

A study on the environmental awareness among secondary school students in a district of Assam

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Abstract

The present investigation reveals the level of environmental awareness of Secondary School students in a district of Assam based on gender, locale of study and medium of instruction. Random sampling was used to select 158 secondary school students from Kamrup (Metro) District, Assam. Normative survey method was used for the present investigation. Environmental Awareness Scale constructed and validated by the investigator was used. Calculation of means and standard deviations and test of significance. Total scores of environmental awareness stood at a low level (<50). Girls' environmental awareness was greater than boys, urban students' awareness greater than rural students and Assamese medium students' awareness greater than English medium students. Environmental education, a process for increasing environmental knowledge and awareness is essential for the future of this world. This study evaluates awareness about the environment among students to remedy lacunae in existing situation.

Keywords: environmental awareness, students, gender, locale, medium of instructions

Introduction

We are living in a world where there is deliberate destruction of nature at a level that is unprecedented in human history. Oil explorations, expansion of human settlements destruction of the flora and fauna that are key to biological cycles are all common place. Some of the factors identified as causes for these are: booming human populations, expanding livestock herds and a potent mix of poverty and human greed. At a global level issues like global warming, greenhouse effects, have resulted in melting of ice in the Antarctic regions causing rise in the sea levels. Scientific research reported in the National Geographic indicates sea levels worldwide have been rising at a rate of 0.14 inches (3.5 millimeters) per year since the early 1990s. The trend, linked to global warming, puts thousands of coastal cities, like Venice, Italy and even whole islands at risk of being claimed by the ocean (National Geographic, 2014). All of these indicate that the delicate balance which keeps nature and its elements in check is being disturbed leading to catastrophic consequences. Awareness regarding the need to protect and sustain nature has to become ingrained in human ethos. Failure will result in a ecological disaster unprecedented in known human history. This awareness regarding the need to protect the environment has to start academically at the school level through an educational process, just as addition and subtraction are essential skills needed for all persons, as part of the daily living skill required for a human being to survive in modern society. Education in its general sense is a form of learning in which the knowledge, skills, and habits of a group of people are transferred from one generation to the next through teaching, training, or research. Education frequently takes place under the guidance of others, but may also be autodidactic (Dewey, 1916) [1]. Therefore, the school and educational system where formal educational inputs are received by the student, have a major and critical role to play in the environmental educational process of the next generation that has to live into the future. This study is merely

a small step in that direction, taken as a first step to determine the awareness of students (gender based) in schools studying under diverse conditions (urban/rural, English/Assamese medium) to determine their level of understanding regarding the environment.

Objectives of the study

Major objectives of the present study are:-

1. To study the levels of environmental awareness of Secondary School students in Assam.
2. To study the environmental awareness of male and female students in Assam.
3. To study the environmental awareness of rural and urban Secondary School students in Assam.
4. To study the environmental awareness of students studying in English and Assamese Medium schools in Assam.

Hypothesis of the Study

1. There is no significant difference in the environmental awareness among the male and female Secondary School students in Assam
2. There is no significant difference in the environmental awareness among the rural and urban Secondary Schools in Assam.
3. There is no significant difference in the environmental awareness among English and Assamese medium Secondary School Students in Assam.

Method

In order to realize the above said objectives, normative survey method was employed. Normative survey method study describes and interprets what exists at present. They are concerned with existing conditions or relations, prevailing practices, beliefs and attitudes etc. Such investigations are termed in research of literature as descriptive survey or normative survey.

Tools used

Environmental Awareness Scale was constructed and validated by the investigator. The Questionnaire contains twenty five items. The scale consisted of twenty five statements with five responses – strongly agree, agree, undecided, disagree, and strongly disagree. The Questionnaire has construct validity. The scoring procedure was done in such a way that, for every positive statement a weightage of 5, 4, 3, 2, 1 was given and for negative statements a weightage of 1, 2, 3, 4, 5, was given. A student could get a maximum of 125 and a minimum of 25 on this scale. Based on these three levels were identified as high, average and low levels of awareness. A high awareness score would be the scoring of a 4 or a 5 on the question i.e., 100-125 and a low awareness would be the scoring of a 1 or a 2 on the question i.e., 25-50, average awareness would be the score of 51-99.

Sample of the study

Random sampling technique has been used in the selection of the sample which consisted of 158 secondary school students from schools in Kamrup (Metro) District, Assam, India.

Statistical Techniques Used

1. The Environmental Awareness scores of the various sub-samples were collected and their means and standard deviations were calculated (vide: Table-1).

Table 2: Data and result of test of significant difference between the boys and girls students in their environmental awareness

Groups	N	Mean	S.D.	t	Level of significance
Boys	89	29.95	9.42	2.08	Significant at 0.05 level
Girls	69	33.40	11.0		

The above table shows that the obtained t value 2.08 is greater than the table value of 1.96 at 0.05 level of significance. This indicates that there exists a significant difference between boy and girl students’ as regards awareness towards environment. The mean score of girl students (33.40) is greater than the mean score of boy students (29.95). It is inferred that girl students have higher awareness regarding the environment.

Table 3: Data and result of test of significant difference between the rural and urban students in their environmental awareness

	N	Mean	S.D.	t	Level of significance
Rural	86	29.77	9.54	2.26	Significant at 0.05 level
Urban	72	33.47	10.77		

The above table shows that the obtained t value 2.08 is greater than the table value of 1.96 at 0.05 level of significance. This indicates that there exists a significant difference between rural and urban students’ awareness towards environment. The mean score of urban students (33.47) is greater than the mean score of rural students (29.77). It is inferred that the urban students have higher awareness regarding the environment

Table 4: Data and result of test of significant difference between the English and Assamese medium students in their environmental awareness

Medium	N	Mean	S.D.	T	Level of significance
English	95	29.77	9.42	2.50	Significant at 0.05 level
Assamese	63	34.0	10.98		

The above table shows that the obtained t value 2.50 is greater than the table value 1.96 at 0.05 level of significance. This indicates that there exists a significant difference between

2. The ‘t’ test was used to test the hypotheses, details of the calculations are given in Tables 2 to 4.

Results

The range of the scores was between 39.03 to 19.31. The mean score was 29.17 and the standard deviation was 9.86. This indicates that the environmental awareness of the students stood at a low level (<50). The mean score and standard deviation of entire sample is given below in table 1.

Table 1: Mean and standard deviation of environmental awareness scores

Test	N	Mean	S.D.
Total Sample	158	29.17	9.86

The mean score for 158 students is 29.17 with standard deviation of 9.86, which is low when considering the overall maximum score of 125 for the highest level of awareness regarding the environment.

Hypothesis 1

Comparison of the environmental awareness scores of boy and girl students

A comparison of the means and standard deviations of environmental awareness scores of boy and girl students is shown in table 2 given below:

Hypothesis 2

Comparison of the environmental awareness scores of rural and urban students

A comparison of the means and standard deviations of environmental awareness scores of rural and urban students is shown in table 3 given below:

Hypothesis 3

Comparison of the environmental awareness scores of English and Assamese medium school students

A comparison of the means and standard deviations of environmental awareness scores of English and Assamese medium students is shown in table 4 given below:

English and Assamese Medium Students’ Awareness towards Environment. The Mean Score of Assamese Medium students (34.0) is greater than the mean score of English medium school

students (29.77). It is inferred that Assamese Medium students have a higher level of awareness regarding the environment.

Conclusion

Environmental Awareness is a critical area which can be ignored or neglected only at our own peril. We are already witnessing the effects of global warming on the one side, depletion of natural forests and wild life on the other side. In addition, the high incidence of diseases like cancer that is playing havoc with human lives due to pollution and unregulated use of pesticides is the preventable tragedy of humanity. Water contamination is making it impossible to drink even well water, which itself has its table level reduced. Environmental education is a learning process that increases people's knowledge and awareness about the environment and associated challenges, develops the necessary skills and expertise to address the challenges, and fosters attitudes, motivations, and commitments to make informed decisions and take responsible action (UNESCO, Tbilisi Declaration, 1978). It is this educational process which will ensure continued environmental protection and sustenance.

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