

Beginning a Journey

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The state of play

- Education for Sustainable Development (ESD) has come to be well recognized, and influential in curricular
- We do not need to debate the need for ESD – rather we need to get on and implement it
- ESD is a growing part of university curricula

Context for EfS

- Agenda 21 Chapter 36, Promoting Education, Public Awareness and Training
- Declarations eg Talloires, Copernicus, Halifax, ..
- United Nations Decade of Education for Sustainable Development
- National Strategy and Ecological Sustainable Development Australia
- AVCC Policy on Education for Sustainable Development (2006)

The Issue for educators

Does ESD –

- merely support actions like Agenda 21 and sustainable development
- or can ESD can assist change

Terms

- **Education for Sustainable Development (ESD)** - focuses on the learning process required to support sustainable development
- **Education for Sustainability (EfS) [Sustainability Literacy]** - emphasises building capacity to live more sustainably.
- **Sustainable education** - emphasis on the quality of learning, inter- and trans-disciplinary approaches developed in relation to an emphasis on real-life issues

ESD/EfS for Change

ESD/EfS –

- should not be simply a list of sustainability concepts that might be added on to an existing curriculum
- but should be a **significant reconfiguration of educational purpose and approach**

Education for Sustainability

The focus is on -

- ethical engagement
- the processes of critical analysis
- the use of holistic approaches

Education for Sustainability

“The terms ‘critical reflection’, ‘values clarification’ and ‘participative action’ have become core components for Environmental Education for Sustainability These approaches provide opportunities for students: to engage in **critically reflecting** upon the basis of their socio-cultural values and assumptions; to identify how they are **conditioned and confined** by the socio-cultural structures they are operating in and, more significantly, to build their **capacity as agents of change**.”

Tilbury (2004)

Education for Sustainability

“the challenge ... is to confront learners ... This, we suggest, radically revises our view of learning: from a process which acts on individuals’ characteristics in order to change the world; to one which **challenges individuals’ views** of the world as a means of influencing their characteristics and hence ways of **thinking and living.**”

Scott and Gough in Huckle (2006)

EfS/Sustainability literacy skills

- “An appreciation of the importance of **environmental, social, political and economic contexts for each discipline**
- A broad and balanced foundation knowledge of **sustainable development**, its **key principles** and the main debate within them, including its contested and expanding boundaries
- **Problem-solving** skills in a non-reductionist manner for highly complex real-life problems
- Ability to **think creatively and holistically** and to make critical judgments
- Ability to develop a high level of **self-reflection** (both personal and professional)
- Ability to identify, understand, evaluate and adopt **values conducive to sustainability**
- Ability to bridge the gap between **theory and practice**; in sustainable development, only transformational action counts
- Ability to participate creatively in **inter-disciplinary teams**
- Ability to **initiate and manage change.**”

Education for Sustainability

What does Education for Sustainability focus on –

- product
- process
- combination

In the absence of a ‘sustainability product’, we need a process to assist us on our ‘**journey**’ to sustainability.

EfS/Sustainability literacy

“...sustainability literacy is about learning how human actions affect the immediate and long-term future of the economy and ecology of our communities. It is concerned with how we can learn to live and work on a planet whose resources are finite.”

Dawe et al. (2005)

EfS/Sustainability literacy

- Teaching approaches - that support the development of skills in interdisciplinary thinking, problem solving and team working.
- Associated broad principles –
 - educators as role models and learners
 - experiential learning by reconnecting to real-life situation
 - holistic thinking.

Dawe et al. (2005)

Problem Based Learning

“Problem-based learning emphasizes **learning by doing**. It also provides a motivating context for learning. Students are given a real-world problem similar to those they would face as professionals. They take ownership of the problem, and the problem-solving process.”

Steinemann (2003)

Problem Based Learning

Features of PBL -

- making knowledge more accessible and **applicable**
- developing skills for solving **real-world problems**
- facilitating **active learning** to find and evaluate information from various sources
- facilitating **motivation** by focusing on real-world and current problems
- developing professional skills, especially cooperative and **interdisciplinary problem solving**, together with learning to work both **independently and collaboratively**

Steinemann (2003)

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Centrality of Thinking

Donald's (2002) study of eight disciplines –

- Students themselves recognise the “need to develop their approach to learning, to **think longer and deeper**, to bring their knowledge together.”
- “Individualized, **problem-based, inquiry-based, experiential and cooperative or collaborative learning** methods all contribute to higher-order learning.”

Centrality of Thinking

“A good environmental education program does not stop with the presentation of information, but helps learners wrestle with values and gain the skills to take relevant and responsible action. ... It teaches students “how to think” not “what to think.”

Day and Monroe (2000)

Thinking for the future

- Developing critical thinking in learners requires **learning by the teachers**, not only to support the learners, but to become ‘critical teachers’.
- Critical thinking is the basis of
Sustainable education

I think that's all for the moment.

Thank you.