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The Teacher as an Environmental Educator

STRUCTURE

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The key to the whole educational system is the teacher and it is only through the initiative and innovativeness of the teacher that change can be brought about in the classroom. The challenge is to empower teachers with ideas, but not prescriptions, of what to do and not to do. Teachers need to know about and select from a wide variety of methodologies, the best one suited to their environment.

2.1

As teachers who are trained in the art and science of teaching, why should you be specially concerned about teaching about the environment? As we have seen in Unit 1, the very definition of EE sets it apart. The fact that it is a process, rather than a subject; that it is by its very nature interdisciplinary; that its objectives go beyond the transfer of information and acquisition of knowledge, to affecting attitudes and behaviour, and building skills to take action.

The nature and scope of EE, in turn define the role of an environmental educator. At the same time, for a “subject” teacher, in a given set of circumstances, assuming this broader role means taking on new challenges and exploring new dimensions.

In this unit you will see what this new role includes in terms of the objectives, goals and methodologies. We will also review the possible constraints that may dilute or hamper the performance of this role. At the same time you will also be able to share ideas and experiences of how to optimize the given conditions to bring in an EE perspective and approach not only in your teaching, but in several areas of the school system.

2.2

On completion of this unit, you should be able to:

- discuss the different perspectives about EE in the curriculum
- identify different strategies can be used for integrating an environmental perspective into a range of school subjects and learning experiences
- describe the unique characteristics of the task of an environmental educator
- interpret the constraints of the task in the context of your own situation
- translate opportunities for integrating an EE perspective into subjects that you teach.

2.3 EE IN SCHOOLS

2.3.1 EE as a Process

You have seen that EE is a life-long process beginning at pre-school level and continuing through all formal and non-formal stages. Thus EE can be introduced in different contexts, and through different mechanisms.

One institutional framework through which EE can be introduced is the school. The main actors that interact within this framework are students, teachers and the curriculum. What can EE hope to achieve through this framework?

Within the framework of the formal school system EE should aim to:

- Provide all students with opportunities to acquire the knowledge, understanding, and skills, to engage effectively with environmental issues.
- Encourage students to examine and interpret the environment from a variety of perspectives—physical, biological, sociological, economic, political, technological, historical, aesthetic and ethical.
- Arouse students' awareness and curiosity about the environment and encourage active participation in resolving environmental problems.

2.3.2 EE in the Curriculum

Over the past few years there has been a debate about what the nature of EE should be in the context of the curriculum. Should there be a separate discipline called “environment” or should environmental concerns be infused in the curriculum through other subjects? Should “environment” be taught as an alternative to the basic disciplines or be taught through them, or should it be taught as an additional subject? There is no one answer to this debate.

At the primary level, by and large the policy in India has been to combine science and social studies as a subject titled environmental studies. At the middle and high school levels it is infused in the other subjects. At the college level it has been proposed to introduce it as a separate subject.

In other words, in India, the approach has been (1) Environment as a composite subject at the primary level, (2) Environment infused in subjects at the middle and high school levels and (3) Environment as a separate subject at the college level.

What is the system followed in your State?



2.3.3 An Integrating Discipline

EE is in one sense an integrating discipline bringing together learnings in science, social studies, mathematics, etc. This integration element is of critical importance in EE. An environmental issue cannot be dissected into seemingly different components, and each component allotted to a different subject of study, under the assumption that by covering the parts the 'whole' is covered. The 'whole' in EE, as in the Gestalt theory, is more than the sum of the parts. It is a perspective that connects different aspects of each issue.

A perspective is a way of looking at things, of analyzing, of evaluating. EE thus requires the students to draw upon the knowledge of the basic disciplines they have learnt, whether it is Chemistry to understand water pollution, or Geography to understand the reason for the existence of a particular ecosystem in a particular place. On the other hand the student applies this knowledge to develop a perspective on science and modern society. Why was DDT banned? What causes water logging? Why are species increasingly becoming extinct? Is modern agriculture sustainable?

The reality is that all the three functions need to be done simultaneously rather than sequentially. EE cannot replace the rigors of the basic disciplines. Indeed a good understanding of social studies, mathematics and the laws of science is essential to be able to comprehend environmental issues. There is a strong case therefore for the introduction of an environmental studies programme at all levels of education.

2.3.4 The Infusion Approach

The infusion approach has already been initiated and has been underway for several years in India, especially at the school level. While this model has succeeded in introducing environment and development concerns to some extent, this introduction is usually as an additional chapter or paragraph. What is required is that the content of the regular subjects has to be reoriented to 'infuse' these concerns and to give a holistic perspective to what is being learnt, and to enable students to see the linkages in what they are learning as well to their real environment. An aim of infusion should be to help students to view environment as an integral part of what they are learning and doing.

The infusion approach has certain limitations. EE is a synergistic discipline. The essential multidisciplinary thinking of EE requires handling environmental issues in a way that integrates understanding from more than one discipline. This holistic perspective may not always be reflected through the infusion approach, because each subject teacher will lend a specific focus to each issue. It may be difficult for the learner to integrate the inputs from different subjects of study and view each issue from a holistic perspective.

Relying on the infusion approach alone will thus not suffice, as critical environmental and development concerns may not be adequately focused upon through this approach. Moreover, as EE is not merely the transfer of knowledge—it is a different approach to learning, which depends strongly on

using active, hands-on discovery methods, with an emphasis on learning by doing, it is not likely to be possible to bring in all this in the regular subjects. Hence, the strong argument in favour of creating an additional 'Environment' subject at all levels.

2.3.5 EE as an additional subject

The additional subject approach is not an alternative to infusion. It is rather better to include an 'Environment' subject along with infusion in other parts of the curriculum and non-formal (outdoor, extra and co-curricular) learning experiences. This approach will meet the need for a stronger focus on Environment and for different ways of learning about it, to meet the goals of EE—knowledge, awareness, attitude, skill and action.

2.3.6 A Different Approach

An ideal model would be integration of three approaches:

- the infusion approach,
- the additional subject approach, and
- the non-formal (outdoor, extra and co-curricular).



Rather than function as separate learning experiences, these three approaches will have to supplement and reinforce learnings from each other.

If we see EE then as a different approach to learning, this requires not so much new content to be introduced into the teaching of a subject, but rather that a holistic perspective be given to what is being taught, and that it is taught so as to lead ultimately to action to improve the environment. This is also based on the understanding that given the multidisciplinary nature of EE, teachers of all disciplines are involved in the process.

2.4 EE and the Teacher

Within the school system it is the teachers who play a very important role. They create suitable learning conditions. They guide or inspire students' thinking and action in the desired direction. It is the teachers who are best equipped to bring EE into the classroom.

By bringing EE into the classroom, every teacher assumes the role of an environmental educator. The task of an environmental educator is challenging and complex. What does this role entail?

1. While conventional classroom methods are tried and tested in achieving the objective of 'imparting information' and to some extent 'building skills', they are not always designed for, or effective in meeting the other objectives of EE—going from awareness to action—to any great extent. Which is why teachers have to explore fresh ways of teaching in order to become successful environmental educators.

2. Environment is all-encompassing, multi-disciplinary and dynamic. It has scientific, social, economic, political and technological dimensions to it. A teacher has to bring in all these aspects to capture the true spirit of environmental education.
3. EE is meaningful if it takes place in real life and is geared towards understanding and solving real-life problems. Practical activities and first hand experiences are essential for creating this understanding, but most schools are not geared towards this, so teachers have to find innovative ways to create such opportunities.

Which subject do you teach? How much scope does your subject have for building skills, or practical application?

2.4.1 The Real Situation

Given above is a description of an ideal situation wherein EE can become meaningful. However, the real situation may not always provide the support nor the opportunities to go beyond the conventional teaching-learning methods.

The textbooks already suggest activity oriented methods of teaching and learning. However, not much of this is really operationalized in the classroom. Time and space needs to be built into the curriculum to enable these active methods of learning to be used.

Today every teacher faces a shortage of time and thus it is difficult to adopt teaching/learning methods other than the lecture and chalk and talk methods.

Some of the other practical concerns that educators may face include:

- The curriculum and syllabus laid down are huge and not very flexible. They do not allow deviation in content or methodology.
- The number of students in each class is too large for any method except the lecture method to be used effectively.
- There are few resources or facilities for EE—no money for taking children to a nature camp; no laboratories where they can do experiments, etc.
- No access to reading and other materials by which the teacher can keep pace with the demands of a dynamic professional area like EE.
- Limited access to teaching aids like films, posters, charts etc. which can help the teacher teach about the environment, especially the local environment.
- Lack of conviction of some school managements about the need to take a non-traditional approach to the teaching of environment.
- Parents who see this as a diversion from serious studies and as an activity that takes up the time of their children, without bringing any concrete returns in the form of marks.



- Work overload on teachers who take up this responsibility and find they have to take on a number of extra tasks in addition to the full quota of their routine work.

Can you think of 3 immediate problems that you may face if you were to go beyond “chalk-and-talk” in your classroom?

2.4.2 Meeting the Challenge

The teacher faces a continual challenge in using his/her imagination and innovativeness to choose from among the many activities and approaches that can engage students. Whatever the choices, they must be such as to lead to the generation of 4 Cs—curiosity, creativity, competence and compassion. Whatever the subject, the attempt must be to encourage active learning and direct participation in the experience, within a classroom/school situation, within the curricular constraints.

The following units will help you to meet this challenge by giving you a menu of ideas, activities and approaches for bringing EE into the classroom.



2.5

Reflect and Answer

1. Think back to a moment in your work as a teacher that went really well; that made you feel “this is what it’s about”. It can be an experience with a class, with an individual, recently or long ago. Try to describe this in not more than 10 words. E.g. “Children involved – it was relevant and useful to them”. “Relaxed children, achievable goals, sense of accomplishment”
2. “We are no longer pulled in 250 different directions – now its 500!” Does this comment sound like you feel? Educational policies may change, priorities may change but school-teachers-students remain. How would you prepare yourself to take on the new role?

