DELUSIONS OF PROGRESS:
A Case for Reconceptualising Environmental Education

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INTRODUCTION

Recent discussions on the environmental and educational crises in South Africa (Janse van Rensburg, 1993; O'Donoghue, 1992; Schreuder, 1993) highlight their complex socio-political roots, as well as the profound influence that the raised level of political awareness brought about by the struggle against apartheid, has had on the debate. It became clear that apartheid, had more to do with the creation of environmental and educational crises than what popular rhetoric enunciates concerning oppression and marginalisation of communities. Apartheid, not unlike other dominant and hegemonic ideologies, exploited formal curricula in typical modernist fashion, to reproduce not only the political values and beliefs of those in power, but, like in most westernised societies, also those values and beliefs of the dominant social paradigm[1].

In this process, the features of modernism were firmly embedded in South African educational theory and practice. It is now generally accepted that the features of modernism and ideological positions supporting it have been instrumental in creating global environmental risks, and it is increasingly being realised that education has therefore contributed towards and aggravated these risks.

In the process of educational reconstruction, problems created by inequitable dispensation of resources by the previous government will have to be addressed. Remaining mindful of the ever-intensifying socio-environmental crises in South Africa, curriculum reconstruction to accommodate the principles of education *for* the environment must however be regarded as an equally important priority. The current opportunity to participate in curriculum reconstruction has been taken by the environmental education community through the Environmental Education Policy Initiative (EEPI)[2], to stimulate strategic education policy changes in order to help develop the values of a new environmental paradigm[3] in the South African community.

This paper sets out to explore the background and roots of present educational and environmental problems, and to discuss some of the key questions, pitfalls and opportunities that EEPI will encounter in the process of informing policy-making processes.

EDUCATIONAL AND ENVIRONMENTAL CRISES: SOME PERSPECTIVES ON COMMON ROOTS AND CAUSES

Educational reconstruction in South Africa has become imperative, as the complex interplay of social, environmental and educational dilemmas have reached crisis proportions. Most of these issues can be attributed to either *poor* education or *mis*education or a combination of the two. Firstly, *poor* education with its predominantly political roots has affected the majority of South Africans, as incalculable damage has been done by the grossly discriminatory dispensation of funding, proper training and educational facilities. This has resulted in a situation where millions of people had scant or no access to basic education. Furthermore, the education policy-makers of the previous government exploited the educational philosophy of Fundamental Pedagogics (supported by the hegemonic ideology of Christian National Education) mainly for its bureaucratic appeal. This has alienated and marginalised the majority of people, thereby further aggravating the crisis. Curricula typical of the era of apartheid

were designed to reproduce those values and ideologies that best suited the minority in power. Add to that the fact that, as is the case in most modernistic education systems, these curricula further commonly reproduced (and still do!) the values and beliefs of the dominant social paradigm. This explains why even the 'privileged' minority who had access to the 'best' education the country could offer, was subjected to poor education. This sector of the community is therefore also characterised by environmental illiteracy, overt consumerism, a general lack of environmental sensitivity and over-exploitation of natural resources.

Miseducation - very characteristic of modern education systems - is the product of many myths within the theories and practices of modern education. The roots of these myths can be traced to a number of philosophical positions that show remarkable parallelisms to the grand narratives (philosophical positions) of modernism. All the global environmental risks - global warming, ozone depletion, acid rain, industrial pollution, nuclear warfare, uneven distribution of wealth, political instability and many others - are socially constructed, and the underpinnings of the crises can ultimately be considered features of modernity. Some of the typical and more obviously manifested features of modernity have been described by a number of authors and include:

anthropocentrism - human beings are at the centre of all significant concerns (Bowman, 1990)

scientism - a predominant belief in science and technology (Beck, 1992)

reductionism - reducing reality to its simplest elements in order to understand the workings of the whole (Bowman, 1990)

technicism - an uncritical faith in technology (Capra, 1983)

materialism - nature may be manipulated and exploited without reverence for its own intrinsic value (Bowman, 1990)

individualism - fostering the idea of an isolated, independent individual (Bowman, 1992; Robottom, 1991).

To the critically inclined it will be obvious that many of these ideological positions of modernity feature prominently in the theories and practices of modern education. Examples are numerous. Positivism is generally visible in educational research- and management styles; scientism, instrumentalism and anthropocentrism in educational philosophy; structural functionalism, instrumentalism and reductionism in curriculum theory and theories of teaching and learning. Most of the critique expressed by contemporary curriculum theorists, as well as critical environmental education practitioners, are in essence levelled at these features (Bonser & Grundy, 1988; Fien, 1993a & 1993b; Goodson, 1990; Robottom, 1991; Schreuder, 1993). It is obvious that the education of a modernist society will serve to reproduce the values and beliefs underpinning the dominant social paradigm. Maintaining the *status quo* in a society that is consumerist, environmentally ignorant, wasteful and obsessed with power and wealth, is consequently expedient. Paradoxically therefore, modern education might have contributed more than anything else towards the creation, misinterpretation and aggravation of local and global environmental risks and crises.

Much has been written about the counter-hegemonic character of education *for* the environment, its essential attributes being described in terms of a strong critique of modernist education (Fien, 1993) and therefore of those ideologies that constitute the underpinnings of the dominant social paradigm (Orr, 1992). Likewise locally, in attempts to respond to environmental and educational crises through environmental education, a strong critique of the elements of modernism entrenched in formal curriculum theory and practice is developing. Environmental education is emerging as "a process of reflexive

engagement and transparent critique, making visible the ideological roots of many of the myths, fallacies and paradoxes characterizing modern education" in a changing era (Lotz, 1994). Replacing the features of the dominant social paradigm in our education system with those of a new environmental paradigm, which is essentially a post-modern paradigm (Orr, 1992), may involve nothing less than a revolution, as there is hardly a terrain in our education system where the values and beliefs of modernity are not prominently ingrained. The desired changes will indeed be profound, and they might well be regarded as social transformation (Janse van Rensburg, 1993). The question is, what approach do we take, now that the opportunity is there?

Many examples are known where modernist curricula have been adapted by " ... feeding information and awareness-raising experiences into a rather linear process of fairly passive learning which is ultimately to lead to behaviour change" (Janse van Rensburg, 1994:1). Such reforms include resource packages, presentation and evaluation techniques, and even additions to content. They have, however, been exposed for not acknowledging the complex nature and meaning of educational activities. In practice they involve little more than knowledge about natural systems and basic ecological concepts. Robottom (1991) calls this a form of "technocratic environmental education" aimed at the development of an ecological perspective; it is normally also restricted to the curricula of those school disciplines better suited to accommodate it, such as the natural sciences.

An advance would be to encourage the use of students experiences in the environment as a medium for environmental education, popularly known as education *through* the environment. O'Donoghue (1993), in a historical overview of the development of the concept of environmental education in South Africa, relates these approaches to environmental education to popular "flavour of the month" approaches over the past 25 years.

However, education *for* the environment with its,

> ... overt agenda of values education and social change ... engage(ing) students in the exploration and resolution of environmental issues in order to foster the values of the New Environmental Paradigm and to promote the lifestyles that are compatible with the sustainable and equitable use of resources (Fien, 1993)

seems to be an appropriate resource to affect social transformation. Fien (1993a:12) interprets the approach as follows:

1. Education for the environment emphasizes the development of a critical environmental consciousness based upon:

(a) a holistic view of the environment as a totality of the interdependent relationship between natural and social systems;

(b) a historical perspective on current and future environmental issues; and the study of the causes and effects of environmental problems, and alternative solutions to them, through an examination of:

(i) the relationship between ideology, economy and technology, and

(ii) the linkages between local, regional, national and global economies and governments.

2. Education *for* the environment emphasizes the development of critical thinking and problem-solving skills through a variety of practical and interdisciplinary learning experiences

which focus on real-world problems and involve the study of a wide range of sources and types of information.

3. Education *for* the environment emphasizes the development of an environmental ethic based upon sensitivity and concern for environmental quality.

4. Education *for* the environment emphasizes the development of the understanding, attitudes and skills of political literacy which promote participation in a variety of forms of social action to help improve and maintain environmental quality.

5. Education *for* the environment requires teaching strategies that are consistent with its goals.

It should be clear why education *for* the environment is being regarded as a 'counter-hegemonic process'. It constitutes a challenge to and critique of the way that uncritical curriculum theories and practices serve to reproduce values of the dominant social paradigm and of political agendas. It also challenges the fact that our social institutions, including schools, do not reflect democratic ideals but instead contribute to the maintenance of social and economic inequalities (Goodman, 1992; Stevenson, 1993). Anything less than a critical approach to reconstruction is believed to be doomed to failure - and has failed - *simply because of the absurdity of using modernist education as an instrument to bring about those values and lifestyles directly opposed to those it was designed to serve and reproduce.* Apart from this essentially philosophical incompatibility, the appropriateness of traditional empirical-analytical curriculum perspectives for environmental education (Stevenson, 1993) has been disputed extensively, and a number of projects to illustrate alternative approaches to curriculum development have been described (De Lange & Lotz, 1994; Naidoo, Samuel & Suransky, 1992). Education *for* the environment favours a critical perspective to curriculum development, aptly interpreted by Stevenson (1993:8) as follows:

Approaches to curriculum development and change within a critical paradigm encourage teachers to reflect on the moral and ethical goals and consequences of their actions by explicitly directing their attention to such concerns. In particular, educational goals and actions are examined for their contributions to liberating human potential and advancing social justice and equality. Questions raised by critical curriculum theorists include the following: What kind of knowledge is selected and transmitted to students? How do larger structures in society influence the selection, organization, and distribution of knowledge? Who benefits from that knowledge? Such questions serve to not only enhance understanding of curriculum practice but also to guide curriculum change efforts.

Environmental education is emerging as a process of reflexive engagement, exposing the fallacies, myths and paradoxes within modern education. The local environmental education community has a key role in actively working for the exposure of those myths and ideologies that have resulted in inappropriate curriculum theory and practice, adversely affecting the South African education system for many years. Through attempts to reflexively recast the grand narratives of modernism and its stranglehold on education, we face exciting responsibilities. Working with teachers has clearly illustrated that academics' and researchers' relatively sheltered theorizing and debating about the virtues of environmental will be severely put to the test. How well these theories and debates are rooted in practice will be watched with interest by many.

For instance, considering the reality of the educational, political and economical

dimensions of the environmental crisis in South Africa, the limitations of this somewhat radical change to curriculum theory and practice must be fully recognised. Despite statements in favour of key elements of this approach in many policy documents - especially regarding teacher and community participation - the praxis of education for the environment may prove problematic. Under the pressure of the enormous need for education among disadvantaged communities, teachers may find the easier option of "curriculum by prescription" (Goodson, 1990) less demanding. In addition, the reality of overcrowded classrooms and poverty-stricken communities may render this approach even more problematic.

At the same time, suggestions of radical changes to an education system that promotes unsustainable lifestyles may be met with suspicion from communities that have been denied access to economic growth and basic material wealth for many years. It must be kept in mind that mainly as a result of political ideology, a substantial sector of the South African society are engaged in a struggle for mere survival. The overwhelming desire in this community might well be to be educated in order to gain access to the comforts and benefits of a modernist world, eg. employment and at least basic material wealth.

Our position and role in educational reconstruction, through the EEPI, is undeniably a unique and perhaps once-off opportunity. The challenging and arduous but apparent task of redressing the problems of educational dispensation will take many years, and will involve both government and community structures in intense and critical reflection and reconsideration in order to bring about reconciliation and reconstruction. *The opportunity to contribute towards the development of curricula that are acceptable, practical and at the same time reflecting the contemporary international debate around environmental education in the formal curriculum should be approached with* *circumspection and wisdom.* We will have to be careful not to create the impression of intolerance and narrow-mindedness characteristic of intellectual elitism; we will have to avoid the bigotry of a dogmatism that serves to inhibit intellectual development and denounce deserving practice.

In order for environmental education to lead, and not follow, educational reconstruction and curriculum reform, and to maintain a high level of credibility as a major agent in reconstruction, we will have to seriously consider a number of critical challenges.

SOME MAJOR CHALLENGES FACING THE EEPI RESEARCH PROCESS

The EEPI is soon to be accompanied by a curriculum research project commissioned by National Education. While the principles of the most suitable *modus operandi* for the research project are still to be finalized, the environmental education community has accepted it as a unique challenge where much is at stake, namely the opportunity to establish key elements of education *for* the environment as a matter of policy in formal education. However, as was pointed out earlier, the task is demanding and complex. Not many societies have had a similar opportunity, and there is a lively interest from our international friends to see how we deal with the very real gap that exists between rhetoric and reality.

There is little doubt about the nature of the research process: following earlier EEPI procedures, the process itself will be widely consultative and collaborative, working with practitioners and not about them. However, do we have enough experience in, and good examples of, participative research to face this challenge?

One of the most popular misconceptions is that environmental education can be added to existing curricula with the addition of a few clauses to syllabi and other curriculum

documents. This view of environmental education seems to be favoured by educational policy-makers who often strongly resist the politicised nature of education *for* the environment. Should we settle for an approach of simply *infusing* environmental education into existing curricula, thereby diluting environmental education to education *about* and *through* the environment? Or are we willing to learn from the failures of other societies where K-12 curricula were drafted, accepted, implemented - and nothing changed, except for the development of superficial awareness? Will it be good enough to simply add environmental education to curricula that are aimed at maintaining the *status quo* of the values and interests of the dominant social paradigm (DSP)?

Good examples exist of what has been classified as education *about* and *from* the environment. Many of these politically neutral approaches have often been dismissed as not contributing towards the development of an ethic of sustainability. Do we insist on environmental education in its fullest revolutionary consequences: a socially critical education for the environment, and nothing less? Will the radical changes that such an approach necessitate be acceptable? Will the challenge to the values and beliefs of the educational decision-makers, within the DSP, be acceptable - especially considering that the values and beliefs of the "new" bureaucrats are firmly rooted in the Reconstruction and Development Plan (RDP) of the Government of National Unity?

One of the features of the EEPI process was the development of trust between the environmental education community and educational leaders among the previously marginalised community. Among this community, education that will guarantee access to the job-market is regarded as a very high priority. This type of academicised schooling, that many want, and the associated curricula that are incarcerated by the obsession for economic

growth and human dominion, are often critiqued by environmental educators. How do we as environmental education community maintain credibility among the marginalized communities when we challenge this type of education? Do we dare expose it as one of the factors contributing towards constructing and aggravating environmental crises? How do we deal with false expectations of material wealth aroused by the RDP?

Many of the curriculum 'experts' of previous educational authorities are still being employed by new unified education departments. The position of these experts is protected by the belief that expertise and control reside within central governments, educational bureaucracies and universities. Teachers often feel safe with this approach, merely delivering prescribed content. The discourse of prescription and management (Goodson, 1990) is challenged by environmental education. How do we expose the myth that the theoretical construction of curriculum as prescription is inappropriate to problems of actual teaching and learning - and the environment (Goodson, 1990)?

How can the worlds of prescriptive rhetoric and participative curriculum development be reconciled? How do we convince bureaucracy of the need for *enfranchisement of practitioners*? How do we avoid the dissonance between theory and practice in the *deliberation* in curriculum development, making schools the sites of significant policy development (Bonser and Grundy, 1988)? How do we get to a position where curriculum content is challenged, from pre-existing bodies of knowledge to working knowledge that emerges from critical community-based inquiries? How do we convince academics to take a less commanding position in determining content of school curricula (Robottom, 1991)?

The role of academic institutions in determining curriculum content, to the

detriment of the development of socially constructed, appropriate knowledge, has been debated extensively. It has profoundly influenced the production of textbooks and other curriculum materials. The development of environmental literacy and the values supporting sustainable life-styles can hardly be achieved through pre-packaged content. However, how do we help teachers to develop competencies to engage critically in action research, in order to (1) improve practice, (2) understand educational practice, and (3) improve the context and conditions of their practice? Is action research accessible enough? Do we suggest replacing standard textbooks with resources developed through teacher participation? What approach would constitute a workable compromise?

Perhaps then, we should finally ask ourselves: does South Africa need sweeping policy changes in order to accommodate education for the environment? Will broad guidelines be wiser, keeping open the options for continued development? Will it be more productive to extend our networks to develop the concepts of environmental education - perhaps more extensively - with the real implementers of change, namely the teachers?

CONCLUSION

At a conference of this nature participants usually expect to get answers to their questions. This paper poses many more questions than solutions, simply because there are no simple solutions to most of these questions. What lies ahead is a challenging and crucial time; a time that the older practitioners among us have been looking forward to for many years. The response of the environmental education community will be interesting, and if wisdom, deliberation, careful consideration, eclecticism, tolerance, wide and genuine consultation and patience do not characterise the process of informing curriculum policy, a lot of energy could well

have been wasted. It might not be wise to denounce orientations to and practices in environmental education that is not fully in accord with the latest theory, as so often happens when the deliberations of scholars and academics are not situated within a practical context.

About at least one issue there can be no doubt: *the roots and causes of massive miseducation that is manifested in unsustainable lifestyles, lie in a number of features of modernism.* These have become entrenched in formal education policy, management and practice, and must be exposed if we want to achieve the main goals of environmental education in the South African community, namely lifestyles supported by the core values of ecological sustainability and social justice.

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NOTES

[1]   A modernist social orientation based on the ideologies of, and manifested in, economic development at all cost and human dominion over nature.

[2]   A lobby group formed in 1992 through a joint venture of the then Department of Environment Affairs and EEASA. It included members of a wide variety of statutory and non-statutory educational organisations, and followed a process that was widely collaborative and consultative. The EEPI worked to stimulate curriculum development in environmental education at local, regional and national levels.

[3]   A postmodern social orientation based on values of ecological sustainablity and social justice striving for sustainable life-styles.