

Role of Teachers in Developing Environmental Awareness Among Secondary School Students

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ABSTRACT

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In this present paper, we discussed about the environmental awareness and attitude of secondary school teachers. Today, man is living in the world of social, economic, political and value crises. In addition, during the recent years, environmental crisis has become another important factor, which has made everyone in the world to think of its gravity. This is due to the increasing population, urbanization, shrinking of agricultural land, desertification, deforestation, and technological advancement. Awareness and involvement of the entire society is a precondition for checking environmental degradation. We need to create environmental awareness among the people of country, specially of Bihar are traditionally very close to nature.

Keywords : Environmental, Awareness, Attitude, Habits, Health.

I. INTRODUCTION

Environment is the sum total of conditions in which an organism has to survive or maintain its life process. It influences the growth and development of living forms. In other words, environment refers to those surroundings that surround the living beings from all sides and affect their lives completely. It consists of atmosphere, hydrosphere, lithosphere, and biosphere. Its chief elements are soil, water, air, organisms, and solar energy. It has provided us all the resources for leading a happy and comfortable life. The term, 'Environment' has been derived from a French word "Environia" means 'to surround'. It refers to both abiotic (physical or non-living) and biotic (living) environment. The word, 'environment' means surroundings in which organisms live.

Environment and the organisms are two dynamic and complex components of nature. Environment regulates the life of the organisms including human beings. Human beings interact with the environment more vigorously than other living beings. Ordinarily, environment refers to the materials and forces that surround the living organism (Puja Mondal, 2020).

Balram Gupta (2018), in his article on 'Information about the new generation environment' published in the International Youth Journal, provides a few definitions for Environment. As quoted by him, Environment is an external force that influences us. Our environment refers to those things or agencies, which though distinct from us, affect our life or activity. Gisbert, P. (2010) defines environment as "anything immediately surrounding an object and

exerting a direct influence on it". It is the total of conditions that surrounds us at a given point of space and time. Thus, environment is comprised of the interacting systems of physical, biological and cultural elements and these are interlinked individually and collectively in various ways. In the words of **Douglass and Holland (2001)**, the term, 'environment' is used to describe on the aggregate all the external forces, influences and conditions which affect the life, nature, behavior, growth, development, and maturity of living organisms. Man is surrounded and affected by various factors of the environment which may be natural, artificial, social, biological, or psychological.

II. ENVIRONMENTAL EDUCATION

Environmental Education is a process that allows individuals to explore environmental issues, engage in problem solving and take action to improve the environment. As a result, individuals develop a deeper understanding of environmental issues and have the skills to make informed and responsible decisions. Environmental Education does not advocate a particular view point or course of action. Rather, it teaches individuals how to weigh various sides of an issue through critical thinking; and it enhances their own problem-solving and decision-making skills.

Environmental Education is understood as education *about* the environment, *in* the environment and *for* the environment as per the classification given by Lucas (1979). The *about/in/for* classification was Lucas' attempt to categorize the different meanings that had been attributed to the term, 'Environmental Education'. Each one of these approaches has distinct objectives. The purpose of education *about* the environment is to develop awareness, knowledge and understanding about human-environment interactions (Tilbury, 1995). Eames et al. (2008) pointed out that education *about* the environment can be seen in the traditional teaching of environmental sciences; and echoes the idea that once students are

educated about something, they can apply their knowledge to the situation on hand. Tilbury (1995) noted that education *in* the environment usually takes the form of outdoor education (field work), which has a strong experiential orientation through contact with nature. Education *for* the environment is seen as a core goal of Environmental education (Jickling & Spork, 1998; Tilbury, 1995). Education *about* the environment and education *in* the environment aim at enhancing awareness and understanding among the students; whereas education *for* the environment goes beyond creating a sense of awareness among students. It develops in them a sense of responsibility in order to make them involve actively in the resolution of the environmental issues. It adopts a holistic approach to the study of environment and its varied problems. Education *for* the environment, therefore, acknowledges the socio-political dimensions of environmental issues (Jickling & Spork, 1998; Tilbury, 1995) and includes critical education objectives and an issue-based pedagogy. A combination of these three approaches (*about/in/for*) in Environmental education is considered an effective strategy for achieving the goals of Environmental Education.

III. ENVIRONMENTAL EDUCATION IN SCHOOL CURRICULUM

In ancient India, there was Gurukula system of education. Students used to spend a number of years in Guru's Ashram. Guru was their father figure. He remained a guardian, an advisor, a counselor, a philosopher and a guide for all his disciples. Guru's wife remained a mother figure for them in the Ashram. She used to treat them as if they were her own children. Education was completely free for them. There was no discrimination among students by virtue of the wealth or status of their parents. The students used develop right attitudes and values under the complete supervision of their Gurus. They acquired education in all the domains of learning – cognitive, affective and psychomotor. Besides, they

lived in a natural environment and cared for conserving it. They had a lot of respect for the environment in which they lived. Environmental Education was an integral part of their educational and cultural system; and students understood the need for conserving wildlife, ecosystems and abiotic environment.

There had been a lot of change in the system of education during the Middle Ages. The thrust on environment and all-round development of students was shifted to classroom instruction and learning of 3 R's (Reading, Writing and Arithmetic). The very spirit of learning, wherein observation, exploration, comprehension and application were inherent, had been sacrificed. Cramming of facts and rote memorization became the order of the day. The knowledge acquired by the students without using their senses (touching, smelling, tasting etc.) in the natural surroundings could not be assimilated and internalized. It went off their memory soon after the completion of the examination and award of the certificate. Obviously, environmental education – educational excursions, eco-treks and natural walks had no place in such a system.

Environmental Education in formal system of education has been reported as initially coming into school curriculum in the early 1970s through Science education (Gough, 2002). The origin of Environmental Education can also be traced further back to the promotion of nature studies and later to the conservation movement (Stevenson, 2007). Here, it aimed at developing knowledge, awareness and skills about environmental issues and natural resources; and was broadly incorporated into the curriculum of primary schools and Science and Geography curriculum in secondary schools. Stevenson (2007) also argues that although the aims of nature studies and conservation education can moderately be accommodated in the goals of school system, improving environmental behavior among students is a far more challenging mission for schools. In the 1980's, the role of Environmental Education in

school organization was meaningfully developed by increasing public environmental concern, giving a stronger impetus to schools to implement Environmental Education (Tilbury, 1995). Chapter 26 of *Agenda 21* emphasized that 'Environmental Education should be incorporated at primary and secondary schools and that it should be the responsibility of educational authorities to promote all kinds of programmes for continuing education in environment in the move towards sustainable development' (UNESCO, 1992).

IV. ROLE OF TEACHERS IN DEVELOPING ENVIRONMENTAL AWARENESS AMONG STUDENTS

Environmental Education programmes in a formal school setting often consider students to be the most appropriate targets because they are in a period of life which can significantly shape the way they approach and interact with the environment that surrounds them and develop a desire for life-long learning (Mackey, 2012). Environmental Education, therefore, tries to sensitize the young minds of students to environmental problems and concerns; and to develop in them right attitude and behaviour towards environment (Thapa, 1999). Further, secondary school students in the age group 11-15 years seem to be the most appropriate targets for fostering ethical and ecological appreciation of the natural world (Kellert, 1985).

There has been a lot of debate among researchers, policy makers and teachers regarding the implementation of Environmental Education in school curriculum. In the 1980's, two models dominated for this purpose (Yueh, 2007). One was the multidisciplinary approach and the other was interdisciplinary approach. The multidisciplinary model infuses Environmental Education into existing school subjects according to its relevance to the teaching content of each school subject. In contrast, the interdisciplinary model views

Environmental Education as an independent teaching unit containing materials from every school subject. The multidisciplinary approach appears to have been the most frequently used approach to classroom-based Environmental Education programmes with the concepts of Environmental Education integrated into separate subject areas such as Biology, Chemistry, Geology and Geography in secondary school curriculum (Hart & Nolan, 1999). No matter the approach, it is important for Environmental Education in schools to include pedagogical practices to achieve the goals of Environmental Education.

Environmental Education cannot be introduced in schools in an effective manner unless teachers, who teach various topics, are well-versed with the subject matter of Environmental Studies. They should know and understand what environmental education is, what its subject matter is, how it should be taught in schools and how students' attainments should be measured or evaluated. Such teachers can only be available, if Environment Education finds a place in the curriculum of Teacher Education or Teacher preparation programmes being offered by Colleges of Education, Colleges of Teacher Education, Institutes of Advanced Study in Education (IASes), University Departments of Education and District Institutes of Education and Training (DIETs). In this context, it may be mentioned that Environmental Education has its unique characteristics; and because of these characteristics, its teaching methodology is different from that of other subjects. It is the responsibility of Teacher Education Institutions to evolve the kind of methodology suitable for teaching Environmental Education in school programme and to work out strategies for involving students in conservation and regeneration of environment.

Education at the secondary level must emphasize at least one of the following approaches to study nature and environment:

(a) Involving children in out-of-school activities, developing in them problem solving and community activities related to environmental problems.

(b) Providing the students, the necessary inputs on basic environmental factors such as ecology, resource distribution, population dynamics, population balance and the problems of hunger and starvation.

The teacher plays a very significant role in shaping, moulding and cultivating right habits, manners and good character among children in schools. To gear up the environmental awareness programme, it is essential that the teacher should have scientific knowledge of Environmental Education. It is the responsibility of the Colleges of Teacher Education and University Departments of Education to prepare teachers for this task by introducing Environmental Education as a subject in Teacher preparation programme. The curriculum in the existing Teacher education programmes should be amended in such a manner that there should be due weightage for the study of Environmental Education as an independent subject or integrating it with other school subjects emphasizing suitable methodology. The effective implementation of Environmental Education requires a large number of teachers who are knowledgeable and skillful in organizing different activities in schools. The role of a teacher in Environmental Education is multi-dimensional in nature. He is a planner, a sustainer, and a value instigator.

Teachers should have a basic understanding of integrating theory and practice in Environmental Education. They should understand and accept the responsibilities associated with the implementation of Environmental Education programmes at school level. They should enable students to engage in open inquiry and investigation, especially while considering environmental issues that are controversial in nature. In such cases, teachers should provide them an opportunity to reflect on their own as well as on others' perspectives. Teachers should ensure a climate for learning about and exploring the environment, an inclusive and collaborative learning environment and flexible and responsive instruction. The role of a teacher does

not end with teaching a few concepts relating to Environmental Education in the classroom. It should go beyond the four walls of the classroom. The teacher should be a friend, philosopher, and guide to his/her students; and should take an active role in motivating them to protect environment. Since Environmental Education is more an out-door activity, the teacher should plan his/her lessons using heuristic and exploratory methods with a view to enable his/her students explore the nature. The teacher should devise strategies for integrating the content of Environmental Education in his/her core teaching subjects. Environmental Education should be made a part and parcel of school education programme.

Teachers play a crucial role in forming and establishing right attitudes and values that are important to develop environmentally responsible behavior among their students. Teacher is said to be the protector, savior, and purifier of the environment. The teacher can help his students take up several activities such as 'clean and green', 'tree plantation', 'watering plants', 'rainwater harvesting' etc., in the school as well as the surrounding community. The teacher can also arrange field trips and excursions in order to develop in his/her students a love for the nature. He should create in them a feeling of togetherness and a positive attitude towards environment.

The teacher should create awareness among the students towards environmental pollution and suggest remedial measures to overcome the problem. He/she should organize debates, competitions, discussions, and dramas to enlighten the students on the importance of Environmental Education. Visits to dense forests be organized so that students should develop a taste for natural beauty and acquire knowledge of flora and fauna.

V. CONCLUSION

The following are some of the activities that the teachers can organize in the schools. They should: encourage their students to create pollution-free atmosphere in the school premises; correlate the environmental activities with the traditions and customs in the society; inform his students with the safety measures to be taken to avoid the spread of viral diseases by keeping the surroundings clean; organize health camps in the school and involve the students participate actively in such programmes; motivate the students to develop hygienic conditions around them; encourage the students to plant at least a tree on his/her birthday every year either in the school, or in the place of worship or elsewhere and nurture its growth; conduct visits to industrial places and other places of high pollution to make the students realize the need for protecting the environment; celebrate important days relating to environment such as World Forest Day, World Conservation Day, Wildlife Protection Day, World Population Day in the school involving the students participate actively in such programmes; train the students as soldiers to protect environment; sow the seeds of sustainability of environment in the young minds; organize campaigns of awareness to avoid the use of plastics and other non- degradable substances by the public; help the students acquire the sensibility towards environmental problems and the necessary strategies to resolve such problems; Encourage students to examine and interpret the environment from a variety of perspectives – physical, geographical, biological, sociological, economic, political, technological, historical, esthetic and ethical; and help them to lead their lives happily in a pollution-free environment.

VI. REFERENCES

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