

Participatory Learning and Action for Environmental Education

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Statement of the Problem

Environmental education is the means to create knowledge, understanding, values, attitudes, skills, abilities and awareness among individuals and social group towards the environment and environment protection. The school system provides the largest organised base for environmental education and action. With children in their plastic age, school imparts knowledge for imbibing in them the environmental ethics and consciousness. Teacher is one of the important factors for promoting environmental education. Teachers can become a vital link in the delivery of environmental knowledge, its associated problems and their solutions.

Objectives

1. To design and prepare a learning package on environmental education.
2. To study the environmental programmes and activities conducted in secondary schools.
3. To examine the environmental awareness of the secondary school students.
4. To provide orientation to teachers on environmental education and Gandhian approach to environment.
5. To suggest intervention strategies for protection and preservation of environment.

Area of Study

The project was carried out in 30 secondary schools of Dindigul district of Tamil Nadu.

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Sample

The study was conducted on sample of 500 students from 30 secondary schools; and 200 secondary school teachers of Dindigul district in Tamil Nadu.

Tools

The data for the study is gathered through environmental surveys using pre-designed field tested tools.

1. **Participatory learning and action approach** is followed to analyse and understand the environmental problems and to develop the intervention strategies.
2. **An Environmental Awareness Scale** was developed and standardised for the purpose of investigation.
3. **The School Environmental Profile** was prepared on the basis of data collected from the schools relating to cleanliness, sanitation, disposal of garbage, drinking water sewage, drainage system, tree plantation, classroom and physical plants etc.
4. **Focus Group** were held with school principals and teachers to elicit the data on environmental conditions and ethics of the school. The functioning of the national green corps, nature study groups and eco-clubs in schools was found out during this session.
5. Also a Students Biodiversity Register was designed and maintained in all the selected schools.

Modules based on environmental issues were prepared and made available to students through the project.

An environment survey has been conducted for the purpose of the study. The investigator conducted the survey in selected schools. In this environmental survey the researcher collected the data directly from a school population at particular point of time. The environmental programmes undertaken in schools were identified through questionnaires to the teachers. A workshop was organised for teacher educators and school teachers for two days. It was intended to orienting the teachers about the nature, content and strategies for environmental education. A special session was arranged on the Gandhian approach to environment followed by the plantation of trees in schools and surrounding areas. The data collected through environmental school survey were analysed using Statistical Package for Social Science (SPSS).

Major Findings

The results of the environmental surveys conducted on a sample of 30 secondary schools revealed the following:

- Schools in Dindigul district of Tamil Nadu were not found environmentally safe.
- Participatory intervention programmes like tree plantation, constructing soak-pits for waste water management, cleanliness drive have been taken up very rarely in secondary schools.
- Massive tree plantation programme has been carried out in schools occasionally, but the continuous nurturing of the plants has not been taken up.
- The study revealed that 96.8 per cent of the students consider environment as the surroundings of human beings including natural resources.
- According to 55.2 per cent of the respondent's personal hygiene, family hygiene and society's hygiene were the three factors essential for development of healthy environment.
- Pure air, clean water and hygienic food were necessary for healthy living according to 89.4 per cent of students.
- 94.2 per cent of students mentioned that tree plantation is essential for environmental protection and 92.8 per cent of students suggested that soil erosion can be prevented by growing trees.
- Water sanitation on streets causes adverse effects and is a health hazard according to 70.8 per cent.
- Environment is polluted by plastic and chemical wastes according to 88.6 per cent of students.
- Spitting in the public should be made punishable according to 85.4 per cent of students.
- 96.0 per cent of students took bath every day and only 95.8 per cent of the students brushed their teeth morning and night.
- Avoiding the use of electricity during day time can conserve power shortage in Tamil Nadu according to 65.2 per cent students and 81.8 per cent preferred to turn off lights and fans when it's not needed.
- 76.4 per cent of the respondents advocated to construct household and community soak-pits to arrest waste water.
- 'Art from waste' should be encouraged in the schools according to 52.4 per cent of students.

- Traditional habit of walking to schools should be encouraged among the students instead using the transports to save fuel according to 67.2 per cent.
- Majority of the respondents 78.8 per cent wanted to use organic manure to grow plants in their gardens and 67.8 per cent of respondents wanted to avoid chemical fertilisers as it is toxic and harmful to people.
- Punishment for violating the environmental laws save nature and biodiversity according to 79.6 per cent students and the message to protect wildlife.
- Dumping the garbage in the school campus and surrounding areas should be stopped. Waste management should be encouraged and students should learn to reduce, recycle and reuse the waste.
- Environmental awareness need not always lead to environmental action, but awareness can always ignite action among students.
- Open defecation should be stopped and use of public toilets should be encouraged in rural areas.
- Adequate water for toilet purpose and cleaning should be provided to the schools.
- Environmental film shows and debates should be conducted in all schools.
- Computer-assisted models should be used for teaching the environmental issues at the secondary level.

Conclusion

The father of the nation, Mahatma Gandhi foresaw as early as 1920s the need for environmental protection for sustainable development in India. His antyodaya approach should become the basis for environmental education in schools and his famous quote, "The earth provides enough to satisfy every man's needs, but not every man's greed" should be instilled in the minds of the students. Participatory learning and action can help the students to understand the environmental issues and construct the knowledge to solve its problems. Opportunities should be created for students for undertaking the nature and its diversity through activity based learning strategies. This can pave way for effective environmental education for preserving the rich environmental heritage in India.