

ATTITUDE OF SCHOOL STUDENTS TOWARDS ENVIRONMENTAL AWARENESS IN BIRBHUM DISTRICT, INDIA

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Abstract

Environmental awareness among students is highly influenced by their background, knowledge, attitude and sensitivity towards the environment. The objectives of this study were to identify the level of concern and attitude towards environmental issues with regard to gender variation and locale variation that are occurring among students of Birbhum district, India. Environmental Awareness Measurement Scale (EAMS) was used for collecting data from a random sample of 181 secondary and senior secondary school students. This standardised tool is meant for measuring attitude towards five specific dimensions of environmental issues. Statistical techniques such as mean, standard deviation and t test were applied for analysis of data. The results revealed that there is significant influence of class of study and locality of the school on the environmental awareness of school students of Birbhum District, India. However, there is no significant difference of environmental awareness among male and female students.

Keywords: Environmental Awareness; Environmental ducation; Attitude; Pollution; Birbhum District.

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1. Introduction

The most disastrous event of this century is the rapid degradation of environment. In the modern era of technology development with the progress of industrialization, urbanization and adoption of modern technologies in agriculture, environmental problems have become a concerning issue for human society. Environmental crises are requiring an environmental awareness which should be deeply rooted in the education system at all levels of school education. Today environmental awareness is a very important topic for discussion and lots of conferences and seminars are being held at various levels. Environmental Education (EE) is a key to the success of any overall environmental strategy. National Policy on Education (1986) emphasizing the role of Environmental Education (EE) says that, “There is a paramount need to create a consciousness of the environment. It must permeate all ages and all sections of the society, beginning with the child. Environmental consciousness should be inculcated into teaching in schools and colleges”.

The environment and energy related problems cannot be solved unless each individual develops an awareness of protection and preservation of the environment, especially students. It is an essential need to increase students’ awareness regarding environment, because the students are the future citizens of our country. In order to hasten students’ awareness towards environment, it is necessary to know what levels of awareness they already possess towards environment. In this connection the present study is to examine the awareness of secondary and senior secondary school students with regard to gender variation and locale variation.

Regarding this, various literatures and review papers were studied by the investigator. The major findings of the most related literatures of the present study were as follows: according to Adejoke *et al* (2014), Ghosh (2014), Khan (2013), Nagra and Kaur (2013) and Mishra (2012), there is no significant difference between environmental awareness of male and female school students of various places; some other studies gave the exact opposite result that female students were more sensitive toward environment than male students (Sengupta *et al*, 2010 and Kose *et al*, 2011); there is significant influence of class of study on the environmental awareness of school students (Gayatri, 2014); the attitude towards EE in relation to locale variation (rural and urban) was found significant (Ghosh, 2014). Following research objectives were taken into consideration:

- To study the attitude of students of different levels towards environmental awareness.
- To find out significant differences, if any, in the level of environmental awareness of senior secondary and secondary school students with regard to gender variation of the students.
- To find out significant differences, if any, in the level of environmental awareness of senior secondary and secondary school students with regard to locale variation of the school.

The investigator had drawn samples randomly from a definite examining body system which has never been explored before by any previous worker from this perspective, *i.e.*, Birbhum district of the state West Bengal, India.

2. Research Method

As per research objectives stated above, the following null hypotheses had been formulated:

H₀₁ There does not exist any statistically significant difference in environmental awareness between secondary and senior secondary students.

H₀₂ There does not exist any statistically significant difference in environmental awareness in secondary and senior secondary students in relation to gender variation.

H₀₃ There does not exist any statistically significant difference in environmental awareness in secondary and senior secondary students in relation to locale variation of school.

Present study was to assess comparatively the environmental awareness of secondary and senior secondary school students with regard to gender variation and locale variation. Hence class and gender of students and locale of school worked as independent variable and attitude toward environmental awareness was dependent variable. This is a descriptive research. Among all the techniques of descriptive research method, normative survey was applied here to collect the sample from government aided schools (of both types- rural and urban) of Birbhum District of West Bengal, India. The sample comprises of 181 students (92 boys and 89 girls) of class IX-X and XI-XII, which is selected using simple random sampling procedure. Ex-post facto research design was followed. Environmental Awareness Measurement Scale (EAMS) constructed by Dr. S. K. Biswas of the University of Burdwan (2014) was used to study the attitude towards environmental awareness in relation to certain variables. The tool consists of 76 questions of

following five dimensions or Environmental issues, viz., cause of pollution (13 questions), conservation of nature (23 questions), energy conservation (11 questions), conservation of human health (16 questions) and environmental action (13 questions). The participants had to indicate whether they agreed to the statement given or not, or they are uncertain about it. It is a Likert type (3- point) scale. Environmental Awareness Measurement Questionnaire booklet was administered on the respondent/ students as per the prescribed norms and conditions. To ensure proper administration of the tool, some precautions, like well ventilation, good sitting arrangement, undisturbed classroom situation etc were taken by the investigator. At first, the students were instructed with necessary information and the investigator puzzled out their doubts. The answer scripts, duly filled by the respondents (students), were collected all at a time. Then they were scored as per the scale manual. A data sheet was prepared from the array of the scores by grouping the students into different categories- class, gender and locale. As per the objectives and hypotheses stated, the scores of the students in relation to all the variables were analyzed.

The delimitations of the study are many due to time constraints and paucity of funds, such as- small sample number, restricted area of application and limited components of the tool.

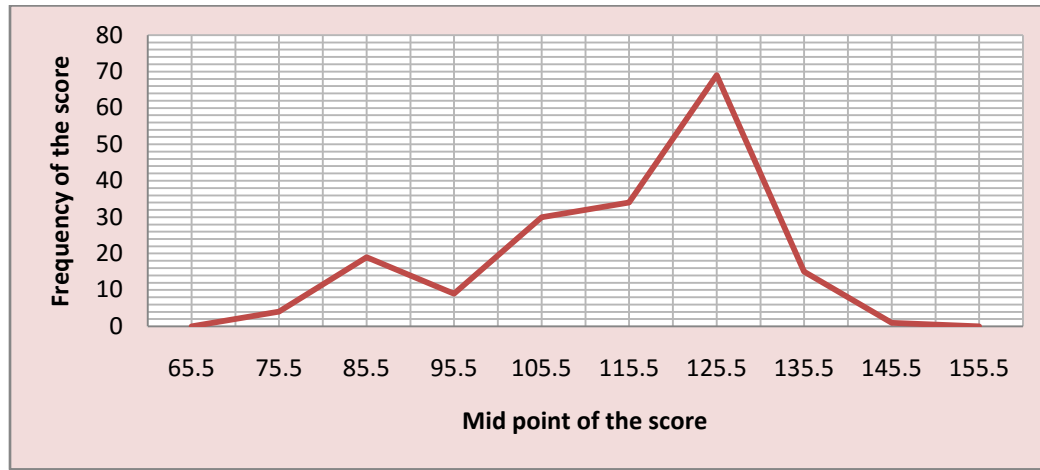
3. Result and Discussion

The main objective of the present investigation is to determine the relative contribution of the predicting variable (Attitude towards Environmental awareness) on the criterion variable (gender and class of the students and locale of the school). Keeping the above purpose in view, the investigator is going to discuss the quantitative aspect under two sub headings: descriptive analysis and inferential analysis.

3.1 Descriptive analysis of the data

The descriptive analysis of the score obtained from the administered questionnaire depicted that mean= 114.45, median= 118.88, mode= 127.74, standard deviation= 15.55, skewness= -9.82 and kurtosis= 0.252. The facial expression of the data denotes that the distribution curve seems to be not normal but approaching to its normal form, negatively skewed and leptokurtic in nature. This

may be due to sampling error caused from various delimitation of the study. A frequency polygon was plotted from the obtained data.



3.2 Inferential analysis of the data

From descriptive analysis, the investigator found that there were variations in the mean score of different sub samples in comparison of the mean score of total sample on Attitude towards environmental awareness among secondary and senior secondary school students. Therefore the inferential analysis of the sub samples was done to test the significant difference between the means. The investigator used 't test' to test the hypotheses.

Table: Summarization of significant difference between mean scores of different sub- samples in environmental awareness

Variations	Sub-samples	No. of Samples	Mean	Standard deviation	$M_1 - M_2$	't'	Remarks
Class of study 1	Secondary	99	107.31	14.891	14.41	7.54	Highly significant at 0.01 level
	Senior secondary	82	121.72	10.792			
Class of study 2	Boys	92	114.196	16.165	0.5175	0.224	Not significant
	Girls	89	114.714	14.857			
Class of study 3	Rural	91	105.214	14.5155	18.42	10.46	Highly significant at 0.01 level
	Urban	90	123.633	8.4058			

3.3 Hypothesis testing:

H_{01} There does not exist any statistically significant difference in environmental awareness between secondary and senior secondary students.

Interpretation: “t” value in environmental awareness between secondary and senior secondary students was found to be 7.54 from the combined table, which was highly significant at the point 0.01 level (critical value of t at a particular degree of freedom= 2.60). So the students of senior secondary schools had more awareness in environmental issues than that of secondary students. Hence, the hypothesis H_{01} is rejected.

H_{02} There does not exist any statistically significant difference in environmental awareness in secondary and senior secondary students in relation to gender variation.

Interpretation: “t” value in environmental awareness between boys and girls among secondary and senior secondary students was found to be 0.224 from the combined table, which was not significant. It can be concluded that male and female students are almost equally environmentally aware. Hence, the hypothesis H_{02} is accepted.

H_{03} There does not exist any statistically significant difference in environmental awareness in secondary and senior secondary students in relation to locale variation of school.

Interpretation: “t” value in environmental awareness between rural schools and urban schools among secondary and senior secondary students was found to be 10.46 from the combined table, which was highly significant at the point 0.01 level (critical value of t at a particular degree of freedom= 2.60). So the students of urban schools had more awareness about environmental action than that of rural students. Hence, the hypothesis H_{03} is rejected.

4. Conclusion

The investigation done by Gayatree (2014) provided the fact that there is significant influence of class of study on the environmental awareness of school students. As H_{01} is seen to be significant, it can be said that the result obtained by the investigator, is in accordance with the

previous study. From the studies done by Mishra (2012), Nagra and Kaur (2013), Khan (2013), Ghosh (2014) and Adejoke (2014) at different places, it was inferred that there is no significant difference between environmental awareness of boys and girls of secondary and senior secondary schools. As H_{02} is seen to be significant, so this is also in accordance with the previous study. But the studies done by Sengupta *et al* (2010) and Kosh *et al* (2011) went against this inference. Ghosh (2014) concluded that the attitude towards environmental education in relation to locale variation (rural and urban) was found significant. As H_{03} is seen to be significant, the result is also in accordance with the previous study.

The investigator found that though the scores obtained from the administered tool (EAMS) in both rural and urban schools of Birbhum District, is not equally distributed but they seem to be approaching near the normal form and claimed that the deviation appeared due to sampling error. Again it can be concluded that there is significant difference between attitude towards environmental awareness of secondary- senior secondary students and students of rural schools-urban schools. But there is no significant difference between attitude towards environmental awareness of male and female students.

So the recommendation should be like this,

- i. If the content, which the students interact with, is not regularly updated, it would be a matter of concern. So, it is recommended that there should be an updation in the curriculum related with environmental education of secondary and senior secondary schools, in order to reflect the current and emergent environmental concepts and problems.
- ii. The study found that student of rural schools did not perform well in the test. This ensures that students are not well aware. The classroom practices, therefore, need to improve awareness about environmental problems. Eventually it will arouse students' concern. More innovative and proper methods and techniques in teaching of EE need to be used.
- iii. It is recommended that the Government through the relevant ministry should come up with a clear policy framework to ensure that the students not only gain knowledge, but also skills. So that students can participate in environmental activities..
- iv.

In this study, the researcher has taken a small part of concern from a vast area of Environmental Awareness. Investigator felt for further investigation on or related problems of Environmental Awareness should be as follows:

1. Factors that affect students' level of environmental awareness and attitude towards it.
2. A survey of teaching methodology used in secondary as well as senior secondary and how effective they are in achieving the goals of Environmental Education.
3. The relationship between Environmental education and the level of environmental awareness, attitudes and participation in environmental activities among students.
4. The researcher had to confine her study within only four schools from Birbhum District. Further Research can be done on large area, on a large sample.

5. References

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