Transformative education for sustainability transition at Edith Cowan University: A discussion paper

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Abstract

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Transformative Education for Sustainability Transition at Edith Cowan University: A Discussion Paper

Sandra Wooltorton
Edith Cowan University

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Introduction

The Australian Government, in its document titled: Living sustainably: The Australian Government’s National Action Plan for Education for Sustainability (National Action Plan,) proposes a transformative approach to education. The aim is stated as: “achieving a culture of sustainability in which teaching and learning for sustainability are reinforced by continuous improvement in the sustainability of campus management” (DEWHA, 2009 p. 5). Strategy two of the National Action Plan is to “reorient education systems to sustainability” and states that “Education for sustainability is integrated into all university course/subject areas and campuses are managed in a sustainable way” (DEWHA, 2009 p. 21). The National Action Plan (NAP) is part of Australia’s contribution to the UN Decade of Education for Sustainable Development 2005 – 2014, the motto for which is “learning our way to sustainability” and which states: “We have to learn our way out of current social and environmental problems and learn to live sustainably” (UNESCO, nd). Thus the intention of the NAP is to reorient all education systems at all levels to sustainability through learning, which in most cases will require transformation of practices and structures.

My purpose in this paper is to explore the ramifications of the NAP for Edith Cowan University – given that the university has recently announced the adoption of a sustainability policy that is to be applied to curriculum, teaching and learning (PriceWaterhouseCoopers, 2009). Specifically, I wish to consider the implications of embracing a transformative approach for reorientation to sustainability. The following quote from the World Commission on Environment and Development (1987) taken from the Edith Cowan University Environment Declaration (ECU, 2005), indicates that the university is committed to sustainable development, and in particular that it regards this as a process of change.

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Edith Cowan University is committed to environmentally sustainable development; that is, development that meets the needs of the present without compromising the ability of future generations to meet their own needs. …in the end, sustainable development is not a fixed state of harmony, but rather a process of change in which … institutional change [is] made consistent with future as well as present needs.

In 2009, the university commissioned a report for the Sustainable Communities Steering Committee, an internal advisory committee, which included three core elements deemed by the university to be important:

- Developing a heightened awareness and practice of social and environmental sustainability among Edith Cowan University staff and students and communities.
- Progressively reducing the university’s environmental footprint in areas of energy, water, materials, waste, biodiversity and transport.
- Embedding social and environmental sustainability and well-being values, knowledge and skills into its curriculum and research programs. (PriceWaterhouseCoopers, 2009)

In this paper I address objectives 1 and 3, that is, a consideration of what this process of change towards social and environmental sustainability might entail. Given national and international policies, the change process will need to comprise transformative learning and will involve a reorientation to sustainability.

My rationale for this discussion paper is that research shows that sustainability transition involves learning and change, which requires paradigm shifting for new thinking, new values, new storylines, new habits and practices, new ways of being. This requires transformative ways of learning and teaching. (Orr, 2005; Smyth, Angus, Down, & McIerney, 2009; Wooltorton, 2004, 2006). However, in my experience this point is not clearly understood and needs to be addressed.

My interest in this topic is aligned with my ongoing research involving social change for sustainability transition. In this paper I show the link between sustainability and transformative learning, followed by the outcomes of a brief website overview of university sustainability policies and strategies. In a nutshell, it seems that universities tend to underestimate the value of transformative learning for sustainability transition, although many have sustainability policies and outstanding researchers addressing this topic. Finally, I conclude with some possible directions and some questions for ECU to answer in order to go forward.

Sustainability and Transformative Learning

In its application to universities, the concept of sustainability may not yet be widely understood in Australia. The following statement, which is now internationally acknowledged by four hundred and eight signatories to the Talloires Declaration (University Leaders for a Sustainable Future, 2001), provides a starting point. "Sustainability" implies that the critical activities of a higher education institution are ecologically sound, socially just and economically viable, and that they will continue to be so for future generations. A truly sustainable college or university would emphasize these concepts in its curriculum and research, preparing students to contribute as working citizens to an environmentally healthy and equitable society. The institution would function as a sustainable community, embodying responsible consumption of energy,
water, and food, and supporting sustainable development in its local community and region. (University Leaders for a Sustainable Future, 2008)
It is interesting to note that Edith Cowan University’s Environmental Declaration is actually modelled upon the Talloires Declaration, yet ECU is not yet a signatory to it.

Fifteen Australian universities are signatories, but none from Western Australia.

This declaration does not specifically incorporate the notion of a transformative approach to education, although transformation is implied in several of the points. This is also the case with two other university declarations: the Halifax Declaration (“Halifax Declaration,” 1991) and the American College and University Presidents’ Climate Commitment (ACUPCC, 2007).

According to the NAP (DEWHA, 2009 p. 21) a transformative approach to sustainability involves innovative teaching and learning, changes to curricula and whole institution engagement. Nonetheless, no more details are provided in the NAP as to how this is to be implemented, although transformative learning has been associated with sustainability education for many years.

Transformative learning is a very broad academic field. For example Mezirow (1991) focuses on an individual’s changes including self-understandings, belief systems and lifestyle. On the other hand O’Sullivan (1999) and Sterling (2001) propose a vision for transformative learning to link people to place, society to ecology and people to each other through a multi-dimensional approach to change; thereby transforming society. Although transformative learning underpins the work of Dewey and many of the critical/radical educators who followed him, the concept became more widely known because of Paulo Freire’s work in the 1970s. Essentially, transformative learning involves critically reflective practice of one’s own role in maintaining structures in society, so that a conscious decision about one’s own values and practices can be made and changes implemented accordingly. The notion of transformative learning and change underpins the work of Smyth, Angus, Down & McInnerney (2009) who see it as “the democratisation of pedagogical power, the fostering of socially just relationships and the capacity to be critical” (p. 19).

It is important that the distinction between transformative and transmissive approaches to learning is understood. The essential difference is that transmissive learning is ‘directive’, conclusive and tends to emphasise instruction and explanation, whereas transformative learning tends to be constructive and participative (Sterling, 2001, p. 34). Many writers (for example, Bowers, 1997; Orr, 2002; Wooltorton, 2004) show that deep learning is required for paradigm transformation. Sterling (2001, 15) illustrates first order learning as adaptive learning, which leaves basic values unscrutinised and unaffected. Second order learning involves critically reflective learning, when we consider the values and assumptions of first order learning. This is often known as metacognition, or learning about learning (Bateson, 1972). Deep learning is third order learning, which enables the learner to understand things in new and different ways. It is creative and entails a deep awareness of alternative worldviews and praxis. Third order learning is the paradigm transformation level. Many writers suggest that transformative learning can lead to a reorientation of education in reality rather than just rhetoric (for example Fien, 2001; Hargreaves, 2001; Jucker, 2002).

Principles advocated by writers such as Smyth et al. (2009) include: community-oriented socially engaged schooling; a community of learners; a critical pedagogy of place; partnerships for change; and striving for a better world through a deliberative democracy and deeper sense of commitment. Smyth et al. (2009) use the idea of ‘pockets of hope’ along with the idea of enclaves of resistance (to oppressive structures of power) to indicate possibilities for change.
Whilst their work pertains to schools, it offers a starting point for planning transformative learning at university; and most of these ideas are already part of the Edith Cowan University vision or mission. One other idea common in sustainability education, but not explicitly part of the Edith Cowan University vision or mission, is systems thinking. This is encompassed by DEWHA (2009) in the NAP (p. 9) and has been associated with sustainability education by radical thinkers such as Sterling (2001).

The goal of reorientation of education systems towards sustainability is a serious challenge (Wooltorton, 2004) but there is reason for optimism. The Australian Sustainable Schools Initiative gives ground for hope. This is an integrated Australian government program of support for reorientation of schools towards sustainability, with which hundreds of schools across Australia now participate (AuSSI, 2008; AuSSI WA, nd). However at present there is much impassioned discussion about the role of transformative education and sustainability in the new curriculum designed for commencement in Australia in 2011 (Wooltorton, forthcoming). There are several reasons for the lack of success in sustainable development and sustainability education, including disagreement over the cause of an unsustainable society. Consumerism, paternalism and anthropocentrism, also known as ‘the isms of domination’ are three broad categories of critique that have dominated academic debate from the late 1980s to the early 2000s (Wooltorton, 2004). Whereas some of these issues remain unresolved, it is now broadly accepted that for Australians, our current way of living cannot be sustained (DEWHA, 2009 p. 3) and change is needed in every aspect of our lives. Thus, whilst transformative learning is advocated by many scholars, the Government of Australia and leading sustainability organisations, there has been little widespread transformation to sustainability. A glimpse at sustainability progress in international universities may shed some light on this conundrum.

**Sustainability in Universities**

The Talloires Declaration is very strongly oriented towards environmental sustainability, which appears to be the first step into sustainability for many universities. This resembles the history of sustainability in other domains, which has shifted from a narrow understanding of sustainability emphasizing the environmental dimension, to a broader notion which acknowledges that social change is necessary before environmental outcomes will become evident (Department of the Environment and Heritage, 2005 pp. 5&6).

A brief website inspection of sustainability initiatives in other universities revealed that many universities have fine programs by which they address a range of environmental issues, including carbon emissions reduction through redesigning campus and public transport and reducing fossil fuel consumption, by comprehensive waste reduction programs, and by conservation of water resources. For example, Harvard University has a specific, strong greenhouse gas (GHG) reduction target of 30% of 2006 levels by 2016 including growth (The President and Fellows of Harvard College, 2009). Students have been involved in planning the GHG reduction enterprise from the start, although it is difficult to judge the degree of real student engagement in the implementation of the program.

Unfortunately, whereas many universities advertise environmental policies and strategies, few appear to engage students actively in their implementation, and there are few enabling opportunities for student experiential learning. Many of the activities appear to be administratively designed and implemented, rather than being participative and inclusive of the students – thereby minimising meaningful, real learning opportunities. Plymouth University, however, is an exception in that their sustainability policy is explicitly transformative; it includes...
participatory learning and out-of-classroom learning for addressing real world sustainability issues in order to build sustainability literacy in learners (University of Plymouth, nd).

University of British Columbia (UBC) claims to be the first university to have a sustainability strategy (since 1997), and it has recently published an interesting discussion paper titled: *Exploring and Exemplifying Sustainability*. Two core principles are proposed for their policy: explore and exemplify (SAS Working Group, 2009). The first relates to exploring dimensions of sustainability through research, learning and teaching, whilst the second refers to exemplifying sustainability in operations and all activities on and off campus. These principles are underpinned by the concept of the university as an agent of change (SAS Working Group, 2009 p. 2). Here is a sample of the SAS Working Group’s recommendations for discussion:

- appoint sustainability teaching fellows who will lead sustainability teaching and learning (with the goal of achieving transformational changes in teaching and learning at UBC);
- create sustainability research fellow positions;
- create co-curricular sustainability experiences outside the classroom, possibly as part of a sustainability certificate or for recording on a student transcript;
- conduct interdisciplinary research on campus as a living laboratory of sustainability change;
- create a University Sustainability Centre with a director and full-time staff, with four units: Teaching & Learning, 2) Research and Partnerships, 3) Operations, and 4) the Okanagan Sustainability Unit; and implement a targeted campus-wide behavioural and organisational change program. UBC also has a fine sustainability strategy (UBC, 2007) which includes a wide range of teaching and learning initiatives under the objective: “Increase understanding of sustainability inside and outside of the university”.

Some of the university websites have links to social sustainability components of their sustainability programs; however, not many supply information about these programs. The University of Regina in Saskatchewan, Canada, present a Powerpoint slide show from their website that overviews the sustainable development course offerings in Canadian universities; these are mainly environmental aspects of sustainability across universities, followed by a list of attributes that showcase Canadian capacity (Gauthier, nd). The latter includes interdisciplinary teaching/learning and research; showing leadership through curriculum design, pedagogy and faculty development; generating funds to lead interdisciplinary research; and convening academic disciplines on large, complex issues.

To sum up, it seems that many universities, for example Harvard University, provide impressive statistics to demonstrate they are tracking well on their goal to improve environmental sustainability outcomes. In terms of learning and teaching, Plymouth University’s sustainability policy is explicitly transformative, while a number of universities provide objectives relating to innovation in teaching and learning, interdisciplinary content and student learning outcomes, and cross-disciplinary engagement with sustainability (for example, Kingston University, 2007). UBC has strong strategies and objectives in teaching and learning, plus some fine examples of experiential learning. Overall, with the exception of Plymouth and UBC, this brief tour of university sustainability websites provided little evidence of how universities implement innovation in teaching and learning. I was quite surprised by this, so I interrogated the websites of universities at which I know outstanding sustainability theorists and educators in the world are working, particularly those who espouse action learning, reflective practice and other transformative approaches. Disconcertingly, it appears that many transformative educators teach, research and write, but are NOT engaged in the actual transformation of teaching and learning in their own universities.
Conclusion

In summary, sustainability education is the process of teaching, learning and change that facilitates a culture of sustainability. Due to Australia’s present state of nonsustainability, the pathway to sustainability is one of transformative learning. Principles such as local engagement, deliberative democracy, a sense of commitment, partnerships for change and systems thinking are significant parts of sustainability education. These are recognised in the National Action Plan list of sustainability education principles: transformation and change; education for all and lifelong learning; systems thinking; envisioning a better future; critical thinking and reflection; participation; and partnerships for change (DEWHA, 2009 p. 9). “Learning our way to sustainability” is a useful motto (from UNESCO, nd).

A sampling of university sustainability websites revealed a great deal of action and considerable emphasis on the narrow, environmental dimension of sustainability. However, it appears from their websites that many of these projects are top-down and do not appear to engage with students or provide them with opportunities for experiential learning. There are some excellent ones, however, such as the targeted approach at Harvard and the comprehensive, whole-of-university approach at UBC. The sustainability website at UBC shows a number of sound experiential sustainability projects that encourage worthwhile student participation. In terms of policy, the University of Plymouth articulates an impressive transformative approach, which uses participatory learning and experiential off-campus learning for engagement with real-world issues.

Arising from this short inquiry, I propose questions for discussion at Edith Cowan University:
1. Will we aim to exemplify a sustainable community?
2. Will we develop ourselves as an agent of change?
3. Transformative learning – will this explicitly underpin our curriculum, teaching and learning?
4. Student participation in ECU’s sustainability transition – will this intentionally form part of our sustainability and engagement policies?
5. Will we have a sustainability certificate that students will be able to accumulate units or points for, by participation in selected activities?
6. Will we engage with, and include Noongar language and culture as part of our sustainability reorientation?
7. Will we regard our campuses as ‘living laboratories of sustainability research’?
8. Will we develop stringent targets for carbon emissions reduction?
9. Will our own sustainability educators and theorists be deeply engaged in our own transformation?

Rather than program weakness, this could well indicate limited website reporting, however.

References


