

A Study of Environmental Awareness of Students at Higher Secondary Level

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Abstract

The study was carried out with a sample of 180 students from Standard XII using environmental awareness scale for assessing the significance difference in the mean scores of environmental awareness. The results indicated that there was a significant difference in the mean scores of Environmental awareness between the students belonging to science group and arts group, there existed significant difference in the mean scores of Environmental awareness between the students belonging to science group and vocational group, there existed no significant difference in the mean scores of Environmental awareness between the students belonging to vocational group and arts group. There existed no significant difference in the mean scores of Environmental awareness between the students in terms of gender and in terms of types of institution.

Keywords: environmental awareness, significance difference, groups, type of institutions, gender.

Environmental Studies

Healthy, clean and pure environment is a precious gift of nature to the humanity. Like many other organisms, man has to depend, for his life on this environment. He receives his basic necessities like water, air, food and shelter from it. So neither the present generation nor the posterity has any right to obliterate its wholesomeness or pollute it. The environmental health of a country is, in fact, an indication of the quality of life of the people.

The fields covered by environmental studies are as follows;

1. The multidisciplinary nature of environmental studies
2. Natural resources and associated problems
3. Eco systems
4. Biodiversity and its conservation
5. Environmental pollution
6. Social issues and the environment

Significance of the Study

Environmental issues became H_j international priorities all though they were seen as local or regional concerns, because they have become extraneous to economic growth, health, nature and aesthetics. Consumption of resources for products produced for world market (dominated by the North) causes primarily local environmental degradation - not global. Every human being has the right to decent life, but today there are elements in our environment that tend to militate against the attainment and enjoyment of such a life. The exacerbation of the pollution of environment can cause untold misery. Unhappiness and suffering to human beings crop up simply because of our lack of concern for the common good and the absence of a sense of responsibility and ethics for sustaining a balanced ecosystem. If we are to aspire to a better quality of life - one which will ensure freedom from want, from disease and from fear itself,

then we must all join hands to stem the increasing toxification of the earth. We need to defuse this environmental problem, but such needed action will come only if we reorient the citizenry's values, i.e. imbibe them with proper attitudes and values (ethics), specially those that will lead to a greater concern for preserving balance in the ecosystem. Besides we should teach them how to save the environment from further degradation, and help make it a healthier and progressive place to live in; this springs from a strong sense of social responsibility. Hence, it becomes obligatory on the part of each individual citizen to develop environmental ethics that, while we aspire for the good life, should not sacrifice the future of the generations to come (Minda C & Sutaria 1990).

Objectives of the Study

1. To study the extend of awareness of students to environmental education
2. To study the extend of awareness of students to social issues related to environmental pollution.
3. To offer a few suggestions to get over the problems related to environmental pollution.
4. To throw light on salient features of environmental education.

Hypotheses

1. There exists significant difference in the mean scores in Environmental awareness between the students belonging to science group and arts group
2. There exists significant difference in the mean scores in Environmental awareness between the students belonging to science group and vocational group
3. There exists significant difference in the mean scores in Environmental awareness between the students belonging to vocational group and arts group
4. There exists significant difference in the mean scores in Environmental awareness between the students in terms of gender
5. There exists significant difference in the mean scores in Environmental awareness between the students in terms of types of institution.

Tools

Environmental awareness assessment questionnaire. A research tool plays a major role in any worthwhile research, as it is the role factor in determining the sound data in arriving at perfect conclusions about the problem or study in hand, which ultimately, helps in providing suitable remedial measures to the problem concerned.

The selection and use of tools can be done in two ways. The first one is to construct a tool independently by the investigator for his own study. Here, there are many problems in doing so. Preparation and standardization of a perfect tool itself is a major task, and one can safely say that it is a doctroal study itself. On construction of their own tools, Anand and Padma (1987) feel that " A note of caution has to be struck when a researcher develops a tool for his study by merely pooling some items and does not subject it to the sophisticated techniques of tool construction. The result would be them obvious, a poor quality research. With this, one can say that preparation and standardization of tools is a major task, and one should take care in aspects like selection of area and sample, pooling up of statements related to the area and sample, consulting the experts, and application of sophisticated statistical techniques.

The second way of selection and use of tools is right selection of tools from already standardized ones available in the field of study. Here also it involves a redious job in locating the tools and identifying their usefulness to the study on hand. Even then, this technique is very useful when a research work is taken to study in depth and when the research work involves a good number of variables. Some people believe that some of the instruments available do not measure up to their standards.

Hence new one, In some instances, consideration should be given to the logistics of the situation. Lacking the time and financial resources of a test and measurement organisation, many researchers cannot expect to produce a better instrument. In the cases, the most logical procedure that he can follow is to choose the best instruments available for his purpose.

Considering the flaws and merits of the selection of tools in either way, the investigator was interested in preparing standardized tools at the present study to measure Environmental awareness of the teachers.

Environmental awareness Questionnaire

The Environmental awareness questionnaire was subjected to pre-testing, which is, in fact, a ‘dream rehearsal’ of the final study. The Environmental awareness questionnaire was administered to a sample of hundred and twelve students studying in schools. The validity of the EAS was found 0.84. This tool was finalized for the final administration to measure the Environmental awareness of students in various standards. The particulars of the Environmental awareness questionnaire in detail are presented herewith.

Questionnaire

The Environmental awareness questionnaire was constructed. This questionnaire was prepared, based on the articles of the experts on environmental studies.

Item Writing, Editing and Revision

An initial pool of 60 statements were prepared. This pool of statements was given to 10 experienced and qualified educator, after getting its language pruned by experts. The experts were requested to rate each statement.

Internal Consistency and Discriminate Validity

The reliability of Environmental awareness questionnaire score as calculated by split-half method was found to be 0.88. Environmental awareness questionnaire was administered on a sample of 100 and this analysis provided information about the internal consistency and discriminate validity of various dimensions of the scale.

Population and Sample for the Study

The sample for the study consists of 180 students studying in XI and XII standard studying Government school and Management schools Madurai District with students belonging to both gender.

Limitations of the Study

The limitations of the study are as follows.

- 1 This study is limited to the pupils studying in standard XII.
- 2 The sample is limited to certain schools in Virudhunagar District.

Problem Stated

The problem of the study pertains to the following area. What is the extent of knowledge attained by the students of standard XII with regards to Awareness of environmental pollution?

Sample Design

The sample consists of 100 respondents for pilot study for the purpose of standardization of test in The sample for final study consists of 180 students of which 90 students belong to the Government institution and other 90 to Management institutions with due representation to gender.

Instrumentation

The investigator employed the tool “Environmental awareness questionnaire” for this study.

Analysis and Interpretation

Hypothesis - 1

Null hypothesis

There exists no significant difference in the mean scores in Environmental awareness between the students belonging to science group and arts group.

Table 1: Difference in students due to groups

Groups	N	Mean	SD	“t” value	Sig.
Science	60	35.15	8.75	6.00	S
Arts	60	26.50	7.07		

Hypothesis - 2

Null hypothesis

There exists no significant difference in the mean scores in Environmental awareness between the students belonging to science group and vocational group.

Table 2: Difference in students due to Groups

Groups	N	Mean	SD	“t” value	Sig.
Science	60	35.15	8.75	8.20	S
Vocational	60	24.66	6.54		

Hypothesis - 3

Null hypothesis

There exists no significant difference in the

mean scores in Environmental awareness between the students belonging to vocational group and arts group

Table 3: Difference in students due to Groups

Groups	N	Mean	SD	"t" value	Sig.
Vocational	60	24.66	7.07	1.43	NS
Arts	60	26.50	7.07		

Hypothesis - 4

Null hypothesis

There exists no significant difference in the mean scores in Environmental awareness between the students in terms of gender

Table 4: Difference in students due to gender

Gender	N	Mean	SD	"t" value	Sig.
Boys	90	30.04	10.59	0.36	NS
Girls	90	30.51	10.27		

Hypothesis - 5

Null hypothesis

There exists no significant difference in the mean scores in Environmental awareness between the students in terms of types of institution.

Table 5: Difference in students due to type of institution

Institution	N	Mean	SD	"t" value	Sig.
Government	90	30.37	10.43	0.14	NS
Management	90	30.60	10.8		

Findings of the Study

1. There exists significant difference in the mean scores of Environmental awareness between the students belonging to science group and arts group
2. There exists significant difference in the mean scores of Environmental awareness between the students belonging to science group and vocational group
3. There exists no significant difference in the mean scores of Environmental awareness between the students belonging to vocational group and arts group
4. There exists no significant difference in the mean

scores of Environmental awareness between the students in terms of gender

5. There exists no significant difference in the mean scores of Environmental awareness between the students in terms of types of institution.

Recommendations for Further Study

1. Similar studies may be undertaken at different levels.
2. Correlation Studies with reference to environmental awareness and different subjects namely Botany, Zoology & Chemistry may be made.
3. Training programmes may be envisaged for teachers at post graduate level to high light the salient features of Environmental awareness.
4. Research on environmental awareness associated with preservation of nature.
5. Student's skill for learning about environmental ie observation, collection & classification in school may be fostered.

Implications and Conclusion

1. Environmental awareness plays a vital role in preserving of nature.
2. Through Environmental Awareness we can create relationship between man and nature is established.
3. Environmental awareness enriches one's knowledge of balance of nature.
4. Environmental awareness inculcates skills among students which indirectly help one to become a nature loving scientist.
5. Through Environmental awareness whatever that is learnt in environmental awareness is applied in life situation
6. The environmental awareness skills of the learners such as manipulation of the environment, arranging things in the nature observation, collection, classification of things in nature and inference of scientific and environmental facts out of it are nourished.
7. A higher degree of environmental awareness is essential to save the world from extinction and preserve the ecosystem.
8. The issues such as global warming, soil erosion, deforestation and depletion of ozone may cause

major damage to the world.

The things highlighted above are the antecedent skills for a blossoming environmental scientist.

Educational Implications

Teacher (independent of gender differences) can play an important role in educating their students about environment, which is possible only when the teacher themselves have the necessary level of environmental education awareness. This suggests the need for introducing and enriching environmental education programmes in both in-service and pre-service elementary teacher education programmes. More effort has to be implemented to encourage female teachers as they get fewer opportunities than their male counterparts for performing and participating in environmental activities and actions. A possible future study would be to compare gender differences along with the area to which they belong as well as their age.

Conclusion

The students have an higher level of scientific attitude. The achievement of the students in Environmental awareness is not of higher order. The reason may be that they have not been exposed to scientific literature at concrete stage at lower level and suddenly they find it difficult to cope with the scientific literature at the higher level which involves abstract thinking.

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