

## EMBRACING UNCERTAINTIES: THE PARADOX OF ENVIRONMENTAL EDUCATION WITHIN FORMAL EDUCATION.

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This paper is a pair of binoculars which I have used to scan the last two years that I have been studying environmental education, the focus being on the research I did on Theatre for Development for environmental education in formal education. The paper aims to bring into view some of the paradoxes of doing environmental education within the structure of formal education from the tragic position of post-modern intellectual thought. I ask whether a critical approach to environmental education can exist within the current structure of formal education? I question whether environmental education can be viewed as a fixed product (be this a positivistic or critical product) within a formal structure and instead call for environmental education to be viewed as reflexive experience.

### SCANNING THE HORIZON

I am step-by-step moving towards the end of my Masters degree in Environmental Education at Rhodes University. As I stand at the end of a beginning, I have stopped for a moment to critically look back at my nineteen years' experience as a student and forward into my future as an environmental educator.

As I stand now, binoculars in hand ready to search the horizons of my environment I glance down at my feet to see what I am standing on. There seems to be a confusion of meanings swirling around down there but as I focus my eyes on this paper my approach starts to solidify and take on a form. Working and learning in the South African environment of environmental education is not an easy thing so I am not altogether surprised to see one of the three tropes within the post-modern intellectual movement, identified by Bubules, surfacing.

The tragic is a troubling recognition that the need to critique our own pre-understandings, although necessary, is no easy task. To embrace uncertainty, to doubt comforting foundations, to question the efficacy of hierarchical opposites is difficult in practice, especially when certainties, foundations and opposites are enshrined in our practical discourses. To speak and act through the tragic is to recognise that all attempts at radical transformation are ambiguous in their outcomes even as, and especially as, attempts to transform are recognised as desirable and worthy. It is a way of recognising the limits of what we, as educators can do (Usher *et al.*, 1997:7).

With my binoculars coloured by the ground I am standing on, I wish to critique the basic pre-under-

standings which informed my research as well as my

reasons for doing this course. As I focus my binoculars a little more so I can see more clearly, I will be specifically re-researching the paradox that has developed, for me, of environmental education within formal education. By 'formal', I mean institutionalised education, specifically institutions which are influenced in some way by government funding i.e. schools and universities.

This paper is an attempt to bring into view the certainties, paradoxes and foundations on which environmental education within the context of the research I did, is based. To do this I will turn my binoculars towards the past and the present of education within South Africa and ask the question "Can critical education take place in 'formal' education?" I will focus my binoculars onto the research that I did in Grahamstown within formal education.

After I have had a good look at these images, I am sure my eyes will be slightly strained so I will put the binoculars down for a while and stretch myself out onto the grass of this paper and try and figure out how what I have seen fits into where I am right now. It is important that I do this as the horizon seems to go on forever and I have to know where to direct my binoculars next, as I decide which direction to take into the future that I see for environmental education.

### THE PARADOX OF CRITICAL EDUCATION IN FORMAL EDUCATION.

As I look through my binoculars, formal education looks as if it has been part of our social environment for a very long time. It almost seems as if it has

become part of the earth. We definitely tend to treat it this way. For every child in South Africa nine years of formal schooling is compulsory by law.

Education seems to be based on the theories of developmental psychologists who claim that children at a certain age are ready to learn specific skills and society needs to ensure that children have the opportunity to benefit from this potential for learning (Papalia & Olds, 1989). Although the reasons why certain skills have been given precedence over others (e.g. gaining literacy in the spoken and mathematical languages as opposed to visual literacy) is being questioned by current developmental theorists, my concern lies with how this justifies education as a whole and the form which education has taken in formal institutions. I can accept that education as "a formal act or process of acquiring knowledge" (Collins, 1990) is needed for survival in the world in which we live but I feel that we have become confused in seeing the word 'education' only to stand for that which happens in the schools and higher education institutions. It cannot be denied that there is a lot more to education than acquiring knowledge because we are developmentally ready for it. Perhaps we are taking for granted that education is necessary and good but, is what happens in formal education necessarily good or necessary? Does it help children to survive in this world? I would say it helps teach children to survive within a certain world view and it is that particular world view, the dominant world view that promotes individualism, competition and a capitalist market, that informs formal education.

Education is often viewed as the one thing that will set us free, give us a better life, a better job, a better world. Orr (1990, 351) argues that this is not necessarily the case and that education may be part of the problem rather than a solution. Education systems may claim to impart 'true' knowledge free from values and opinions to children and that this knowledge is what they need to objectively know their world (See Sanera, 1998 on environmental education as imparting scientific facts). This viewpoint does not acknowledge that by seeing some knowledge as worthwhile and other knowledge as not necessary educators are making a value judgement which matches the *status quo*. Even though children enter a Biology class and begin to learn about the stages of metamorphosis of a butterfly this is not all they learn. They also learn about the dominant paradigm which supports unequal power relations, the notion of right and wrong answers to all questions (only one way of viewing things) and that they must compete if they are to get anywhere (Ferreira, 1997, 26).

Where they want to go is also spelt out for them very clearly. During my research I sat in on an Environmental Studies class given to Standard One pupils. The topic of the lesson was 'different homes'. The teacher began the class by revising the previous day's work.

*Teacher:* What do we live in, class?

*Class:* (together): Houses!

*Teacher:* And workers live in ... ?

*Class:* (together) Huts!

*Teacher:* What do Eskimos live in?

*Class:* (together) Igloos!

On the wall was a poster of the white house, the round, straw-roofed hut and the igloo. In this class the children have learnt more than the names of a few different types of living spaces, they have also learnt to identify which is the right living space for them (being the white house found in suburbia). What is ironic is that most of the children in this class are from working class families. Therefore the 'right house' becomes something to aspire to in order to live the 'right life'.

This example shows that not all knowledge taught in the classroom reflects the child's reality outside of the classroom. Critical theorists (e.g. Apple, 1982; Freire, 1972; Giroux, 1983) call for knowledge to be viewed as constructed, that there is no one fixed truth of reality. They believe that the focus of education should be emancipatory rather than conforming to a dominant world view. Freire (see Drummond, 1975) argued that people become oppressed partly because they internalise the opinion that the dominating classes hold of them (e.g. 'I live in a hut therefore I must be a worker'). For Freire the answer to this falsely held opinion was education, not the current form of education but "education as a practice of freedom". Education was to help people become "conscious of their potential as creative human beings, to make them see that they can control their environment and themselves in a better way" (Drummond, 1975:3). For individuals to take back their power of choice and to realise that they can re-construct their reality and change their oppressed situation. This became the goal of Freirian critical thinking.

I have problems with some of the main ideas of the critical school of thought. My main concern here is however, is whether this kind of education is possible within the structure of schools today. Is emancipatory education possible within a government-controlled institution which may not want too many free thinking people emerging from schools? Ferreira (1997) notes

many barriers to democracy education within schools even though such an approach offer children learning experiences which are relevant to their environment as well as empowering and enjoyable. She calls for educators to be aware of the limited opportunities which exist for students to have any control of their learning experiences. If we choose not to be aware of the limiting structure of schooling (the control of time, the control of the curriculum and of knowledge) we risk the chance of democratic principles being moulded to fit the school system so that the concepts become as limiting as the structure in which they are taught, thus reinforcing rather than challenging the *status quo*.

Within the South African educational context we face this challenge. Curriculum 2005 and outcomes-based education are grounded in the ideals of equal and democratic education for all. There is an acknowledgement that there is no 'true' knowledge and that education needs to reflect the realities of the pupils that engage with it. Pupils are seen as coming to school with their own ideas which are to be valued. Teachers are to act as facilitators of learning which relates strongly to local contexts, drawing on curricula they design themselves (see Tiley, 1997). These are great ideals and worthy goals but can they exist within the structure that I have described above? Will these ideals just be moulded and distorted to fit into the structure as it already exists? This is not all we need to take note of when looking at our new educational model. The rationale behind the new system of education is economic (Lotz, pers comm, 1998; Tiley, 1997). As we face the new millennium we are facing needs that schools no longer prepare us for. Business may no longer require a working population which believes in only one reality. With the information boom society needs a working populace who can critically engage with information and advancing technology, if we are to compete in the world economic market. With this in mind, I start to wonder whether the democratic ideals ostensibly guiding the change in education in South Africa is just rhetorical and whether it is really in the government's and big businesses' best interests to hand education over to the people. I believe education has been a powerful tool for supporting the values of those in power for so long that this powerful medium of inculcation will not be given up without a struggle.

Although there are many changes happening within the education system, I feel that not enough people are challenging the system itself, the rows of desks, the controlled time, the hidden values. The structure of formal education is not conducive to change, but rather to upholding the *status quo*. These, I feel are applicable issues that need to be addressed by environmental

educators. We really need to question whether the change of world view and life style which environmental education is in essence calling for, can be accomplished within formal education.

#### WHAT KIND OF EDUCATORS DOES OUR EDUCATION SYSTEM TEACH US TO BECOME?

I have been staring pretty far into the horizon for the most part of this paper. It is difficult to keep focussed on something so far away so I am going to start looking at something a little closer, something I can actually see without my binoculars if I want to, but the binoculars bring out such interesting detail that I tend to miss without them. What I am looking at is the research that I undertook for my Masters degree in environmental education. The research was exploring Theatre for Development as a way of teaching environmental education in the formal classroom.

Theatre for Development is a particular kind of theatre that stretches beyond the conventional performance. It is a platform for political action and social (inter)-change. Theatre for Development consists of four phases: identifying and researching the problem; analysing information and the problem; developing a scenario and improvising to re-present the problem and finally performing in front of others, celebrating and sharing both gained knowledge and new possibilities (Abuh, 1996).

Both this approach to theatre and a critical approach to environmental education which challenge the *status quo*, sit comfortably outside the classroom (Janse van Rensburg & Burt, 1997). In the classroom (as suggested above) the aim tends to be towards helping pupils fit into the *status quo*. However, Theatre for Development as a socially critical approach to environmental education promotes outcomes identified by educational reforms such as Curriculum 2005 (e.g. learners need to be able to identify, research and analyse problems (DoE, 1997)). I felt that it would be a worthwhile contribution to explore the use of Theatre for Development for environmental education.

To begin my project, I organised a training workshop in the participatory drama techniques used in Theatre for Development by the third year Educational Drama and Theatre students from Rhodes University. The workshop was an attempt to introduce drama as a participatory and democratic technique for teaching environmental education. The students had very strong ideas about how they felt learning should happen in the classroom. These ideas corresponded with the trend of recent educational reforms in South

Africa but were also informed by the students' personal experience of going to school in South African during the late eighties.

When the students entered the scene of formal education, being the schools, to share drama techniques with the teachers, they reverted back to teaching in the old ways they were taught at school. Even though the students were very unsure of their own knowledge with regards to environmental education, they felt they had to 'teach' the little they did know using the supposedly participatory drama techniques. The teachers own rather informed knowledge of their local environmental problems as well as their vast experience as teachers was not acknowledged by the students as they struggled to play the role of teacher. The content of the environmental lesson (see Sanera, 1998) became far more important than the dramatic techniques which although participatory, (in the sense that everyone was actively involved) were not used to unfold the multiple experiences of the group, nor reflected on as techniques for teaching.

Why did this happen? The students did not set out to dominate the learning experience or to set themselves up as experts in a field they knew so little about. They did not intentionally wish to disregard the knowledge of the teachers. To the contrary, during their preparations techniques were chosen specifically for accessing the group's knowledge (e.g. image theatre and improvisational role play; see Boal, 1993). In an interview afterwards, the students' course co-ordinator surmised that the reason for the students' struggles was that they did not have enough experience. I would argue that they have had too much experience of a school system which is inflexible to change. Their inexperience comes from trying to facilitate a process of change, being Theatre for Development, within the structure of formal education which is not conducive to change. If they lacked experience, it was of how to teach in a way which respected their knowledge as well as the learners' knowledge. It is true that they were inexperienced teachers, having been students most of their lives. But they had very strong ideas about what a teacher should and should not do. Even so, when faced with the situation of formal education and un-practised roles, they reverted back to the ways in which they had been taught in school and taught the teachers in that way. The once oppressed became the oppressors (see Boal, 1979).

#### EMBRACING UNCERTAINTIES

My eyes feeling rather strained, I need to reflect on where I am in the light of my research. When I

started my M.Ed. course and embarked upon my research, I did not question the validity of formal education and the place of environmental education within this system. Now I am uncertain as to whether the structure which was developed to support, prolong and extend a certain view of the world can really be used as a stage on which to challenge unsustainable practices and promote an environmental ethic.

However, the tragic within post-modern thought, within which I am presently standing, reminds me that uncertainty is to be embraced rather than avoided. It is the certainties with which I approached this research that need to be challenged, but even in challenging them I need to recognise that this will not lead to further certainties, but rather to more ambiguity.

Yes, I question the place of environmental education within formal education. This does not mean that environmental education cannot work, with uncertainty, with the system. I am just asking educators (from the place where I am standing) to be cautious and not to continually propose formal education as the solution to all our problems, as is reflected by Porritt (quoted in Fien, 1993:7):

Whatever the nature of changes required, education is of paramount importance. The well-being of future generations depends on the skill and effectiveness with which we inform and inspire the knowledge base and values of those currently in our schools and colleges.

Formal education has for years been the guard dog of traditional values and principles and this pattern of power is not easily broken. Still a total disregard of formal education as a site for environmental education is to view children that attend schools, the institutions themselves, power and knowledge as fixed entities which can be controlled and defined (which would be creating another certainty). Power is not fixed but shifts in and out of contexts. We cannot own power. Being empowered does not mean that one has been handed a gift of power by the powerful educator and will henceforth always be powerful. Power relations are inscribed through how we reason about ourselves and what is common-sensical to us. These self-identities are also not fixed and continually change around different contexts (for example the ideas of the students in the university setting and their actions within the teachers' workshop) (See Popkewitz in McLaren & Giarelli, 1995). It is this continual flexibility which opens the door for education as we search for new identities and meaning. We cannot say that the power relations within formal education are so fixed and certain that the individual and collective experi-

ence of the classroom situation cannot be diverse. To say this would be to deny the power that is within each of us to change and be changed by what we see around us.

This was demonstrated in my research. Although the students reverted back to an old pattern of teaching behaviour that they were trying to change, the experience of doing this had significant impacts on them as well as the teachers. These learning experiences cannot be quantified or completely understood. But it was through experiencing the situation that the students in particular came to understand the role of educational drama. Through the experience they learnt that even the participatory approach of drama can be used to dominate and dictate. They also clarified what they meant by drama in education and by the end of the workshop all of them were very clear about how they thought drama could be used, far more so than at its beginning. Through struggling to express our (both the students' and my) ideas on environmental education we also reached a better understanding of our positions in this regard. Through reflectively re-looking at their facilitation of the workshop they also started grappling with why they had failed to teach in the way they advocated. The workshop was part of the students' formal educational training (in the form of a practical exam in action) and yet these were learning processes that we did not predict or plan, that happened within the situation of formal education.

For me, environmental education is about evoking a change towards a more environmentally responsible way of life. Critical theorists tend to view change as progress towards something better. They assume, indirectly, that environmental education has the answer to move us 'forward' into a progressive future. This view of change and environmental education is disregarding the uncertainty and complexity of environmental issues as well as suggesting that there is one fixed goal of environmental education. This view becomes inhibiting when we are faced with an uncertain environment and learning processes which do not necessarily facilitate one fixed idea of environmental change.

#### SCANNING HORIZONS AGAIN

I feel relatively rested and ready to move from this place on which I am standing. But before I take a step out of the institution in which I have been studying, I need to know where I am going as there are so many paths to take. I am feeling quite ready for some walking and exploring and although I like the place I

am in now, there are so many other experiences for me to (re)-discover.

So how do I view myself as an environmental educator, or an educator who cares for the environment, or an educator interested in sustainable living? Environmental education is for me an attempt at re-connecting ourselves with the world, of looking beyond the fixed meanings associated with scientism (or modernism, or the enlightenment). It is about communication (see Le Roux, 1997), about talking and looking and questioning ourselves and the world around us. Education for me moves away from the wish to change behaviour, learn, expand, progress, and moves towards honouring the experience of the learning process itself.

In formal education we are not often encouraged to learn through our experiences. Behaviour tends to be split into what is right and what is wrong, and the latter is usually to be avoided at all costs. But if the students and I had not had the experience of what some would describe as a 'bad' workshop, the learning that took place would not have happened. Environmental education should not be viewed as a noun, something that has a fixed outcome. It should be viewed as a doing word, a continual process of experiencing the world.

Environmental education is for me a reflexive experience which allows the space for experience and encourages learners to reflect and learn from these experiences. Here the role of the environmental educator is to facilitate reflection towards looking at more sustainable ways of engaging the environment while still acknowledging the uncertainties and limitations of personal and collective experiences and reflections.

Although I am still sceptical of formal education as a stage for environmental education, I would not advocate for this system to be replaced with another. Another system will, in time, just become the same system, unable to cope with change and new ideas. For me then the task is to recognise that no matter how much a system attempts to remain fixed and structured, no one person or institution can control the flexible movement of meaning.

And so I remove my binoculars, place them back in their case for I will probably need them quite a lot as I try to find my way. They have become rather rose-tinted over the last paragraphs but the future tends to

be the colour of our dreams. Maybe the experience of it will tell a different story.

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PEOPLE THAT REALLY INFLUENCE MY THINKING

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