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University of Tasmania

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Establishing a Community of Practice and Embedding Education for Sustainability at the University of Tasmania

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Abstract: The University of Tasmania Education for Sustainability Community of Practice was established in September 2011 to bring together staff and the wider non-university community (e.g., non-government organisations, primary and secondary schools) with the goal of embedding sustainability as a core focus of the university curriculum, research activities, operations and community engagement. The establishment of this institution-wide Community of Practice is discussed within the context of engagement with the wider University of Tasmania community to raise awareness of, and participation in, Education for Sustainability initiatives. The paper documents the creation processes and includes opportunities and challenges encountered by Community of Practice members. Areas of discussion include greater collaboration across disciplinary boundaries and between academic and professional staff members. The major themes for these discussions were - the 'idea' of sustainability; the social responsibility of the wider university community; the teaching-research nexus and the student experience; community engagement; institutional leadership.

Keywords: Education for Sustainability; Higher Education; Community of Practice; Australia; University of Tasmania

Introduction

In little more than three decades, ideas of sustainability have become indispensable in defining the fundamental problems of our age and in charting paths towards more responsible futures. These ideas are now embedded globally in multiple fields from legislation and policy to advertising and community meetings. Sustainability is also a prominent focus for education at all levels (McMillan & Dyball, 2009). In recent years there has been an increased commitment to embedding sustainability principles into higher education with the United Nations proclaiming 2005 as the beginning of the first Decade of Education for Sustainable Development (DESD).

This paper presents an overview of the challenges in defining and applying the concept of sustainability within the higher education sector. It then discusses how these challenges are being met through the creation of a Community of Practice (CoP) in Education for Sustainability (EfS) at the University of Tasmania (UTas). Key milestone achievements in the first year of the CoP are summarised and it is concluded that teaching and learning for sustainability in higher education requires support from senior institutional leaders and all partners involved in the process. We begin this enquiry by defining the multiple integrated layers of sustainability within the context of our CoP.

Multiple Definitions of Sustainability

Davison (2012) notes that the usage of the term 'sustainability' has increased exponentially in the last three decades. It entered the common lexicon with Our Common Future (WCED, 1987) and the Earth Summit in Rio de Janeiro in 1992. However, there is a lack of unified understanding of the concept. In conversations with staff and students and during the formation of the EfS CoP at UTas, sustainability was variously described as too: 'old hat'; 'wishy-washy'; 'common'; 'vague'; 'broad a concept'; 'hard to quantify'; 'utopian'; 'undefinable'; 'meaningless'; 'over-

used'; 'difficult'; 'if only there were one set of tools to apply to, and solve any development problem'(Davison, 2012). Responses also included 'community sustainability', or 'economic sustainability' or 'environmental sustainability', as if these elements could be uniquely identified as individual areas of study. There are many drivers that should be cause for us to not turn away from sustainability or discard it in the 'too hard' basket. One of the drivers is the pressures placed on the Earth by an increasing population. In the six decades 1950-2010, the world population has grown by 4.5 billion to 7 billion, and is expected to reach 9 billion by 2050. Greater demands on available natural resources place a significant threat on the United Nations mandate for basic human rights, such as shelter, clean air, water, food, and education for every child (UNICEF, 2010).

Towle, Harris and Fallon (2012) summarise other key drivers, such as climate change, peak oil, food security, biodiversity loss, wealth distribution and political will as reasons for turning our attention to sustainability. Those whose viewpoint might be considered as 'weak' sustainability will have a view that the economy is of primary importance, and those whose viewpoint might be considered as 'strong' sustainability see the environment as of primary importance (Packard, 2010; Davison & Stratford, 2012; Kuhlman & Farrington, 2010).

Fien and Maclean (2008) emphasized that 'sustainability refers to the capacity of people to adapt and cope with their environments as individuals and as participants of social organizations' (p.77). They further clarify that 'sustainable development' is more dynamic, and requires individuals and organizations 'to actively learn skills to adapt to changing circumstances, with the implication that learning and teaching must be 'more creative, continuous, and above all adaptive' (p.77).

Sustainability in Higher Education

Introduction

Institutions of higher education must play a greater role in the search for a more sustainable future (McMillan & Dyball, 2009; Shephard, 2010; Sterling, 2004; Tilbury, 2004) by educating future generations, establishing, maintaining and transforming professions, disseminating knowledge about sustainability, and training leaders with the skills to solve regional and local problems from a global and interdisciplinary perspective (Sapporo Sustainability Declaration 2008). The first international agreement by higher education institutions to implement education for sustainability, the 1990 Talloires Declaration, has been signed by the leaders of 350 universities in over 40 countries. In support of this, the body entrusted with overseeing the DESD, the UN Educational Scientific and Cultural Organisation (UNESCO), argues that questions of sustainability are central to education but that 'the distinction between education as we know it and education for sustainability is enigmatic for many' (Australian National Commission for UNESCO, 2005, p. 27).

In keeping with this international agenda, in 2005, the Australian Government committed to raising community awareness about sustainability through education and lifelong learning strategies (Australian National Commission for UNESCO, 2005).

The Australian Context

In Australia sustainability is integrated into the primary and secondary education syllabus. This influence of sustainability is set to further increase in these sectors with the introduction of the 2013 Australian National Curriculum which includes sustainability as a cross-curriculum priority. In the tertiary sector, researchers have led much of the public and policy discussion about sustainability, while specialist subjects and programs relating to sustainability have been offered in the curriculum for over two decades. The systemic impact of sustainability on Australian higher education has, however, been limited (de la Harpe & Thomas, 2009; Shephard,

2010; Sherren, 2006; Thomas & Nicita, 2002). To date, sustainability in education has been predominantly framed in terms of agendas of ‘education for sustainable development’ or ‘education for sustainability’. Advocates of EfS, such as Tilbury (2004), argue that the 1980s and 1990s were periods of ‘education about sustainability’, where the emphasis was on accumulating and disseminating knowledge.

From about 2000, the focus shifted to the role of education in bringing about action to achieve sustainability through active collaborative processes to deal with the changing dynamics of environmental, economic and social constructs of sustainability. This shift was driven by concern that many efforts to realise sustainability were proving ineffective. By the time of the 2002 UN World Summit on Sustainable Development (Rio+10 Summit) there was widespread dismay at the lack of progress in meeting the goals of ‘Agenda 21’, the action plan for sustainable development launched at the 1992 UN Conference on Environment and Development (Rio Summit) (Davison, 2009). The resulting mandate of Rio+10 was thus one of implementation, and, in this context, world governments declared education to be ‘critical for promoting sustainable development’ (UN 2002, p. 51).

University Culture and Change-making

In order for the tertiary education sector to evolve as change-makers in the increasing complexity and volatility of contemporary and emerging approaches to sustainability, stakeholders need to feel confident about questioning ‘underlying assumptions and existing patterns’ (Gabriel, Fineman & Sims, 2000, p. 266). This has implications for governance, operations, teaching and learning, and research at universities where the knowledge-sets required are not always aligned with those associated with the current Australian university curriculum. Higher education culture could be described as ‘collegial’, with ‘fuzzy lines of accountability’, existence of disciplinary sub-cultures, with rotating leadership and where the rewards for change are lacking (Pennington, 2003). The silo mentality of disciplines, with reward and advancement based on research output evidenced in numbers of publications, also reinforces the ‘hidden curriculum’ and legitimises unsustainable systems of wealth generation and consumption. The pressure to comply with rules and regulations, to sit on committees, research and publish, as well as to teach and provide duty of care to students, may see academics shrug off sustainability as ‘one more thing’ imposed on them (Gabriel, Fineman & Sims, 2000; Everett, 2008).

Where attempts at crossing boundaries have been made in efforts to teach sustainability, staff may be stopped from enacting their values and working with other disciplines as they are ‘time-poor’ to meet regularly, or there are limited financial resources to support a dedicated academic sustainability co-ordinator (Pharo et al., 2012; Thomas & Nicita, 2002). The proposals to establish interdisciplinary initiatives may also provoke tensions between disciplines that have little ‘common’ language (Gough, 2002, as cited in Cotton, 2007; Sterling, 2004) as well as basic logistical barriers to regular collaboration such as timetabling conflicts. Sherren (2006) notes that the sustainability curriculum is biased towards physical and natural sciences, and whilst meaningful, there is still considerable work to do to introduce interdisciplinary and trans-disciplinary programs (Lawrence, 2010). This requires internal and external collaboration as an ‘innovative approach to curriculum renewal’ to embed sustainability. This engagement may be fraught with tensions arising from existing and shifting power and knowledge bases (van Kerkhoff & Lebel, 2006). Where initiatives grow to be larger than a few individuals or link across institutions there may be a need to introduce a skilled Network Facilitator (Pharo et al., 2012) or Trans-academic Interface Manager (Brundiers & Weik, 2011). The most constructive and inclusive strategy would seem to be the creation of a CoP of motivated and committed practitioners to drive change from below and between other stakeholders. With the support of senior management, and the knowledge that UTas was a signatory to the Talloires declaration, the UTas EfS CoP was launched in late 2011.

The University of Tasmania Context

In 2005 UTas made a commitment to improve its environmental management by prioritising the implementation and evaluation of projects to reduce the university's carbon footprint and energy expenditure, and by adopting a Sustainable Built Environment Designs Policy. As a signatory to the Talloires Declaration (ULSF, 2005), UTas made the commitment to adopt a plan for incorporating environmental literacy and sustainability into teaching and learning practices for all undergraduate and postgraduate students. Historically there had been a strong divide between learning and teaching policy and governance and the management of campus operations. In 2008 the introduction of the Environmental Management Group (EMG) sought to bridge that gap. The EMG comprised interested academic and professional staff that was willing to work in a volunteer capacity to advance UTAS sustainability initiatives. The group was led by the operational area of the university and originally reported to a committee of the University Council. The EMG developed the first UTas Environmental Management Plan (EMP) to integrate sustainability outcomes across campus. Special project funding was granted and allocated over three years to hire a fixed term Sustainability Manager and provided a budget to support initiatives to deliver on the plan. The EMG became more formalized in 2011, and earned a name change to the Environmental Management Committee (EMC) reporting directly to the University's Senior Management Team. As a result new positions were created and included the appointment of a Sustainability team that comprised a full time Sustainability Manager.

From 2011, two academic staff were appointed as Fellows to the Tasmanian Institute of Learning and Teaching (TILT) to work on EfS as a strategic UTas initiative of the Division of the Deputy Vice-Chancellor Student and Education. Their mandate was the facilitation of the establishment of an EfS CoP and to develop a discussion paper for integration of sustainability into teaching and learning at UTas by initiating EfS conversations at faculty level. The focus of the Academic Fellows was to support an environment that worked towards overcoming barriers to the embedding of sustainability across the curriculum and also to integrate this educational reform within research and operational activities. This integration reflected wider recognition that there was a need to go beyond education about sustainability and toward the goal of EfS (Tilbury, 2004). It also recognized that knowledge-constructs must transform into positive actions and that 'sustainability was not just another issue to be added to an overcrowded curriculum, but a gateway to a different view of curriculum, of pedagogy, of organisation change, of policy and particularly of ethos' (Sterling, 2004, p. 50).

Establishment and Goals of the EfS Community of Practice (CoP)

Introduction

CoPs have been described by Wenger, McDermott and Snyder (2002) as a group of people who share a concern, a set of problems, or a passion about a topic and who deepen their knowledge and expertise in this area by interacting on an ongoing basis. The UTas EfS CoP was established in September 2011 to bring together staff and the wider non-university community (e.g., non-government organisations, primary and secondary schools) with the goal of embedding sustainability as a core focus of the university curriculum, research activities, operations and community engagement. In less than one year, the CoP has grown to over sixty voluntary members, including students, academic and professional staff, from most faculties and departments across UTas campuses. Many members have significant skills and experience in undertaking research, developing curricula, managing multi-stakeholder projects, and global and community engagement expertise. This diverse membership of the CoP is seen as a way of facilitating distributed or collaborative leadership whereby all CoP members develop their capacity to lead both individually and collectively as a project team.

Creation and Direction of the CoP

The major goal of the two academic staff appointed as Fellows to TILT was to develop a framework for embedding sustainability across UTas including curriculum, research, operations and community. An initial email invitation to participate in the first EfS CoP meeting (in September 2011) was sent to over 65 professional and academic UTas staff members who were known to the EfS fellows, and the UTas Sustainability Manager as being motivated, interested and/or expert in sustainability either professionally or personally. The invitees were asked to forward this email to other interested UTas staff members and students. A draft Terms of Reference document also accompanied the initial email to provide context to those who were not familiar with the concept of a CoP. Staff were asked to indicate by return email their preferred level of commitment in the CoP. Wenger et al (2002) indicated that the composition of most CoPs has a threefold circular structure. Our EfS CoP reflected this model during its initiation phase, with three members in the core group, 10-15 highly active members and contributors and approximately 45 who filled the role of interested members and readers.

The Terms of Reference of the CoP included:

- Building relationships and a shared sense of purpose between UTas academic and professional staff interested in embedding EfS at UTas
- Documenting and disseminating case studies of best-practice in EfS at UTas
- Fostering a UTas-wide conversation about EfS
- Identifying opportunities for building links between UTas and the Tasmanian community that promote EfS
- Identifying opportunities for building links between curriculum and institutional practice at UTas that promote EfS
- Preparing a discussion paper on policy options for embedding EfS across the curriculum at UTas
- *Working cooperatively at all levels across UTas including academic, professional and operations.*

For the first nine months, the CoP communicated through group emails, facilitated by one of the Academic Fellows and via monthly Videoconference (VC) meetings. The VC meetings were initiated with an informal agenda driven by an Academic Fellow and further evolved into meetings driven by working groups. The working group projects were generally based on current members' initiatives and themes or on projects that had evolved since the CoP was established. All of these continued to evolve over time.

These projects included:

- Peak Oil risk assessment and response plan
- Academic Operations Sustainability Integration Program (AOSIP)
- Teaching Matters Conference 2012 – Sustaining Futures
- Public lecture series
- Sustainability fund
- Sustainable transport and accommodation for students
- Setting up and maintaining a wiki site for documenting practices in EfS
- Setting up and maintaining a UTas WebEndnote site for sharing of relevant literature
- A writing group which meets regularly and discusses themed sustainability readings
- Food security issues
- Curriculum review.

Once the working groups were established the need for the CoP to meet on a regular basis was less of a priority. Members had indicated, that the sharing of best-practice in EfS in the form

of monthly guest speaker events and providing professional development opportunities, was desirable.

The Five Domains of the UTas Open to Talent Strategy Plan 2012

Early in 2012, all UTas staff were invited to comment on the draft UTas vision known as the UTas Open to Talent Strategic Plan (University of Tasmania, 2012). Even though the CoP was still in its initiation phase, members collaborated to write a submission addressing five key domains in response to this invitation. This was the first formal document developed by the CoP, demonstrating our strength as collaborators in EfS, rather than as individuals. Our submission was acknowledged by the Vice Chancellor, demonstrating that the EfS CoP can be an effective advocacy group within the University.

1. The ‘Idea’ of Sustainability

The importance of the holistic concepts of ‘sustainability, environment and research’ (Wiek, Withycombe, Redman, & Mills, 2011) was strongly endorsed along with a vision of institution-wide responses to the global challenges such as climate change and biodiversity loss which connected the unique cross-disciplinary scope of universities. This vision is consistent with the international advocacy of EfS (or sustainable development), in accordance with United Nations guidelines. Members of the CoP endorsed the vision that UTas had the opportunity to be a leader in the research, teaching and practice of sustainability in Australia through facilitating cross-disciplinary research collaboration, especially between the physical and social sciences, and humanities. The CoP endorsed the university’s Open to Talent strategic plan (University of Tasmania, 2012) which included ‘sustainability’ as an integrative concept.

2. The Social Responsibility of the University

CoP members supported the need for academic independence in pursuing the integration of sustainability into the learning curriculum. They also expressed concern that this independence should not be misunderstood as a need to maintain distance from society as the authority of the teaching institutions come as much from committed academic engagement in social concerns as it does from objective assessment from outside the institution. UTas has also publicly recognised its responsibility to support the social transition towards sustainability through its signing of the Talloires Declaration. The current UTas strategic plans explicitly recognise the social responsibility of the university to ensure that teaching, research and community engagement supports social responses to the defining problems of our age. These problems were gathered together under the banner of sustainability discourse and include climate change, the energy transition (peak oil), biodiversity, marine ecology, economic inequality, and food and water security.

3. Sustainability, the Curriculum, Student Experience, and the Teaching-Research Nexus

A central element of pioneering EfS programs (McMillan & Dyball, 2009) is the linking of curriculum and campus facilities and operations. The CoP strongly endorsed UTas support for curriculum reform based on complementing existing strengths in disciplinary teaching and learning with cross-disciplinary curriculum engagement. It also argued strongly that EfS provided a highly marketable and internationally attractive framework within which to pursue this curriculum renewal and to attract and retain students. This has the added benefit of drawing attention to the teaching and research nexus for sustainability and also provides a way of linking curriculum reform to the university’s interest in a holistic student experience. UTas is very well-

placed, in terms of curriculum, operational and research domains, to make sustainability a central element of the UTas student experience through its Strategic Plan (University of Tasmania, 2012). Since 2011, the implementation of the innovative AOSIP initiative (University of Tasmania, 2013) has provided opportunities for student learning through engagement in campus transformation and participation in the ‘Green Steps’ (Monash University, 2013) program initiated by the Monash Sustainability Institute. Student experience is now linked to EfS through campus greening initiatives and integration of student learning/curriculum with campus operations.

4. Sustainability and Community Engagement

The EfS CoP strongly endorsed the UTas vision of community partnerships in Tasmania and the wider education and business communities and affirmed that UTas should position itself as a participant driving the sustainability agenda in Australian higher education. However, the CoP felt that many of the challenges faced by the Tasmanian community were novel, emergent, interdisciplinary and made vastly more complex by the global scale of contemporary social interactions. It recommended that the past model of narrow expertise needed to be complemented by broadly accessible forms of knowledge, relevant to all sectors of Tasmanian society. The EfS goals of enhancing multi-disciplinary research collaboration, cross-disciplinary curriculum design and direct student engagement in practical, local sustainability initiatives would all support the goal of building stronger community partnerships.

5. Institutional Leadership toward Sustainability

As is now well-established in higher education curriculum (McMillan & Dyball, 2009; Shephard, 2010; Sterling, 2004; Tilbury, 2004), the sustainability credentials of university environments and operations are a significant consideration for a growing number of prospective students in deciding where to pursue their studies. The CoP acknowledged that UTas already had a significant, but presently underutilised, advantage where Tasmania is an environment known internationally for its “clean and green” image. There is a potential for UTas to become one of the first carbon neutral universities in Australia. This is in part due to Tasmania’s status as a leader in renewable energy generation of hydroelectricity. UTas can show institutional leadership on sustainability in the administration and operation of the university to underpin the credibility and integrity of its EfS programs in research, teaching and community engagement.

These opportunities include:

- investing only in sustainable industry
- banking only with ethical institutions and super providers
- basing all procurement activities on life-cycle-analysis and social impacts
- implementing sustainable transport initiatives
- increasing support for student sustainability initiatives, such as a food co-op
- ensuring catering on campus is consistent with UTas sustainability objectives
- ensuring new buildings meet best-practice environmental design standards
- ensuring water conservation and water sensitive design.

Recommendations for Sustaining the EfS CoP

The structure and processes of the CoP, outlined above, need to be developed and adapted to accommodate change such as turnover in membership through retirement, migration to other institutions or occupations, or change in workload duties or pressures. One strategy identified by CoP members to facilitate the entry of new members was to introduce professional development opportunities which contributed to the understanding of the complexity of sustainability. These

are the platforms to serve as the means to integrate sustainability into current courses and to link sustainability research with education (Brundiars & Weik, 2011; Clugston et al., 1999; Holdsworth et al., 2008; Lozano-García, Gándara, Perrni, Manzano, Hernández & Huisingh, 2008). The time is right for the development and integration of an EfS specific unit as an elective within our graduate certificate programs to support professional development and credentialing of academics as teachers to drive the change towards embedding sustainability in the broader curriculum.

Conclusion

This paper has brought together the collective experience of members of the EfS CoP from various disciplinary areas across three separate campuses in Tasmania. Members have been united by their commitment to EfS, have pooled their knowledge and become catalysts for change at the grass roots level, and have supported the UTas strategy for change to EfS, as signified by the Talloires Declaration. This paper has demonstrated a successful trans-disciplinary approach to developing a CoP incorporating an eclectic range of knowledge sources to address the problem about learning and working together for sustainability. This paper has suggested that teaching and learning for sustainability in higher education requires support from senior positional leaders and all partners involved in the process. It also supports the capacity of individuals in the CoP as catalysts at the grassroots level to take individual actions (Parkin, 2010), to continue conversations and to build momentum in the informal spaces (Cass, Weisel, Møller, & Nissén, 2011; Hurley & Brown, 2009) in order to make a positive difference.

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In addition to traditional scholarly papers, this journal invites presentations of sustainability practices—including documentation of case studies and exegeses analyzing the effects of these practices.

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