

7 Steps to: Taking an institutional approach to learning about sustainability

Overview

Education for Sustainable Development (ESD) is an increasingly important feature of Higher Education, and one which poses new challenges and opportunities for teaching and learning. Research at Plymouth University suggests that to implement ESD effectively, universities should adopt sustainability as an institution-wide agenda linking curriculum, campus, community and culture (CSF, 2008). However, despite potential benefits of linking campus operations to teaching and learning, few institutions have invested in developing institutional-based learning opportunities. Indeed, there has been a prevailing notion that 'the typical campus is the source of no useful learning' (Savanick *et al.*, 2008:668). Nonetheless, whether institutions acknowledge it or not, students learn about sustainability from their environment. Jackson (1968) coined the term 'hidden curriculum' to describe the messages sent by a tutor or an institution, often unconsciously, to students about how they ought to think and behave. In reference to sustainability this might be illustrated by provision of recycling facilities or by student engagement in decision-making and democratic processes (Cotton & Winter, 2010). Other researchers emphasise the relevance of lived experience for enhancing the transformative capacity of ESD and note how the physical campus impacts on behaviour (Hopkinson *et al.*, 2008). These research findings suggest that universities could do a great deal more to enact change in their student populations by explicitly raising the profile of sustainability issues and linking these to curriculum activities. This might include enhancing sustainability in practice as well as socialising staff and students into sustainable ways of learning and living.

This Seven Steps guide provides you with an introduction to ESD and offers some practical tips for how to get started.

1. Find out about Plymouth's sustainability credentials and share these with students

Plymouth University is one of the leading sustainability universities in the UK; it boasts an award winning tri-cameral approach to embedding sustainability across its curriculum, research and campus (PU, 2014). Plymouth is the highest overall performer of the People and Planet University League, holds silver status in the EAUC Life Index, has been accredited with ISO14001 for environmental management and awarded several **Green Gown Awards**. Recent national research which investigated student attitudes towards sustainability suggests that more students than ever are considering the sustainability credentials of universities when choosing a degree course and that up to 85% of students believe their university should actively incorporate and promote sustainability (Drayson *et al.* 2013). With Plymouth doing so well in this area sharing these credentials with students is important. Visit the **Sustainability pages** and read the Sustainability Strategy (PU, 2014) to find out more about Plymouth's accolades, tell students about them and invite their views!

2. Utilise the physical campus in teaching and learning for sustainability

Universities are good examples of large scale organisations in sustainability transition and many are adopting the concept of the university as a living lab (Thomashow, ND). Just walking around the campus offers opportunities to comment on sustainability initiatives for example resource conservation, waste and recycling, award winning **architecture** and carbon neutrality. You could also check out the University **Sustainability trail**, try walking it yourself and making students aware of it. There are also opportunities to use the campus as a focus for curriculum learning. For example, Hopkinson *et al.* (2008) suggest that campus buildings can be used to teach sustainability principles in design and operations. Students could undertake an Environmental Impact Assessment on a particular site, building or cafe (Ferriera *et al.* 2006). The Plymouth Growing Futures scheme and garden are used successfully to teach about agriculture, biodiversity and nature and the **Peninsula Arts Gallery** exhibits are often sustainability themed. There is also a wealth of university environmental that is directly relevant to business studies students, engineers, architects and surveyors but that could also be used in teaching about statistics or as a case study of how to develop sustainability in organisational settings (PU, ND). Outside of Plymouth other universities are also using the living lab concept to promote sustainability, look at the **Manchester, De Montfort** and **Cambridge** websites to get a flavour of how this is being done.

3. Make links with the university's sustainability communities

Sustainability is essentially a social movement which encompasses environment, society and economy. The university community serves as a microcosm of wider society and provides many opportunities to explore how sustainability is pursued and negotiated. Teaching and learning activities can explore themes such as environmental impact, social and economic wellbeing, equality and diversity, fair access to higher education, global citizenship and corporate social responsibility all in house. Contact the Centre for Sustainable Futures (PU, ND) for advice on how to create links and talk to students about where they see opportunities. The **Student Union** is already doing a lot in this area including volunteering and community involvement. Explore possibilities by checking out the **Environment and Sustainability Forum** and the SU sustainability themed societies.

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4. Use the university business as a case study

The university is an example of a business in sustainability transition which is of interest as new sustainable business models will have to address broader issues that may be in tension with short-term businesses interests (Makard *et al.*, 2012). How the university promotes sustainability in its business is evident through procurement and marketing. For example our **catering** was awarded a **Green Gown** in 2014. As a business we have carbon reduction targets and processes to achieve them that may be of interest to business studies students, engineers and surveyors. Businesses and organisations often use sustainability indicators to measure and monitor progress and both internal and external indicators are used to evaluate sustainability at the University (PU, NDa). Getting students to evaluate indicators critically and to develop their own can enhance awareness of how sustainability is conceived, operationalised and monitored.

5. Invite students to contribute ideas for improving sustainability on campus.

Democracy, participation and inclusion are key principles of sustainability and therefore an essential part of engaging students with ESD. Designing learning activities that challenge students to identify and design solutions for university-based sustainability issues can be useful for their own development as well as to the university. A simple example of this could be promoting energy conservation by developing a design or behavioural solution to minimise use of automatic doors or elevators. A more advanced example could be developing inclusivity or wellbeing in an identified group of people. Some universities have used 'Green Dragon's Den' competitions to foster innovation and solutions to sustainability questions. The curriculum offers lots of opportunities for involving students as does the Student Union and Student Rep system. In addition to the curriculum support offered by the **Centre for Sustainable Futures** (ND) here at Plymouth there are lots of online resources that can help you to create authentic problem centred learning (Bessant ND). Try the Sustainability Educators Toolkit (Shields and Hoggard, 2013) and the UNESCO (2011) resource 'Learning for a Sustainable Future' as starting points.

6. Adopt appropriate pedagogic approaches

ESD is best taught through student centred, experiential pedagogies which promote collaborative learning, utilise discovery and problem based approaches whilst also challenging individual values and behaviour. When designing sustainability-focused learning activities, encourage students to work in **groups** to explore different perspectives on sustainability and set up research questions which prompt discovery learning (PU, NDb). Using visual and social media can help students bring the campus into the classroom. Check out the Future Fit Framework (Sterling, 2012) and the TKI site (ND) for more detail on pedagogies. The QAA (2014) ESD guidance may also be useful.

7. Encourage students to consider their own values and behaviour.

Transforming values and behaviour towards sustainability is a controversial but important component of ESD. Higher Education has the potential to impact on sustainability values and behaviour (Cotton & Alcock 2012) and therefore exploring and critiquing sustainability at the university with students can encourage them to evaluate critically their own experience of, and response to, sustainability issues. Get students to discuss what sorts of values are associated with sustainability and if and how these are communicated by the University through both the formal and hidden curricula. It may be useful to explore the ways that students are encouraged to reflect these values through behaviour, for example, what kinds of pro-environmental behaviours are facilitated (or not) on the campus. Research on energy literacy (Cotton *et al.*, in press) at Plymouth suggests that students are unaware of how much energy they use, or why using a revolving door saves energy, so using an **energy calculator** might be an interesting exercise. Useful resources to help you get started include the book 'The Sustainable Self' (Murray, 2011) and online resources which explore environmental footprint, green behaviour or food consumption amongst others.

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