# **Submissions Abstract Book - All Papers (All Submissions)**

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**G10** | Cardiff Chaired by Shane Dowle

Thu 12 Dec 2019

09:00 - 09:30

Education for Sustainable Development through the Lens of Feminist Phase Theory.

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Research Domain: Postgraduate Scholarship and Practice (PGSP)

Abstract: Curricula and learning outcomes for education for sustainable development rarely challenge the dominant positivist and capitalist worldviews that bear responsibility for unsustainability. Rather, the knowledge, skills and attitudes conveyed by bodies such as UNESCO act to perpetuate these worldviews (1). Drawing inspiration from Mary Kay Tetreaut's Feminist Phase Theory (2) and contemporary sustainability science (3) we outline a set of curricula for sustainable development that have the potential to challenge dogmatic epistemologies. The resultant plurality of potentially incommensurate values transforms education for sustainable development into a political discourse that requires students to be skilled at negotiating antagonism (4) and creatively and sensitively working with disparate others to co-produce novel knowledge.

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- 2. Tetreault MKT. Classrooms for diversity: Rethinking curriculum and pedagogy. Multicultural education: Issues and perspectives. 1993;2:129-48.
- 3. Clark WC, van Kerkhoff L, Lebel L, Gallopin GC. Crafting usable knowledge for sustainable development. Proceedings of the National Academy of Sciences. 2016;113(17):4570-8.
- 4. Sund L, Öhman J. On the need to repoliticise environmental and sustainability education: rethinking the postpolitical consensus. Environmental Education Research. 2014;20(5):639-59.

Paper:

## Education for sustainable development (ESD)

Learning outcomes for sustainable development tend to treat existing knowledge and the dominant worldview from which it stems as unproblematic. Critical, systems and anticipatory thinking competencies (1, 2) work to evaluate and implement scientific and technological innovations, supported by financing, to tackle problems of contemporary unsustainability (3); the educated few are asked to empathise and cooperate with those in need. The underlying epistemological and political systems that have brought about this unsustainability are rarely challenged. Education for SD thus becomes an exercise in learning under a familiar and homogenised epistemology that privileges elite interests (4).

In contrast, Sund and Ohman (5) argue that the sustainable development discourse needs to be treated as sites of political contestation and not as reflecting universal values. Pluralistic discourses requires that power relations are contested, thus opening the door to antagonism and disagreement as different values are negotiated. This has profound implications for competencies students must learn to practice sustainable development.

#### **Knowledge for Sustainability**

Contemporary thinking about sustainability emphasises the co-production of knowledge between bottom-up (grassroots) and top-down (elites and experts) actors (6), as well as between holders of different types of knowledge (7). Society is seen as a complex system, comprising individuals and groups holding a plurality of contestable values. The political nature of this contestation means that SD practitioners needs to be aware of political structures and how science benefits some, but marginalises others (6).

The concepts underlying this "post-normal science" (8, 9) have been extensively developed in feminist theorising and pedagogy. Feminist pedagogy scholars work to bring about social justice by arguing that those who have been traditionally marginalised are legitimate producers of knowledge (10-12). They explore how marginalisation occurs, identifying and breaking down the structural barriers that lead to that marginalisation. Mary Kay Tetreault outlines feminist curricula that range from male-dominated through to gender-blended (13, 14).

### **Feminist Phase Theory**

In Feminist Phase Theory (FMT) (13) Tetreault describes a continuum of curricula where women and women's experiences are gradually recognised and incorporated into the dominant male-oriented curriculum. The way that women experience the world is first unseen, then gradually recognised as a legitimate source of knowledge, and eventually becomes indispensable in understanding, describing and problematizing the world.

Sustainable development, as an interdisciplinary problem-solving endeavour, can be understood through the lens of these curricula. The male-dominant worldview, comprising technocratic and

capitalistic perspectives, silences and oppresses others' experiences and ways of knowing. By recognising others as valid producers and co-producers of knowledge curricula can be developed that blend different epistemologies and experiences, including the full range of sciences and humanities, indigenous knowledge and the experiences of those who may not be considered a "experts".

Sustainable Development Curricula

Using Feminist Phase Theory ee have derived a series of curricula for sustainable development derived from Feminist Phase Theory (Table 1).

Curriculum Phase

Positivist Curriculum

**Contribution Curriculum** 

**Bifocal Curriculum** 

**Dualist Curriculum** 

**Balanced Curriculum** 

Table 1. Curricula for Sustainable Development, based on Tatreault's Feminist Phase Theory (13)

#### Discussion

When looking through the lens of FMT, contemporary sustainability science sits somewhere between the Bifocal and Dualist categories. Positivist and capitalist epistemologies are dominant, but there are attempts to develop more rigorous descriptions of indigenous knowledge for sustainability. There is much rhetorical arguing for inter-disciplinary inquiry, but little progress (15). Learning objectives for sustainability, as illustrated by UNESCO's objectives for education for the SDGs (3), range across the earlier Phases; there is little attempt to challenge existing worldviews. Knowledge, skills and attributes focus on understanding knowledge within, and projected forwarded from, the dominant worldview. By this omission accepted competences for sustainable development thus act to perpetuate the very system that contributes to unsustainability. By implicitly recognizing a homogenised worldview there are narrow differences in values and consequently little contestation.

Moving towards the Dualist and Balanced curricula, what is taken as foundational knowledge is problematized. As a plurality of values and experiences becomes legitimized sustainable development becomes political, necessitating competencies useful for negotiating antagonisms (5). The

requirement for interdisciplinary knowledge in the Balanced curriculum requires creativity, sensitivity and a tolerance for ambiguity as knowledge may be emergent and novel. Finally, it requires a tolerance for disciplinary studies, which have to been seen as necessary complements to interdisciplinary studies. Working in disciplines allows a deep understanding of aspects of the world; working across disciplines weaves these together into a rich tapestry that better reflects the human experience.

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