indigenisation’ (see, for example, Carey, 2008; Williamson & Dalal, 2007). However there is little evidence that mandatory Indigenous studies courses or the Indigenisation of discipline-specific curriculum has had any significant impact on challenging ideology, combating racism or creating a more socially just society for Indigenous Australians. Having developed and delivered undergraduate level Indigenous Australian Studies courses and programs for largely non-Indigenous student cohorts over the past twelve years, it has become apparent that anthropological and other uncritical pedagogical approaches can work to justify and sustain socio-political power imbalances and repressive ideologies.

Critical theoretical and pedagogical approaches have the capacity to problematise the dominance of Western constructions of meaning-making, as well as challenge what Dei (2008, pp. 9-10) describes as ‘skepticism’ or ‘epistemological racism’ with regard to Indigenous knowledges. Critical thinking and analytical skills, values that respect diversity and difference, combined with a commitment to social justice, human rights and equity are essential critical pedagogical considerations for achieving the goals of graduating competent global citizens. As access to undergraduate and graduate higher education for the oppressed is limited at best, it is the privileged learner who becomes the primary focus of critical education for global citizenship. As Giroux (2007) asserts, critical education should be seen as a prerequisite for global justice,

Higher education may be one of the few sites left in which students learn the knowledge and skills that enable them not only to mediate critically between democratic values and the demands of corporate power and the national security state, but also to distinguish between identities founded on democratic principles and identities steeped in forms of competitive, unbridled individualism that celebrate self-interest, profit making, militarism, and greed (p. 196).

The objective of this discussion then is to open a dialogic space where we can begin to interrogate and reflect on lessons learned about how we might critically, though respectfully and without prejudice, embrace diverse Indigenous knowledges without circumscription by Western disciplinary assumptions or expectations. The renowned cultural theorist Stuart Hall, in his lecture *Race: The floating signifier* (1996), asks us to consider how we might “conduct an ethically responsible human discourse and practice about race, without religious, anthropological or scientific guarantees...a critical politics against racism”. This discussion attempts to explore some of the common opportunities, theoretical and practical challenges and limitations of engaging critical theories and pedagogical approaches that strive to combat racism and abet the transformation of our students to become “social justice allies” (Curry-Stevens, 2007, p. 36). Focusing on Indigenous Australian Studies in higher education, it aims to investigate strategies that might contribute to the development of a global ‘critical citizenry’ pedagogy (Giroux, 2007, p. 196) that could be effective in working towards a more socially just and sustainable world where global citizens equitably share knowledge, power and resources. The discussion concludes by positing, an emergent critical model of Indigenous studies pedagogy for global citizenship.

### **The Australian Context**

Until colonization began in 1788, Indigenous people enjoyed the full benefits of the Australian continent and its rich natural resources. Their current poverty is a direct result of having been violently dispossessed of their land (Goodall, 1996). Australia’s current national wealth is also a direct result of dispossession, though Indigenous people, by and large, do not share in this wealth. Indigenous poverty has been exacerbated through acute and enduring governmental neglect, maladministration and indifference to the well-being of Indigenous people (Oxfam Australia, 2011; Maddison, 2009, pp. 1-23; Briskman, 2008a). For many Australians, the realities of the causes of Indigenous poverty are veiled by dominant ideologies that promote Australia as meritocratic, whereby Indigenous poverty, health disparity and social exclusion are implied as the result of individual and group deficiencies and/or lack of commitment on the part of Indigenous Australians.

The illusion that the ideology of meritocracy creates tends to narrow perceptions of social justice, human rights and equity (Ife, 2008; Solas, 2008) where current social configurations are uncritically assumed to be ideal and fair. Indigenous peoples’ wellbeing is seen to be dependent on assimilation. Dominant lifestyles are privileged over Indigenous epistemological, linguistic, social and human rights imperatives (McConaghy, 2000). Assimilationist goals have been at the forefront of social and government policy in Australia since colonialism began. From the goals of ‘civilizing and Christianising’ the ‘child-like race’ in the 19<sup>th</sup> Century, to the naïve socio-biological engineering goals of legislated Assimilation Policies in the first half of the

20<sup>th</sup> Century, the ideology of assimilationism continues to be promoted albeit in more covert and repressive ways.

Notions of social justice, human rights and equity are framed in terms of ‘mutual obligation’ and ‘shared responsibility’ and understood as the potential for Indigenous Australians to be ‘more like’ dominant culture Australians in terms of their ability to access acknowledged social rights, freedoms and privileges (McConaghy, 2000). Current Indigenous social policy discourse is constructed around an oversimplified and inaccurate distinction between remote, regional and urban Indigenous identities, demographics and perceived needs. This frames Indigenous peoples in a way that denies cultural, linguistic, social and political diversity and relieves policy makers from considering the complexity of Indigenous identities and aspirations. Current legislation and social policies continue to thwart Indigenous peoples’ opportunities to achieve justice and government intervention into Indigenous lives shock human rights organizations (Narushima, 2010), whilst governments engage in rigorous processes of repressive tolerance.

Political rhetoric and corollary media discourse promotes an empathetic acknowledgement of Indigenous peoples as dispossessed rightful custodians of the land, a fact difficult to deny considering a 1992 High Court Ruling that acknowledged such (Torres Strait Regional Authority, 2007), whilst Indigenous peoples spend lifetimes fighting land rights and native title court battles under the weight of continuing poverty and unjust legislation (Foley & Anderson, 2006). Meanwhile, mining companies disregard Indigenous rights, desecrate and destroy sacred sites and Indigenous heritage and grow fat (see for example Yindjibarndi Aboriginal Corporation, 2011). In 2008, the then Australian Prime Minister, with great media driven fanfare, delivered a national public apology for ‘past’ injustices to Indigenous victims of genocidal policies (BBC, 2008), whilst concurrently actively continuing to enforce intervention into Indigenous lives in the Northern Territory that required the suspension of the Racial Discrimination Act and the denial of a range of human, social and economic rights<sup>3</sup> (Calma, 2008).

We Australians pride ourselves on our values of tolerance and a ‘fair go’ and loudly express indignation at injustices such as the detention and mistreatment of asylum seekers, yet there is a lack of public outrage and an atmosphere of indifference when it comes to continuing Indigenous injustices. It would seem that the process of ideological repressive tolerance is a very effective oppressive device. Many Australians, including those who consider themselves anti-racist or human rights supporters do not appreciate the connection between Indigenous poverty and oppression on the one hand, and unearned privilege and wealth on the other. As an Indigenous Studies educator, my main goal is to facilitate and support my students toward ideological, social and political conscientization (Bartolome, 2007; Briskman, 2008a; Nicotera & Kang, 2009; Young & Zubrzycki, 2011).

## **Indigenous Studies in Australia**

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<sup>3</sup> Tom Calma (2008), former Aboriginal and Torres Strait Islander Social Justice Commissioner provides a substantive critical overview of the Australian government’s Northern Territory Emergency Response Intervention.

Historically, Indigenous studies in Australia has worked to undermine Indigenous identities, knowledges and human rights (Mooney & Craven, 2005, p. 3) by privileging dominant anthropological and psychological theories that exclude Indigenous voices. Indigenous knowledges have been disembodied, dissected and filtered through dominant theoretical conceptualisations and re-presented as Indigenous studies (Nakata 2004, p. 5). Much of the contemporary Indigenous studies curricula in higher education today continue to be informed by anthropological and ethnographic research about Indigenous peoples, without critical analysis of the ideologies informing social policies. It has been recognized for some time the importance of learning about Indigenous Australians and colonial history so that learners can develop what is variously referred to as ‘cultural awareness’, ‘cultural sensitivity’ or ‘cultural competence’. However the expectation that ‘learning about’ Indigenous peoples and cultures will adequately support learners toward informed, respectful and socially just perspectives is unreasonable, unless this focus is balanced with critical learning in relation to repressive ideology, power and privilege.

Learning ‘about the Other’ tends to pathologise Indigenous people as the ‘problem’, constructing them as socially and culturally deficit ‘victims of colonisation’ who require assistance to overcome ‘their disadvantages and deficiencies’ (Maddison, 2009, p. 1; see also Fejo-King & Briskman, 2009; Flowers, 2009). This approach often promotes a narrow construction of ‘culture’ as something exotic and fixed, of and in itself, rather than a fluid and ever-changing manifestation of ontology, epistemology and axiology in the ongoing practice of life. In this context Indigenous cultural practices are constructed as ‘traditional’, something to be assessed for contemporary currency and relevance, to be either retained and appropriated as useful to modernity, or discarded as extraneous. Either way, dominant ideologies and social structures that privilege and oppress go largely unproblematised and unchallenged. As Young & Zubrzycki point out (2011, p. 162), “[i]t is a very short step from having learned about cultural ways, beliefs, language and practice to colonizing them...” and in Marcuse’s words (1969, p. 95), “*what is proclaimed and practiced as tolerance today, is in many of its most effective manifestations serving the cause of oppression*”.

As such, critical theoretical approaches are imperative to develop a balanced and efficacious pedagogy toward the goal of graduating global citizens with the skills to identify and challenge ideology and unearned privilege and the capacity to become social justice agents.

### **Critical approaches**

Anti-racist, anti-discriminatory and anti-oppressive approaches move beyond the goal of ‘cultural awareness’ to acknowledge ideological and social discourses that maintain discrimination and oppression. Models that focus on combating racism and oppression, where learners and educators declare themselves anti-racist, anti-discriminatory or anti-oppressive, rely on learners engaging a process of ‘self-reflection’ to ‘become aware’ of their own assumptions. The problems here are firstly, the expectation that a self-reflective process is rigorous enough to enable learners to develop social and political conscientization, considering the persuasive nature of repressive ideologies, and secondly, the focus on self-reflection tends to imply that the problem of inequity lie solely with individual attitudes and prejudice, deflecting

attention away from systemic and structural causes of injustice. (Briskman, 2008a; Walter et al., 2011; Young & Zubrzycki, 2011).

More recently educators have drawn on ‘Whiteness theory’ as a strategy for understanding unearned privilege where ‘Whiteness’ is conceived as a complex discursive racial construct and ‘site of dominance’ (Young & Zubrzycki, 2011, p. 163),

an imagined racial collective...characterized by the unwillingness to name the contours of racism, the avoidance of identifying with a racial experience or group, the minimization of racist legacy, and other similar evasions. Whiteness is the attempt to homogenize diverse white ethnics into a single category...for the purposes of racial domination (Leonardo, 2002, p. 32)

Whiteness theory does not assume that all people who are white operate from a whiteness perspective any more than feminism assumes that all men operate from anti-feminist perspectives. As Leonardo (p. 31) asserts,

“White people have accomplished many great things; the issue is whether or not they have asserted whiteness. Many white subjects have fought and still fight on the side of racial justice. To the extent that they perform this act, they disidentify with whiteness”.

In Australia being a member of the white majority is largely perceived as ‘normal’ rather than membership of a specific ethnic group, often rendering the privilege associated with Whiteness invisible to those who benefit from it (McIntosh, 1988). Being an immersed member of the privileged majority can make difficult the process of recognising the projected and presumed impartiality of normalised social constructs and can blind learners to the relationship between their own cultural assumptions and those born of repressive ideologies. Whiteness theory aims to reveal the way that discourse normalizes and renders invisible the social institutions and structures that sustain unearned race privilege and illuminate how Whiteness works as an oppressive benchmark against which Indigenous peoples are measured and problematised (Nicotera & Kang, 2009; Walter et al., 2011). Whiteness theory then, can be seen to be highly relevant for critical Indigenous studies and global citizenship education pedagogy, for, as Leonardo (2002, p. 37) observes, “*like the economy, whiteness as a privileged signifier has become global*”.

The engagement of Whiteness theory should not, however, be viewed as an unproblematic end point solution for effective Indigenous studies or global citizenship education. Coates (2007, p. 586) warns that too strong a focus on race relations can tend to posit the ‘problem’ as “*inter- and intra group dynamics, conflict and practices*” and risk overlooking the broader social structures of power and privilege. Further, while race is a persistent and complex societal construct and theories to deconstruct it are vital in a multi-racial globalized world (Bennett et al., 2011; Leonardo, 2002), Whiteness is but one of many ideological constructs that work to privilege and oppress. A combination of critical approaches is necessary because in any given context, there are a complex range of repressive ideologies, social and racial constructs, power structures and unearned privileges that need to be identified and challenged.

The critical approaches discussed this far, and potentially many others, all have an important contribution to make to Indigenous studies and global citizenship education, yet all have limitations. For example, cultural awareness through learning about Indigenous peoples is inadequate in identifying unjust ideologies and social constructs, but inadequate also is critiquing ideology without an appreciation for the historical and currently lived reality of diverse Indigenous identities, experiences, knowledges, values and viewpoints. If we focus too sharply on race we risk overlooking repressive ideological and structural constructs beyond race, but if we don't address race relations, we overlook the evident normalization and privileging of Whiteness. Developing effective critical Indigenous studies pedagogy for global citizenship necessitates a range of critical approaches that can enable the deconstruction of a complex range of overlapping repressive ideologies around class, race, gender, culture and religion.

### **Critical Pedagogy for Privileged Learners**

Critical pedagogy, or educational practice informed by critical theory, “*is to teach with a specific social and political intent*” (Brookfield, 2005, p. 353). Significantly influenced by Paulo Freire’s emancipatory strategies for oppressed learners (Freire, 1970), critical pedagogy begins with the experiences and knowledge of the student and works toward ideological, social and political conscientization. Students develop the skills to identify and critique ideology through democratic discussion that endeavours to deconstruct repressive ideologies and social structures with the transparent goal of conceptualizing social justice and becoming effective social change advocates and agents. As previously mentioned, critical pedagogy in higher education today requires a strong focus on privileged learners because the privileged make up the greater number of higher education students. In the context of growing global neo-liberal education, access to higher education for people from marginalized groups becomes more and more restricted.

Critical pedagogy for the privileged requires substantive modification to critical pedagogy for the oppressed as it can be profoundly disconcerting for privileged learners and complex for educators to facilitate (Walter et al., 2011; Young & Zubrzycki, 2011; Nicotera & Kang, 2009). As Allen and Rossatto note (2009, p. 179) “*[a]n oppressor student is different from an oppressed student. And any pedagogy that fails to account for this difference is unlikely to contribute to meaningful social change*”. The excessive neo-liberalist focus on individualism can tend to obscure and deny the systemic, structural and racial nature of privilege and oppression, resulting in difficulty seeing privilege as other than normal and oppression as other than deficiency. Traditional critical pedagogy does not necessarily challenge normalized individual identities of social privilege and therefore wholesale application of Friereian pedagogy risks facilitating a learning environment where privileged learners engage in processes that reproduce the oppressive relations and repressive ideologies that contribute to injustice (Allen & Rossatto, 2009; Choules, 2007; McConaghy, 2000).

A strong focus on oppression is required when working with privileged learners because the privilege/oppression nexus can be difficult for the privileged to intellectually, psychologically and emotionally relate to (Choules, 2007; Van Gorder,

2007; Leonardo, 2002, p. 37). Students may well be able to identify themselves as powerless victims by relating isolated incidences where they have been wronged, but can find it extremely difficult to identify their own privilege. Nicotera & Kang (2009) found that privileged students will tend to avoid identifying their privilege if possible and where students who had identities made up of intersecting privilege and oppression, “...students will ignore their privileged identities and focus on their marginalized identities” (p. 198). Democratic classroom discussions must work to problematise student’s individual experiences and learning facilitators must be on alert for discussion influenced by repressive ideological influences to elucidate and theorize underlying assumptions.

Democratic dialogue can be extremely difficult to facilitate in cohorts where the majority of students come from privileged backgrounds as minority voices and perspectives can be easily drowned out. Problematization needs to be approached in ways that depersonalize, so that discussions can be navigated rather than shut down (Choules, 2007). Allen and Rossato (2009) recommend a process of ‘sympathetic critique’ of privilege (p. 179), where emotive, complex and divisive racial and socio-political issues can be addressed in open, respectful and supportive ways. Facilitating democratic dialogue that can effectively deconstruct ideology and unearned privilege requires diligent critical reflexivity on the part of educators who must be open to having their own assumptions and privilege challenged, while maintaining the authority to facilitate discussion towards the goal of developing conscientization.

Educators must have substantive knowledge of their subject matter and be committed to maintaining hyper-vigilant critical reflexivity. Where the educator is from a marginalized group reflexivity reduces the risk of being dismissed by the students as aggrieved, bitter and therefore bias. Whilst educators from privileged backgrounds may be less threatening to privileged students, reflexivity is crucial to address the ideological blind spots that may be associated with being a member of the privileged majority. Students and educators alike need to engage reciprocally in the critical venture, being prepared to both challenge and be challenged (Choules, 2007).

Educators of critical Indigenous studies need to be highly skilled facilitators with not only substantive knowledge of Indigenous peoples’ philosophies and colonial experiences but also knowledgeable and skilled in a breadth of critical traditions and practices. They need to be able to present a diversity of authentic Indigenous standpoints and perspectives, while at the same time protect Indigenous knowledges from appropriation and distortion. They need the skills to engage a range of critical approaches that encourage learners to assert their agency, share their knowledges and opinions and negotiate their learning experiences toward the complex and often difficult goal of conscientization, whilst maintaining a learning environment of ‘cultural safety’ (Bin-Sallik, 2003), or in other words, an environment of respect, mindfulness, relatedness and reciprocity. The following framework attempts to address these considerations in an effort to develop critical Indigenous studies pedagogy with the potential to be efficacious in teaching learners to become morally active global citizens and social justice agents.

### **An Emergent Critical Indigenous Studies Framework**

Brookfield (2005) constructs critical education as a series of ‘learning tasks’ and taking his lead, the following proposed critical Indigenous studies framework is constructed around four essential learning tasks: *Critical Learning* - learning about critical approaches; *Critical Conscientization* – learning about ideology, injustice and unearned privilege; *Critical Cultural Awareness* – learning from Indigenous peoples and *Critical Conceptualisation*– conceptualising social justice and global citizenship. While these tasks are presented as essential processes for each topic covered in a syllabus, rather than an ordered series of topics, it is important that students be introduced to critical approaches and goals early in the learning process.

*Critical Learning – learning about critical approaches.*

Critical learning involves making transparent the specific social and political goals of critical Indigenous studies pedagogy (Choules, 2007). Here, the specific intent is the emancipation from inauthentic assimilationist constructions of Indigeneity and to unmask, deconstruct and challenge repressive ideology and unearned privilege that operates in opposition to Indigenous human rights. In other words, the intent is to reveal repressive ideology and unearned privilege as morally and socially unjustifiable. The other essential component of critical learning is students becoming familiar with critical theory and the range of critical approaches that will be engaged in the learning process.

*Critical Conscientization - learning about ideology, injustice and privilege.*

Critical pedagogy begins with students’ current knowledge, viewpoints and assumptions for each topic of the syllabus. This can be achieved through class brainstorming sessions, where diverse opinions and standpoints can be identified and discussed. Alternative viewpoints that are not identified in class brainstorming activities, such as a variety of authentic Indigenous standpoints, can be introduced by way of guest lectures, audio-visual and print media resources. Engendering collaborative ‘subject-to-subject’ relationships in the class throughout the learning process is crucial to facilitate the co-construction of knowledge (Huerta-Charles, 2007, p. 254).

Conscientization entails critical interrogation and deconstruction of this co-constructed knowledge to identify historical and current repressive ideologies, social policies, and discursive practices that maintain injustice. This process is achieved by way of democratic discussion, where a necessarily skilled and experienced learning facilitator navigates and mediates delicate and sometimes tense classroom discussions, finding opportunities to ameliorate tension through processes of theoretical abstractions that are empathetic to the ideological, social and political standpoints represented in the class (Choules, 2007). A useful exemplar of this kind of abstraction is Elder’s (1988, pp. 7-8) analogy of colonisation, where a community of aliens colonise Earth with similar results to the colonisation of Australia. This kind of abstraction has the twofold effect of depersonalising the issues on the one hand, while increasing possibilities for affective intellectual, emotive and empathetic relatedness on the other.

Affective learning, such as that found in the educative practices of social movements, a largely under-theorised and neglected site of emancipatory education (Maddison &

Scalmer, 2006, p. 62), is difficult to achieve in the formal constrained context of the higher education classroom. Activist educational epistemology and process is vastly different to that encountered in formal education. Whilst formal education is as an important ingredient in activist learning, it is but one component of a much more holistic, embodied and emotive educative process (2006, p. 55). Through the immersive practices of ‘continuous contact’ activists develop mutually rewarding critical learning relationships where they mentor and learn from each other (2006, pp. 58-62). Activist pedagogies transcend the disciplines of formal education because they work to motivate activists by way of “*head, heart and spirit*” (Kovan & Dirkx in Ollis, 2008, p. 9).

#### *Critical Cultural Awareness – learning from Indigenous peoples.*

The historical lack of authentic opportunities for Australians to learn from Indigenous peoples needs to be addressed by providing students with opportunities to learn from a substantive range of Indigenous perspectives and standpoints where Indigenous peoples’ knowledges and active agency in contributing to the development of modern Australia are presented as positive, current and relevant. Diverse Indigenous individual, communal and societal knowledges and experiences across time and place must be framed and contextualised by Indigenous epistemological and axiological standpoints that are articulated, disseminated, owned and controlled by Indigenous people. There is a wealth of authentic, high-quality and diverse published print, audio-visual and new media resources available that can be utilized for these purposes. Presenting a diverse range of standpoints is important to counter the common yet unrealistic assumption that all Indigenous people will agree on social and political issues and to point out that the expectation that Indigenous people *should* be in universal agreement is no more reasonable than expecting universal social or political agreement across other ethnic or cultural groups.

#### *Critical Conceptualisation– conceptualising social justice and global citizenship*

Nicotera & Kang (2009) draw attention to conceptualization as an essential strategy in the critical learning journey. Conceptualisation involves focusing squarely on the goals of critical global citizenship, envisioning what a socially just global world might constitute and what it might entail to become a social justice ally. Through the use of case studies, role-plays and group discussions, ideas and strategies for challenging injustice and achieving social change can be tested and the implications of the impact of these strategies for us personally, for our society and for our global world can be contemplated.

#### **Conclusion – No guarantees**

Critical approaches to Indigenous studies are vital in the context of the repressive ideological, social and political Australian environment. Meritocratic ideologies that normalize privilege and wealth while pathologising Indigenous peoples as traumatized and incapable, and their cultures deficient and irrelevant, cannot continue to be abided. If global citizens are to contribute to meaningful social change they must learn to determine truth from ideology, theory from hegemony and reason from assumption. The teaching and learning strategies recommended here are designed to support educators and students to develop the skills to differentiate between

normative and critical constructs of what constitutes knowledge and justice, to appreciate the link between privilege and oppression and the wherewithal to support and agitate alongside Indigenous peoples to effect social change.

The emergent framework attempts to bring together divergent factors that are necessary to address social injustice in the context of Indigenous Australian studies. Most prominent of these factors are the relevance of critical theory and practice, the limitations of isolated critical approaches necessitating the use of a range of approaches, and the committed expertise required on the part of educators to facilitate effective critical pedagogy for members of the privileged majority. Whilst designed specifically for Indigenous studies, the emergent framework is relevant to global citizenship education in its emancipatory and social justice goals. It is an 'emergent' framework because there are 'no guarantees' that these strategies will be effective in contributing to a fairer globalised and sustainable world. What is guaranteed is that we all have the responsibility to keep trying.

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# **The change in student perceptions and methods of learning whilst on placement within an environmental organisation.**

Carole Trueman

## ***Introduction***

Within the current economic recession, and the job market becoming increasingly difficult to gain access too, the need for students to gain voluntary experience is more important than ever. As Wilson states in 2000 ‘Volunteering is any activity in which time is given freely to benefit another person, group or cause.’ Not only is this type of experience beneficial to students, but it is also a vital contributing factor to the survival of any business or organisations that the students work within on their placement. For the benefit of this paper I will be looking at the student placement in detail for example why the students do it and what role they undertake, I will also look at the placement in detail and what the students have learnt and most particularly what they have learnt about Education for Sustainable Development.

## ***Education for Sustainable Development***

The idea of ESD is to help people meet the needs of the present without compromising the ability of future generations to meet their own needs (World Commission on Sustainable Development). The Brundtland report was one of the first documents to truly explore ESD back in 1987; since then the concept has been considered to be the most complex, contested and a constantly evolving concept (Landorf, H et al, 2008.) Even with a problematic definition, it is clear that ESD is now beginning to be taken seriously and as Landorf et al also says ‘if media coverage is any indication, the world at large is seriously concerned about our environment, population growth and climate change.’ Therefore, it must be important to educate students on ESD. ESD can be traced back to the 1970’s, but it was only really blossomed within the Earth Summit in 1992. UNCED’s Agenda 21 suggests that the following goals should be worked towards:

- Promoting and improve the quality of education
- Reorienting the curricula
- Raising public awareness of the concept of sustainable development
- Training the workforce

Since the Earth Summit there has been an intention to promote ESD especially within universities. Some universities have tried to implement ESD through a number of ways:

- the curriculum
- the whole university (management)
- the Students

- the campus
- the staff

The curriculum is one of the main ways that ESD can be introduced within a university, but De La Harpe says that to date, the literature and research in the area show few successful examples of comprehensive large-scale curriculum change. Some universities have been trying to implement ESD, but they are struggling. Sterling (2001) believes that the concept of ‘sustainable education’ is not just a simple ‘add-on’ of sustainability concepts to the curriculum, but a cultural shift in the way we see education and learning, based on a more ecological or relational view of the world. Therefore, changes are needed and Cortese (2003) believes that universities are now accepting responsibility for leading society towards a sustainable future and they are doing so through changes in learning methods and changes in the curriculum. In order to change the way that the students are learning, we need to look at how we can reorient the current curricula. Gadotti believes that the way to change the curriculum and make it more suitable for ESD learning is through learning in the outdoors, learning through sustainability themes, the need to promote experiential and participatory social learning. It is becoming more evident that experiential learning is the way forward and should be a method of learning within all disciplines. Therefore, it is also becoming more important for students to take placements within their university degrees so that they can gain experience and this type of social learning should help promote ESD as well.

### ***Work Based Learning***

The higher education sector provides many different types of learning for students. Besides classroom instruction; the other predominant mode of developing managers is through experience (Raelin, J 1998). This type of experience can be gained in a variety of ways, but the most important would be informal learning which is described by Marsick and Volpe (1999) as being predominately unstructured, experiential, and non institutional. Informal learning or experiential learning can come in a variety of forms e.g. field work which is considered to be a useful tool in engaging with the students as they can learn on campus or be taking on trips to gain firsthand experience with their lecturers. Short and long term placements are another example which is becoming vital to ensure that students gain jobs after they finish their degrees. Industry placement or “work placement” is the term used primarily in the UK and it describes a period of time when the student is located in the workplace with the purpose of learning on the job. The placement may be paid or unpaid. (Schaafsma, H (1996).

Brennan and Little (1996) claim that work placements have been part of education in the UK since the 1950s, but it is only in the last decade that their importance has been truly recognised. Fanthorne (2004) quotes “in any one year approximately 100,000 higher education students will undertake work experience of some sort” (p. 1). Some of these experiences will be in the form of Work based learning placements. This type of placement provides an opportunity to gain vital skills for the student whilst also learning from people who are experienced and qualified. There is a fear that what students learn within their classroom surroundings is not merged with their

worldly experiences and the two should work together. Until recently there has been an argument that these learning methods should work independently but with work based learning this is not the case. Raelin (2010) suggests that work-based learning deliberately merges theory with practice and acknowledges the intersection of explicit and tacit forms of knowing at both individual and collective levels. This is why work-based learning is considered to be important for students and many would argue that it should be an integral part of the degree process. Moore suggests that there are three models for learning and each has a role to play within universities. Firstly, there is cooperative learning which is where the educator is considered to be the expert and is responsible for activities and the learning of the students. Secondly, there is collaborative learning where the students are in control of their own learning and all should have a part to play and the educator is merely a facilitator. The third model of learning is transformative learning which is the model most suited to work based learning it encourages individuals to construct knowledge through their experiences in the world.

For the benefit of this paper I am going to look at transformative learning particularly work-based experience and how this type of learning affects student's perceptions of placements, their organisation and also ESD. Sterling (2001) also comments that there is a real need is to change from transmissive toward transformative learning, but this in turn requires a transformed educational paradigm.

### ***Methods and Methodology***

For the basis of this research it was deemed that the most appropriate method of research is ethnography. We can define ethnography as 'participant observation plus any other appropriate methods. Included in the other category are interviews, focus groups, video or photographic work, statistics, modelling, archive work and so on.' (Forsy, 2010) Time would not allow me to take part in participant observation so I believed it better to use interviews as my method of data collection. Interviews allow me to ask questions that I believe need to be answered, but a semi structured interview process is the way forward as it allows flexibility in the response along with the opportunity to delve into other areas that I may not have thought of. For the benefit of the research I interviewed students who were on placement with an environmental organisation that I have also worked and volunteered with. I selected these participants because they are most likely to provide relevant and valuable information'. (Maxwell & Loomis 2003) The pedagogy's that are most relevant to this type of research come from Sapos, Battisti and Grimm who claim that the most important pedagogy's are: action learning, community service learning, environmental education and participatory action.

### ***The Research Process***

I decided to concentrate on six students who completed their placement within the last year. For the benefit of the research I interviewed the six students for one hour periods in a semi structured interview setting. I had a list of thirteen questions, but the students were able to talk around the questions. These students came from a range of backgrounds, a variety of countries and most importantly different disciplines within

universities. My overall aim was to present the thoughts and feelings of the students so that placements can be improved within the environmental organisation and also to enlighten universities on students learning before, during and after placements. The questions I used for the interviews are as follows:

### **Background Information**

- 1) What is your role within the environmental organisation
- 2) What made you consider a placement within the environmental organisation
- 3) What is your background / biography
- 4) Why did you choose to volunteer within the environmental organisation?  
And has this affected your attitude towards your work as it is unpaid?

### **University / Placement**

- 5) Did your academic studies prepare you for your placement?
- 6) In your opinion has your placement been beneficial? Explain some of its advantages and disadvantages
- 7) Do you think that you would learn more within a classroom surrounding or a practical setting? Would you like university learning to remain classroom based or vary more to practical experience?
- 8) Did your placement affect your future career/education opportunities and decisions?

### **Education for Sustainable Development**

- 9) Did working within the environmental organisation make you more aware of the environment and conservation?
- 10) Explain some of key environmental issues you have learnt about
- 11) Do you feel that the environmental organisation could do more to make staff/volunteers more aware about environmental issues? If so explain.
- 12) Any other comments about placement and how it affects your views on the environment?

I made it known to the students that they could cease from participating in the research at any time. At the early stages of my research I decided that it would be best to keep the students anonymous throughout the research as I wanted them to be as open and honest as possible so that I could gauge the best understanding of their placement. I then was able to transcribe the data into different coding sets to make it easier to analyse.

### ***Findings and Data Analysis***

There were a number of themes that emerges from the interviews; overall the students had similar views with only a couple of points that varied. The information gathered has been broken down into three areas: background information, university/placement and Education for Sustainable Development

### **Background Information**

In order to discover the student's reasons for working within an environmental organisation I asked a number of general background questions so that I could gauge an understanding of where they were working and also find out more the students history. Firstly, I began by asking what role each student undertook within the environmental organisation. My idea behind this was to find out if the roles varied, if the students were gaining responsibilities and if they were attaining an overall perception of the organisation. The roles did vary with students working within all the departments which include the house, visitor services, estate and education teams. Fleming and Eames (2005) discuss how students who work in diverse roles within a larger organisation learn in a multitude of areas including technical knowledge and skills and understanding about the work culture. Roles that were assigned to the students were within visitor service, PR, and conservation areas. No matter which area the students worked within it was evident that there was considerable teamwork, and roles crossed over into different departments. This improved the student's skills such as time management, oral and written skills and problem solving analysis and Chaiklin and Lave (1993) say that learning always takes place in interactions between people carrying out and participating in daily activities in various situations and social contexts so these varieties in duties would be beneficial long term.

The students were then asked what made them consider a placement within the environmental organisation. All of the students admitted that they were doing the placement because they needed experience in this area. One student said:

‘I took a year placement even though my course didn't include one, I believe I will have a better chance of gaining a job after university if I had experience which the rest of my class members would not have.’

Generally the students believed that this would be a good starting point for their experience, it was a large organisation, well known, with a good reputation and there would be a variety of tasks to complete. One student also stated:

‘To work in this organisation the staff must be very experienced and qualified and to work alongside them has been a wonderful learning curve for me’

One other student was completing some work placement experience alongside their part time work within this organisation. The part time work was beneficial but it was not the area they wanted experience in so they undertook voluntary experience as well. The different roles for the students undertook complimented the variety of disciplines and backgrounds they came from. Within question three I asked the students about their background and history. It was interesting to note that the students who were all studying for their degrees in local universities came from very different disciplines but all merged to complete placements within this organisation. These students would enter an environmental organisation where ESD would be a possibility, but Matarazzo (2010) believes that no matter what ESD should be interdisciplinary: as much a matter of concern to the humanities as to the sciences. The degrees studied by the participants included: Business Administration, English Literature, Environmental Management and Physics. The students said that this environmental organisation was not necessarily where they envisaged doing their work placement but it could lead to the best profession and maybe even a job. Only two of those

questioned took the placement because it was where they really had hoped to do it as it most suited their degree. The Earth Charter International Secretariat (2005) provided a very valid point that it is difficult to educate students who are growing up in a consumer orientated, materialistic world, in which identity is defined not by whom you are but what you wear, the house you live in. These students were more concerned about gaining a paid job at the end of the placement or gaining a part time job that they were about learning within the organisation. Surely there has to be more to the placement than merely gaining a job? This is why I asked the forth question 'Why did you choose to volunteer within the National Trust? And has this affected your attitude towards your work? One student said:

'I'm trying to find what I'm good at, I like my degree but I need to find out what my future career is going to be and what I like doing. This placement has given me plenty of ideas and I don't mind that it is voluntary because I am learning so much.'

Another student said:

'I heard about volunteering with the National Trust through a friend, also at Queen's, who was already volunteering at Castle Ward. As I was unable to obtain a paid placement in the industry I decided to volunteer to gain experience. I believe that I have been consistent and dedicated to my work giving the best of my ability, even though it is unpaid. As a conscientious person I was always aware that this was to benefit me and so worked hard although I do feel there are gaps in the volunteering system as there is often a lot expected of you and you could easily be taken advantage of.'

The consensus among the students was that they didn't mind that the placement was voluntary and that they claimed expenses which helped them. As Saarnivaara and Sarja confirmed the integration of young people into working life and the labour market is a top priority for most societies, because working life is a fundamental importance for the development of their welfare. Having a placement will prepare students for working life after their university studies. The students commented that overall gaining a job out of the placement would be nice but the experience was equally as important.

### **University / Placement**

I believed that it was important to find out what the students think about placements, what they are learning and how important it is to them. Firstly I asked 'Did your academic studies prepare you for your placement?' There were very mixed views with two of the students saying that their studies did not prepare them and four saying it did. One student said:

'I think more current modules such as marketing were relevant and helped me on my placement although overall the course did not prepare me for the working environment. A large proportion of the work covered will be useless in a day-to-day work environment.'

The students acknowledged they gained some knowledge that could be used on placement but it didn't prepare them for what was in store. McMillin and Dyball (2009) reiterate this point that the learning experience of students is influenced by more than what is taught in the classroom. Many lecturers would also believe that placements would be very difficult to reflect on. Even if these learning experiences as Bennett (2010) also explains that experiences can be harnessed and translated back into the classroom through critical reflection, it is usually not until they are included in students' learning objectives and formally assessed, that their importance for their future careers is fully accepted by students.

This led on to my second question which asked began to look at how the students learn best and what methods suited them. I asked if they would learn more in a classroom surrounding or a practical setting. One student stated:

'I definitely think I have learnt more in a practical environment. I think universities should try and incorporate more practical work into their classroom based learning. I think there are different modules that could be covered within the classroom that would be relevant in the work place today.'

The overall consensus is that the students are able to learn the most through their practical experience. It was also noted that every student said that university taught unnecessary modules. One student in particular said:

'My degree is extremely classroom based; there is no other way to teach it but it. I have learnt a lot through the classroom but when I started my work based learning I got an eye opener, I was not prepared at all.'

Similarly, Hazletts (1979) argument that 'the lived curriculum of the school and classroom is a level of inquiry that has suffered the most neglect'. The universities need to better prepare their students for the world of work and this should be completed through curriculum based activities. The students commented that they would like to benefit from more practical work rather than classroom based work, showing that different learning methods should also be implemented within the courses.

However, we also have to acknowledge that it is difficult to implement experiential learning in some courses and 'the kinds of knowledge in the workplace or service site do not map easily onto the kinds of knowledge propounded by the college curriculum.' (Thornton-Moore, D, 2010) Some university lecturers may argue that experiential learning may have its advantages but the curriculum could not be based around it. Bennett (2000) also argues even if these learning experiences can be harnessed and translated back into the classroom through critical reflection, it is usually not until they are included in students' learning objectives and formally assessed. This is when their importance for their future careers is fully accepted by students.

Whilst understanding the need for work based learning within the curriculum I asked for my final question 'Did your placement affect your future career/education

opportunities and decisions?’ The responses were a resounding ‘Yes’. When I asked them to deliberate further one student said:

‘It made me more aware of what the job would entail. For instance, within the tourism industry you often have to work weekends and bank holidays and events can be run in the evening so it is very different to your 9-5 job. I think it has enhanced my opportunities as I have more experience now.

Another student claimed:

‘I had no idea what I wanted to do after I finished my degree, I now have plenty of ideas and this placement has given me the chance to find out more about myself as a person and what I want as a career. I also think that in order to survive in the working world I need even more education and experience.’

Graf and Kellogg (1990) explore the many benefits of a placement just as these students have described they believe that it:

- Develops a mature sense of responsibility in the student,
- Better prepares students for their chosen careers while enhancing their employment skills.
- Permits students to test learned principles in real world situations.

The comments highlight that placements are intended to give the students and insight into real life work situations and it is meant to be a beneficial experience. It is hoped that, through experiences, students will attain a variety of outcomes that help them to succeed in future careers (Haimson and Bellotti 2001).

After ascertaining their background and what they believed was important in a placement, I began looking towards the third part of the interview. Within this part I wanted to discover if students learnt anything about ESD through their placement within an environmental organisation.

### **Education for Sustainable Development**

When the students were asked if work-based learning within the environmental organisation made them more aware of the environment and conservation there were very mixed views. Overall the students felt that they had more environmental awareness environment as this was an environmental organisation. One student said

‘We are reminded about conservation because the organisation is meant to be protecting the environment but I feel that there could be more of an emphasis on the environment rather than making money.’

Another student said:

‘If someone asked me why the trees in the forest were being cut down I simply would not have an answer, or if I was asked about the

renewable energies on the property I really would not know what to say.'

Students also noted that they knew basic information about sustainable development but not enough to give a true reflection on what an environmental organisation whose sole purpose is to promote ESD should be like. One of the students commented:

'I would like to get emails from the wardens and other staff about what is happening on the property with regards conservation. I feel like I just do one job at times and I don't know what is happening anywhere else.'

When asked in the next question to explain some of the key environmental issues that the students have learnt whilst on placement half of the students went very quiet, unsure of what to say. Half of the students said that they did not know how to answer the question, they could not think of any of hand or other than basic environmental information that they would have learnt at home there wasn't much to say. However, not all of the students felt this way and one of them said:

'I have learnt that the protection of buildings is very important, architecture should be preserved so that everyone can enjoy it. The wildlife is also important I have heard staff talking about red squirrels and their protection.'

It is clear that this environmental organisation is not teaching students to the high level on sustainability needed for this organisation. However, it should be noted that learning in and through the workplace is not easy. Learners need to be able to manage and take forward their learning alongside and often integral to their daily work activities within an environment which is often hectic and unsystematic. (Rhodes and Shiel 2007) The students felt very uncomfortable talking about environmental issues apart from the students who were actually studying within this discipline but as Larsson (2009) says it can be difficult to ensure that ESD receives space in the day.

The lack of knowledge with regards sustainability led me to ask my next question 'Do you feel that the environmental organisation could do more to make staff/volunteers more aware about environmental issues? If so explain'. All of the students interviewed said yes. Some said that there should be courses about the environment and conservation provided through the organisation, others said that more information around the workplace about sustainability would be useful and one student in particular stated:

'In order for this organisation to thrive even better than it does, we need to as staff be made more aware of sustainability so that we use our resources better and don't waste money or materials, to be honest there is not even recycling facilities within this organisation.'

Another student stated:

'Although everyone is working for the conservation charity only those whose forte is in that really knows about the environmental issues surrounding the property. It would be good for all the staff to have some general knowledge of this so they know the basic

conservation aims of the National Trust and in particular the property they are based at. ‘

When I asked the students if they had any other comments there was a resounding statement that they all gave, they really wanted to know more about the environment and what they could do as staff to make it better. Jenson (2000) realised that through ESD students develop knowledge and insights as well as perceptions of their future lives, their visions, their ability to act responsibly which is exactly what these students would like to do. One student said:

‘I enjoyed my placement and enjoyed working in such a beautiful place. I appreciate the importance of keeping these places sacred and am glad I can enjoy them but don’t think I was involved enough in the environmental aspect of Castle Ward for it to change my views.’

It is important to note that if ESD is going to be a part of a student placement that provisions are going to have to be put in place by the organisation to provide information about sustainability and incorporate it into daily activities. This is an environmental organisation and still the students are leaving their placement with little knowledge of ESD. Bradfield provides a valid point that the average manager with wide ranging responsibilities issues of sustainability must compete with everything else that must be accomplished. If sustainability is going to take root and thrive in an organisation it has to demonstrate value to managers and employers and ultimately to consumers. At the moment sustainability is not of great value to this organisation therefore they have not embraced it as they should. Perhaps this will change in time.

### ***Summary***

The findings of this study show that despite the growth and interest in workplace learning, research is still needed that continues to explore how colleagues and supervisors help employees learn (Eraut et al 2002) It is evident that the students want to learn more about sustainability but have not been given the opportunity. The findings also indicate that the environmental organisation needs to place more emphasis on this area. Overall the students found that a placement was very beneficial and will help prepare them for life after their degree. The placement also helped the students with future decisions and career plans and many of the students believed that more experiential learning like placements would be a better way for them to learn. The findings also suggest the students came from a variety of backgrounds and completed many different roles within the organisation which allowed them to gain a true insight into the management of the organisation. The findings also point out that although the placements were voluntary it was found unanimous that this did not matter as the experience gained was more important. Through this placement the students have been able to understand a little more about sustainable development but there is still a need for more research and changes within the curriculum and ESD.

### ***Limitations***

The findings of this research give an insight into the lives of students whilst they are on placement. This study is unique and cannot be considered to be true of all

environmental organisations but it does delve into issues that need further questioning. Further research is needed in a number of areas but due to time issues they could not be examined within this paper.

### ***Recommendations***

Both universities and organisations have a duty to promote sustainability so that the resources we have can be maintained and used effectively. More research is needed into ESD and its place within the curriculum of universities and also the place of ESD within organisations. The students interviewed showed a desire for different learning methods to be implemented within the university and therefore more research around student perceptions within the classroom is also needed along with research on learning methods and how they can be implemented. Overall, this is an area where considerable research and justifications are needed if ESD is to be incorporated into the curriculum and the student's daily lives.

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# **Multi-cultural groups for learning and employability at business schools.**

**John Vaughan**

## **1.0 Introduction.**

Berger (1996) proposes 3 methods of learning: Didactic, Syndicate and Experiential. Traditionally the global method has been 'didactic' with an expert lecturing students. In didacticism the expert's culture is seen as more valid than the participants' cultures, thus ignoring the concept of 'cultural relativism', (Hofstede, 1991). Another assumption says that older people's opinions are more valid and perhaps another says that positivist research methods are more appropriate than social constructionist ones in education, (Easterby-Smith et. al., 2002). It is hypothesised that these assumptions stifle innovative thinking and development of the global citizen.

In contrast, the use of multi-cultural groups argues that much learning can take place in small self-managed syndicates where group members discuss models directed by a 'Co-ordinator' (Belbin, 1981) who ensures all members contribute. The allowance of different perspectives leads to more creative thinking and a global mindset (Adler, 1997), and these skills allow graduates to be more employable in a complex world.

This paper presents the observations and reflections of a facilitator with 16 years practice in a number of business schools in the United Kingdom and Asia and hopes to prompt other researchers to experiment with a number of complementary hypotheses. The paper begins with a look at the types of programme upon which the Multi-cultural Team model has been used, goes on to discuss methodological issues, continues with results of data collection (observation and email feedback) and finishes by proposing a theoretical model which might be used by others. By the very extensive, hermeneutic (Susman & Evered, 1978) nature of such a theory, many associated themes and hypotheses emerge and these will be touched upon before the concluding words.

## **2.0 Observations on logistical differences between programme types.**

Essentially, the multi-cultural team approach has been experimented with in four domains: undergraduate, M-level, PhD and Professional. A brief word will be said about constraints in each of these areas. Having developed the Masters programme at Leeds University Business School (LUBS) for 16 years with total autonomy and independence, this is the arena within which most experimenting, hypothesising and learning has taken place. UK business schools have an incredible opportunity for global learning at M-level as an accident of the worldwide demand for this level and type of education within the English medium.

Initially our Professional Skills programme (run for the Accounting & Finance division) focused on a combination of study of basic Organisational Behaviour models and issues with a practical application of those, perhaps following Lewin's (1952) dictum "there is nothing so practical as a good theory" (p. 169). While presenting Tuckman's (1965) famous model of group development, for example, it seemed appropriate to put people into groups and follow their progress over the next several weeks and comment on their behaviour/progress compared to the stages in the model: Forming-Storming-Norming-Performing. One observation which came out, as a result, is that the progression is not just linear but iterative; often the various stages re-emerge during practice.

During the years of development, the course eventually became Professional and Research Skills with the latter element dealing with the fact that research methods are used by doctoral students but also by professionals and private citizens, albeit in different ways. Incidentally, this is now often recognised by the dissertation/project distinction in final M-level pieces of work.

As the facilitator's reading continues alongside practice, new insights emerge from published research and one piece which was of particular value to this development was the extension to Tuckman's early work provided by Rickards and Moger (1999) who extended the original four stages to a fifth, 'outperforming'. Teams who achieve this level were dubbed 'Dream Teams' as opposed to the 'Average Team' and the 'Team from Hell' at the other end of the normal distribution. As a result of research done at Manchester, the authors concluded that Dream Teams 'outperformed' because of several factors, but critically, the presence of 'Creative Leaders' made the difference. As a result of this work, this author was able to encourage class members to be creative and take risks in what they did.

Undergraduate classes are something this author has recently returned to and the differences, compared to M-level, affect the facilitator's ability to introduce that element of risk, mentioned above. Currently on a well-respected Organisational Behaviour programme, one does not have the same autonomy or scope for several reasons. First, the workshops have material handed down from above and these are based on a textbook (Robbins et. al. 2010). Secondly, the classes are much more dominated by UK nationals with even the non-natives having a higher level of English fluency than M-level classes. A third factor is the class size, with a maximum 30 for undergraduates while M-level has often had double that number. A fourth difference is the fact that the undergraduate programme develops over 8 months as opposed to a typical M-level 10-credit module which lasts little more than 2 months.

Some consequences are that much more time can be taken changing groups around in the early weeks so that the class get to know as many people as possible before they are fixed in teams for the rest of the programme. However, the flip side, contrary to accepted dogma, is that the limited number in the class means that there is not enough potential for diversity in teams. Following Adler (1997) such diversity provides the potential for more creative work so long as it is well facilitated. So, having larger class sizes actually facilitates better learning! The textbook deals with Individual matters first and the concept of Group/Team work does not come in until after the winter break so the 'Team Focus' which this author would emphasise cannot take precedence due to the structure of the text chosen by others.

Similar courses with doctoral students are perhaps the most frustrating for a professional practitioner. Although one is given autonomy to propose a course, there is no compulsion on anyone to turn up to class, there is no accreditation and often the students' own divisions will arrange other activities which clash with the times for what we have called 'Behavioural and Team Skills'. This means that the concept of an organisation, in this case the PhD cohort, learning something is almost impossible although individuals who see the relevance provide great stimulation and get a lot from what is on offer.

In the case of professional programmes (based on experience with the Emergency Planning College, Yorkshire Water, Ministry of Defence and Siam Cement) the key

is to balance the Team models with case studies such that these professional people can extrapolate back to their own environments. This follows the concept of ecological validity or “the extent to which conclusions might be generalized to social contexts other than those in which data has been collected” (Gill & Johnson, 1997, p. 179). Experience suggests that most course participants see the value and recognise, particularly on Change Management programmes, that the diverse team is perhaps coming to be recognised as the key to success in the modern organisation.

### **3.0 A Methodological Word.**

Easterby-Smith et. al. (2002, p. 30) claim a number of important ways in which Social Constructionism differs from Positivism. The key ones for the purposes of this paper are that:

1. “Human interests are the main drivers of science.”
2. “Explanations aim to increase general understanding.”
3. “Research gathers rich data from which ideas are induced.”
4. “Concepts should incorporate stakeholder perspectives.”
5. “Units of analysis should include the complexity of whole situations.”
6. “Sampling requires small numbers chosen for particular reasons.”

Particularly important here is the notion of human values as the main drivers of science. This author believes this to be critical to the important work of education and educational research and is driven by what Hofstede (1991) refers to as the “common problems” of disease, warfare, global warming etc which we, despite our “different minds”, all share. The sine qua non of this author’s research stance and therefore this paper is to say that our belief is that multi-cultural understanding must be developed if we are to solve the problems highlighted by Hofstede and any research conducted in this field should aim to learn through the feedback elicited from differing stakeholders such that this is built into the model in a continuous mode of improvement. This draws on Argyris et. al. (1985, p. 4) view of Action Science as one which provides “alternatives to the status quo” and Morgan’s (1997, p. 311) idea of the “interventionist-researcher” within an Action Learning approach.

### **4.0 Some observations.**

Morgan (1997, p.302) usefully talks about three classes of data within his Action Learning approach. Class one data is that which is completely objective and can usually be counted. Class two data, on the other hand, is phenomenological and social constructionist in that it comes from utterances made by interviewees and others. Class three data are those which are the interpretations of the researcher. There now follows some class three data i.e. interpretations of observations made in M-level classes over the years by this author.

First, and following Hofstede’s (1991) observations on the IDV (individuality) dimension, Asians, and particularly south-east Asians, are much more comfortable with the syndicate style of learning than are Europeans or north Americans. Following from this, Europeans, perhaps with better command of English along with the high IDV profile, take much more easily to the role of Co-ordinator (Belbin, 1981) which each member of the class is expected to take on. Nonetheless, in a 10-week programme, using groups of 5, those less accustomed to such a role improve, first by practising twice, and secondly, by observing others with perhaps more skill.

A second observation, following on from the first, is to note that the Tuckman model, despite its iterative nature in practice, does seem to provide strong predictive evidence of a move from 'Storming' to 'Performing'. A course can perhaps seem to be 'plodding' once people have settled in and 'normed', say after five or six weeks of a programme, and the introduction of a real piece of research for the groups to do can re-invigorate the programme and allow group members to take on roles in a complementary relationship leading up to the 'perform' stage. In one class the Teams chose different organisations to research and different members took on different types of research. Two members might go through the published accounts while two more might interview customers leaving a restaurant, for example. All three types of data mentioned above were collected and groups were able to come to a holistic, triangularised (Gill & Johnson, 1997, p. 178) conclusion about the organisation in question.

In one particular year, groups studied Leeds Rugby, Morrisons supermarket, the Strawberry Fields restaurant and the Camphill Trust, a working village run by people with special needs. The group studying the latter case travelled to north Yorkshire, interviewed the workers, many with handicaps, and came back with a most compelling collection of data and learning which demonstrated that the experience had been transformational for them all. This author who was the class facilitator learnt that students need to get a break from the grind of lessons once they have all settled in and understood the course overview. When they come back they can present their findings and then prepare for the end of course assessment such that the course moves in stages rather than just 'plodding on'. The facilitator further learnt the importance of students leaving the business school and appreciating the country they are in for a year.

### **5.0 M-level feedback.**

Although Gill and Johnson (1997, p. 42) state that "manipulating, comparing and looking for differences are at the heart of the experimental logic", this author offers another view of experimentation as being one where things are tried in an uncontrolled way simply to see what happens. One of the crucial things brought into the programmes was the use, as mentioned earlier, of the Belbinian role of Co-ordinator with each group member having two opportunities to practice this role. Apart from the basic skills of allowing all members chance to express a view, the Co-ordinators were also asked to send a brief email to the class facilitator each week commenting on progress and providing feedback. There now follows six of these emails to which a brief commentary has been added. This again is very much seen as class two data followed by class three data in the Morgan schemata mentioned above and true meanings, apparently obvious, can be verified by "long-run intersubjective agreement" Pugh (1983, p. 47).

#### **Email 1: Aubrey, Guyanan Male.**

"I like the fact that you are equipping us with the tools applicable to getting the most out of our degrees and being able to influence the working environment from a global multi-cultural perspective." "We display different strengths with respect to the nine archetypal functions mentioned in Belbin."

**Email 2: Mohammad, Jordanian Male.**

“let’s say it got me out of the bubble that I have put myself in. I started seeing other people and making new friends other than those who came with me from Jordan. I am also more aware now of the importance of communication skills and the importance of developing them.” “Some members were talking about feeling a little bit homesick which made me talk about when I first came to Leeds 4 years ago and how I overcame the feeling in order to make them feel a little bit better.”

**Email 3: Shirley, Indonesian Female.**

“After discussing and picking the 3 most important news, we headed on the next task, revising the chapters of Hofstede and other previous lessons. It was nice to make progress thanks to our wonderful brainstorming together.” “Thanks for bringing us together and give us the chance to be close together with this wonderful talented people. I hope we can be a dream team and make you proud.”

**Email 4: Kim, Vietnamese Female**

“I’ve sent emails to all members to present my viewpoints and suggestions about the project to our performance. Some have not replied and this could be from their reluctance and partially my weak ability in motivating all members.” “To obtain the second class of data, I suggested our group have a day trip to the Camphill community and we can collect data for the project by some interview/questionnaire.” “We are considering action research and ethnography methods to examine the success of this charity organisation. Could you kindly give us some suggestion?”

**Email 5: Kavooos, Cypriot Male.**

“At the time I didn’t really see how each of the topics could come together because you teach such a diverse range of material. However, you have opened my eyes and enabled me to see different cultures and different ways of working.” “Your module has challenged some of my views in a positive way,” “I am sure this module will serve me well in the future especially when I tell potential employers about all I have learnt.”

**Email 6: Roza, Kazakh Female.**

“Thank you for all the opportunities you gave us to learn things. I had the most incredible experience here during the year. It was amazing for me to be part of a multi-cultural team. Moreover, for me personally it helped me to become a confident person and to share my views and ideas openly.”

Referring back to the introduction, the key issue coming from these unsolicited participant comments is the fact that they were not just sitting soaking up the words of a professor. On the contrary, they were developing their communication, leadership and team skills and offering their own perceptions on the learning process. These skills are not often recognised in business schools, where a more corporate, managerial agenda is often preferred leading to what Grey (2002) calls “isomorphism” (p. 500), a single ‘managerialist’ mode of thought which excludes critical analysis.

Many email reports were very short doing little more than introducing the team members and, as can be seen, some just refer to the enjoyment and the fact that the lessons are a refreshing change. However, there are also some very high quality

comments that come in. For example, Kim discussing the various classes of data collected and Kavooos, a financial mathematician, showing how learning does not have to be totally linear even for an ultra-rationalist. Mohammad, the Jordanian, would never have had the opportunity to develop his leadership skills and Roza would not have built her confidence on a normal programme.

### **6.0 A proposed theoretical model.**

Although, as noted by Easterby-Smith et.al. (2002), Social Constructionism seeks to increase general understanding of a particular situation, it is felt that theory building can result. Mintzberg (2004, p. 395) tells us that theories go through three stages: "First they are wrong; then they are subversive; finally, they are obvious". To this author the benefits of Multi-cultural team learning in business schools, and other contexts, is obvious, particularly from the few emails mentioned above and the proposed theoretical model's aim is to convince others such that it becomes base practice. The model has six key elements as seen below.

First, there is the base concept of the multi-cultural team itself. In order for the facilitator to have as much diversity as possible, the administration needs to have classes of at least 40 students such that a typical group of 6 can have a minimum 4 nationalities and at least 2 of each gender. A good mix of nationalities would include people with as much diversity as possible according to the Hofstede (1991) dimensions of Power Distance, Individuality, Masculinity and Uncertainty Avoidance. It should be noted that large class size helps rather than hinders the learning and, of course, is clearly more economically effective.

The second key is to try to have a programme which develops over a whole year, perhaps twenty or thirty credits. Since the claim is for development of modern organisational skills and since most M-level students have no desire to go on into academia, the commitment should be seen as worth it and the appropriate vehicle is Professional and Research Skills. The first, pre-winter, term can develop basic organisational theories while, following the winter break, groups can meet less frequently and learn research skills which culminate in a group organisational study and presentation during the summer. The use of Darwin's theory of Evolution has proved particularly effective in introducing the basic questioning role of the scientist and provoking stimulating debate amongst students from differing backgrounds, generally conducted in a very respectful manner. Nonetheless, the tutor can have a certain amount of scope under the Professional and Research skill banner.

A third key is to use the Belbin(1981) team role theory, first to identify members' strengths and weaknesses and then to identify which skills can be brought to bear on class tasks and projects. One example is to have a 'Monitor-Evaluator' step outside the group, as an observer, feeding back with observations at relevant points. Crucially, however, is the role of the 'Co-ordinator' and, as has been mentioned, all members have the opportunity to take on the role twice during a 10 or 12-week programme. This practice is exactly that which provided the Kazakh lady with the confidence mentioned above. A key part of the co-ordinator role is the feedback email to the class facilitator.

A fourth principle is to have enough time to develop something in each session and 90-minutes would seem ideal. Given that 10 minutes is lost at the start and finish due to the time needed to travel across campus, there would be 80 minutes left and this

allows the facilitator the chance to examine four models/themes using the following formula: 5 minutes introduction by the facilitator; 10 minutes groupwork with facilitator going round listening, observing and making notes; 5 minutes feedback from facilitator to the class.

The fifth principle is the form of assessment and there are three important elements here: first, since such a course attempts to encourage creative thinking, an essay is seen as being crucial, particularly when it simply asks the candidate to say what they have learnt on the course. Clearly this gives the opportunity for the choice of theories seen relevant to the individual but also the practical team work means that examples are of a personal nature and obviate the possibility of 'plagiarism'. A second element should be based on attendance and preparedness as these are key professional skills. This could be some kind of 360 degree method with other groups assessing each other, internal scores given and a facilitator 'group score', based on observations of the group's effective working.

Finally, the size of group can be changed according to the desired outcome. Belbin (1993) considers the work team to have an ideal size of four members. Given that members normally have strengths in two or three roles, four members ensures that all nine roles will be covered. On a Masters programme, however, the facilitator may wish to begin with larger groups, changing them randomly each week of the programme until most of the cohort know everyone else. Later, especially if the course runs over 2 terms, there can be fixed teams chosen according to Belbin criteria, gender and provenance (with perhaps racial and religious elements). Whereas the larger groups lend themselves to Tuckman's (1965) 'Storming' stage, the smaller groups lend themselves to 'Performing' and perhaps 'Outperforming'.

## **7.0 Application to other contexts**

Although this author's work has been conducted in business schools and the belief is that these organisations can exert huge influence on society at large, the applications for other contexts can be readily seen. There is already important work going on in primary and secondary schools with perhaps a recognition that a pupil's individuality and diversity is something to be welcomed and understood such that cultural dominance is avoided. Research could usefully be done into the effects of multi-cultural teams on bullying, self-esteem and other crucial social skill areas. Within the modern organisation, also, the creative benefits of diverse views, understanding of global markets and ability in several languages is the hallmark of the excellent, 'outperforming', diverse team.

## **8.0 Conclusion**

The words above have attempted to convey a little of how the use of multi-cultural teams differs from the normal didactic mode of education. It is felt that, even when attempts are made to use 'teamwork', the rationale is not clearly thought through with 'teams' typically being allowed to self-select. Using the suggested model above it is hypothesised that the organisational inputs (independent variables), Individual-Group-Organisation, can lead to better outcomes (dependent variables) Productivity-Absenteeism-Satisfaction-Turnover. Hence the IGOPAST model (Vaughan 2004). The key here is the 'G' or Group which enables the class facilitator to move the Organisation's (class's) culture towards a proactive, co-operative, problem solving

one. In this respect the 'G' is also the glue which binds the individuals to the organisation. It should be noted that the Multi-cultural team theory allows for any part of the model to be a dependent variable since the culture affects the individuals and the groups as well as being, in turn, affected by those variables. This mirrors the 'case for configuration' proposed by Miller and Mintzberg (1983, p. 62) in which "A large number of attributes – ideally of state, process and situation – are studied simultaneously in order to yield a detailed, holistic, integrated image of reality." Finally, for administrators in business schools, the Multi-cultural team is economically viable since a facilitator can be more effective than a lecturer even with a bigger class. Feedback shows that approval ratings are very high for a number of reasons not least because participants are treated as adult individuals and sentient beings.

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# **The role of education for sustainable development in families' sustainable consumption**

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## **Introduction**

This paper focuses on the connections between Education for Sustainable Development and Sustainable Consumption in terms of investigating the trajectory of influence from a programme of ESD at schools on children and from children on their families towards more sustainable lifestyles and more sustainable consumption patterns. It also looks also at the intergenerational and intrafamily relationships; addressing children's scientifically proven active role in families' decision-making processes (e.g. children's participation in family purchases: Cooper, 1999; Solomon, 2002).

The aims of Sustainable Consumption are "...to promote patterns of consumption and production that reduce environmental stress and to develop a better understanding of the role of consumption and how to bring about more sustainable consumption patterns" (Agenda 21, 1992, par. 4.7). This is also what ESD tries to achieve, since "...education is critical for promoting sustainable development and improving the capacity of people to address environment and development issues" (Agenda 21, 1992, par. 36.3).

ESD derives from the concept of Environmental Education when the terms of sustainability and sustainable development were first introduced in the 'word list' of environmental education in the 1990s by the World Conservation Strategy (IUCN/UNEP/WWF, 1980), combining economic, social and environmental development by redirecting the initial goals of Environmental Education towards Education for Sustainable Development; and later on also towards sustainable lifestyles, enabling citizens to "...understand, appreciate and implement sustainable strategies" (Tilbury, 1995, p. 198). A later version of the World Conservation Strategy (IUCN/UNEP/WWF, 1991) regards the ethic for sustainable living as a very important concept that education programmes should focus on.

The main principles of ESD are based on enabling "...people to develop the knowledge, values and skills to participate in decisions about the way we do things individually and collectively, both locally and globally, that will improve the quality of life now without damaging the planet for the future" (DETR, 1998, p. 4). The Sustainable Education Panel gave the following definition for ESD saying that "Education for Sustainable Development is about the learning needed to maintain and improve our quality of life and the quality of life of generations to come. It is about equipping individuals, communities, groups, businesses and government to live and act in a sustainable way; as well as giving them an understanding of the environmental, social and economic issues involved. It is about preparing for the

world in which we will live in the next century, and making sure that we are not found wanting” (ibid).

Hence, our lifestyles and consumption habits need to change according to the three-faceted character of sustainable consumption, that is to say consuming less, responsibly and differently; leading to Sustainable Development and learnt through ESD, through changes in our everyday practices which constitute our lifestyles. In other words the way we lead our lives, where our role as consumers is central from food to natural resources consumption (e.g. water and energy consumption).

### **Children’s influence on families’ sustainable lifestyles**

There have been a few studies which try to investigate if children can influence their family members, especially parents, to lead their lives according to the principles of sustainability, changing their consumer behaviour; and this is a field which started attracting attention in the early 1990s (Rickinson, 2001) and since then it continues to gain ground. Its main goal is to examine the trajectory of influence of school on children and children’s influence on parents through intergenerational influence (see for example Uzzell et al., 1994; Leeming et al., 1997; Vaughan et al., 2003) in order to engage into more sustainable lifestyles.

In order to move gradually from the concept of consumption to sustainable consumption, we should first address the concept of consumer socialisation. Grønhøj (2006) mentions the concept of consumer socialisation as a learning process about consumption behaviour, usually from parents to children and vice versa, where children can influence and change, even slightly, their parents’ consumption habits and behaviour and having the potential to ‘socialise’ their parents and other family members (Easterling, Miller, & Weinberger, 1995). This reverse influence of children on parents can be direct or indirect (Grønhøj, 2006), through children’s pester power and through life events that change family’s everyday life respectively. Hence, children’s influence on their parents’ sustainable lifestyles sometimes is more obvious (Easterling et al., 1995), but most of the times it is a bit vague (Sutherland & Ham, 1992).

In the literature of ESD for Sustainable Development, almost ten studies have been published, where students’ influence on their parents’ knowledge, attitudes and behaviours is the main locus of interest. Looking back, Sutherland & Ham (1992) were the first who tried to investigate this kind of relationship and influence until 1994, when Uzzell et al. through his studies wanted to raise children’s action competence; and later on, Evans et al. (1996) asked children to rank a sample of eight major environmental issues. In 1997, Leeming et al., used activities to influence students’ knowledge and attitudes and their parents’ attitudes and behaviour.

The next step was taken by a study held in 1998 by Ballantyne et al. (1998), evaluating the rate of recurrence, nature and contentment of children’s communication with their parents; and in 2000 Legault & Pelletier tried to pinpoint the motives of both sides. In 2001, Ballantyne et al. (2001), examined the students’ intention to act and in 2003, three studies were conducted; one with follow-up activities eight months after the end of the programme (Vaughan et al., 2003), one focused on a long-term environmental education programme (Volk et al., 2003) and one included children and parents’ participation in a school waste education programme (Grodzinska-Jurczak et al., 2003).

Some of the factors that could affect the intergenerational influence of children on their families' sustainable lifestyles are the parents' collaboration with children in their homework activities (Uzzell, 1994; Ballantyne, 1998), the relevance of environmental issues to children's everyday lives (Ballantyne et al., 2001), the enjoyable experiences the children gain at school in terms of the environment (Ballantyne et al., 1998, 2001, Vaughan et al., 2003), the emotional engagement of children in environmental issues, (Ballantyne et al., 2001) the novelty of the environmental activities at school (Ballantyne et al., 2001), the length and component of the homework related to the environment (Ballantyne et al., 1998), the parents' and children's environmental knowledge and concern (Uzzell, 1994), the communication between parents and children's communication (Uzzell, 1994, Ballantyne et al., 1998; Easterling et al., 1995); children's cognitive status, exposure to nature and resources (time, income and residential location) (Easterling et al., 1995), the opportunity to see children as experts (Uzzell, 1994; Duvall et al., 2007), a supportive wider community (Rickinson, 2001) and finally an environmentally concerned teacher (Legault & Pelletier, 2000; Ballantyne et al., 2001).

This relatively small number of studies did not manage to provide literature with concrete evidence and conclusions concerning the potential of environmental education programmes to encourage children to persuade their parents to change their lifestyles. However, it is believed that there is a tendency to that direction for a positive and durable effect (Uzzell, 1999) although it is still regarded as weak in terms of knowledge transfer and influence (Sutherland & Ham, 1992; Leeming et al., 1997). But this weakness can be moderated and reversed through the repetition of ecological information (Legault & Pelletier, 2000) and the ongoing engagement in an Environmental Education programme (Hungerford & Volk, 1990; Leeming et al., 1997). Finally, these studies were not able to offer rich information about the negotiations that take place at home (Larsson et al., 2010), leading to an intense but inconsistent and unreliable transfer of environmental information from children to parents (Vaughan et al., 2003; Sutherland & Ham, 1992).

### **ESD in the UK**

Vare and Scott (2007) stress the need to pass the meaning of Sustainable Development, which is seen as a learning process, through every phase of education, supporting in this way the field of ESD. Scott (2009) explains that ESD should stimulate (young) people's awareness, understanding and skills in the sphere of sustainability and maximise human well-being and ecological integrity via social engagement and action; stressing consequently both the educational and social outcomes that UNESCO sees in ESD. This dual nature of the outcomes can be seen through the threefold focus of the Sustainable Schools Strategy of the Department for Children, Schools and Families (DCSF) which is on curriculum, community and campus; where school can be a locally based learning community within a wider socioeconomic community, but with global focus and perspectives.

In November 2006, the Department for Education and Skills (DfES) launched the National Framework for Sustainable Development, setting the target for every school to be a Sustainable School by 2020. This initiative was based on the government's acknowledgement of the role of schools in forming attitudes and behaviour, by influencing students directly and their close social environment (e.g. family and

community) indirectly. This programme encouraged students to lead their lives in a sustainable way, having communicated the message and set a good example to others.

The idea of Sustainable Schools is built upon a set of three parts, namely a commitment to care, an integrated approach and a 'doorways' selection (or sustainability topics). The commitment to care consists of a three-faceted commitment of students to care for themselves, for each other and for the environment. Regarding the integrated approach, the school will try to improve its performance towards the sustainability target through the teaching provision and learning methods included in the curriculum, the school's values, the ways of thinking and working within the campus' borders and finally through its ability to engage the local community and students' social circle. Finally, as far as the eight 'doorways' to sustainability are concerned, in effect they are specific and discrete fields where the schools should focus on and decide for their sustainability approaches and practices. These sustainability themes are 'food and drink', 'energy and water', 'purchasing and waste', 'buildings and grounds', 'inclusion and participation', 'local well-being', 'global dimension' and 'travel and traffic'.

### **Methodology**

This research study has been taking place in two primary schools in the wider area of Leeds, West Yorkshire-UK and considered all the ethical issues (disclosure of private life information and freedom of participation) that may arise relating to the fact that children under 16 years old and their families are going to be recruited; having ensured the consent of the head teacher, parents and children themselves. About fifty families from the first school have been sent a letter with the reasons of my presence at school and the goals of the research, along with a consent form to sign if they agree themselves and their children to get involved further, with a view to ensuring at least 20 consenting families and children from each school. In the first case study, 21 consent forms were returned to me but finally only 17 parents turned up for the interview.

This study is still in progress and only the first case study has been completed having one more to go. The first stage was the interview with the experts who contributed greatly to setting the criteria for the case studies (schools). The second stage was the selection of the schools, based on their environmental performance, geographical position and the demographic characteristics of those areas. Consequently, two primary schools have been chosen (they are members of the Lead Partners Sustainability Team) according to the Leeds Education Sustainability Team; in a deprived and a less deprived area respectively, according to the Index of Multiple Deprivation 2010 in the UK (more details in the following sections). The first case study is a primary school in Leeds where to date only the interviews with the head of the school and the teacher of year five have taken place. Among others, the teachers indicated the best year to work with (year 5); bearing in mind the curriculum, students' active participation, willingness, exams and so on.

The next stages of the study were the one week participant observation at each school, during which questionnaires were handed out to students in order to investigate primarily their perceptions regarding their influence on their family members. Moreover, the children, in forms of groups, participated in research design by writing the questions (closed and open-ended) for the interviews with the families; aiming at

background information, such as demographic characteristics, knowledge on environmental issues and their perception about their children's influential role within the family.

Finally, based on parents' answers about the factors of influence and more specifically, the role of their children as they perceive it, groups of children were formed according to their parents' perception about their influence; in order to compare and discuss the perceptions of children and parents regarding the influence of the former on the family members towards more sustainable lifestyles, with the help of various participatory methods.

### **Conclusions from the experts**

The first step of this project was the interviews with four experts in the field of ESD in the UK, regarding the implementation of the National Framework for Sustainable School; with a senior official from the Department for Education (ODE) in charge of the Sustainability schemes at schools in the UK, with Professor William Scott<sup>4</sup>, with Dr. Chris Gayford<sup>5</sup> and finally with a Sustainable Schools Consultant (SSC) from the area of Leeds.

Since the main focus of this paper is the role of school and its influence on children and community, the school's ethos was emerged as a concept of major importance. Specifically, the ODE highlighted that the National Framework for Sustainable Schools is aiming to change schools' ethos, embedding the principles of sustainable development, to raise their awareness, to make people (teachers, students and parents) understand its importance, to instil values and change their perception, in order for it to be seen as a way of living and acting with wide effect, by setting an example to the wider community rather than an extra 'burden' on schools' shoulders and Scott also agreed with the view of the ODE that schools can be potential role models in the communities.

Regarding the transfer of the sustainability message from schools to students and then to families, the ODE believed that it is enhanced if the students see examples of sustainability in their everyday school life, if they find it exciting and inspiring, if their voice is heard making them feel like experts and if the feelings of ownership and importance are cultivated. This kind of ownership relates to the knowledge, experience and achievements that the children have gained. She believed that that there is a transfer to the family

*“...if sustainable schools strategy is really embedded and children are learning about it both in formal lessons in the curriculum but also what they're observing around and in the way the school operates and the grounds of the school, and the buildings of the school around” (ODE, 2010)*

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Hence, the ODE considered it possible for the students

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<sup>4</sup> Professor William Scott from the Centre for Research in Education and the Environment at the Department of Education, University of Bath.

<sup>5</sup> Dr. Chris Gayford was formerly at the University of Reading and now he is an independent consultant in ESD.

*“...to be excited by that and they may go back home and talk about it and if they’re learning particular areas of the curriculum that relate sustainable development, maybe climate change or something, they will go home and they will talk about it; and they will influence their families and friends through doing that.” (ODE, 2010)*

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Gayford added that habit and habitualising an action at school at an early age when children can see the value of these actions is important. Then these habits can be seen as a fruitful way to make children carry on, persuade their family members and develop a link between home and school, and finally transfer the message of sustainability. For example he said that

*“...children will once they’ve got the habit of recycling at school, they will be very ready to persuade the parents at home to start recycling. Generally speaking, that is quite a fruitful way of developing a link between home and school” (Gayford, 2011)*

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Despite the transfer of the message of sustainability from school to children and then to family, a consultant for sustainable schools (SSC) expressed his concern that much of what children learn at school may have limited impacts on their own behaviour at home.

*“I think they (children) have all this information, they are very aware of climate change but their lifestyle are highly energy intensive, they don’t walk anywhere...so there is a contradiction between what they learn and how that impacts their own behaviour” (SSC, 2011)*

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The SSC highlighted the contradiction of what children learn at school and what they do at home, because to some extent, the school life and the home life are completely separate. He still wondered if children discuss with their family members what they learn at school with the view to persuading them to take this knowledge on board and change their behaviours, or whether they just repeat what they learn.

As far as the further implementation of the strategy and the ‘doorways’ that are more preferred or promoted are concerned, all experts agreed that energy and water savings draw the lion’s share of government and schools’ interest, because energy efficiency and water saving can be easily translated to money saving and carbon saving as well. Additionally, these two doorways are more easily measurable and comparable; being at the same time a feasible starting point. So, a rather rational choice-based approach can be taken as a starting point for further action.

*“If you tackle it purely from the point of view of saving money, which is a very effective starting point, when the other benefits start” (Gayford, 2011)*

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Finally, regarding possible differences in how this strategy is perceived or adopted in different areas (e.g. rural or urban) and by different types of families (e.g. working

class or middle class families), the ODE had not observed or heard anything that could imply something like that.

*“No I wouldn’t say that. I think it’s a good way of engaging with communities and parents whatever class they come from. But I am trying to think...most of our best schools and certainly the inner city schools tend to have a whole range of groups coming to them. I wouldn’t say that from what we’ve seen it is confined to or even majority middle class schools” (ODE, 2010)*

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On the other hand, Scott classified the families into three types, those that do not care, those that do care but do not know how to do it and those that care and understand the system; where the last two are an example of middle-class families. Characteristically, he said that

*“There are three broad categories: (i) don't care, (ii) do care but don't know how to do it and (iii) we care and understand the system” (Scott, 2011)*

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and he concluded that it is more likely for people in the middle class to learn and change than those in working class, since the former are more receptive. Gayford agreed with the aforementioned viewpoint especially in terms of the sustainability agenda, having stressed though, that it is rather matter of priorities, since the people from poor backgrounds have more immediate concerns about their finances and essentials, considering sustainability of secondary importance. To support this point of view, the example of low attended parents evenings in deprived areas in contrast to the middle class areas, was mentioned by the SSC.

*“In the schools in the more deprived area, you may have more difficulty in getting to parents, because that is what schools often say to us, parents evenings are not very well attended in deprived areas (deprivation and working class areas), while the opposite is in middle class areas” (SSC, 2011)*

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Gayford continued saying that this difference in attitudes between poorer communities and better off communities can be possibly and partially tackled if the right things are supported each time; in other words, if different approaches and arguments are used for different cases, aiming almost always at a personal benefit. He particularly said that

*“If you tackle it purely from the point of view of saving money, which is a very effective starting point, when the other benefits start. It’s part of the learning about the bigger impact. So, sustainability is a good way of getting people to address the issue and feel that it is something they want to get involved with. I think people will respond to that, but they won’t respond unless there is other personal benefit to start with” (Gayford, 2011)*

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## **Conclusions from the case study**

The first case study is a primary school<sup>6</sup> in a deprived area of Leeds. According to the Communities and Local Government website (<http://www.communities.gov.uk/corporate/>) the Index of Multiple Deprivation<sup>7</sup> in 2010, ranked the area of this school in the 37% most deprived areas of the country; and according to the latest OFSTED report in 2010, this school achieved several awards and was characterised as a ‘good’ school and its students achieved a ‘good’ score for their contribution to school and wider community.

Moreover, this specific school is a member of the Lead Partners team of the Education Leeds-sustainability team and has the responsibility to educate and train other schools according to the principles of the National Framework for Sustainable Schools; confirming that it has achieved high and recognised standards for its pro-environmental performance.

The Head Teacher and a teacher of the Year 5 of the school were asked among others about the integration of sustainability in their school ethos, about any preference for specific doorways to sustainability that their school has shown, children’s and parents’ willingness to take sustainability on board and children’s potential to turn their parents ‘green’ and the role of family socio-economic background in the families’ pro-environmental behaviour.

Based on Prof. William Scott’s classification of families into three categories, those who care and know how to help, those who care but do not know how to help and those who do not care (Scott W., 2011), the Head Teacher found it really difficult to say if this categorisation exists in the school, because most of the parents said they care.

*“I think it could be really difficult. Most of our parents would say that they care [...] I think they often forget if those routines are not embedded. When we first brought in the battery recycling holder for example we asked people to bring their batteries or their mobile phones, but if you don’t keep reminding people, they forget. So, I am sure now there are lots of people who rather than bring the batteries to our battery recycling bin they put them in landfill just because they forget. I think they care but it is not an embedded behaviour in most adults in our community” (Head Teacher, 2011)*

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Further, the teacher contended that the school was quite mixed, having observed that more families cared than those who did not, because the school had done a lot of work on school-children-and-family relationships, making parents take issues like sustainability more easily on board. But regarding the reason why some families do not care, the teacher said that this may have been the case not because those families did not care about the environment but because they may have been frustrated with their lives (e.g. they lost their job or never worked).

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<sup>6</sup> The name of the school, the school area and the names of the teacher and head teacher are not mentioned so as to ensure confidentiality.

<sup>7</sup> IMD is used to classify an area based on its level of relative deprivation

In effect, the Head Teacher was not able to say with certainty if the families' background, in terms of income and education level (working-class and middle-class families) made any difference in parents' interest for the environment, having avoided making any generalisations. However, she felt that the middle-class families' agenda were more likely to include the environment. Specifically, she said

*“Scientifically, I have never ascertained if this is the case. Evidentially, I would not say that, because I have never actually broken it down. I know particular families who are more interested and more engaged and they do seem to be the middle-class ones but I think that’s my perception. It would not be fair to say a low socio-economic family is not interested. My good feeling is that it is more of the middle-class agenda but I have not got any proof. There is no firm evidence...” (Head Teacher, 2011)*

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The teacher also agreed and found it difficult to generalise children and their families' pro-environmental behaviours in terms of the environment, but she felt that children from well-to-do families (typical middle-class families) seem to consider the environment more than working class families; and the motives could differ between poor and well-off families, for more rational (e.g. saving money) for the former and more altruistic and ethical for the latter.

Regarding children's influence on their families' pro-environmental behaviour, the Head Teacher deemed that as a school there were no specific activities that targeted children's influence on their families' sustainable lifestyles. This influence is small in some ways; because she believed that even if the children give the message to parents

*“...they possibly do it for a little bit while it’s in their heads. And the learned behaviours of the parents will take over again” (Head Teacher, 2011)*

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However she thought that this effort had more results outside the school boundaries and she gave the example of paper recycling.

*“We still ask children to recycle paper and it’s a bit of waste of time because they all get to one bin outside and then they get sorted, but we ask them to do so, because we want them to do it at home as well” (Head Teacher, 2011)*

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On the other hand, the teacher was more positive and optimistic having acknowledged both sides, those children who behave as passive learners

*“...there are some children who will never sign up to it just because they probably don’t sign up to anything. They are too passive and we need to think of ways to get them engaged” (Teacher, 2011)*

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and those children who used ‘pester power’ in a polite way to influence their families, without having forgotten to mention parents’ pester power on children and highlighted its effectiveness if it is coming from both sides.

*“I think that’s the way forward for the children to nag their parents, you know it’s ok to nag them in a polite way and don’t be disrespectful. Pester power is so important [...] parents as well can nag their children to do so. But if it’s coming from both sides then it’s bound to have an impact” (Teacher, 2011)*

The teacher, also described the change in parents’ behaviour in term of the environment as a slow but steady process and having used a term which implied the ‘mere exposure theory’ of Zajonc (1968)

*“...‘drip, drip, drip effect’ when the message is slowly and gradually getting through” (Teacher, 2011)*

Finally, through this analysis, two types of children emerged in terms of the uptake of the sustainability message. These categories are the ‘passive learners’ who just listen to the information without having applied them to theirs and their families’ everyday lives. The other type is the ‘pesters’ who nag their family members to change their lifestyles.

According to the sample of 17 children whose parents consented for their own and their children’s further participation in the research, I observed that girls’ higher percentages were in categories of influence ‘quite a bit’, ‘quite a lot’ and ‘a lot’ while boys’ higher percentages were in the respective categories of ‘not at all’, ‘a little’ and ‘quite a bit’. This made me come to the conclusion that girls’ confidence about their influence was considerably higher than boys’, but this picture would be clearer if we compared their knowledge in terms of the environment.

**sex \* Children's influence on family's sustainable lifestyles Crosstabulation**

			Children's influence on family's sustainable lifestyles					Total
			Not at all	A little	Quite a bit	Quite a lot	A lot	
sex	Male	Count	1	3	2	0	1	7
		Expected Count	,4	1,3	2,6	,9	1,8	7,0
		% within sex	14,3%	42,9%	28,6%	,0%	14,3%	100,0%
	Female	Count	0	0	4	2	3	9
		Expected Count	,6	1,7	3,4	1,1	2,3	9,0
		% within sex	,0%	,0%	44,4%	22,2%	33,3%	100,0%
Total	Count	1	3	6	2	4	16	
	Expected Count	1,0	3,0	6,0	2,0	4,0	16,0	
	% within sex	6,3%	18,8%	37,5%	12,5%	25,0%	100,0%	

**Table 1 Children's influence on families' sustainable lifestyles**

Starting with some more general conclusions, we can say that 37,5% of children believed that they had influenced their parents ‘quite a bit’ and 12,5% are boys and 25% are girls. But the interesting thing is that only 6,25% of these children believed that they knew a little about the environment and another 6,25% that they knew a lot. 12,5% believed that they knew quite a bit and another 12,5% that they knew a lot. Finally, I think that what is quite important and needs more attention is that 25%

of the children believed that they had influenced their parents a lot and this percentage came from children who knew quite a bit (18,75%) and from children who believed they knew a lot (6,25%).

However, the relationship between children's knowledge about the environment and their influence on their parents for more sustainable lifestyles is not statistically significant because the p-value is bigger than 0,05 for both boys and girls.

**Children's knowledge about the environment \* Children's influence on family's sustainable lifestyles \* sex  
Crosstabulation**

sex				Children's influence on family's sustainable lifestyles					Total
				Not at all	A little	Quite a bit	Quite a lot	A lot	
Male	Children's knowledge about the environment	A little	Count % within Children's knowledge about the environment	1 50,0%	0 ,0%	1 50,0%		0 ,0%	2 100,0%
		Quite a bit	Count % within Children's knowledge about the environment	0 ,0%	2 100,0%	0 ,0%		0 ,0%	2 100,0%
		Quite a lot	Count % within Children's knowledge about the environment	0 ,0%	1 50,0%	0 ,0%		1 50,0%	2 100,0%
		A lot	Count % within Children's knowledge about the environment	0 ,0%	0 ,0%	1 100,0%		0 ,0%	1 100,0%
	Total	Count % within Children's knowledge about the environment	1 14,3%	3 42,9%	2 28,6%		1 14,3%	7 100,0%	
Female	Children's knowledge about the environment	Quite a bit	Count % within Children's knowledge about the environment			2 33,3%	1 16,7%	3 50,0%	6 100,0%
		Quite a lot	Count % within Children's knowledge about the environment			1 50,0%	1 50,0%	0 ,0%	2 100,0%
		A lot	Count % within Children's knowledge about the environment			1 100,0%	0 ,0%	0 ,0%	1 100,0%
	Total	Count % within Children's knowledge about the environment			4 44,4%	2 22,2%	3 33,3%	9 100,0%	
Total	Children's knowledge about the environment	A little	Count % within Children's knowledge about the environment	1 50,0%	0 ,0%	1 50,0%	0 ,0%	0 ,0%	2 100,0%
		Quite a bit	Count % within Children's knowledge about the environment	0 ,0%	2 25,0%	2 25,0%	1 12,5%	3 37,5%	8 100,0%
		Quite a lot	Count % within Children's knowledge about the environment	0 ,0%	1 25,0%	1 25,0%	1 25,0%	1 25,0%	4 100,0%
		A lot	Count % within Children's knowledge about the environment	0 ,0%	0 ,0%	2 100,0%	0 ,0%	0 ,0%	2 100,0%
	Total	Count % within Children's knowledge about the environment	1 6,3%	3 18,8%	6 37,5%	2 12,5%	4 25,0%	16 100,0%	

**Table 2 Children's knowledge and influence**

			Children's influence on family's sustainable lifestyles					Total	
			Not at all	A little	Quite a bit	Quite a lot	A lot		
If the children feel they know more about the environment than their parents	Much less	Count	1	0	0	0	0	1	
		% within If the children feel they know more about the environment than their parents	100,0%	,0%	,0%	,0%	,0%	100,0%	
		About the same	% within Children's influence on family's sustainable lifestyles	100,0%	,0%	,0%	,0%	,0%	6,3%
			Count	0	1	1	1	1	4
			% within If the children feel they know more about the environment than their parents	,0%	25,0%	25,0%	25,0%	25,0%	100,0%
			% within Children's influence on family's sustainable lifestyles	,0%	33,3%	16,7%	50,0%	25,0%	25,0%
		Somewhat more	Count	0	0	2	1	1	4
			% within If the children feel they know more about the environment than their parents	,0%	,0%	50,0%	25,0%	25,0%	100,0%
			% within Children's influence on family's sustainable lifestyles	,0%	,0%	33,3%	50,0%	25,0%	25,0%
			Count	0	2	3	0	2	7
		Much more	% within If the children feel they know more about the environment than their parents	,0%	28,6%	42,9%	,0%	28,6%	100,0%
			% within Children's influence on family's sustainable lifestyles	,0%	66,7%	50,0%	,0%	50,0%	43,8%
Total		Count	1	3	6	2	4	16	
		% within If the children feel they know more about the environment than their parents	6,3%	18,8%	37,5%	12,5%	25,0%	100,0%	
		% within Children's influence on family's sustainable lifestyles	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

**Table 3 Parent's perception about children's knowledge and influence**

According to the previous table, 43,8% of the children believed that they knew much more than their parents about the environment but if we want to see where this percentage came from, we will notice that 28,6% of these children who knew much more believed that they had influenced their parents a little, another 28,6% a lot and interestingly 42,9% only quite a bit. Again, 50% of the children who believed that they knew somewhat more than their parents felt that they had influenced their parents only quite a bit, 25% of them believed they had influenced them quite a lot and another 25% believed that they had done so a lot. In my opinion, it is worth mentioning that only 12,5% of children believed they knew a lot about the environment but 43,8% believed they knew much more than their parents. This tells me that they may have been strict with themselves and their knowledge but pretty sure they knew more than their parents. However in both cases the percentage of influence on their parents was small and specifically there were no child who felt they knew a lot about the environment. This may also mean that the children knew and could understand exactly how much their parents knew about the environment, denoting in that way that they may have not known a lot. However, this relationship is not statistically significant because the p-value is 0,079 (>0.05). So, we see these numbers as facts and not as indicators of a relationship that could explain or predict a specific behaviour. These findings should be compared with those from parents' point

of view and what they answered regarding their knowledge about the environment, their children's level of awareness and influence on them.

Regarding the parents' side, in a question about the level of knowledge of the environmental impacts of their lifestyles, in a scale from "not at all" to "a great extent"; 58,8% of the parents said that they knew somewhat and 41,2% very little. However the majority of parents 64,7% considered most their needs when it came to buying rather than their wants but for the 47,1% of them the environment was a medium priority in terms of influencing their purchasing decisions. Based on these percentages and the information the parents gave me through the interviews, I can say that despite the fact the majority knew somewhat about the environmental impacts of their lifestyles and their purchasing decisions were mostly driven by their needs; environment was only a medium priority; because almost all parents mentioned that the price plays the most important part.

Now as far as parents' perception about their children's environmental knowledge and influence on families' sustainable consumption, the primary results say that 29.4% of parents said that they had been somewhat influenced by their children and another 29.4% said that they had been very influenced by their children. But the interesting thing is that 30% of the parents who knew somewhat about the environmental impacts of their lifestyles said that they were somewhat influenced by their children and another 30% of them said that they were very influenced. On the other hand only 28.6% of the parents who knew very little said that they had been very influenced by their children and the same percentage for a 'somewhat' influence. These findings make me believe that the more environmentally aware parents seemed to be more open to children's suggestions in terms of their sustainable lifestyles. This is only an assumption because the p-value does not prove any statistical significant relationship.

Finally, the majority of parents (41.2%) believed that they knew about the same as their children knew about the environment and the 42.9% of the parents who knew very little admitted that their children knew much more than them. But 50% of the parents who knew somewhat believed that they knew about the same as their children. Coming to an overall conclusion, we could say that despite the fact the majority of children believed that they knew more about the environment than their parents, they thought that they had influenced their families only quite a bit. On the other hand, despite the fact that the parents claimed that they knew about the same, they believed that they had been somewhat and very influenced equally. In my opinion, this happens because children at this age (primary school children) look for adults' approval and acceptance. Maybe, their parents followed children's suggestions towards more sustainable lifestyles, without having provided them with any kind of feedback, such as obvious approval of their ideas and appraisal for their suggestions and efforts. So, they did not make their children feel like experts in environmental knowledge, having affected in that way their confidence and trust in their own knowledge and skills.

## **Discussion**

The role of the extent to which sustainability is embedded in school ethos was mentioned by all experts, as a factor that could influence the durability of the programme and its outcome and the transferability of the message of sustainability;

and there was unanimity regarding the durability of the impact of this strategy, since nobody was able to say with certainty how long these results are going to last, but they were pretty optimistic about that.

Regarding some specific characteristics that the experience disclosed over the years, they agreed that the doorways of energy, water and waste are those that they are preferred most, mainly because they are easily measurable, comparable and sometimes interpretable to financial gains. Additionally, regarding the school's perspective, both the head of the school and the teacher gave quite the same answer about the school's preference for energy and recycling.

Closing, it was a common perception that we cannot conclude with certainty if children finally influence their parents, despite some examples which prove so, without leading to generalisations. Moreover, the SSC expressed the concern if children's own behaviour is finally influenced outside the school boundaries. According to the teachers, there was some influence from children on their family members toward more sustainable lifestyles, but this influence was small and in different ways. However, they underlined that the effect of this influence was gradual and steady, having given some examples of the feedback from parents, which was definitely positive.

But if and when these intergenerational learning and influence do happen, then this is more possible in middle-class families than in working-class families or in more deprived areas. From teachers' point of view, both were reluctant to say with certainty if there is any relation between families' socio-economic background in theirs and their children's current pro-environmental behaviour; but they felt that the well-off families were more likely to include the environment in their agenda.

Finally, Holden (2006) mentioned the difference in the importance that genders give to environmental issues and here it has been observed that girls showed more confidence as far as their knowledge and influence on their families' lifestyles, but generally speaking children had a difficulty to understand how much they had influenced the behaviour of their families in terms of the environment. On the other hand, parents seemed to trust their children and adopt their suggestions, more than the children themselves believe, despite the fact that the children feel they know more than their parents about the environment; and regarding children's awareness of environmentally friendly activities, Evans, Gill and Marchant (1996) ascertained through their study that children have got different and potentially better information than their parents regarding the environment. This view is in line with Larsson, Andersson and Osbeck, C. (2010) who gave an example of the power of environmentalism using a study of Autio and Heinonen (2004) who have seen a stronger presence of environmentalism among children and young people than among parents in the Nordic countries. Moreover, Evans, Gill and Marchant (1996) ascertained through their study that children can possibly have impact on their parents' environmental performance, since they were seen to react positively to the information about the environment, which their children have gained at school and brought at home.

On the other hand Larsson, Andersson, & Osbeck (2010) clarify that the majority of studies on how the environmental education programmes at schools affect students

and whether and how they try to influence their parents do not offer rich information about the negotiations that take place at home, in terms of the actual effect on family consumption patterns and choices.

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## Keynotes' biographies

### **Michelle Barker**

Michelle is Professor and Deputy Head, Department of International Business and Asian Studies, Griffith Business School, and Senior Fellow in the Griffith Institute for Higher Education. Her career of over 30 years as social work practitioner and academic has addressed socio-cultural adjustment of refugees, migrants and international students, internationalisation of the curriculum and sustainability education in management. Prior to joining Griffith in 1993 Michelle was Deputy Director of AIDAB (Department of Foreign Affairs and Trade, Queensland (1984-1992) and Senior Social Worker, Department of Immigration and Ethnic Affairs (1979-1984). She was founding Head of Department of Management, Director of Research Higher Degrees, and Research Centre Deputy Director.

Michelle won the 2005 *Individual Teacher Award in the category of Law, Economics and Business* in the Australian Awards for University Teaching. Earlier, in 2003, Michelle led the team that won the Institutional Award category for Griffith University in relation to the *EXCELL Intercultural Skills* Program which she co-developed with an international team of researchers. Currently, Michelle co-leads an Australian Learning and Teaching Council project on *Enhancing Intercultural Capabilities of Business and Health Teachers, Students and Curricula*. She has recently completed a two-year project on internationalisation of the curriculum at Griffith University.

### **Doug Bourn**

Dr Douglas Bourn is Director of Development Education Research Centre at the Institute of Education, University of London. The Centre was established in 2006 with funding from the Department for International Development (DFID) to act as the knowledge hub for learning about global and development issues within education. The Centre runs a Masters Degree programme on development education, as well as engaging in a range of research projects for the UK government, NGOs and research and consultancy bodies, such as the Learning and Skills Improvement Service (LSIS).

Dr Bourn is editor of the *International Journal of Development Education and Global Learning*. He has had numerous articles published in academic journals on themes such as education for sustainable development, young people as global citizens, and theory and practice of development education. His most recent publication is *Development Education: Debates and Dialogues*, in 2008. In the same year he completed a major research study for LSIS on global skills and is now working on a follow up project on Globalisation in Further Education. Prior to establishing the Research Centre, Dr Bourn was Director of the Development Education Association. He received a doctorate on Labour Party Ideas on Education.

### **Theo Sowa**

Born in Ghana Theo Sowa has worked as an independent consultant, policy advisor and trainer for more than 15 years. Her work focuses mainly on African social development, children and youth issues and HIV/AIDS. Theo was a Senior Program Officer on Graça Machel's 1996 report on the impact of armed conflict on children. She was responsible for liaison and advocacy with international organisations and key government representatives at the UN, as well contributing to the final report. She later led the research team to produce the five-year update of that report for the International Conference on War-Affected Children in September 2000. Theo continues to provide advice on children and leadership issues to a number of high profile activists and policy makers in Africa. Sowa and Machel are now updating the UNICEF report.

### **Chris Shiel**

Chris has championed global perspectives and education for sustainable development across the higher education sector. She is an Associate Professor at BU and Director of the Centre for Global Perspectives, which plays a role in leading the internationalisation agenda. She is a Visiting Professor at Glamorgan University Business School and a Visiting Fellow of the Centre for Academic Practice and Research in Internationalisation at Leeds Metropolitan University. She has 20 years experience of business and management education and has worked with the Association of Business Schools to deliver programmes. She is also a member of HEFCE's Sustainable Development Strategy group. She has led the global perspectives agenda at BU since 2000 and in 2005, was awarded a Higher Education Leadership Foundation Fellowship for her work. Her approach is based on the development of global citizens who understand the need for sustainable development and are better prepared for global employability. She is a Board Member of Think Global.

### **Contributors Biographies**

#### **Elizabeth Bone**

Elizabeth leads the research team at the NUS and is an experienced specialist market and social researcher dedicated to managing student research. Elizabeth joined NUS Services in 2009. She graduated from Durham University with BSc Biology before beginning her research career at a high street market research agency.

Before picking up the baton on the Research function at NUS Services, Elizabeth led successful ethical and environmental research development and delivery and has leading edge knowledge in the psychology of behaviour change. Working with Defra, the HEA and unique universities as part of the successful environmental research package, Elizabeth has developed strong expertise in pro environmental attitudes, behaviours and habits. She is also an associate member of the MRS and has qualifications in both quantitative and qualitative research techniques.”

#### **Dr. Heather Clay**

Heather is *Associate Dean Academic Development, Business School, Middlesex University Hendon, London, UK.*

She is responsible for the development of academic provision within the Business School and developing new collaborative links in the UK and overseas. Heather's first degree is an LLB from London University and this was followed by an MA in Higher and Professional Education from the Institute of Education. She subsequently completed a DProf in Higher Education Management which focussed on the globalisation of higher education and off-shore delivery of UK education. Heather is a Fellow of the Higher Education Academy.

#### **Dr Sara Ashencaen Crabtree**

Sara is the Deputy Director of the Centre of Social Work & Social Policy in the School of Health & Social Care. She is the Chair of the HSC International Strategy Group and is one of the leaders for the new HSC academic research community 'Society & Social Welfare'. Finally, she is Programme Coordinator for BA Sociology & Social Policy at BU.

#### **Debbie Flint**

Debbie is Academic Developer at the Art Design Media Subject Centre, University of Brighton where she is involved in the organization and production of publications, projects and events designed to enhance students' experiences of art, design and media higher education.

Work relating to sustainable development has included a Higher Education Academy funded

project investigating how museums can assist in the development of interdisciplinary ESD. She has also written about opportunities for embedding sustainability issues in media studies curriculum and pedagogy.

Prior to joining the Subject Centre, Debbie taught Cultural Studies in the Faculty of Art and Design at Northbrook College.

### **Miriam Firth**

Miriam is a Senior Lecturer in Events Management in Manchester Metropolitan University. With an MA in Development Education she is currently completing a PhD at Manchester University on Citizenship Education in the UK. Her research focuses upon whether Citizenship Education aids the development of soft skills, like empathy and awareness, for vocational students in Hospitality, Tourism and Events Management.

Motivations for her research lie in her own experience in service industries and the need for staff and employees to adapt and flex to the different cultural needs of each guest. Her paper for the 'Global Vision, Local action conference' reflects current Global Citizenship Education theories and links it to the soft skills needed for vocational employees when interfaced with a range of guests. Her paper provides evidence of whether Behaviour, Empathy, Impact and Responsibility (BEIR) are the encompassing elements of the soft skills for Global Citizenship Education, and questions whether these are sufficient as a new model for vocational educationalists.

Currently teaching Human Resource Management and Service Operations for the Events Industry she is an active worker and researcher helping at various festivals and events across the UK. Miriam is also on the committee for the 2<sup>nd</sup> Employability, Enterprise and Citizenship conference 2012 ([www.hollings.mmu.ac.uk/ecscconf2](http://www.hollings.mmu.ac.uk/ecscconf2)).

### **Susan Gebbels**

Susan has a degree in marine biology and for the past 8 years has worked in the Outreach and Public Engagement group at Newcastle Universities School of Marine Science and Technology. This role involves her working with children and adults on a wide range of marine studies based in the UK and abroad. Typically, these involve her gaining the funding to devise and run a series of community projects in schools and public spaces. These projects are aimed at enabling people to learn about their local maritime heritage and take an active role in its preservation and conservation. In addition to her work as a researcher Susan is about to submit her PhD thesis which covers chapters on Global Citizenship which give an account of her work with a UK/ Ghanaian schools link.

### **Dr. Roman Gerodimos**

Roman is a Senior Lecturer in Global Current Affairs in the Media School at Bournemouth University. He holds an MSc in European Politics & Policy (LSE) and a PhD in Political Communication (BU). His doctoral thesis focused on online youth civic engagement, looking in particular at the factors that motivate young people to engage with NGO websites. The thesis won the 2010 Arthur McDougall Fund Prize for Best Dissertation by the Political Studies Association (PSA). He is currently researching emerging modes of civic behaviour and mobilisation within the context of pressing global challenges.

Roman is Founder and Convenor of the Greek Politics Specialist Group of the PSA. He recently organized an international conference on new media, nation branding and strategic communications in collaboration with the Greek Ministry of Foreign Affairs. He is currently co-organising an international conference on civic empowerment for the Media & Politics Group of the PSA. Roman has also been working on developing innovative teaching methods, and in 2008 and 2009 he won successive Bournemouth University Awards for Outstanding Contribution to Student Learning. He is a faculty member of the Salzburg Academy on Media & Global Change and a Fellow of the UK's Higher Education Academy.

### **Simon Kemp**

Simon is a Senior Teaching Fellow with the position of Director of Employability and Employer Engagement in the Faculty of Engineering and the Environment at the University of Southampton where he has worked since 1996. He has been recognised as an innovator in pedagogical theory and case study practice through the award of a National Teaching Fellowship from the United Kingdom's Higher Education Academy. His teaching and research interests lie in Environmental Management Systems (EMS), Carbon Footprinting, Environmental Law, Waste Management, and Education for Sustainable Development. He has coordinated over a hundred sustainability projects with industrial partners for teaching and assessment projects in sectors such as construction and demolition, retail, freight handling, energy, waste, and health care taking some to ISO14001:2004. One of his main current projects is leading the University of Southampton in a national 'Green Academy' project to embed sustainability across our institution.

### **Heather Luna**

Heather is the Acting Academic Lead for Education for Sustainable Development (ESD) at the Higher Education Academy (HEA), previously having been the HEA's ESD Project Coordinator for six years. She has led projects on bringing community groups and university students together to engage with sustainability issues. Heather also works with the Ellen MacArthur Foundation on money and the economics of the circular economy. She was an economics lecturer in NYC before moving to Thornbury, England in 2003. Heather believes the role of the educator must be to model for students an excitement about tackling the challenges of today and the future.

### **Ronald Macintyre**

Ronald lives in the village where he was born in the West Highlands of Scotland; he has an understanding wife and two children. He likes the outdoors, bicycles, books, campaigning, and gadgets. He has worked for the Open University in Scotland since 2005. Here he has developed his interests in online media, distance learning, sustainability, and widening participation. In addition he runs a small rural development consultancy, and tries his best to run a small holding.

### **Dr Catherine Minett-Smith**

Catherine is Head of Learning Enhancement for Middlesex University Business School and a Middlesex University Senior Teaching Fellow. She is also a Principal Lecturer in Applied Statistics. Catherine's first degree was a BSc in Statistics from Aberystwyth University and this was followed by a PhD in Statistics. Catherine is a Fellow of the Higher Education Academy and has extensive teaching experience in Higher Education in both the UK and Canada.

### **Simon O'Rafferty**

Simon (Senior Researcher) has been leading the research, evaluation and education work of the Ecodesign Centre (Centre of Expertise) since 2006. This research has supported the delivery of a 2 year ecodesign initiative, industry demonstration projects, national and international policy recommendations and non-specialist ecodesign communications. He has also been delivered ecodesign training to professional designers and design educators.

Simon originally trained as an industrial designer in Ireland. He has an MSc in Sustainable Development and is currently undertaking a part-time PhD. This PhD will assess how regional governments can support ecodesign and sustainable innovation in SMEs. His current research interests include sustainable consumption and production, innovation systems and government intervention.

Simon has a number of publications on ecodesign and has spoken at numerous international conferences. Simon is also a STEM ambassador as well as co-founder of social design groups ARKlab and thinkARK.

He has previously held positions at other UK and Irish public sector organisations and various NGOs including ECO-UNESCO, Irish Fair Trade Network, and Sustainable Wales.

### **Patrick Pica**

Pat is the Energy & Environment Manager at the University of Sussex. He is singly responsible for all aspects of environmental management and for driving the sustainable development agenda at this 1960s institution, as well as for energy purchasing and energy management.

Pat's undergraduate studies were in Environmental Science, whilst his Masters degree is in Facilities Management specialising in renewable energy (biomass). He has worked in Higher Education for 3 years, and in Environmental Management for 15 years, 8 years of which were in environmental regulation.

### **Dr Kim Poon-McBrayer**

Kim is currently Associate Professor and Associate Head of Department of Education Policy & Leadership at the Hong Kong Institute of Education. Dr. Poon-McBrayer has been a teacher and teacher educator for over 30 years in Hong Kong (University of Hong Kong), the United States (Monmouth University), Singapore (Nanyang Technological University), Macao (St. Joseph's University), and Brunei (University of Brunei). She has published extensively in the areas of inclusive education, learning disabilities, and multicultural issues in the classrooms. Her recent research interests have expanded to policy and leadership issues with regard to education reforms, lifelong learning, post-secondary support for students with disabilities, transition planning, and policymaking.

### **Alastair Robertson**

Following a number of years as an academic research scientist, Alastair developed his keen interest in learning and teaching and joined QAA Scotland in October 2003, where he co-managed the work of the Agency in supporting the Enhancement Themes initiative. In October 2005, Alastair joined the Higher Education Academy as Senior Adviser for Scotland and in August 2009 became Head of Policy and Partnerships, Scotland at the Academy. His brief is twofold: He is the principal conduit for all aspects of the Academy's work in Scotland and to ensure that Academy work and support is appropriately delivered in Scotland and is integrated into the Academy's core mission and plans. Since 2009, he is also responsible for managing the Academy's UK-wide work on Education for Sustainable Development. Key features of his role are to develop strategic partnerships and joint activities with key organisations and stakeholders to support the sector and to lead the Academy's contribution to national policy developments in both Scottish higher education and ESD.

### **Zoe Robinson**

Zoe Robinson is a Senior Lecturer in Environmental Science at Keele University. Zoe's research is wide ranging, from the effect of glacier retreat on groundwater systems, to community knowledge networks in energy reduction, fuel poverty strategies, student perceptions of environmental citizenship, the pedagogy of climate change, and links between employability and sustainability teaching particularly through an emphasis on sustainable business practices. Zoe co-founded the Science for Sustainability environmental education group at Keele which provides sustainability-related workshops and resources for schoolchildren, schoolteachers and the public. Zoe is course director for BSc programmes at Keele in Environment and Sustainability, Applied Environmental Science and PGCert in Sustainable Business Management, and leads the Keele's University-wide sustainability in the curriculum initiative.

### **Dr Stephen Scoffham**

Stephen started his career teaching geography, history and environmental studies in a secondary school in the West Midlands. He quickly developed an interest in the built environment becoming co-director of a special project on environmental issues. These experiences led to his first book, *Using the Schools Surroundings* (Ward Lock Educational 1980). As Education Officer for the Canterbury Urban Studies Centre, Stephen consolidated his understanding of the educational use of the built environment. He later joined the staff of Canterbury Christ Church University as a lecturer in Education.

Stephen has written widely for schools and teachers and as chief consultant for a number of major atlas schemes he has brought an environmental perspective to geographical studies. He is currently deeply involved with developing new approaches to environment and sustainability at Canterbury Christ University and represented the university on an academic level at the Green Academy seminar held in Leeds earlier this year.

### **Harriet Sjerps-Jones**

Harriet is Sustainability Curriculum Development Manager at the University of Exeter and board member of the Environmental Association for Universities and Colleges. On behalf of the EAUC she sits on the HEA- Sustainability Development Advisory Group and chairs the Membership Advisory Council.

Having worked in the communications industry as well as in Further and Higher Education, she has specialised in developing creative strategies for institutional change, embedding sustainability in the curriculum and designing bespoke engagement campaigns and tools. Publications include papers and articles on Student Engagement with Sustainability, Sustainable Design and Sustainability and Teacher Education.

### **Dr. S.J. Steiner – BTech, MSc, PhD, CEng, MIET, Eur. Ing**

Simon joined higher education in 1983 following 10 years' formative experience in the aerospace industry, where he held a number of positions of responsibility in both manufacturing management and in information systems. During this time, he obtained both his first and his masters degrees from Loughborough University, and became a chartered engineer.

He lectured firstly at the then Coventry Polytechnic, before moving on to the University of Birmingham in 1989, where he was senior lecturer and latterly Programmes Manager in Manufacturing and Mechanical Engineering until 2002. His teaching interests have included robotics, flexible automation and integrated manufacturing, and he has researched widely in aspects of production control and scheduling for the shop-floor. He obtained his PhD in 1995 for his work in dynamic scheduling using artificial intelligence for a first-tier supplier into the automotive industry, and has published/jointly co-authored over 80 discipline-related conference and journal papers from 1983 to 2002. He also supervised seven PhD programmes to completion since 1992, where his work focussed on intelligent systems in robotics and flexible automation, and latterly in agile/re-configurable manufacturing systems.

He continues as a referee for papers submitted to a number of professional journals, as a book reviewer for several of the major UK publishers of engineering textbooks, and teaches three modules at the University of Birmingham as a Visiting Lecturer.

He was appointed Academic Advisor for the Higher Education Academy's Engineering Subject Centre based at Loughborough University in 2004, working closely with teaching academics in engineering departments at UK HEIs in the pedagogic development of their teaching. He moved to the Higher Education Academy as Discipline Lead – Engineering in August 2011, where he continues to work with academic staff on the development of their

learning and reaching practices in engineering, and to publish pedagogic resources to support staff in achieving this.

### **Dr Ros Taylor**

Ros is the Founding Director of Kingston University's Sustainability Hub. previously, at Kingston, she developed and directed undergraduate degree programmes in environmental science, environmental management and sustainable development. She has taken a lead role in the development Kingston's portfolio of postgraduate education in sustainability and with geographical colleagues she developed the regular use of a 'sustainable living quiz' for school children at the British Association Festival of Science. Ros has wide ranging research interests from exploring tree ring patterns as indicators of recent environmental change to working with SMEs on environmental and sustainability knowledge, training and changing practice. She is committed to the communication of environmental and sustainability concepts and practical actions and regularly participates in Home Planet an environmental discussion programme for BBC Radio 4. Ros co-founded the Steering Group for Sustainability at Kingston, a volunteer 'ginger group' of academics and wide-ranging support staff from across the university which has triggered change at Kingston and seen employment of a Sustainability Facilitator, development of a Sustainability Team and most recently establishment of the Sustainability Hub.

### **Edwin van Teijlingen**

Edwin is a Medical Sociologist with an interest in Public Health. He is Professor of Reproductive Health Research at Bournemouth University. He has published widely in scientific journals, including a range of papers on qualitative research methods. He is the representative of Bournemouth University in an initiative to support and enhance health research in Nepal. The partners in this collaboration are Dr. Ram Sharan Pathak from Tribhuvan University (the oldest university in Nepal) and Dr. Padam Simkhada (the University of Sheffield (and Dr. Bhimsen Devkota, director of a charitable organisation in Nepal called the Development Resource Centre. They run a Partnership on improving Access to Research Literature for Higher Education Institutions in Nepal (PARI).

Prof. Edwin van Teijlingen has conducted health services and health promotion research in the UK and in Nepal. He has published widely on aspects of health and health care in Nepal. He is on the editorial board of the academic journals *Midwifery*, *Sociological Research Online* and *BMC Pregnancy & Childbirth*, and several English-language academic journals in Nepal. He is book review editor for *Sociological Research Online*. He holds honorary professorships at Manmohan Memorial Institute of Health Sciences, Purbanchal University (Nepal); the University of Aberdeen (Scotland) and London Metropolitan University (England).

### **Marcelle Townsend Cross**

Marcelle is a mixed heritage Indigenous Australian woman of Biripi, Worimi and Irish decent. She currently teaches Indigenous Studies at the School of Human Services and Social Work, Griffith University, Queensland. She graduated from the University of Technology Sydney (UTS) in 2009 with a Master of Education, Indigenous Studies, and from Southern Cross University in 1995 with a Bachelor of Arts, Contemporary Music. Marcelle is currently a PhD candidate at UTS focusing on critical Indigenous Studies pedagogical theory and practice in higher education.

### **Carole Trueman**

Carole is a PhD student from the University of Ulster who is in the early stages of her research and just finishing the first year of her PhD, which looks at Education for Sustainable Development, learning methods and particularly work based learning. She has five years experience of volunteering within the National Trust co-ordinating and managing placement students. Previous to this she studied for her undergraduate degree in Land Use and

Environmental Management and a Masters in Sustainable Rural Development and Project Management at Queen's university Belfast.'

### **John Vaughan**

"Few people are capable of expressing with equanimity opinions which differ from the prejudices of their social environment. Most people are even incapable of forming such opinions."

The above quote of Albert Einstein is the guiding principle to John's work and research, seeing the need for the human mind to develop rapidly to new levels in order to solve the world's problems. John is in his third career having been, first, a computer programmer at a large motor car factory before going in to the English language business. John worked as a teacher and in senior management positions around the world

John's third and more recent role was working in various world-ranked business schools in the areas of OB, HR, Marketing and International Business. In these roles he developed a unique methodology and programme using the multi-cultural team to develop Professional and Research Skills and he is now completing a doctorate in Education researching perceptions into this methodology.

Two guiding lights in this work are, first, the work of Meredith Belbin and his concept of team roles, blending strengths to make a superb whole. The second one is the work of Geert Hofstede and his notion of 'cultural dimensions' which differ round the world.

### **Amanda Williams**

Amanda is the Environment & Energy Manager at Bournemouth University, where she heads up a team of four responsible for all aspects of environmental management at the University, including implementation of the EcoCampus environmental management system and the Carbon Management Plan.

Amanda's undergraduate studies were in human geography and environmental policy and she is an Associate Member of the Institute of Environmental Management & Assessment as well as an IEMA-certified Environmental Management System Auditor. She has worked in Higher Education for approximately 12 years following an earlier career in news journalism.

### **Mr Georgios Zampas**

Georgios is a second year PhD Candidate at the Sustainability Research Institute in the School of Earth and Environment of the University of Leeds, UK. His background is in Economics (BA in Economics) with an MSc in Business Mathematics with specialty in Operational Research and Mathematical Models of Production. He is also a current undergraduate student in Business Administration. Before he came to Leeds he worked as a Research Associate for the Institute of Urban Environment and Human Resource in cooperation with Panteion University of Social and Political Science.

His research project title is "Educating Children to Educate Their Families. Information, Knowledge and Experience Diffusion within the Family for Pro-environmental Behaviour and Sustainable Lifestyles"; and he focuses on Education for Sustainable Development and how it can foster intergenerational communication and influence within the family, aiming at more sustainable lifestyles and sustainable consumption patterns. In effect, he evaluates the capacity of environmental education interventions to lead to environmental change at home, investigating the factors that affect intergenerational communication and influence having as an ulterior purpose the enhancement of children's and parents willingness to adopt pro-environmental behaviour. Finally, his research interests are on sustainable consumption, education for sustainable development, participatory methods, consumer behavior and households' carbon footprint.

