Essay: Current Trends and Issues in Environmental Education and Education for Sustainability

By William Van Zyl (2010)

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Introduction.

In this essay, I will begin by giving a brief overview of EE and EFS over the past 30 years. This essay will then focus on the recent trends in the world regarding EE (Environmental Education) and EFS (eEducation for Sustainability) and the role of education in this process. Towards the end, I will look at some of the trends in the New Zealand education system and reflect on the “bigger picture” of EE and EFS globally.
A brief overview over the past 30 years and the development of Environmental Education and Education for Sustainability.

Subtle shifts from environmental education to education for sustainability began during the 1980s and with more momentum in the 1990s (EE and EfS and the proposals by the United Nations, Agenda 21, UN Environmental programme, 1992). The language of sustainability has slowly crept into the discourse of educators around the world and New Zealand (Eames and Cowie, 2004). The current main trend in NZ is sustainable futures and enviro schools. These schools came about as a direct result of the government and the education department’s response to the research, reports and discussions of the United Nations (UNESCO).

Broader changes in the international arena and the popular use of the term ‘sustainable development’ were brought about by the initial changes in 1987 (Parliamentary Commissioner for the Environment (PCE-2004) report. Although the language has changed, education was always seen as the main agent to bring about change and to educate the people. A much stronger emphasis has been placed on social, cultural, political, and economic concerns compared to education ‘about’ sustainability.

The earth summit in 1992 (UNESCO), Agenda 21 called for governments around the world to educate for sustainability. The description in short was:

a) Achieving environmental and ethical awareness, values and attitudes, skills and behaviour consistent with sustainable development. Effective public participation in decision making is the goal.

b) Rapid and radical change of the behaviours and lifestyles of people around the world. This would include changing consumption and the production patterns of countries. Appropriate education and public awareness were recognized as one of the pillars of sustainability. I will now look at the recent trends.

Future dimensions in EE/EfS.

The main purpose and justification for EfS are Environmental education for sustainability (EEFS). The new focus builds on the foundations of the initial education approaches. Tilbury (2004), states that “Education with this objective builds upon much of the principles of environmental education in the 1980s, by adding
relevance to the curriculum, adopting an issue-based approach, by stressing participation and action-orientated dimension in learning and by placing emphasis on values education" (p 210). I will now discuss some of these dimensions.

**EFS should be relevant to society.**

The needs of society should be identified and acted upon. When it gets to pupils, their current needs and future needs should be researched and identified. Irrelevant curriculums achieve nothing! It is just knowledge. If the template curriculum of developed countries is used for developing countries (or vice versa) it will not achieve anything because the values, issues, specific actions, and the specific culture of those countries are not taken into account. The outcome of relevant EFS should be ‘active participating citizens’, changing the environment around themselves and impacting the world in general from their own unique perspective. This requires a holistic and value based approach regarding EE and EfS for those specific people, culture, and country. I will now look at the holistic view and approach that is required.

**A holistic approach is required.**

Local and global trends, as well as the social, economic, political, historical, cultural, aesthetic, physical and biological dimensions, should be incorporated in education programs. Gender, race, and ethnicity should be considered when educating societies. The program of one nation and country cannot be applied or adapted to another. A completely new program which acknowledges the culture and its unique setting is required. Programs for ‘developing’ and ‘developed’ countries should address the indigenous people on their level of thinking and daily life. This is quite a challenge and different programs should be developed for every unique culture. Environmental problems should be identified in the ‘setting’ of the specific culture and society of a country and the programs developed accordingly. A good example is “health and sanitation”. The way in which people live their everyday lives (toilet habits) should be taken into account to make any impact on that specific society. It means that countries like India and Germany will have complete different EE and EfS programmes.
The approach to learning should be based on all types of ‘experience’. This includes social, historical, aesthetic, creative, linguistic, literature, mathematical, moral, physical, scientific, and technological areas. It means that the whole person is developed in this process. This concludes that all traditional subjects should be prompted to think about the way they are teaching their contents. Lucas (as cited in Miles and Rogers, 2004) points out two very important dimensions here:

**To provide a rich and varied array of formative experiences.**

“Providing a rich and varied array of formative experiences and opportunities to practice skills is the platform in which education for the environment is inevitably and very properly embedded” (Miles, M., and Rogers. (2004) , p 15).

The experiences of pupils and students will directly impact the success of the education program.

**Thinking, feeling and doing (hearts, heads, and hands).**

It is thinking, feeling, doing humans that make the difference. The heart, heads and hands have to be involved. Being in the environment and using a teaching technique creates a sense of emotional identity. It has to be first-hand experience. Environmental education (EE) and education for the environment (EfS) are a holistic human response engaging hearts, heads and hands (Miles, M. and Rogers, L., 2004). The activities and the ability of the teacher to creatively engage students is a key factor for success. For example: students washing their hands after working at the ‘worm farm’ at a pre-school unit. The ‘health’ of pupils, worms and the soil is the focus here. If the children care for the worms and themselves (hearts, heads and hands) the education is internalized!

**Values can never be separated from EfS.**

Typical values are the social responsibility, concern and respect for all life forms, harmony with nature and the commitment to work together with others. The awareness of the different values which exist in a
culture, sub-culture, com-munity, nations and the world is required. Example the different cultures, reli-
gious orientations, socio-economic class, gender factors of all communities and societies, as well as the
impact it has on the local and international com-munities as a whole and the quality of the environment
should be taken into account when ‘designing’ and developing the curriculum. The ‘worm farm’ idea for
preschool is a good example. The teacher should make it his or her task to research and know the children.
In the NZ society, for example, we have many children from diverse communities attending the same
school. The strategy used when dealing with the “worm farm’ will prove to be crucial for success. To be
successful the different groupings of children and their values should be taken into account for a specific
sustainable outcome.

An issue based approach is vital for EfS.

In an issue based approach the first step would be towards identifying ‘is-sues’ in the specific group
targeted. Then the in-depth investigation of these issues should follow. During this process, educators or
researchers will be looking for solutions and connect possible actions to it. To make adjustments regarding
the EE and EfS curriculum is the next step. Action has to be taken on the basis of the information collected.
Standing back and evaluating the effect of the actions which was taken is of vital importance to get
feedback (formative assessment) from the education provided. Showing pupils the implications in real time,
for example the impact of worms and compost in a vegetable garden, and the devastating effect of the
absence thereof. “If all the worms in or veggie garden should die of ............”

Without “concrete” action there is no real result.

Action should be taken in real and simulated environments. A variety of ‘environments’ should be used to
extend knowledge and experience for example negotiation, persuasion, consumerism, political action, legal
action and eco-management(Tilbury, 1995). Jensen and Schnack (1997), comment on developmental work
done in Danish schools. The objective is to “demarcate the concept of ‘action’ from ‘activity’ and ‘behaviour
change’ in these schools. The different kinds of actions are discussed, environmental actions are identified,
and a distinction is drawn between ‘direct’ and ‘indirect’ environments” (p. 110). The action competence of
students are assessed and measured and the result of these actions are analysed. Jensen and Schnack (1997) identifies action language and practice language. Action competence training could include role play, games, and discussions. For example, students should practice at school how to ask questions to their parents and physically show them “how to” at home. For example: regarding the worms at school and their own garden. They could write letters to the local authorities asking questions about the council's plans and strategies regarding the decrease of the worm population in their own town or city.

Critical minds and action bring about change and ‘action competence’.

The main aim is to stimulate and prompt pupils to develop as critical thinking and acting players in the environment. This includes critical reflective knowledge, critical thinking skills, democratic skills and values, and the experience of the process of environmental politics. Jensen and Schnack (1997) introduces the concept of action competence. They make an attempt to locate it within the concept of general educational theory. This concept, they argue, occupy a central position in the theory of environmental education. For example, children should be prompted to look at the local parks, municipal grounds and think about the “worms and compost” in those areas. Who are responsible for these parks and grounds and “who can we send a letter to...........” These actions and skills can be measured and developed.

The challenge is to change the status quo subjects and incorporate them into the holistic approach in EE and EfS.

“Familiar subjects such as mathematics, science, social studies, and the arts have been taught so long that that their place in the curriculum is not often questioned. Because these subjects have a longstanding tradition in school education, one might even say that they have become ‘institutions’ “Gough and Scott, 2001(as cited in Bolstad, R., 2003, p 67). The challenge here is to get teachers of these subjects to “think how and what” they are teaching and take on board EE/EfS and implement it in a creative and relevant way into their teaching practice. It is the task of leaders for example to constantly ask teachers of “traditional subjects” the questions like: “How did you incorporate EE and EfS in you art lesson today, can we identify the underlying environmental issues in this work of art?
A good example is technology education in NZ. It is an essential learning area and has become embedded in all school practice. It has received widespread attention and has developed to the point where it is now integrated into the different subjects and aspects of school practice. Another example is ICT. Schools understand the importance of incorporating ICT and computers in general in schools across all subjects. EE/EfS should get the same treatment and follow in the footsteps of the subjects mentioned.

Globalization and EE/EfS: looking beyond sustainable development.

“In effect, Crossley and Watson (2003), (as cited in Jickling and Wals [2007], p.2) are pointing out that multinational corporations are now far richer and stronger than nation states, and international trade agreements are more powerful than the will of elected governments”. The statement which Jickling and Wals (2007) make is a startling fact. The world is a global economy and any change in some area or country has an indirect effect on all the others.
Above chart shows the top 20 global countries next to each other. Measuring global interaction-2009 (trade, travel, technology and links to the rest of the world). See how the much the USA (fourth from the left) is connected technologically (blue colour) compared to the rest of the world.

(Source: http://ibgeog2009.wikispaces.com/Measuring_Global_Interactions)

Referring to the chart shown on globalization, I would like to give an example of the influence of globalization on education (EE/EFS). China manufactures most of the world’s car parts now (low labour rates). In a recent meeting on sustainable corporate policies (carbon emissions) between the USA and China, all the US representatives were trying not to offend the Chinese government. It is known that China
is a growing ‘economic giant’ and that they do not take enough action to curb carbon emissions. The US officials knew that if they offend the Chinese officials they could jeopardize their own businesses and economy. They would not be able to get the lower labour rate and they would not be able to compete with other developed countries that have their car parts manufactured in China. Whom will they go to and how will they compete with the rest of the world if they don’t have their products and components manufactured in China? This is an example of the power of politics, economics and globalisation of the world’s economies. These underlying ‘forces’ mentioned, will influence EE/EIS indirectly.

The challenges for sustainability facing NZ schools.

‘There is a growing tendency in EE literature to move away from seeking universal answers to these questions and issues’ (Eames & Cowie, 2004, set 3). Contemporary literature leans towards the view that EE cannot be effectively implemented without discussions and the participation of all stakeholders. Without discussion amongst all involved about the goals, purposes, and meanings of EE for local contexts the people involved will not ‘buy into it’.

The guidelines for EE in NZ schools recommends a holistic whole-school approach to EE and provides a planning framework and some examples of integrated units (Eames & Cowie, 2004, set 3). Concerns from respondents were, access to professional development to enhance their knowledge, the provision of resources, time for planning, action and funding. Other factors identified included overcrowded curriculum and the non-mandatory status of EE. Respondents express their concern that ‘without the support from the school, principal, senior management, or BOT and/or inclusion in school policies and programmes EE was an ‘add on’ ‘(Eames and Cowie, 2004, set 3, p 189).

Summary.
Introducing a multidisciplinary and interdisciplinary approach to teaching and research is becoming more and more important in order to be able to address the increasingly complex problems in EE and EfS. Close attention should be given to the relevance, holistic approach, value orientation, issue-based and action orientation in developing and implementing EE and EfS in the world today as I have discussed in this essay. Students should be challenged to be critical thinkers and to make use of their democratic rights to take action (global citizenship). Action competence should be assessed and developed in students. This way the world and its leaders will be constantly challenged on a local, national and international level.

In New Zealand EE and EfS should become mandatory in all educational institutions to make an impact on society. It is the task of the government of the day and the education department to be actively involved in planning, implementing and funding initiatives around the issues of EE and EFS. It should become a lifestyle and our efforts should be compatible with our “green image” in NZ, and our awareness of sustainability on all possible levels.

REFERENCES:


About the Researcher (author)

William van Zyl is a Design and Visual Communication teacher at a secondary school in New Zealand. As a postgraduate student and researcher his academic interests are Open Education (Radical Openness), Alternatives to Neoliberalism, Peer-to-Peer (P2P) Collaboration, P2P Teaching and Learning Technologies, and the Philosophy of P2P Processes and P2P Technologies (Theorists: Foucault, Habermas & Popper). He also has keen interests in the Gifted and Talented, Technology Education, Research Methodology, and Virtual Learning Environments (VLE’s) like Moodle & Google Classroom. Sustainable Architecture, the implementation of bio-mimetics, and animal architecture are some of his Design and Visual Communication areas of study.
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