

## **Environmental Ethics and Education through the Experience of Fieldwork**

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Over the last 30 years there has been a growing awareness of environmental issues such as pollution, global warming and ozone depletion, resource depletion, deforestation and desertification, species extinction, human population growth and related issues such as famine and poverty. It has become evident that these global problems are damaging the biosphere, human life and societies, and that they may soon become irreversible. At the same time there has been a growing awareness that these problems cannot be understood in isolation from each other. As Fritjof Capra reminds us, they are systemic problems, which means that they are essentially interconnected. For example, species extinction will continue as long as the developing world remains burdened with debt. While these problems are global problems, we also realize that every region has its own particular environmental problems and issues. A good example can be found by comparing regional environmental issues in North America and Europe. In North America there is much concern with wilderness preservation, and pressure groups such as the Sierra Club and Earth First! are primarily concerned with this issue. In Europe the emphasis is rather different. Unlike North America the European nations do not have any large areas of relative wilderness remaining and thus wilderness preservation is not at the forefront of environmental concerns. Instead in the UK and other European countries, specific issues such as animal rights, genetic engineering and GM food, road building, traffic problems, land ownership and nuclear waste disposal have become the major concerns along with the other global concerns. Given the growing awareness of the seriousness of these issues and the pressure on governments and businesses from public concern, it is no surprise that environmental education has become very important.

The recent history of environmental education in the UK school curriculum is useful to consider because it has followed a pattern similar to that of many other countries. In UK secondary schools (ages 11 to 18 years), environmental education has been a recognized area of the curriculum for almost 30 years. However, environmental education has failed to become established in the ways that most environmental educators would wish<sup>(1)</sup>. Initially, secondary school environmental

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(1) Gayford, Chris, 'Environmental Education in Schools: An Alternative Framework', Canadian Journal of Environmental Education, Volume 1, 1996. p.105.

education came under either environmental studies or environmental science. Unfortunately, environmental education was in competition with other more established subjects and thus often became marginalized; very few students were studying in this field. Part of the problem was that environmental education is an interdisciplinary subject and as such tends to be accorded lower status than more traditional subjects. In addition, environmental education tends to be regarded as having a weaker theoretical basis than other established subjects.

In the UK, after the Education Reform Act of 1988, environmental education was generally considered to be best dealt with in a cross-curricular manner, rather than as a distinct subject in its own right. The recommendation was that environmental education be embedded into the subject matter of other established subjects. Nevertheless, this was only a recommendation, not a statutory requirement. But, as environmental education was mainly taught within another subject, such as geography or science, it was taught from the point of view of the associated cognitive aspect and therefore the important affective elements were neglected. This approach to environmental education involves the assumption that there is a direct and linear relationship between the knowledge, understanding and awareness of environmental issues and changes in attitude and behaviour<sup>(2)</sup>. This is in spite of strong evidence that there are other important factors to appreciate, in particular the development of affective elements of understanding and awareness. Research has shown that teachers in the UK typically felt that environmental education is broader and that the affective aspect is very important to the education of young people. In addition, they felt that there was inadequate curriculum time to do justice to environmental education.

A revised national curriculum will become effective in the UK in September 2000 with the stated aim of helping young people develop spiritually, morally, culturally, mentally and physically, and to become healthy, lively and enquiring individuals capable of rational thought, discussion and positive participation in the UK's ethnically diverse and technologically complex society. Of particular interest for environmental education, the British government is working to introduce citizenship education in September 2002. The stated aim of citizenship education is to develop young people's understanding of their roles and responsibilities in a modern democracy and to equip them better to deal with the difficult moral and social questions that arise in their lives and in society<sup>(3)</sup>. Schools will develop their own approaches, encouraging practical activities in the community often outside regular school hours (for instance at weekends and during holidays). This will involve raising the status and effectiveness of personal, social and health education, known as PSHE. An example of this kind of approach in action is provided by the South Camden Community School in the Kings Cross area of London, an inner city school with a record of racist violence and

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(2) Ibid. p.106.

(3) Blunkett, David, MP, 'Achieving Excellence Through the National Curriculum', a letter from the Secretary of State for Education and Employment, 1999.

in-fighting. The school established a peer project involving young people from a range of backgrounds, Bengalis, Somalis, Nigerians, Eritreans and those of Turkish origins. The young people themselves worked within the school to tackle the problems and also with community and youth leaders to take their message about the impact of racist intimidation into the white community<sup>(4)</sup>. Here we can see an example of a school developing its own approach for delivering education in citizenship by involving the students in the community in a project that is directly relevant to their daily experience and to their local environment. The success of local work-related learning projects has informed the Department of Education and Employment's proposals, and it is the Department's intention to help schools to exploit these flexibilities more widely and effectively. We can see here how and why Citizenship education is seen to be the place for developing young people's understanding of, and participation in, local and global environmental issues. Yet again, the amount of environmental education pupils receive may depend on the preferences of individual schools and local education authorities. For instance, inner-city schools may opt to focus on issues such as racism and drug abuse ahead of environmental issues.

The UK Government's Sustainable Development Education Panel, which is within the Department of the Environment, Transport and the Regions, is working to define the nature and purposes of education for sustainable development in the UK. The Panel published its first annual report in 1998 in which it details its proposals and goals for the development of education for sustainable development through to 2010. One of its main aims is to give more prominence in the National Curriculum to environmental education along with "citizenship; personal, social and health education; and creative and cultural education."<sup>(5)</sup> These areas are important in meeting the aims of the revised National Curriculum to prepare students for adult life. These areas have not received the attention they require in many cases because of the competition for curriculum time from other more established subjects.

The Panel aims to ensure that education for sustainable development covers all aspects of education, "both formal and informal, for adults and children, business and government." Education for sustainable development, the Panel states, must be concerned with life-long learning of all kinds and involve individuals and organisations, especially business. The Panel's goal for 2010 is that strategies for and understanding of education for sustainable development will be in place for central government, local government, schools, youth services, further and higher education,

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(4) Ibid.

(5) Sustainable Development Education Panel, First Annual Report, Department of the Environment, Transport and the Regions, London, 1998.

employers and employment, other key bodies, and more generally the general public and households.

In its interim report the Panel identifies 3 key principles:

- Sustainable development is the responsibility of everyone
- Education for sustainable development needs to pervade every aspect of life
- The UK's prosperity in the long term depends on its capacity to learn about sustainable development

The Panel's definition of education for sustainable development is as follows:

Education for sustainable development is about the learning needed to maintain and improve our quality of life and the quality of life for generations to come. It is about equipping individuals, communities, groups, businesses and government in order to live and act sustainably as well as giving them an understanding of the environmental, social and economic issues involved. It is about preparing for the world in which we will live in the next century and making sure that we are not found wanting.

The Panel is keen to link citizenship and education for sustainable development and recognizes that to be a full citizen in the new millennium will require participation and sustainable development understanding and skills. A major priority of the Panel is to ensure that education for sustainable development is sufficiently represented in the reviewed National Curriculum for September 2000. The Panel's firm view is that education for sustainable development must be integrated throughout the curriculum as a whole, not treated as a separate subject.

The Panel has identified 4 core elements of learning that need to be adopted universally in education for sustainable development. They are:

- Social progress which recognizes the needs of everyone
- Effective protection of the environment
- Prudent care of natural resources

- Maintenance of high and stable levels of economic growth and employment

Education for sustainable development must be adapted to many audiences across society. The Panel states that the key to successful education is learning and that motivation is the key to learning. The Panel believes that learning can lead to "changed attitudes, new perceptions and modified patterns of behaviour."

In light of this discussion of environmental education in the UK, I wish now to turn to an alternative approach that has emerged and the conducting of a piece of action research involving four UK schools, as described by Chris Gayford of the University of Reading in the UK.<sup>(6)</sup> This work was outside the timetabled curriculum and the emphasis was on attitudinal and behavioral change. As we have seen, the experience of environmental education in the UK has been that it has become increasingly difficult to do justice to environmental education because it has become increasingly difficult to influence the timetabled curriculum. The action research described involved a radically different way of introducing important elements of environmental education. The work was based on the belief that knowledge, understanding and awareness of environmental problems are not enough. Participation is also essential and it was recognised that participation over an extended period of time is necessary to strengthen the affective elements of understanding and to bring about lasting behavioural change. The projects needed to be outside the timetabled curriculum to avoid them becoming marginalized and restricted to the cognitive aspects of learning. The learning began with what the students were already familiar with. There was an emphasis on the ethical aspects of environmental issues, enabling the students to see their activities in relation to national and global perspectives. There was also an emphasis on interpersonal and citizenship skills, and it was envisioned that these skills would enhance the personal empowerment of the students.

Taking the above into account it was decided that the projects should use the school buildings and grounds as a model for environmental management, and to involve not only students and teachers but also parents, governors and other members of the local community. In this way the participants would be encouraged to pursue the projects in a cooperative and enlightened way, with the emphasis on developing partnership, participation and empowerment<sup>(7)</sup>. Fieldwork projects were set up around the school premises that focussed on energy use, water use, recycling, the construction materials used in the schools and transport problems associated with the schools. The projects were carried out over a period of about 6 months, usually at lunchtimes, after school and at weekends. Each school developed its own management and development structure.

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(6) Gayford, 1996.

(7) Ibid. p.108.

The results showed that students developed a strong sense of involvement but generally felt that they needed to conduct the projects over a much longer time scale, and that they wished to follow up the issues raised. The students felt that the projects "came alive" when they were able to relate their field experiences to global, economic and ethical considerations. Awareness of environmental issues was raised. For instance, projects that uncovered the use of hardwoods in school buildings linked the use of hardwoods with the issues of deforestation and reduction of biodiversity, and projects that centred on energy use or transport were linked to global warming. All the schools reported that the fieldwork naturally led into the ethical implications of environmental issues, providing a platform for ethical discussion. It was also clearly felt that the projects highlighted the way that environmental issues are interrelated. One teacher commented, "It was difficult to set boundaries to any of the activities. One thing led naturally to another. This was stimulating but at the same time made it difficult to manage."<sup>(8)</sup>

The students became intimately involved in the projects. All the schools reported that the experience had changed the students involved. They learned to manage and organize the projects with their peers, their teachers and others, taking ownership and responsibility and contributing personally. These experiences overcame the frustrations and disenchantment associated with lack of personal contribution that normally appear in cognitive-focussed classroom environmental education. This approach to environmental education recognizes that our cognitive, intellectual understanding of environmental issues, while vital, is not enough. To fully comprehend these issues we also need to develop a more affective understanding. This affective element is foundational to the intellectual understanding of environmental issues.

The projects certainly brought to light the idea of attitudinal and behavioural change. One senior teacher noted that educational approaches that change the students are likely to produce individuals who are at odds with their culture and those around them, leading to conflict. Gayford notes that these kind of activities will be most effective if undertaken in association with other ways of encouraging attitudinal and behavioural change in schools, and more importantly, in society at large.<sup>(9)</sup>

The action research described here by Gayford illustrates an alternative approach to environmental education. As we have seen, sustainable development is to be the starting point of environmental education proposed by the UK Government. But, a serious criticism of the Sustainable

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(8) Ibid. p.117.

(9) Ibid. p.119.

Development Education Panel's report, and indeed of the idea of sustainable development in general, is that while the aims of developing citizenship and responsibility are to be applauded, there is a contradiction at the heart of the Panel's proposed core elements of learning. How are we to reconcile the aim of "improving the quality of life now without damaging the planet for the future" with "high levels of economic growth"?

If we consider Arne Naess' distinction between "shallow" and "deep" environmentalism we see that the concept of "sustainable development" comes within shallow environmentalism. Naess introduced this distinction in 1973. Naess characterized the "Shallow Ecology movement" as being concerned with the "fight against pollution and resource depletion", its central objective being "the health and affluence of people in the developed countries."<sup>(10)</sup> The "Deep Ecology movement", on the other hand, rejects the "human-in-environment image" in favour of "the relational, total-field image."<sup>(11)</sup> Shallow environmentalists do not challenge the underlying assumptions, values and perceptions of the modern consumer-oriented industrial world. Conversely, deep environmentalists argue that it is the very constellation of assumptions, values and perceptions of the modern industrial world that are the ultimate causes of our contemporary environmental crises. Deep environmentalism is deep because it addresses deep philosophical questions that go to the heart of our dominant assumptions, values and perceptions. Thus, deep environmentalists assert that only by recognizing, addressing and changing these assumptions, values and perceptions can we find a truly sustainable and viable "cure" for the environmental crises.

From this perspective the approach of the Sustainable Development Education Panel's report is necessarily within the shallow environmental camp. We can commend its concern with promoting citizenship and responsibility, yet because it fully endorses the expansionist, materialist goals of modern society (in supporting high levels of economic growth) it remains far removed from the fundamental social, economic and cultural shifts that we need to make in order to avert environmental disaster.

The kind of environmental education we need to adopt challenges the Cartesian instrumental thinking that underlies the current curricula. We need to develop environmental education, in fact education per se, that is based in a holistic, systems-theory view of the world. Additionally, environmental education must develop in the students an "ecological consciousness". Ecological consciousness involves a widening of identification, a sense of no-separation, which emerges with

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(10) Naess, Arne, 'The Shallow and the Deep, Long-Range Ecology Movement: A Summary,' in Drengson, Alan and Inoue, Yuichi (eds.), *The Deep Ecology Movement: An Introductory Anthology*, North Atlantic Books, 1995, p.3.

(11) *Ibid.* p.3.

the cultivation of the affective elements of understanding the world. Fieldwork, as we have seen above, is indispensable for attaining this change.

To further grasp the significance of fieldwork let us turn to the psychological aspects of knowing the world. Cognitive understanding and affective understanding can be understood, respectively, in terms of intellectual and intuitive ways of knowing the world. Both ways are necessary in order to achieve a balanced knowledge of the world. Intellectual knowledge of the world is for utilitarian purposes. If we build a house without recourse to intellectual knowledge it will soon fall down. But as a product of the intellectual mind, this understanding of the world is necessarily abstracted from the world of our direct experience, that is, we are essentially separated from the world. This process therefore involves dualism, the division of subject and object, and the division of mind and body. We come to understand the world in purely objective terms, dismissing our qualitative experience of the world as merely subjective experience and not really part of objective nature. But while intellectual understanding of the world is vital, it is nonetheless not the only means of knowing the world. Again, if our knowledge of the world is limited only to intellectual understanding then our knowledge of the world is incomplete, lacks depth and does not admit our qualitative experience of the world. Our experience of and sense of connection with the world are diminished.

Another way of knowing the world is pre-intellectual, or prior to rational understanding. This way is intuitive in nature rather than intellectual. In this intuitive way of knowing the world we experience the world directly and qualitatively. In this way our knowledge of the world is not abstracted from the world of experience, say in terms of mathematical theories. In the intuitive experience our consciousness of the world is different, there is no separation, we are reconnected with the world. The person experiences himself or herself to be bound up in the wholeness of the world. This is a monism, there is no separation between subject and object or between mind, body and environment. In relation to fieldwork in environmental education we can see that the intuitive experience of the world is bodily. The student experiences himself or herself to be directly bound up in the whole experience of the fieldwork because the experience is prior to the separation between subject and object, or mind and body, or body and environment. The student's identification is therefore expanded; the student experiences himself or herself as part of the wider environment. This holistic consciousness of the world has been called an "ecological consciousness."

If this experience of the world is nurtured and becomes a regular part of one's life over an extended period of time, then one becomes changed as a person. This has distinct implications for environmental ethics. We can develop a sense of oneness and foster an attitude of care, respect and shared identity with the non-human world, with our whole environment and with other beings. What we have here is an attitude-based ethics. We can consider two moral questions in western



ethics. The first is "What ought I to do?" Answers to this question are provided by the orthodox western ethical theories such as utilitarianism, rights theory and contract theory. These are normative ethical theories, they provide us with rules and guidelines to follow. The second question is "What kind of person ought I to be?" This question is of a different nature to the first. This question is not so much to do with rules than with a person's character and dispositions. Ecological consciousness comes within this approach to ethics, it is to do with being a particular kind of person, an ecologically minded person.

Ecological consciousness is to do with widening our identity. Rather than identifying ourselves only with our ego we strive to mature psychologically by expanding our identity to embrace other people, living entities and in fact our whole environment. Maturity also involves living our lives from a calm, balanced, contemplative inner position. From this position we will be content to live more simply in the world. Conversely, our striving after material possessions, external wealth and personal acquisition reflects an unsettled, unbalanced and immature inner life. The full understanding of environmental issues involves seriously addressing, reevaluating and transforming the assumptions, values and perceptions of modern industrial society. It will involve changing ourselves on both the individual and collective levels.

We can state that an ethics of care resulting from an ecological consciousness, nurtured through direct experience of the world is foundational to orthodox normative ethical theories. Both approaches to environmental ethics are necessary, but the one is the precondition of the other.

Environmental education must address two questions, "What ought we to do?" and "What kind of people ought we to be?" The former question is to do with our utilitarian activities in the world, while the latter question is to do with developing attitudes of care and responsibility; of developing citizenship. Thus environmental ethics must be of fundamental importance to environmental education. Then, acting from this ethical platform, students must learn how best we are to carry out our activities in the world. Carrying out our activities in the world can only be achieved in a lasting and sustainable way by maximizing our knowledge of the world. And so environmental education must aim to maximize the students' knowledge of living organisms and living systems. We must also encourage "eco-literacy" as described by David Orr. If we are to build nurturing and sustainable communities we can learn lessons from the study of ecosystems which already are sustainable communities. We need to learn the principles of ecology, "the study of the home". We can say that our activities in the world will be viable and sustainable in proportion to our knowledge of the world. As we have seen, this means not just cognitive, classroom-based learning, but also affective and practical fieldwork. We cannot have satisfactory knowledge of a woodland ecosystem by merely studying a book. Fieldwork, affective development, participation and empowerment

provide the foundation for cognitive understanding and knowledge. Therefore, fieldwork is not merely supplementary to environmental education; it is the foundation of environmental education. The cognitive aspects of environmental education, as well as consideration of ethical issues, follow naturally from affective development.

The new approach necessitates a change in consciousness that is of central importance in environmental education. It may be unrealistic to suppose that the current older generations can make these changes, thus it is important to work to develop an ecological consciousness in the younger generations in particular, hence the central importance of education to environmental concerns. In terms of Naess' distinction, while the shallow approach might not be viable in the long term, given the current situation it might be the best we can realistically hope for in the short term. But long term change, true sustainability, can only be achieved by focussing on the development of an ecological consciousness through education in today's young people and in subsequent generations.