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Situated Environmental Learning in Southern Africa at the Start of the UN Decade of Education for Sustainable Development

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Abstract Within the globalising trajectory of modernism, conservation, then environmental (EE) and now sustainability education (ESD) have each emerged as developing responses to **risk** produced by and in the modern state. Through adopting a long term process perspective, this paper narrates the emergence of situated learning perspectives and a developing re-orientation of EE at the start of the United Nations Decade of Education for Sustainable Development (UNDESD). We identified the need to examine **ESD practice** in responses to recent ESD consultations in 14 southern African countries, where a **rhetorical marking** was noted in discussions on ESD practices, particularly with regard to changing teaching and learning processes. The paper narrates how an interplay of review, research and practical engagement activities have all contributed to an extended critical review of learning interactions in environmental education in an attempt to provide useful perspective for educational activities within the UNDESD. We found that EE and ESD initiatives only acquired more substantive meaning and coherent orientation when examined within ongoing inquiries into situated learning, agency and risk reduction in contexts of poverty, vulnerability and risk, the key concern to us in this paper and the primary focus of the WEHAB (Water, Energy, Health, Agriculture and Biodiversity) sustainable development agenda in the region.

Opening Questions for Deliberation

2005 marked the start of the United Nations Decade of Education for Sustainability (UNDESD). The global(ising) discourse and associated strategy development processes, political re-positioning and fanfare associated with the global introduction of the UNDESD has brought numerous questions to the fore in southern African environmental education, notably:

- How is the emerging political economy of sustainable development beginning to define and shape environmental education processes? (Lotz-Sisitka, 2004); and
- How are education programmes and projects responding to contexts characterised by increased risk and vulnerability? (Lotz-Sisitka, 2006).

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In an ongoing inquiry into the way in which learning interactions are oriented and steered in and as environmental education processes (O'Donoghue, 1993; 1997; 1999; Lotz-Sisitka & O'Donoghue, 2006), we have identified the clarifying of Education for Sustainable Development (ESD) **practice** as a further question for our education activities in southern Africa. This question was noted in responses to recent ESD consultations in 14 southern African countries, where a **rhetorical marking**[1] was noted in discussions on ESD practices, particularly with regard to changing teaching and learning processes (Lotz-Sisitka, Olvitt, Gumede & Pesanayi , 2006). In the ESD consultations hosted by the Southern African Development Community Regional Environmental Education Programme (SADC REEP), clarifying "ESD Practice" was identified as a key question for further deliberation and research amongst southern African educators responding to the UN call of Education for Sustainable Development. Critical questions on ESD practice that emerged from this consultation process include:

- how should environmental learning processes and sustainable development concepts and actions interface;
- how should participation be conceptualised in learning processes beyond, and in addition to the political;
- how should ESD practice be conceptualized and implemented as an inclusive practice in a culturally and linguistically diverse context;
- how should indigenous and local knowledge be mobilized in response to environmental risk and sustainability challenges; and
- how should ESD practice contribute to the creation of viable alternatives for communities confronted with the stark realities of poverty, risk and vulnerability (Lotz-Sisitka et al., 2006).

An ongoing enquiry into the steering of teaching and learning interactions in environmental education, and this latest *rhetorical problematique* in which globalising ESD discourse is seemingly difficult to equate with the practice associated with particular processes of teaching and learning in southern Africa, gave rise to the main question guiding the development of this paper namely:

> How should we approach environment and sustainability learning interactions across a diversity of current approaches to educational activities in African contexts of risk and vulnerability?

Recent Enquiries on Environmental Education in Relation to the UNDESD

Unlike in Europe and elsewhere in the West where there was often a clear differentiation and intense debate between EE and ESD, the question of the relationships between environment, society and development (viz., sustainability) was well established in many environmental education programmes in southern Africa. There was thus little oppositional posturing of the ideas as there had been in the earlier contested transition from conservation to environmental education and nature-experience perspectives to participatory approaches to environmental learning. Perhaps the lessons learned in these somewhat hollow contestations left possible protagonists unwilling to repeat the often futile politics of dialectic that accompany such word games, especially at the level of changing slogans. The historical unfolding of global(ising) discourse on ESD and its "route" into southern Africa was thus more one of critical review of what we have been doing and a possible reorientation of our activities to take up these matters more coherently in learning interactions that are already underway.

One such review is a study undertaken on behalf of the SADC REEP into the "future" of environmental education in the region. Through an in-depth literature study, this review concluded that political economy, and its influence in appropriating sustainable development discourse in service of market interests was a key issue to engage with as the UN Decade of Education for Sustainable Development unfolds, and it was noted that it is particularly social and environmental justice activists in the South that are voicing this perspective. It brought issues of globalisation, global inequality in resource use and mobilization, and the unfortunate effects of neo-liberal, World Bank and IMF policies to the fore. The UNDP human development reporting over the past few years in southern Africa is indicating that poverty is on the increase, not decrease, despite increased economic growth (UNDP, 2003; 2006). Inequality, however, and wealth creation for the elite few (the gap between rich and poor) is on the increase, despite adoption of sustainable development policies and intentions (ibid).

The SADC REEP research drew on Popkewitz's (2000) advice that narratives of social and educational reform should be interrogated in ways that "go against the grain"; in the sense that the systems of reason that are embodied in reform attempts (e.g., ESD) need to be problematised and historicized. This type of interrogation of sustainable development as salvation narrative guiding ESD reform attempts raised a "flag" for southern African environmental educators concerned with the re-positioning going on in the international political sphere and the associated seemingly significant "demise" of the status and value of environmental education in international discourse in the field. Conclusions arising from this research indicated that a critical and reflexive orientation to sustainable development (and its appropriations) would seem to be required in the UNDESD, and that environmental education processes could well enable and support this critically reflexive engagement with sustainable development concepts and their appropriation in various contexts[2]. The research further concluded that there was a need for a more in-depth understanding of risk and vulnerability in southern Africa, if environmental education programmes were to respond to the call of the UNDESD in contextually situated ways (Lotz-Sisitka, 2004). This, the paper argued, was necessary to avoid blind adoption of global institutional rhetoric in the UNDESD by practitioners engaged in the re-positioning game[3] (ibid).

This review of environmental education in relation to the global ESD agenda, led to a second major southern African research initiative, undertaken once again for the SADC REEP, this time probing the relationships between environmental risk, poverty and health risk in ten case study sites across the southern African region. This research (Lotz-Sisitka, 2006) is reviewing the way in which environmental education processes are responding to increased environmental degradation and risk and the ravages of HIV/AIDS, malaria and other health risks in southern African society. By now it is well known internationally that not only is southern Africa the poorest region in the world, it is also the region most impacted by the HIV/AIDS pandemic. It is also beginning to feel the effects of climate change as droughts and flooding are seemingly affecting the area more than in the past. Southern Africa is described by UNDP (2003) as being a "high risk context with low coping capacity" which is consequently affected by high levels of vulnerability. This focus on environment, health and sustainability responses, is providing the following guiding insights for Environment and Education for Sustainable Development (EESD) practice in southern Africa:

- there is a high level of dependence on natural resources for livelihood strategies and food security in rural areas;
- health risks and issues present challenges to people living in poverty that require them to rely even more heavily on the natural resources they have access to

– particularly those groups that are more vulnerable (women and child headed households);
- there is a general experience of environmental change which is associated with a loss of access to abundant natural resources, and that these are in decline / being degraded leading to less availability and accessibility;
- health risks, high death rates, orphans, orphan care and loss of access to natural resources due to degradation and exploitation appears to be a concern for most communities involved in the study;
- communities are developing various innovative strategies to support the vulnerable and sick amongst themselves and various community-based support programmes and initiatives exist;
- numerous community-based natural resource management strategies also exist and are being productively employed in difficult conditions;
- educational interventions in most contexts lack policy synergy, and integration at implementation levels;
- policies appear to be having little impact on the ground (or are not experienced as having impact on the ground); and
- educational interventions to address environmental and health risks appear to be "externally" funded / conceptualised (by donors and NGOs) which leads to lack of sustainability and fragmentation in implementation of these programmes (Lotz-Sisitka, 2006).

Noting all of the emerging questions as the ESD consultation process and these two research projects have advanced in the region over the past four years, we have noted the pressing need for materials and action-centred activities that might have immediate and tangible benefits to all involved. This orientation is part of an effort to address a legacy of environmental education as experiential field trips and somewhat hollow enquiry-centred activism around socio-ecological problems. In a search to expand activities beyond ideologies of nature experience and problem-based activism, we gave attention to the materials already available and ways of working with these for the enhancement of EESD **practice** in the region.

Following Rio (Agenda 21), the World Summit in Johannesburg set the WEHAB (Water; Energy; Health; Agriculture; Biodiversity) agenda for poverty alleviation and sustainable development. These are closely associated with the Millennium Development Goals which aim to ensure improved health, ecological sustainability and poverty reduction (amongst other goals such as access to quality education and good governance). We have found the WEHAB framework useful to guide deliberations on EESD practice as all of these concerns had been widely engaged in environmental awareness programmes and a range of materials were available and in use at conservation and environment centres as well as in school and community settings. The key question to emerge was, what does the strengthening of a sustainable development focus mean for the predominantly field trip and problem-centred approaches characterising awareness campaigns and environmental education initiatives in the region? An expanded and re-orientated focus had begun to emerge as we have participated in the various research and consultative processes on ESD.

Early on, we took these questions to the Swedish "Learning to Change our World" activity and deliberated them widely in methodological interactions, notably with Danish and other local and international partners working on "Participation in Education". Flowing from these interactions, we undertook to review our activities through a series of research papers and to probe the question of practical materials for "Learning through Doing" in a workshop hosted by SADC REEP in 2004. This activity

was undertaken just prior to the regional consultative activities on the UNDESD within SADC in 2005 and was accompanied by continuing research activities to probe education processes in relation to EE and ESD practice (as outlined above).

As can be seen in the above, an interplay of review, research and practical engagement activities have all contributed to an extended critical review of learning interactions in environmental education in an attempt to provide useful perspective for educational activities within the UNDESD. EE and ESD initiatives only acquired more substantive meaning and coherent orientation when examined within ongoing inquiries into situated learning, agency and risk reduction in contexts of poverty, vulnerability and risk.

What Might Enhanced ESD Practice Look Like?

In opening up and clarifying an apparently new development like ESD, there is always the danger of assuming that one is dealing with something different to what preceded it. This assumption is most often an illusion of modern times and an expectation of the old giving way to the new. Reviewing the politics shaping educational reform in the USA, Popkewitz (2000) reveals how new ideas often play out as **movement that creates the illusion of change**. In the case of environment and sustainability practice in southern Africa EE engaged matters of sustainability for some time before the advent of a global call for ESD.

In the transition from nature experience to socially critical and participatory methods in the early 1990s, environmental education underwent a subtle reorientation where deliberation served to more carefully constitute critical co-engagement in local action research. In taking up the new participatory and situated approaches, practitioners were not sufficiently critical of the attendant down-loading of responsibility for dealing with environmental problems to locally led learning interactions amongst local communities. There was little recognition that those living in contexts of poverty had little choice and little chance of engaging and giving effect to change, given the colonial and modernist globalising processes that gave rise to and maintain the cyclic circumstances of poverty, vulnerability and risk that they experience. Here the ideal of participatory environmental education is unlikely to develop into anything more than a surface marking amidst a rhetoric of empowerment apparent in much of the history of environment and development education activities in African contexts.

A recent review of environmental education methods and processes in relation to ESD (O'Donoghue & Rosenberg, in press) points to the importance of emergent socio-cultural perspective and personal **agency.** It notes that an interplay of **situating story** (Socio-historical context), **proximity experience**, (Feelings for....) and **practical reason** (Know-how) appear to contribute to reflexive **deliberation** (Weighing-up of possibilities) in developing socio-ecological context.

Figure 1 illustrates how relating EE to the new global ESD imperative may also be a matter of subtle changes that help clarify the situating trajectory that was already well rooted in early environmental education initiatives. It also foregrounds the importance of ethical drivers in reflexive learning processes and points to a necessary shift in focus from problem-centred approaches that depict the environment awash with complex problems to a more practical engagement with and practicing of better ways of doing things. Participants in local learning actions are quick to point out how one way is better than another but are seldom much good at a critical analysis of prevailing orientation without the experience of alternative possibilities. Finally, it is notable how learning processes that situate and practically engage environment and sustainability possibilities are essentially a deliberation process where a human agency of discursive
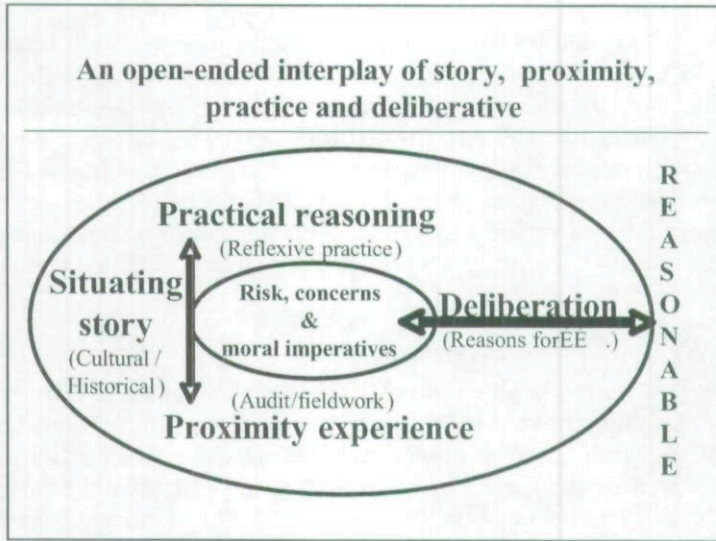
FIGURE 1:   An open-ended model of process

improvisation comes to the fore as reasoned practice that is most reasonable in the circumstances that prevail in a given context.

Our intention here is not to provide a revised model of process for ESD but to open up the prospect of usefully reframing environmental education activities related to water, energy, health, agriculture and biodiversity for the contexts in which we work. To this end, we have reviewed some of the existing materials in current use and have remapped these in Figure 2 for an environment and sustainability programme with partners in the Eastern Cape.

Proposed Scope of an Initial School-in-Community Programme for the UNDESD

Note how situating in southern African socio-cultural context and history involves the interplay of real stories in context and the stories of what participants experience, do and know (situating story activities) in the contexts of intergenerational and everyday interactions. The classroom and eco-School activities are then a rich mix of action-centered enquiry and activity (proximity / practice /deliberation) that can be taken up with tangible benefits and cultural relevance in local community contexts.

This collection of start-up activities is currently being expanded to include patterns of consumption and waste as further ESD ideas are being co-developed with educators in settings ranging from the Eastern Cape Parks Board EE centres, to community-based organisations like Umthathi, an EcoSchools partnership with the Wildlife Society of South Africa and the Department of Education, bio-regional conservation education programmes, and the South African National Botanical Institute's Greening the Nation Programme.

It is apparent to all of us that environment has to be kept on the ESD agenda if we are not to step into a naïve politics of sustainability being a matter of economic development, hence our emphasis on EESD. We also need to be more critical of trends that have shaped the environmental fields (including EE) as contexts in which anything goes as long as it feels good amongst those of a similar mind-set.

EESD Focus	Socio-cultural situating and orientating	Some Classroom/ curriculum activities	Possible EcoSchool activities	Home and Lifestyle uptake possibilities
Water	1. Water collection 2. Hand washing 3. Water action stories	Coliform test: - Hand washing - Water quality Bottle waterworks that works	Audit health risk Tippy hand washer	Community water testing Tippy hand washer
Energy	1. Cob burning story	Iron pot bread in a Cobb oven	Teabag fire lighters	Cooking in an iron pot
Health	1. *Umqombothi* 2. *Amamhewu* 3. Grain storage	Fermentation CO_2 and lime water Grain storage with vinegar and bicarb. CO_2	School feeding scheme and healthy food	School lunch box
Agriculture	1. *Izala* and composing 2. Cattle and *imifino*	Bottle composing and wormery Cattle dung germination	Car tire wormery Corrugated iron compost	Worm composing to enhance local food gardens
Biodiversity	1. Stories of plants of cultural significance	Soil biodiversity study Brush pack germination Seedling collection Dung seed dispersal	Low cost school nursery for propagating indigenous plants	Community planting of indigenous trees

FIGURE 2: Socio-cultural situating with proximity and practice for a school-in-community engagement with deliberative processes that might have immediate and tangible benefits in contexts of poverty, vulnerability and risk

Concluding Comment

As outlined in this paper, processes of regional consultation, research and review have been significant for our engagements with the global(ising) imperative for educators to respond to and "adopt" the ESD agenda. We found this imperative to be somewhat a) disconnected to socio-historical and contemporary experience in southern Africa, and b) unhelpful, particularly when framed as a marginalizing dialectic of EE vs ESD or EE as a small part of ESD (which retrogressively reduces EE to conservation education or environmental management education). We also found that ESD (being constituted by global politics and re-positioning as a seemingly new and broader discourse) can create vacuous and rhetorical markings of an assumed "new practice", which stimulated us to conduct this review of Environment and ESD (EESD) practice in southern Africa.

At this stage, we can report that our regional consultations, research and review processes in developing environmental education practice is enabling a subtle but significant reorientation of EE into the UNDESD. This is allowing us to:
1. Have critical confidence in the way the integrating field of EE / ESD is developing (expressed as EESD in this paper);

2. Continue to work with and research / rework materials already in use;
3. Frame a research agenda that situates research as a pedagogical and reflexive engagement with the real; and
4. Understand how pluralism need not only be constituted as tolerance for difference but also as a willingness to explore and change in ways that must remain diverse for situated learning with developing agency that gives effect to rubbish and risk reduction.

These constitute a cluster of related and engaging open-ended processes for ongoing consultation, research and review which we hope to further engage during the remainder of the UNDESD.

Keywords: education for sustainable development; UN Decade of Education for Sustainable Development.

Endotes

1. The language of sustainable development is picked up in a hollow and somewhat self-referential way that is not easy to narrate as tangible processes of learning and change.
2. Note that this does not constitute a "rejection" of sustainable development discourse, but rather critical and reflexive engagement with such discourse. The vantage point taken is that it would seem to be *educationally valuable and appropriate* to enable such critical deliberation and evaluation of sustainable development as contemporary salvation narrative, so that learners can develop critical vantage points on, or choose to work outside of the discourse. Critical, post-structural and critical realist approaches to environmental education have all shown potential to provide the tools for such critical and reflexive engagements.
3. Here it should be noted that participation in the re-positioning game is not always an entirely voluntary action in resource-poor educational environments, as many programmes and projects are directly linked to the political economy of global organizations (particularly for funding of initiatives).

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