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## EDUCATION FOR SUSTAINABLE DEVELOPMENT: CURRENT FAD OR RENEWED COMMITMENT TO ACTION?

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### **Introduction**

The original idea to write this paper can possibly be traced back to the CEEE 2002 conference (Gent, Belgium). During that conference two things helped the author focus on the realities facing environmental education: a remark made by a young participant, i.e. "Don't just talk about it ... give us new ideas about how to do more"; and the clear rift between theory and practice that surfaced throughout the workshop sessions. After all these years, during which environmental education had to flourish and permeate our society, such situations raise important questions – that need to be answered particularly when we are more than midway through the UN Decade of Education for Sustainable Development.

Are we witnessing the gradual demise of the environmental education movement or is this another phase in its evolution? In other words, have we arrived at the cross-roads – a paradigm shift? Has the theoretical framework, constructed to support practice, developed into an academic lucrative exercise – an irrelevant standalone? Has practice run amok without any sense of direction responding only to the whims of project funding agencies? Asking these questions may, for some, seem a futile rhetorical exercise. However, a closer analysis of the development of environmental education shows that avoiding these and similar questions about our actions will inevitably lead us to the same mistakes and render our progress a series of jump-starts.

### **The Backdrop – Learning from Our Past**

For reasons that will be elucidated further on, the author will use the term environmental education and refrain from using other variants, i.e. Earth Education (van Matre, 1990); Environmental and Development Education (EDE) (UNCED, 1992); Environmental

**Abstract.** *The paper will comparatively highlight the main characteristics of environmental education and some of its variants. Similarly the paper will critically analyse major international events addressing the need to implement environmental education and their impact on the educational community. These two reviews will act as a backdrop to a critical analysis of why the resources invested in environmental education have not provided the turnout expected. Strategies adopted to get results have further complicated the situation, giving rise to confusion and lack of direction in the field, a schism between theory and practice, and a further fragmentation of resources. The paper concludes by making several reflections and concrete proposals about making the UN Decade of Education for Sustainable Development a worthwhile experience ... particularly at the grassroots level.*

**Key words:** *curriculum development; environmental education; education for change; education for sustainable development.*

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Education for Sustainability (EEFS) (Tilbury, 1995); Education for Sustainability (EfS) (Huckle and Sterling, 1996); Education for a Sustainable Future (ESF) (UNESCO, 1997); Education as Sustainability (EaS) (Foster, 2001); Sustainable Development Education (SDE) (Smyth, 2002); Education for Sustainable Development (ESD) (UNESCO, 2005); etc.

Possibly most of the problems facing the dissemination of environmental education are related to the great efforts spent, throughout these past two decades, reinventing the wheel. Conscious of the risk of being labelled a staunch conservative or even accused of limiting the scope of environmental education, the author believes that most of what had to be said about environmental education was said during the Tbilisi Conference way back in 1977 – and any ‘new elaboration’ is really a rehash of the same principles under a new guise. The Tbilisi document’s Declaration and Recommendation No. 2 (UNESCO, 1980) outlines the characteristics of environmental education.

These characteristics and the commitment towards sustainable development were confirmed ten years later at the International Congress on Environmental Education and Training (Moscow, 1987), also appropriately termed ‘Tbilisi plus ten’ (UNEP, 1987). Ten years later, the International Conference on Environment and Society: Education and Public Awareness for Sustainability (Thessaloniki, 1997) noted that the recommendations and action plans proposed by the afore mentioned events were “*still valid and not fully explored*” (Scoullos, 1998, p79).

Moreover, the declaration reaffirms (in point 11) that:

*Environmental education, as developed within the framework of the Tbilisi recommendations and as it has evolved since then, addressing the entire range of global issues included in Agenda 21 and the major UN Conferences, has also been dealt with as education for sustainability. This allows that it may also be referred to as education for environment and sustainability (Scoullos, 1998, pp80-81).*

Rather than going through all the principles of the various other offshoots of environmental education, that have been proposed along these last few years (see above), the paper will just focus on the latest one, i.e. the principles for ESD. Even a cursory review of the ESD principles reveals a close similarity with the ones outlined at Tbilisi (see Table 1). There is, obviously a broader emphasis on sustainable development issues – a direct result of the significance attributed to this concept since the publication of the Bruntland Report (WCED, 1988) and the Rio Summit (UNCED, 1992) – but the characteristics of the process have remained practically the same. This broadening of emphasis was also reported by Stokes *et al* (2001) in educational systems throughout the European Union.

**Table 1. Comparison of the characteristics of Education for Sustainable Development and Environmental Education.**

Education for Sustainable Development (proposed by the DESD International Implementation Scheme - UNESCO, 2005)	Environmental Education (proposed by the Tbilisi Conference - UNESCO-UNEP, 1978)
based on the principles and values that underlie sustainable development and deals with the well being of all three realms of sustainability: environment, society and economy	considers the environment in its totality: natural and built, technological and social (economic, political, technological, cultural – historical, moral aesthetic) presents a holistic and balanced perspective
promotes life-long learning engages formal, non-formal and informal education	is a lifelong process - provided for all ages, at all levels and in formal, non-formal and informal education
is interdisciplinary	is interdisciplinary
addresses content, taking into account context, global issues and local priorities	examines environmental issues from a local, national, regional and international perspective



<b>Education for Sustainable Development</b> (proposed by the DESD International Implementation Scheme - UNESCO, 2005)	<b>Environmental Education</b> (proposed by the Tbilisi Conference - UNESCO-UNEP, 1978)
is based on local needs, perceptions and conditions, but acknowledges that fulfilling local needs often has international effects and consequences	promotes local, national, regional and international cooperation in the prevention and solution of environmental problems
is locally relevant and culturally appropriate	focuses on current and potential environmental situations, while taking into account the historical perspective
accommodates the evolving nature of the concept of sustainability	considers environmental aspects in plans for development and growth fosters positive patterns of conduct towards the environment and the nations' use of their resources is responsive to changes in a rapidly changing world enables learner to discover the symptoms and real causes of environmental problems
builds civil capacity for community-based decision-making, social tolerance, environmental stewardship, adaptable workforce and quality of life	looks outward to the community encourages initiative, a sense of responsibility and commitment to build a better tomorrow provides learners with the opportunity for making decisions and accepting their consequences
uses a variety of pedagogical techniques that promote participatory learning and higher-order thinking skills.	utilises diverse learning environments and a broad array of educational approaches to teaching/learning with due emphasis on experiential learning enables learners to have a role in planning their learning experiences involves the individual in critical thinking and an active problem-solving process within the context of specific realities

What is being criticised is not the ability of the various researchers to highlight particular emphases and subtleties in the process, but the tendency of viewing the evolution of environmental education as a linear process – with one ‘new’ phase being considered ‘better’ than and hence replacing the ‘older’ phase. The evolution of environmental education can be compared more to a branching system, rather than to a linear one, with new forms developing and coexisting happily with other forms, each fitting particular niches in the various educational systems worldwide. As long as sustainable development remains the main focus, every version is a valid one and its validity is directly dependent on its continued relevance to the context for which it was developed. And taking the evolution analogy further, what is wrong with maintaining existing labels – as long as they are still valid and they do not conflict with current needs? (After all our body still carries remnants from our ancestral past without causing any problem with its current functionality). Promoting one version of environmental education over another is rather reductionist and insensitive to the diversity of educational needs, cultures and socio-economic backgrounds.

*While the basic content and action framework for environment and sustainability is largely in place, the translation of these parameters into action for education will need to take into account particular local, regional or national contexts. (Scoullou, 1998, p81)*

*No universal models of ESD exist. While there is overall agreement on principles of sustainability and supporting concepts, there will be nuanced differences according to local contexts, priorities, and approaches. Each country has to define its own sustainability and education priorities and actions. The goals, emphases and processes must, therefore, be locally defined to meet the local environmental, social and economic conditions in culturally appropriate ways. (UNESCO, 2005, Annex II, p5)*

For example, while the theme of Conservation of Ecological Diversity would probably feature quite low in the list of priorities of an ESD programme for urbanised and/or industrialised communities of a



developed country, it would feature quite high for Small Island Developing States (SIDS) because of its social and economic relevance.

The undue emphasis on finding new definitions to environmental education and promoting one form over another might seem much-ado-about-nothing, but there are certain dangers (listed below) inherent in this attitude that might be the true reason why environmental education has not provided deliverables that correspond to the efforts invested in it over the years.

#### *The Transient Nature of Fads*

Referring to the problems encountered by information technology in education, Maddux and Cummings (2004) see fads as presenting a serious problem, in that their ephemeral nature tends to kill off promising innovations before they are given a fair trial. Maybe this is what Smyth (1995) refers to as the '*injustice*' done to environmental education when it was 'packaged' and presented differently from other educational packages. Due to its novelty the attention was drawn to the packaging not to the inside of the package and environmental education (contrary to its original remit) sparked off a fashion of superficial change. Educational institutions readily accepted the idea of including environmental issues in their programmes, without endorsing the radical innovation in the educational system that the environmental education movement envisaged. Rather than opting for a rethinking of teaching and learning approaches, most educational institutions opted for the easiest way out: re-labelling traditional practices, such as Nature Study and Environmental Studies, as Environmental Education.

The transformative nature of environmental education was acknowledged from day one:

*"By its very nature, environmental education can make a powerful contribution to the renovation of the educational process."* (Tbilisi Declaration – UNESCO, 1980, p12).

Incompatibility problems, between the educational paradigm promoted by the environmental education movement and the established educational paradigm (Pace, 1997), were to be expected. The most common implementation strategies involved 'including' environmental education within the curriculum rather than transforming or adapting to it. What was needed was a commitment to face these problems and find lasting solutions. But rather than reforming education (Smyth, 1995), the strategy adopted was, to say the least disappointing.

While it was understandable that educational institutions, notorious for their inherent resistance to change, simply whitewashed over their current practices, what was worrying was the strategy adopted by the promoters of environmental education. From being considered as the panacea of all environmental ills, environmental education suddenly became irrelevant, narrow in scope and in need of replacement by a broader concept. This was a case of changing the game because the players were not playing by the rules. Usually, when the going gets tough, the tough get going – they do not change the game. It would have been much more productive if the energies invested in promoting new forms of environmental education were invested in understanding what really went wrong and what could be done to address the crux of the matter and avoid repeating the same mistakes.

And it seems that we still have not learned from our experience. Reflecting on how ESD (and the associated decade) is being promoted as the missing piece of the puzzle – the new panacea for our ailing world, we are once again running after the latest fashion. If the principles identified in Tbilisi were misinterpreted, are not we running the risk of misinterpreting the ones being proposed for the Decade?

#### *A Lack of Vision*

"Environmental education", like "education", is an abstract concept – an idea that describes various perceptions (Jickling, 1992). It also implies a process and the analysis of its manifestations and development improves our understanding of the concept. However, regardless of the depth of our analysis, we can never arrive at a precise definition of the concept due to its evolving nature. On the other hand, what can (and needs to) be done is to fine tune our vision by examining



“...the implications which logically follow from use of the concept to see if application of the term is consistent with those essential criteria teased out during analysis.” (Jickling, 1992, p4).

In hindsight, educational institutions were too preoccupied with implementing environmental education without understanding what it really meant and what they should have been doing. Jickling (1992, p1) attributes the *expression and proliferation of such questionable ideas* about environmental education to a *lack of attention to philosophical analysis* that would have provided us with a clear vision. Rather than going for something new, it would be more sensible to revisit our efforts and see why, where and what went wrong and learn from our past experiences.

#### *A Politically Insensitive Stance*

The tendency of creating ‘new forms’ of environmental education and overly promoting them as being the ‘in-thing’ has been counter productive and may conflict directly with the popularisation of environmental education. Instead of elucidating the educational process, it is generating confusion and frustration particularly in developing countries. First of all, there is virtually no simple equivalent expression of these terms other than in the English language (Leal Filho, 1996). Secondly, in countries where environmental education is struggling to get recognition, because governments have other seemingly more urgent socio-economic priorities, changing terms might throw years of negotiation and hard-won success down the drain (Leal Filho, 1996; Smyth, 2002).

Starting all over again is disheartening, non productive and unsustainable. It is not a good and efficient use of resources, especially for small scale economies such as families, schools, SIDS and other developing countries. A sustainable way of promoting education for sustainable development is to build upon previous achievements, make good use of available resources and invest in capacity building. Gradually, but surely, such a strategy would help to develop the *critical mass of promoters and practitioners* (Smyth, 2002) needed to make the difference in sustainable development. This would be far more effective in changing policies and influencing lifestyles than a couple of academic gurus or as Smyth (1995) calls them the “*priesthood of the environmentally enlightened*”.

There is also another political danger in this excessive emphasis on language. It tends to systematically generate discourse which is very specialised, exclusive and alienating (Leal Filho and Pace, 2002). The environmental education community is thus split into a caste system: the ones in power who lay down policies and the ones who follow them (Robottom, 1987). Understanding what is happening in environmental education and being involved in it tends to become a purely academic exercise and at a grassroots level such an exercise is deemed irrelevant to the realities faced daily (Alexander, 1984). This stance is hard to reconcile with the commitment to empowerment that environmental education (in all its forms) is expected to promote. Unfortunately there are other instances when the environmental education community is faced (and has to deal) with conflicting or inconsistent messages.

#### *Two Weights - Two Measures*

In their enthusiasm to show the way forward, certain researchers have tended to be prescriptive rather than adaptive and open for change and diversity. This in itself is already sending several conflicting messages that are manifested in various forms, for example:

- a) promoting education *for* something gives the inherent message that the role of education is to make people think and behave in a particular way (Jickling, 1992). This conflicts with one of the basic principles of environmental education: developing autonomous learners who are critical thinkers in their quest for meaning and active in finding their own sustainable life patterns.
- b) while advocating the need to respect and value contextualised initiatives, particularly in reference to the value and conservation of traditional indigenous knowledge, certain authors tend to be rather judgemental in their choice of ‘successful’ case studies. What are the



- criteria used to judge whether the initiative is good environmental education or not? Were contextual issues considered?
- c) the issue of how to approach environmental education has also been rather confusing. It is a well established reality that learning is not a linear experience. On the other hand a large part of the educational programmes available adopt a linear approach. The point of departure is not the learner but the subject matter that has to be transmitted. Moreover, a linear approach fails to acknowledge the fact that individuals learn in different ways through different experiences.
  - d) reading through the literature one tends to get the feeling that certain terms, such as “science and technology” and “ecology” for example, have become “dirty words” in ESD discourse. These extremist views are hard to reconcile with, for example, real situations where science and technology are actually offering solutions or with the advocacy of “whole systems thinking” and “ecological paradigms”.
  - e) there is also a lot of going to and fro in the philosophical stances adopted by certain environmental educators. For example, while being very vociferous on the shedding of ‘old’ practices in preference for the newly proposed ones, some individuals do not think twice to accept consultancy on promoting the very same practices that they felt were superseded.

### The Action – Looking at the Future

It is quite clear that education, particularly in the formal sector, is finding problems of relevance (Sterling, 2001). Environmental education has been offering solutions from the day of its inception. However, the uncertainty generated by the environmental education research community – the constant changing of goal posts – is not helping the educational community to make the desired step.

The wrong perceptions (or the confusion generated) about environmental education have forced education reformers to look elsewhere and adopt different evaluation paradigms for solutions, thus missing the wood for the trees. Reports about the implementation problems of environmental education in the educational system (e.g. Commission for the European Communities, 1995; Economic Commission for Europe, 2005) characteristically reveal a predominance of a top-down approach to implementation in which the solutions are sought from outside the targeted community. When faced with change coming from the outside, educational communities tend to either disregard the proposed change or, if they cannot avoid it, they tend to adopt practices that are only a travesty of the new lifestyle. For effective change to occur, it needs to come from within the educational community itself (Leal Filho and Pace, 2002).

In other words the individuals concerned should feel the need for the change, desire it and become actively involved in implementing it. The need to actively involve the grassroots has been clearly proposed by *Caring for the Earth* in 1991 (IUCN/UNEP/WWF). Prior to this publication, plans directed at environmental action were traditionally addressed to governments and other policy makers. However, this document, when considering “... *those who shape policy and make decisions that effect the course of development and the condition of our environment ...*”, intends every individual and not just people in ‘high places’ (IUCN/UNEP/WWF, 1991). Rather than emphasising the traditional top-down approach, *Caring for the Earth* addresses the general public and invites them to take concrete actions towards sustainable living. This citizens-as-active-participants approach to environmental action, rather than passive recipients of directives, was to become the main theme of Agenda 21.

Relevance is one of the basic characteristic of a successful strategy targeting the grassroots. If we are not careful, the notion of ‘education for change’ might give wrong impressions that change is something that we will have to face in the future. Change IS happening out there, but due to their traditional ways of ‘preparing the citizen for life’; educational institutions are not keeping up with the change, and are rapidly becoming irrelevant (Sterling, 2001). This might explain the high percentage of drop-outs experienced in most educational systems.

The Economic Commission for Europe (2005) identified the following key themes of sustainable development:



*"... poverty alleviation, citizenship, peace, ethics, responsibility in local and global contexts, democracy and governance, justice, security, human rights, health, gender equity, cultural diversity, rural and urban development, economy, production and consumption patterns, corporate responsibility, environmental protection, natural resource management and biological and landscape diversity." (p.4).*

These key themes are issues that are experienced everyday, in one form or another, at the grassroots level. The grassroots level should be the main target as it is the closest one could get to reality. More specifically, environmental education programmes need to target the individual learner. Programmes based on the development of competencies tend to be learner centred – preparing learners to take concrete steps towards discovering their own sustainable life patterns. Thus a competence is what one can do (ability) in a given context, based on what is learned (knowledge), to achieve a set aim and produce meaningful knowledge. Three main areas of competences can thus be identified (for example see Box 2):

- Cognitive and meta-cognitive competences – enabling the individual to learn about the environment, to understand the dynamics and interaction of its various components and to contextualise the knowledge learnt.
- Action and behavioural competences – empowering the individual to play an active role in the resolution of environmental problems.
- Social and citizenship competences – enabling the individual to form groups and work effectively in them.

**Table 2. List of competences relevant to environmental education developed for the European Portfolio for Environmental Education (Pace, 2005).**

Cognitive and meta-cognitive competences	Action and behavioural competences	Social and citizenship competences
<ul style="list-style-type: none"> <li>• Awareness of environmental issues</li> <li>• Clarity of concepts</li> <li>• Awareness of complexity</li> <li>• Awareness of uncertainty</li> <li>• Ability to foresee</li> <li>• Application of knowledge</li> <li>• Hypothesis construction</li> <li>• Hypothesis testing</li> <li>• Use of appropriate terminology</li> <li>• Identification of erroneous argumentation</li> <li>• Forming reasoned opinions</li> <li>• Processing information</li> <li>• Evaluation</li> <li>• Self-reflection</li> <li>• Classification of matter</li> <li>• Systems thinking</li> <li>• Observation</li> </ul>	<ul style="list-style-type: none"> <li>• Consistency in knowledge-values-behaviours</li> <li>• Change in lifestyle</li> <li>• Moving about in natural environments</li> <li>• Perceiving</li> <li>• Express emotions</li> <li>• Perseverance</li> <li>• Motivation</li> <li>• Self-fulfilment</li> <li>• Classification of matter</li> <li>• Observation</li> <li>• Decision making</li> <li>• Practicability</li> <li>• Rationality</li> <li>• Handling quantitative data</li> <li>• Written communication</li> <li>• Text analysis</li> <li>• Autonomous learning initiative</li> <li>• Handling equipment</li> <li>• Information technology skills</li> </ul>	<ul style="list-style-type: none"> <li>• Awareness of values</li> <li>• Participation</li> <li>• Take responsibility</li> <li>• Decision making</li> <li>• Considering limits</li> <li>• Consistency</li> <li>• Independence</li> <li>• Encouragement</li> <li>• Level of discussion</li> <li>• Respect for differing views</li> <li>• Conflict management</li> <li>• Team work</li> <li>• Flexibility</li> <li>• Optimism</li> </ul>

Any environmental education programme that is committed towards promoting sustainable development necessitates the translation of these competences into action. This is the major challenge that has always characterised environmental education and which has been reaffirmed at the Ahmedabad Conference (CEE, 2007) and the Bonn Conference (UNESCO, 2009). Overall, it is not on the aspect of



resource development or the provision of training that we have failed to deliver as much as one would have expected. The major fault seems to have been rooted in our traditional perceptions of the learning process. The development of learner centred pedagogies aimed at transforming passive individuals into autonomous critical lifelong learners who are committed to action (for example: Vanhear & Pace, 2008; Pace, 2010; and Leal Filho, Pace & Manolas, 2010) seems to be the next phase in the evolution of environmental education.

*"The overall goal of the DESD is to integrate the principles, values, and practices of sustainable development into all aspects of education and learning. This educational effort will encourage changes in behaviour that will create a more sustainable future in terms of environmental integrity, economic viability, and a just society for present and future generations."* (UNESCO, 2005, Annex I, pp1-2).

## Conclusion

While not downplaying the urgency to get environmental education on the road, we need to understand that education is a gradual process that simply cannot be hurried. People take time to change: most of our communities have gradually adapted to a more comfortable but unsustainable way of life – going back (or rather moving on) to a sustainable lifestyle will likewise take some time. Without being overly optimistic, looking back we have made progress, not as much as we would have desired, but we have managed to put environmental issues on the political agenda and there is a heightened awareness of environmental concerns. Nevertheless, we cannot relent in our efforts to promote an education that prepares individuals for sustainable development, but rushing things may drive us into repeating the same mistakes.

Besides working at the grassroots level, we need to secure a place for environmental education with policy makers whose main commitment is usually paying only lip service to the process at international conferences. Policy makers are usually interested in short-term high yield enterprises; that is why they prefer to sponsor and promote educational programmes that are characterised by the transmission of subject content over programmes that promote transformative pedagogies. What would probably tip the balance is experiences and celebration of contextually successful practices, but communication was never a quality of environmental educators. Moreover, as previously highlighted we are repeatedly changing tactics and we are not presenting a solid united front on what is really needed to prepare citizens for the challenges of sustainable development.

The important question is: Have we learnt from the experience? Or shall we repeat the same mistakes again? Let us not forget Moscow 1987. The aim of the congress was the drawing up of an "International Strategy for Action in the Field of Environmental Education and Training for the 1990s". In an attempt to reverse the state of environmental illiteracy the congress dedicated the 1990s as the 'World Decade for Environmental Education'. Almost two decades later we are still trying to understand why and where we failed! If we are not careful we will be running the risk of wasting the present decade as well.

In other words, rather than being preoccupied with what version is currently in fashion, educators should use whichever term they feel comfortable working with (whether it is EE or ESD or whatever) that fits with their specific context. *Getting there* is more important than debating *how we plan to arrive there!* As long as we are part of an educational process that is contextually relevant, participatory, emancipatory and leading towards sustainable development we are in the game!

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