



Environmental Studies in The Curriculum of Secondary Stage -Case Studies on Selected Schools

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Abstract:

Environment covers all those circumstances which assert their influence on the individual since conception to death. Modern humanity has realized the need of ecological conservation and safety of Environment. Public awareness is being created for the protection of life on the Earth. Many programs for a better Environment and conservation of natural resources are being carried out all over the world. The scientific conservation programs are mainly based on the principles of ecology. We can get a better Environment only when everybody especially the children become aware of it.

For the above mentioned purpose, to aware the students, Supreme Court gave an order to introduce Environment studies in the syllabus of degree course in all the states of India. Afterwards, this subject is included in Secondary and Higher Secondary courses.

Now the subject Environmental Studies is regarded as one of the subjects. But it is unfortunate to mention that this subject is not given proper emphasis by the school authorities or teachers. There is not even a dedicated subject teacher to teach the subject. So in maximum cases, this subject is taught by the science or geography teachers. Sometimes, the language teachers are forced to teach environment studies. Naturally they cannot inspire or motivate the students properly. As a result, the plan of the Government to make the students aware of Environment does not reach its goal.

Keywords: *Environmental Studies, Environmental Awareness, Curriculum, Secondary Stage.*

Introduction:

Environment is a broad concept on compassing the whole range of diverse surroundings in which we perceive experience and react to events and changes. It includes the land, water, vegetation, air and the whole gamut of the social order. It also includes the physical and ecological environment. It concerns man's ability to adapt both physically and mentally to the continuing change in Environment.

Environmental Education is a process of providing learning experiences to obtain knowledge understanding skills and awareness with desirable attitudinal changes about man's relationship with his natural and manmade surroundings which includes the relation of population, pollution, resource allocation, transportation technology and rural planning to the total human environment.

Many years ago men spent their lives in the Environment like animal. Their demands were little. They ate green fruit and meat. But their demands were grown slowly and they learnt to fulfill their demands. Slowly the Environment and the surroundings had become changed.

In the ancient times man was totally dependent on nature for his need but as he learnt about agriculture he started interfering with the laws of nature. He shaved the forests for agriculture and tamed many wild animals for his food and clothing. He left the caves and started living in house. With the development in man's lifestyle several civilizations of sum aria, Egypt and Indus valley spread over the vast areas of the world.

Today rapid industrialization and ever increasing human requirements have disturbed these natural elements and created an ecological imbalance. Increasing population, emission of carbon-dioxide and other toxic gases by factories and vehicles, occurrence of acid rain, nuclear tests and poisonous chemicals have posed a serious threat to the ecological balance.

Present time is the scientific period and human life is moving very fast to equip with nature. Their demands are increasing rapidly and tyranny on the environment is growing in some manner. Side by side to fulfill their needs. Man started to ignore the environment and environmental pollution become increasing though he is dependent on environment.

It is a general belief that man has conquered the nature but still he cannot control natural disasters. The entire earth and its inhabitants are affected by pollution. At present, it is known to all that life on earth is in danger.

Background of the Study:

The main purpose of environmental education is eco-friendly behaviour development among the students. To assess this purpose researcher have to need to make an environmental awareness among the students, and to see the development of their knowledge. If the environmental knowledge is not developed among students, there are some defects in education system and then researcher have to see how can it be solved?

For that purpose, a functioning work-out to be made and to work-out with the help to design the operational plan for environmental knowledge in education. The study has been designed so that it will try to final the need of environmental knowledge, and now much stress is delivered effectively. Further there will be a try to identify the gap between environmental knowledge delivery system and the recipients. Thus it will be more and more accurate mechanism for delivery the environmental knowledge education. In general, the environmental education focuses on making issues and promotes an understanding of the relationship between human and their surrounding environment.

This research actually a descriptive study ,conducted with a view to measure the environmental knowledge to find out whether there was any difference in the environmental knowledge and academic scores between boys and girls and whether there have any relationship between academic scores and environmental knowledge .

Review of Related Literature:

For this present study researcher reviewed some literature, journal, research paper, etc. Some these are given bellow:

Julie Ann Pooley, Moira O Conner (2000), "Environmental Education and Attitudes". The major findings of the study are as follows:-

1. The present study investigated the cognitive and effective bases of environmental attitudes.
2. The finding suggest that for environmental educators, interested in changing in environmental attitudes, emotion and believes, rather than knowledge need to be targeted as sources of information on which to base their environmental programs.

J, Environ in (2007) The study investigated Secondary School student environmental awareness in India Iran"

The major findings of the study are as follows:-

1. Results indicated that there are significant differences between India and Iranian students in their level of environmental awareness.
2. The result also indicated that type of school management (government and Private) is a factor which can affect student's environmental awareness in both countries.
3. There are significant differences between them in environmental awareness across and within two groups with regard their gender.

Bhowmik A, Verma A (2019) “Environmental Awareness among Senior Secondary School Students: A Comparative Study”. In this study the major objectives are -To compare the level of environmental awareness between the rural and urban senior secondary school students of East district in Sikkim. To compare the level of environmental awareness between the senior secondary school students of East district in Sikkim based on their gender. To compare the level of environmental awareness between the senior secondary school students of science and non-science streams of East district in Sikkim.

Statement of the Problem:

The present problem is stated that- “**Environmental studies in the curriculum of secondary stage – case studies on selected schools**”

Objectives of the Study:

- i. The help in acquiring knowledge and variety of experience of the environment and associated problems.
- ii. To develop a basic understanding of structure, processes and problems of environment, interdependence of environmental components.
- iii. To help in acquiring skills for identifying and solving environmental problems.
- iv. To develop antitheses, a set of values and feelings of concern for the environment and encouragement or motivation for active participation in protection and improvement of environment.
- v. To provide an opportunity for an active participation or practice at all levels in working for the solution of environmental problems.
- vi. To develop ability evaluating environmental components and educational programmers in term s of ecological, economic, social, cultural aesthetic and educational factors.
- vii. To promote the value and necessity of local, national and international co-operation in the prevention and solution of environmental problems.
- viii. To focus on the current potential environmental situations.

ix. To develop an awareness of environmental and sensitivity to the total environmental and its allied problems.

Methodology of the Study:

This research was actually a descriptive study, conducted with a view to measure the environmental knowledge to find out whether there was any difference in the environmental knowledge and academic scores between boys and girls and whether there was any relation between academic scores and environmental knowledge.

Variables:

Researcher took three variables in the present research. Those are-

1. Utility of environmental knowledge.
2. Academic achievement score.
3. Gender.

Population & Sample:

The population of the study included all the secondary (class-ix) students under W.B.B.S.E. in Nilganj, P.S- Barasat, Dist.- North 24 Parganas. Out of total population the researcher selected only two hundred (200) students from two(2) selected schools as the sample for the study. The distribution of the sample according to gender is shown in Table-1

Table-1 Distribution of Sample Population (Gender Wise)

Board	Boys	Girls	Total
WBBSE	100	100	200

Tools Used:

For the purpose of this investigation the researcher prepared a Questionnaire for measuring Environmental awareness. The Questionnaire consisted of 25 questions on various dimensions.

Description of Tools:

For the purpose of this investigation the researcher prepared a Questionnaire for measuring Environmental awareness. The researcher identified five (5) major dimensions for measuring utility of environmental studies.

Presentation of the item-chart of the utility of environmental studies:

The item chart clearly shows the distribution of the question among the five dimensions, chosen for testing environmental utility. The item chart is presented in Table-2

Table-2 Presentation of the Item Chart of the Environmental Utility Questionnaire

Sl. No.	Dimension	Items	Total
1	Awareness of environmental education of the students	1,2,3,4,5	5
2	Various sides of environment	6,7,8,9,10	5
3	Several causes of environmental pollution	11,12,13,14,15	5
4	Problems of environmental pollution	16,17,18,19,20	5
5	Remedies of environmental pollution	21,22,23,24,25	5

Total No. of items – 25

Maximum score - 25 x 1 = 25

Objective wise Analysis and Interpretation of Data:

To study the weightage given to environmental studies in school time table and examination: -

While studying the weightage about the place the Environmental Studies in class time table in those two schools, it is found that at the beginning of the session one period is allotted for the environmental study in a week. But the full marks of the subject are one hundred like other major subjects. The subjects which carry 100 marks, 5-6 periods per week are allotted in the time table, whereas for environmental study only one period per week is allotted. So a discrepancy is found in the time table regarding class allotment of environmental studies.

To study the availabilities of resources for Environmental studies:

Data was collected from the above mentioned two schools regarding the availabilities of teaching aids for the purpose of teaching Environmental Study. It was revealed that there were no specific teaching aids for the teaching of environmental study in two schools. There was no laboratory or special room for environmental study. Even there are no teaching aids which are used for the teaching of Environmental study. It is also found that the teaching aids like Slide Projector, Over Head Projector, Computers etc are not used because these instruments belong to other department like computer science, geography or any science department.

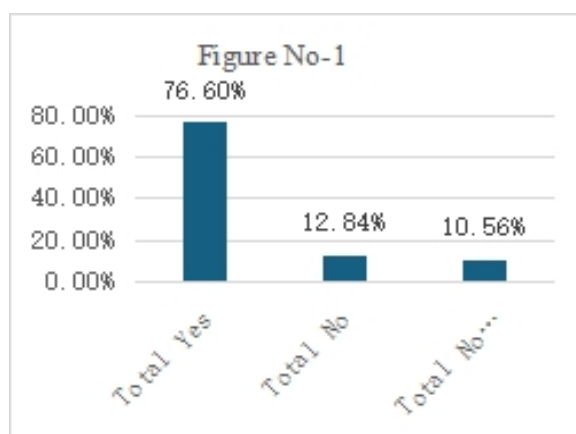
Total Dimension wise data interpretation of boys' :

Dimension 1, 2, 3, 4, 5

Yes	No	No Comment
1915	321	264

Total Yes	76.60%
Total No	12.84%
Total No Comment	10.56%

Table No - 3



From the analysis of data (Table no -3) and from the graphical representation (Fig-no -1) it can be concluded that 76.6% (all boys) gave positive response(yes), 12.84% (all boys) gave negative response (No) and 10.56% (all boys) did not give any response(no comment) regarding dimension (1, 2, 3, 4, 5)

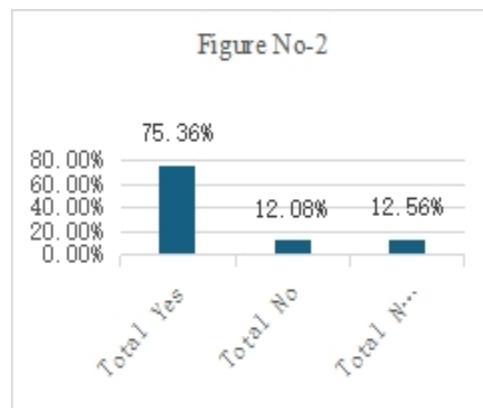
Total Dimension wise data interpretation of girls’ :-

Dimension 1, 2, 3, 4, 5

Yes No No Comment
 1884 302 314

Total Yes	75.36%
Total No	12.08%
Total No Comment	12.56%

Table No - 4



From the analysis of data (Table no -4) and from the graphical representation (Fig-no 2) it can be stated that 75.36% (all girls) gave positive response(yes), 12.08% (all girls) gave negative response (No) and 12.56% (all girls) did not give any response (no comment) regarding dimension -(1, 2, 3, 4, 5)

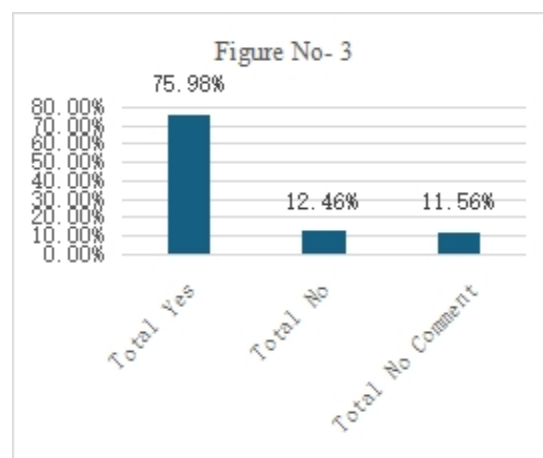
Total Dimension wise data interpretation of all boys and girls’ :-

Dimension 1, 2, 3, 4, 5

Yes No No Comment
 3799 623 578

Total Yes	75.98%
Total No	12.46%
Total No Comment	11.56%

Table No - 5



From the analysis of data (Table no-5) and from the graphical representation (Figure no-3) the data reveals that 75.98% students gave positive response(yes), 12.46% students gave negative response (No) and 11.56% students did not give any response (no comment) regarding the total dimension.

So it can be summarized that the awareness of Environmental Education among the students are increasing according to the demands of the society. In the same way, it can be said that the students are aware of various sides of Environment, several causes of environmental Pollution, prevention of environmental pollution problems, and Remedies of environmental pollution.

After analysing all the data, it can be concluded that the major percentage of students, response are positive and they are aware of environment by reading the subject Environmental studies in secondary stage.

Findings of the study:-

After necessary calculation the researcher found:

- i. There was no significant difference in Environmental Knowledge between the boys and the girls students.
- ii. The researcher found that the dimension wise Environmental Knowledge of boys students is much better than that of girls students (Dimension -3, 4, 5) and in other hand the girls students are much conscious than that of boys students (Dimension -1, 2)

Conclusion:

The researcher went to two higher secondary standard schools for the purpose of collecting data necessary for this present research. The researcher found so many teachers but only a few were trying to develop this subject. Students are also interested in this matter. They become sensible by reading this subject. But the school authority has no interest for the betterment and popularization of this subject like Environmental Education. The schools must have well equipped laboratory and library. There should be a special visit to increase the interest of the subject. Moreover there should be an arrangement for the recruitment of expert and knowledgeable teacher in every school. However, the subject, Environmental science would be effective if the school authority and the Govt. take necessary measures as early as possible for the benefit of the society and at the same time for the existence of the environment.

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