

ENVIRONMENTAL EDUCATION WITHIN TEACHER EDUCATION: ISSUES AND CONCERNS

Sojia John

Assistant Professor, Mount Tabor Training College, Pathanapuram

Abstract

Environmental consciousness should inform teaching in schools and colleges. Teachers play a pivotal role in transmitting knowledge and creating awareness about the environment and help to tackle the local and global environmental issues. However, review of the status of EE has revealed significant deficiencies in teacher training programmes. Few, if any, teacher training programmes adequately prepare them to effectively achieve the goals of EE in their classrooms. Development and advancement of EE lacks a coordinated approach. There is no environmental education curriculum per se in schools. Instead the approach to environmental education is in form of a multi-disciplinary model, that is, the content appears as topics within the school subject curriculum. To enhance sustainability in education, teachers are considered to be the key in changing the society. Therefore, the need for trained EE teachers is imperative in both developed and developing nations. Teacher training institutions have great responsibility in preparing prospective teachers to develop socially responsible behaviour and abilities to integrate environmental education within their disciplines. However, development and implementation of EE programmes have been less than desirable. The review article highlights the gap between clearly perceived international commitment and an inadequate degree of practical implementation of EE. Intensive Teacher Education, not merely orientation, is essential if the present fragmented approaches of traditional education are to be transcended in favour of a holistic, global, and interdisciplinary approach and a thorough change in both the outlook and preparation of teachers and teacher educators for Environmental Education.

KEYWORDS: Environmental Education (EE), Teacher Education

Introduction

India is one of the very few countries in the world where a commitment to environmental protection and improvement is enshrined in the constitution. The National Policy of Education (NPE, 1986) visualizes a national curricular framework (NCF, 2005), which contains a common core including several elements having direct bearing on the natural and social environment of the pupils. These core areas are expected to occupy a place of prominence not only in instructional materials but also in classroom and out-of school activities. Thus the key to effective environmental education is environmentally educated teachers i.e...the teachers who have a commitment to the knowledge, skill and values objectives of EE. However, such teachers are not found in all schools, despite the policy initiatives of educational systems and the lighthouse-style examples of schools and teachers undertaking innovative environmental education. Thus, the widespread diffusion and adoption of the principles of environmental education remains one of the important tasks for the 1990s. The central role of the teacher in the diffusion of any innovation means that teacher education, at both the pre-service and in-service levels, is vital. The central role that environmentally educated teachers have to play in ensuring that all students have an opportunity to learn how to play their roles in working with their communities in the transition towards a sustainable environment. If teachers do not have the knowledge, skills& commitment to environmentalize their curriculum, it is unlikely that environmentally literate students will be produced.

Teacher Education for EE

Teacher training is a key factor in the development of Environmental education. The application of new environmental education programmes and proper use of teaching materials depends on suitably-trained personnel, as regards both the content and the methods specific to this form of education. Teachers well trained in the contents, methods and process of environmental education development can also play a crucial role in spreading the impact of environmental education at the national level, thus increasing the cost-effectiveness of the efforts made by member states to develop Environmental education. Despite the various pronouncements at conferences and the growing international and national support for environmental education, relatively little has been accomplished. As a result, environmental education within teacher education remains more a policy recommendation than a practice. The impetus that concern for the environment has received in the past twenty years or so has not been entirely translated into action with respect to teacher education, in spite of the urgings and warnings of significant international reports and studies which attached great importance to the role and function of teacher education. Ministers attending the Tbilisi Conference in 1977 recognized important deficiencies in environmental education at the teacher training level and concluded that “few countries, if any, adequately prepare teachers to effectively achieve the goals of environmental education in their classrooms” (UNESCO 1978). As a result, they unanimously agreed that environmental education should be obligatory part of both pre- and in-service teacher education. Yet, over a decade later, this is “still to be universally applied”. A review of research on the provision of environmental education within teacher education reveals that not much has changed in the years since then. Both developed and developing countries alike are seen as experiencing “a gap between a clearly perceived international commitment and an inadequate degree of practical implementation”. Sufficient data from all regions of the world exist to indicate that not much has changed since then. Other national and international surveys of initiatives in pre-service teacher education provision for environmental education in several parts of the world reveal a similar pattern of growing interest but little co-ordination. Thus, Mishra *et al.* (1985) have described the situation in initial teacher education with respect to Environmental education as extremely “desperate” while Wilke, Peyton and Hungerford (1987) claim that the number of effective environmental education teacher training programmes in the world is far below the acceptable level. Thus, there is a critical worldwide shortage of teachers with the necessary competencies to incorporate the environmental dimension into education effectively. Pre-service teacher training efforts in environmental education vary greatly, not only from nation to nation but also from institution to institution within nations. Programmes differ in structure, approaches, facilities and even duration. Yet, the situation is described it in 1977, programmes of environmental education within pre-service and in-service teacher education are still inadequately developed. UNESCO (1977) not only noted that relatively few efforts had been made within teacher education, but also went further to identify inadequacies within the existing programmes as most of the courses were perceived as lacking a holistic conception of the environmental situation. The programmes were also criticized because they did not encourage the development of any inter-disciplinary techniques or team-work.

Pedagogical Issues

Teaching methodologies were seen as particularly inappropriate since they “did not take into account the modern educational ideas of participation, research and experimentation of methods and evaluation indispensable for learner-centred education”. Research by Stapp *et al.* (1980) focused on pre-service teacher training courses and uncovered severe inadequacies within the methodological aspects of programmes. They argued that, although many institutions recognize the need for inter-disciplinary methodological training, very few can adequately address this need, finding that traditional discipline-orientated education approaches dominate. They also found that “few courses would allow students to develop problem-solving skills”. The research reinforced earlier findings, pointing to the dominance of the Traditional approaches to teaching. This, they argued, encouraged student teachers to become solely concerned with learning environmental knowledge and then with the transfer of this information on to the student through the “lecture approach”. This approach was based on the assertion that there is a linear correlation between the acquisition of ecological knowledge, the development of environmental attitudes and the adoption of environmental ethical behaviour. However, the current understanding of environmental behaviour and action-taking strongly indicates that this may not be the case. Surveys indicate another problem with existing approaches to environmental education within teacher education courses. This is that studies of the natural sciences remain influential in terms of subject matter and approach with a heavy emphasis on field study, scientific methods and the investigation and analysis of particular areas of knowledge. Research also reinforced earlier findings which pointed to the lack of an inter-disciplinary approach within teacher education courses. Thus environmental education had become a “sub-contracted” element within another discipline or subject area. This is inappropriate because it has led to an imbalance in approach, and a fragmentation of meaning, in that it provides: an insular interpretive framework for investigation and analysis of issues and problems. Further, it has reduced the scope of the substance and the methodology of the area of study by eschewing inter-disciplinarity in approach and synopsis in the evaluation of content. Sometimes the controversial nature of environmental education had led to the development of this “selective curriculum”, in which only certain “safe” methods and knowledge were taught. Furthermore, findings indicated that courses avoided linking environmental education with other controversial areas of study and omitted consideration of political, economic and cultural perspectives. Many researchers who have found that this situation predominates in school curricula also

Teaching practice-a great concern

All student teachers should be required to prepare teaching activities, lessons and units which reflect the objectives and guiding principles of environmental education and to present them to pupils in teaching practice situations. This will ensure students gain experience in infusing environmental education into existing work programmes, practice their skills in experiential teaching methods, and recognize the professional issues involved in balancing the political nature of environmental education to the expectations of local communities. Students wishing to specialize in environmental education should be given opportunities to undertake teaching practice placements in environmental education centres where they can work with others to learn how centres are administered, how to work with the diversity of schools, teachers and students who visit centres, and how to provide curriculum planning and pedagogical leadership in environmental education.

Conclusion

Teachers need to be prepared to become EE facilitators, who will proactively adopt the activity oriented approach to teaching and learning through, about & for the environment. This will require in addition to teacher training, ongoing support that will reach into schools/colleges and influence the EE programme. This support could be perhaps from an external resource agency that closely interacts with the educational system on an ongoing basis. Special training and commitment are necessary to bring the environmental thrust into education because environmental education requires a new focus and outlook within education which prospective teachers may not have experienced in their own education. This new outlook has been described as the exploration of “a new personal and individualized behaviour based on the ‘global ethic’ which can be realized only through the enlightenment and training of educational professionals”. Thus, a teacher cannot teach environmental education effectively solely by obtaining information on environmental concerns, by studying environmental science. Instead: Intensive teacher education, not merely orientation, is essential if the present fragmented approaches of traditional education are to be transcended in favour of a holistic, global and interdisciplinary approach and a thorough change in both the outlook and preparation of teachers and teacher educators.

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