

Outdoor Environmental Education and Concept-Based Practice: Some Practical Activities Designed to Consider the Relationship Between People And Place.

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Introduction

Looking at the literature relating to environmental education in the outdoors two broad but interlinked categories of text emerge. On the one hand there are texts that provide a range of practical activities. Examples of these are the National Association for Environmental Education's Journal *Environmental Education* and other published texts include for example Cornell (1979 and 1989), Smith (1994), Dearling and Armstrong (1997) and Cooper (1998).

On the other hand there are theoretical texts which provide ways of understanding the environment in the abstract. The field of environmental philosophy provides one such body of literature and leading components include for example Naess (1988, 1989 and 2002); Orr, (1992 and 1994); Weston (1994); Capra, (1996); Hart, Jickling and Kool, (1999); Jickling, and Spork, (1998); Smyth, (1999).

There are not many texts that occupy the so-called 'middle ground'. By this I mean the sorts of texts which bring together theory and practice. The Institute for Earth Education (IEE) in some ways does this through its range of courses such as *Earthkeepers* (Van Matre and Johnson, 1987) and *Sunship Earth* (Van Matre, 1979). At this point the authors of the practical texts may feel somewhat aggrieved arguing that their texts are informed by theory. They would make a good case because in order to write a book of practical activities one must necessarily have a fair degree of theoretical knowledge to do so. However the distinction I would like to make does not involve the author's knowledge but the knowledge required of the reader. The idea of practical books is that the reader is able to use the activities in the book having read that book alone. In

this sense the reader need have no more understanding of theory than that included in the practical book. Focussing on the reader allows me to distinguish between a practical book and a theoretical one. The point being made is that where people use only practical handbooks there is not necessarily any further requirement for training in the field of environmental education. The IEE recognise the need for training because those who wish to run their programmes have to take part in training courses.

From what I have presented so far I can conclude two things. First, practical books are useful for people who are happy to be guided by the activities developed by someone else; and second, packaged courses such as those offered by IEE are useful for those who are happy to operate within the training provided.

This leads me to one of the findings of my PhD thesis (Nicol, 2001) where I concluded that people working in outdoor environmental education very often receive no training in it (notwithstanding the short training courses provided by IEE). There are also the geographers and biologists who can use their disciplinary knowledge to provide courses of outdoor environmental education. However, not all outdoor programmes are IEE courses nor are they necessarily run by field study specialists.

This leads me to conclude that there may be something missing that fails to unite theoretical ideas with practical activities. I say 'something' because it is worth discussing the means by which theoretical ideas and practical activities can be united. In the case of practical handbooks and IEE courses there is an assumption contained within both that by following the procedures within the text the users will combine the ideas contained within the books (theory) with the predetermined practical activities (practice). In this way it is *the text* which unites theory and practice because it defines the ideas to be learnt and defines the practice by which the ideas are learnt about. In this case the role of the user is to deliver the ideas contained within the book or course. Herein lies the issue that I'd like to explore.

If I read about how to perform a triple bypass heart operation on a patient often enough then eventually I'll be able to perform a triple bypass operation. However, this would not mean that I

was a heart surgeon, it would simply mean that I could perform a prescribed procedure in a repetitive fashion. If, during the surgery, a secondary complication arose which had not been part of my reading I would be unable to cope. In this sense I would be a technician capable of performing set tasks where the variables were determined and predictable. The key point here is that in this instance I am not uniting theory and practice so much as my practice and theory comes from a secondary source. This is what happens when people use practical handbooks and attend IEE courses. This is not to say that these people are simply technicians. It is to say however that educators can get away with being technicians by relying on such texts. Put another way ‘would any of us be happy allowing someone without extensive training to perform heart surgery on us or our loved ones’?

I am not exploring this issue to denigrate the value of handbooks or the work of the IEE. I believe that practical handbooks and IEE courses are an essential part of contemporary outdoor environmental education. Instead I am exploring the role of the educator in relation to theory and practice. What I would like to further explore is where the mediation between theory and practice is less to do with texts and more to do with educators themselves. I believe this is important for educational, professional and political reasons.

It is important educationally because the current challenges of environmental education (e.g. climate change, population growth, use of resources, biodiversity, pollution, distribution of wealth) requires educators to have a great deal of theoretical knowledge. It also requires that educators are visionary. This is because the formal education system that we have inherited is one rooted in the Enlightenment where the future was seen to be predictable. The implication here being if the future is assumed to be predictable then society could use science and technology to achieve the Enlightenment’s key aim of social progress. However, this idea of progress did not account for the societal implications brought about by issues such as those described above. What we have therefore, as Bowers (1993) suggests, is an educational system where the ideals remain largely unchanged since the 18th Century. From this I conclude that if the future is relatively uncertain then there is little point in continuing wholeheartedly with an education system that assumes it is. However, this is not about an immediate overhaul of the educational system. This is a social and political issue beyond the realm of the everyday

working life of the educator. I am therefore framing the questions I pose within the context of what can be done at grass roots level.

One very important thing that can be done is to introduce some element of experimentation into educational practice. In a conversation one time I was told that 'education is too important to experiment with' to which I replied 'education is so important that we must experiment with it'. The type of educator who will be able to deal with this approach to education is not the person who relies solely on books or courses to dictate their educational practice. It is someone who reads beyond the ideas contained within the curriculum. Someone who has a knowledge of current affairs, someone who is willing to investigate the world of ideas, someone who is as willing to ask questions as to provide answers, essentially someone who is willing to think 'outside the box' (for further information see Kuhn's [1962] work on paradigms).

In a sense this is not as radical as it may at first seem. The sort of education I have in mind is first; where the educator has a clear understanding of the issues involved (such as those outlined above); second, where the educator provides a learning context within which to develop these ideas (which will often be outdoors but will sometimes be indoors); third, where the educator develops methods and practical activities to explore the issues. The key point here is that it is this autonomy that professionalises the educator. The educator may choose to select IEE courses for some aims or some activities from practical handbooks but equally they may not. The point being that the educator begins with the conceptual issue (say climate change) and asks 'what activities are most appropriate to illustrate this issue'? The term I have settled on to describe this form of education is 'concept-based practice'. It is very different from the technician approach where there is a reliance on other peoples' ideas and solutions. In this sense the educator makes informed choices and is not led blindly by others.

Educators who work in the outdoors are at an advantage in promoting the idea of concept-based practice because they are often not constrained by curricular issues. This places the educator in a position of importance not fully realised when acting in accordance with others' ideas. However, concept-based practice is not about reinventing the wheel. Where there are tried and trusted activities that work for particular purposes then they should be used. However, this is education

‘in the box’ and should be seen as such. Concept-based practice is about exploring the limitations of the box and finding educational solutions to emerging problems.

The Limitations Of Thinking In The Box

For me this exploration began during my PhD thesis (Nicol, 2001) where I found that when many educators were talking about outdoor environmental education what they meant was either:

- **Countryside Code** such as closing farmyard gates, leaving no litter behind etc.
- **Countryside Interpretation** such as pointing out glaciated valleys, naming wildlife and plantlife etc.
- **Field Studies** such as seashore studies, pond dipping etc.
- **IEE Courses** (or adaptations)

A key point was that none of these were seen as central to outdoor programmes but peripheral. Instead there was a strong tendency towards providing outdoor activities and promoting personal and social education. This led me to conclude that outdoor environment education was:

- modest
- unambitious

In an attempt to begin filling this gap I propose to write a book about concept-based practice and this paper is a tentative foray into the area. However, if it were to be written from a theoretical point of view it would remain a theoretical text. Equally to fill the book with a range of activities would mean it was a practical book. The challenge therefore is to find ways of working in keeping with Dewey’s (1963) ultimate belief in the unity of theory and practice.

Concept-based Practice

The question remains ‘what does concept-based practice look like’? The session I ran at EOE’s (European Institute for Outdoor Adventure Education and Experiential Learning) 6th annual conference at Frajda, Czarnocin, Poland shares the same title as this paper. The title is intended to reflect the integration of theory and practice. By this I mean that I used practical activities to work with the theory that in terms of their relationship with the environment human beings are part of and not apart from the natural world (Naess, 1989). My intention therefore was to

explore the theory of human/environment relationships through a series of practical activities. The group consisted of 15 adults of mixed gender.

Activity 1

To begin with I used the theme of navigation which is common to many outdoor education programmes. The group were asked to follow me and at the end of a 500m walk be prepared to describe the walk having used as many of their senses as they wished. At the end of the walk the group were asked to stand in a circle and tell the story of the journey. I asked one person to tell something of the story and clapped my hands and the next person in the circle would take up the story. This would continue until the story had been told to the satisfaction of everyone. The group were told that the story need not be told in chronological order but as it was remembered.

The purpose of this activity was to show how the use of maps and compasses can interfere with observing the environment. A navigator who is very skilled with map and compass need have little knowledge of the environment that they are passing through other than its contours and to some extent its vegetation. By asking people to think about what they are about to pass through and then recall the journey necessarily means some degree of interaction with the environment. On the one hand the map and compass allows the environment to be abstracted whereas this activity is an experiential engagement with it. This activity is based on the Australian Aborigine concept of 'Songlines' which allow people to travel hundreds of miles on the basis of stories that are passed on from generation to generation. For further reading see Chatwin, (1987).

Activity 2

The first activity was a warm up activity. The second was the same activity but the group were asked not to speak to each other. At the end of another 500m walk we stopped and stood in a circle and told the story of the route with me clapping hands again. After the story had been told we had a short discussion. I asked the group to explain what for them was the difference between the two activities. Some had enjoyed the first activity because they had learnt something from a discussion with someone else. Some others preferred the second activity as it allowed them to focus more on the environment than the people they were with. So within the span of two activities two different learning styles had been catered for. In other words I was purposely using the activities to do this. I was not providing one activity which I expected all to

learn from. So the idea of concept-based practice acknowledges in keeping with differentiated learning (Donaldson, 1978) that people learn in different ways and at different speeds. Note also that both activities and discussion remain focussed on the theme of human/environment relationships.

Activity 3

Before taking the group out I had identified a particularly beautiful spot. It was a sandy beach at the mouth of the River Odra where the river forms a large lagoon prior to emptying into the Baltic Sea. There were some tall reeds and rushes sheltering us from the wind and lots of migrating birds flying overhead. At this point I asked the group to find a spot they liked where they could spend some time alone. I asked that they came back not less than 5 minutes but no more than 10 minutes my intention being to introduce some flexibility to allow for those who might want to spend longer alone than others. Before they left I said that I would not call them back, my intention being to introduce an element of individual responsibility. After the time period everyone returned and stood in a circle. I could sense by the slow speed that everyone was walking back and by the solitude they retained when they returned that something special had happened for many.

My first question was ‘do you think that this sort of activity should be reviewed’? Some of the group said it was possible through drawing, painting or poetry. I made it clear that it was not my purpose to review the activity itself. In fact the reason for using this activity was to discuss whether there are some aspects of knowledge or intelligence that are almost inaccessible to review techniques (Nicol, 2003) (also for further information see Barrett and Greenaway, 1995 and Greenaway, R. at www.roger@reviewing.co.uk). I was therefore using an activity that involved the participants’ experiencing solitude. However, the objective was not about solitude but whether the inner relationship with the external world could in all circumstances be accessed. It is at this point that we can see concept-based practice more evidently. Here I am using an activity to explore the theoretical issue of human /environment relationships and it is me the educator who is doing the mediating. By this I mean that for concept-based practice to work I need the participants to experience something concrete in order that I can begin to discuss theoretical issues. I do not mean that I control the groups’ learning but I do have a very specific

role in trying to achieve stated objectives which I have planned in advance. Note also that without this concrete and shared experience any discussion would be purely theoretical. By shared experience I do not mean that everyone will experience the same thing. What I do mean is that everyone in the group was there whilst the others had their experience and more importantly the resulting conversation was something that all could take part in. In this manner concept-based practice relies less on individuals' experiences. What is more important is the discussion that the group have about the experiences. This is what unites theory and practice i.e. discussion based on experience.

Another key aspect of concept-based learning is that the leader must be able to make use of unplanned happenings. During Activity 3 such an occurrence took place. During the discussion two white tailed sea eagles flew past. This gave me the opportunity to talk about why the lagoon was an area set aside for coastal conservation and the role of the rare sea eagle in its management plan. From this I can conclude that concept-based practice is a combination of planned and spontaneous activities. It is also important to note that in order for me to be an educator in that area of Poland I must have read something of the area in which I am operating otherwise I cannot interpret for the group what is happening around us. This leads me to another defining aspect of concept-based practice and that is that it is culturally aware. By this I mean I need to know different things to operate in Poland than I do when operating at home in Scotland. For example the socio-economic climate in both countries are very different and this has a direct bearing on the way in which conservation is viewed in each country. This is an important aspect that is generally absent in practical handbooks and IEE courses.

One further issue that came out of the discussion of Activity 3 was that one person had felt that the solitude exercise had been too structured and that he would rather have spent longer by himself. Whilst this is an important point in terms of enriching individual experience it is important to note that in terms of concept-based practice the experience itself is not always sufficient to achieve the intended outcomes. It does however highlight what happens when experience and theory are polarised. In terms of concept-based practice it is not enough simply to experience the environment. As Capra (1996: 289-290) suggests it has 'no language, no

consciousness, and no culture; and therefore no justice, nor democracy...We cannot learn anything about those human values from ecosystems’.

The point here is it is *the relationship* between theory and practice which is important not that one is more important than the other. This was Dewey’s (1963) point when he suggested that experiences in themselves did not equate with education but were instead incremental whereby one experience led to another. It is the joining up of experiences where the educator has a role. It is for the educator to devise a series of activities which provide a range of experiences and the glue which joins everything up is the discussion about the experiences.

This corresponds with constructivist theory where ‘participants work to make meaning out of their experience’ (DeLay, 1996: 77). This has applications for educators who must recognise that they do not have ultimate control over learning outcomes. As DeLay (1996: 80) points out ‘the learner is actively engaged in his or her knowledge construction’. For concept-based practice this means that learning becomes an interactive relationship between the educator, the learner and the natural environment.

Activity 4

The final activity involved splitting the group into two. Continuing with the theme of navigation both groups were asked to use anything lying around to create a sculpture to explain some aspect of their journey thus far. Each group were given 30 minutes and were asked to be prepared to present their sculpture to the other group. This process is rich in educational outcomes from the interpersonal relationships necessary to discuss what is to be done and how it will be done, to the actual creativity involved in creating the sculpture. However notwithstanding these important outcomes my theme was still human/environment relationships and it was when the group presentations of each sculpture was finished that the chance arose to address the theme. I asked if we should return the materials to their original places. Some argued that on the basis of the ‘leave no trace’ principle things should be returned. Others suggested that we were doing no harm and that there was no reason why we should return things to where they came.

At this stage the group were divided on the basis of personal opinions and I wanted to explore ideas relating to environmental philosophy to provide the practice we were engaged in with some

theoretical guidance. Naess (1989), one of the world's foremost environmental philosophers, asserts that human beings are part of and not apart from the natural world. If we accept this principle then we must conclude that since human beings are part of the natural world then so are our creations. If our creations are part of the natural world then it would appear that there is no need to replace the materials gathered for the sculptures. We would not after all expect a bird to return its nesting material to the original places once the nest is finished with. When logic is applied we can see practical implications from theoretical principles. There is of course another issue to be considered and that is one of scale. For example most environmental philosophy suggests that human impact on the environment is unsustainable. This may well be true but the logic of the argument in both instances remain. What is different is the scale of human impact. This is where theory alone can breakdown when it becomes so general that it makes little sense in specific everyday contexts.

However, there is a way out of this apparent paradox as to whether or not to return the materials to their original places. The issue is to do with biodiversity. When taking part in this exercise if rare wild flowers are picked and used in the sculpture then it is clear that biodiversity is threatened which means that the activity should not include the picking of these species. This would be in keeping with the principles relating to environmental quality set out in the World Conservation Strategy (IUCN, 1980) and later Agenda 21 (1992).

The issue of litter was also raised. If human beings are truly part of the environment did that not also include their litter? The litter in question was chocolate wrappers. Whilst the issue of litter can be unsightly the logic of the above remains true. This is to say that litter does not harm biodiversity nor the environment. At this point it is possible to distinguish between litter that is immediately harmful to wildlife (e.g. broken glass) and litter that is not. In the case of the former it is possible to say that litter should not be left because of its threat to the well-being of wildlife. For the latter we must conclude that it is an aesthetic issue. By this I mean that litter appears unsightly to some humans but not to others. This makes litter more of a social issue than an environmental issue.

This may appear to be semantics but there is an important point to be made. My research shows that ‘not dropping litter’ is one of the ways in which environmental education is put into practice. On the basis of the logic above I can now say that it is not really environmental education but social education i.e. people are being taught not to drop litter for social reasons. The issue therefore depends on how questions are framed in the first place. To view litter from an aesthetic point of view is human-centred. Since humans are part of the environment (Naess, 1989) the issue becomes much larger when the question is framed from an environmental point of view. Instead the sort of question that might be asked is ‘does litter harm the environment’? By this I mean does the rest of the environment (the atmosphere, biosphere, hydrosphere and lithosphere) care about litter? From the description of litter above we can see that litter becomes less of an environmental issue and more of an aesthetic human-centred issue. I am certainly not proposing that we should ignore litter whilst working outdoors but it is important to recognise that it is an extremely modest and unambitious aim of outdoor environmental education.

Furthermore it is instructive to note that until very recently the Inuit had no concept of litter (Takano, 2000). So when the western eye sees the wreckage of old engines and the remains of seal carcasses lying around an Inuit home it is easy to conclude that the area is a mess. However, for the Inuit this is a way of life. Their society has not traditionally been organised around the belief that when something has been used and finished with it should go to a landfill. Instead utilities are left near at hand which allows them to be used in the future should a need be found for them. The advent of television and mass communication has of course influenced traditional perceptions. Also Takano’s research shows how the Greenland government is keen to develop the concept of waste management in order to provide an ‘acceptable’ and ‘pristine’ landscape for tourists. What this example shows is how litter is a culturally constructed phenomenon and this reinforces the earlier claim that education needs to be culturally aware.

Summary

What I have endeavoured to show here is how the environment can become a stronger feature of outdoor education. It does not mean forgetting about personal and social education which outdoor educators have traditionally claimed to be good at. Nor does it mean losing the fun and adventure elements. It does however require a refocusing of objectives, methods and

practices. For concept-based practice to take place the individual outdoor environmental educator has key responsibilities. By reading widely about relevant pedagogical and environmental issues the individual becomes empowered to act within this educational domain. By 'empowered' I mean that person is able to mediate between the experiences people have and assisting in making sense of these experiences in a wider social and environmental context. This is the key to concept-based practice.

It is important to note that concept-based practice is not a new idea. Dewey (1963) amongst others had this in mind when he was talking about the unification of theory and practice. Also some exponents of experiential education promote the same ideas. The reason for introducing the idea of concept-based practice here is because outdoor education tends to be rich in practice and short on theory. Where this is the case generally there is a tendency to stifle new ideas because the theory that inspired the practice in the first place becomes forgotten as the beliefs and methods of practice

become codified and ingrained into particular ways of doing things. In this way what was radical becomes conservative and the ideas which inspired the vision become invisible and/or forgotten. Consequently, since I am suggesting new ways of thinking about outdoor education I therefore need to make explicit aims, assumptions, methods, content and claims (Nicol, 2001).

The empowered concept-based practitioner is someone who will use theoretical principles to help arbitrate between seemingly insolvable paradoxes. Having knowledge of theory and by consciously adopting logic as a method helps to demonstrate when individuals are basing their arguments on individual perceptions (or even whims) or on well thought out principles. The challenge therefore, as Donaldson (1978) points out, is to make people aware of their own thinking and feelings. This is not to say that there is necessarily anything wrong with individual thought even when it is whimsical. However, it is to say that when individuals present their ideas they need to know when they are presenting individual opinion. If they do not there is a danger that personal opinion is presented as a social fact or something more generalisable. As good researchers know the key to the analysis of data is the strength of the claims you can make

about that data. Say too little and you do not make the most of your data, say too much and you overstate the case. It is the same for understanding conversations and the use of logic.

This means that the concept-based practitioner is not simply a theoretician. It is someone who has good facilitation techniques, someone who knows about the working of groups and has good intra and inter-personal skills. It is someone who acknowledges that education is a political act and that empowerment means the ability to recognise how key social issues (globalisation, climate change etc.) shape education provision. In short understanding theoretical principles can then be used to explore the boundaries of learners' thinking. The purpose of understanding these boundaries is to identify the limitations in order that thinking and any constraining boundaries can be extended.

The start of concept-based practice is for the educator to explore where the individual's thinking is currently at. This is not a task suited to a technician but some one willing to extend their own knowledge as well. Someone who accepts that their own boundaries are always in need of extending. From what has been said it is clear that this involves a fair amount of discussion. This means appropriate activities need to be found in order to do this. I have suggested some activities that work for me but I would not necessarily expect them to work for others. However, like IEE course and practical handbooks they may serve as a useful starting point.

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