

Awareness of Environmental Pollution among Secondary Level Learners in Nadia District, West Bengal

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Abstract

According to the The Hon'ble Supreme Court's direction towards Environmental Education that an awareness of the environment and its protection should be taught as a compulsory subject in school syllabus. As a result an impact has already been noticed on learner towards Environmental Issues. In this connection researchers have taken the present paper aimed at measuring the awareness of secondary level learner towards environmental pollution in Nadia district, West Bengal, India. A survey of 300 sample from rural and urban (rural-150 & urban- 150) was selected for the study. One principle variable- 'awareness towards environmental pollution' was considered. Five null hypotheses were framed for the study. One questionnaire which consists of 30 multiple choice type questions of five different dimension of pollution indicator was framed for measuring awareness of environmental pollution among secondary students. Test-retest method was used for estimated the reliability of the tool. Mean and SD as Descriptive Statistics, and 't' test as Inferential Statistics were employed to find out the significance difference among the gender towards environmental pollution. Finally they found significant difference from two null hypotheses. And the awareness level scores were significantly higher in case of urban male and female students.

Keywords- Environmental awareness, Environmental pollution, Secondary level students.

1.1 Introduction:

Due to the present worldwide modernization and industrial revolution, environmental pollution is spreading rapidly around the world. Specially, environmental pollution spreads widely among the over populated countries. India is one of the most overcrowded and polluted country where the main cause of pollution is manmade. There are several aspects in which our environment is being polluted-through air, water, sound, soil etc. The effects of the pollution from these elements are increasing day by day. So, it is necessary to safe our environment from pollution for our own sack. And awareness towards environmental pollution can be helpful to remove this vital problem. For the permanent solution of this problem, we have to inculcate environment pollution related knowledge and awareness among our new generation. Hence, the present school syllabi of West Bengal prescribe that all school subjects should be taught in relation with the issue of environment. In this context, Researchers presenting this paper aims to find out the awareness of secondary school level learners towards environmental pollution. Researchers also try to find some related reliable literature review. Sengupta, S., Das,J. & Maji,P.K. () studied on

“Environmental Awareness and Environment related Behavior of Twelfth Grade Students in Kolkata: Effects of Streams and Gender”, where they found a significant relationship between the two variables has been observed and science students’ scores on environmental awareness and behavior were less than that of arts students. After reviewing the literature Researchers considered the title of this study as- “Awareness of Environmental Pollution among Secondary Level Learners in Nadia District, West Bengal”.

1.2 Review of related literature

The following review had been done considering the relevancy of the study-

Bharambe, I.T (2013), in her study “*Environmental Awareness among secondary school students*” tried to find out Environmental Awareness among secondary school students in the rural and urban areas. For this Research, Researchers had used survey method and collected 304 samples applying multistage sampling method. Researchers selected Questionnaire tool and finally he found that – There was no significant difference among secondary school students of Environmental Awareness and there was no significant difference among secondary school students both of rural and urban areas of the Environmental Awareness.

Austalin, P.K. (2011), in the study “*A study of Environmental Awareness among Higher secondary student and some Educational Factors Affecting it*” had explain environmental awareness among different level and grade of students. The objectives of the study were to find out the differences of environmental awareness among the 11th and 12th class level students, environmental awareness among the Arts and Science group students and environmental awareness among the CBSE and UP Board students. In this Research, Researchers used Descriptive survey method and collected data from 608 samples. And finally he found that there is no significant difference among the 11th and 12th class level students, and there is significant difference among the Arts and Science group students, and lastly there is significant difference among the CBSE and UP Board students.

Larijani, M (2010) in his work “*Assessment of Environment Awareness Among Higher Primary School Teachers*” had selected the objectives to find out the difference Environmental awareness among male and female teachers of High primary school and the Environmental awareness among private and Government school teachers. Researchers used Descriptive survey method and collected data from 300 samples (136 male, 164 female). Researchers selected Questionnaire

as a tool and concluded that female teacher has more awareness than male teachers of High primary school and Private school teachers are more aware than Government school teachers.

Kulasekare, S & Pillai, P (2012) conducted a research on “*A study of Environmental awareness of Higher secondary school in Cuddalore District*”. The main objectives were to find out the differences between Environmental awareness of male and female students of H.S school, Environmental awareness of rural and urban students of H.S school, Environmental awareness of Arts and Science group students of H.S school. Researchers considered the survey method and collected 820 samples using random sampling method. Researchers selected Questionnaire as a tool and found that there was a significant difference existed between male and female students, and also rural and urban students regarding environmental awareness. It was also found that science group students are more environmentally aware than Arts group students.

1.3 Objectives: The objectives of the study are as follows:

- To compare the awareness level between the rural students and urban students of secondary school towards the environmental pollution.
- To compare the awareness level between the male students and female students of secondary school towards the environmental pollution.

1.4 Null Hypothesis:

On the basis of Research objectives, Researchers framed the following null hypotheses-

HO.1 There exist no significant mean difference in awareness level towards environmental pollution between the rural students and urban students of secondary school.

HO.2 There exist no significant mean difference in awareness level towards environmental pollution between the rural male students and rural female students of secondary school.

HO.3 There exist no significant mean difference in awareness level towards environmental pollution between the urban male students and urban female students of secondary school.

HO.4 There exist no significant mean difference in awareness level towards environmental pollution between the rural male students and urban male students of secondary school

Ho₅ There exist no significant mean difference in awareness level towards environmental pollution between the rural female students and urban female students of secondary school.

1.5 Methodology:

To conduct the present research successfully the Researchers has employed the descriptive research method and its approach is Quantitative for measuring the Awareness of Environmental Pollution among Secondary Level Learners in Nadia District.

1.5.1 Variables: Awareness about environmental pollution among Secondary Level Learners was considered as the variable in this study.

1.5.2 Sample: Total 300 sample has taken for the present study where 150 student were rural (75 boys & 75 girls) and 150 student were urban (75 boys & 75 girls) from the secondary level school.

1.5.4 Tools: One questionnaire has been prepared for measuring awareness of learner towards environmental pollution.. This questionnaire consisted of 30 questions or items from 5 different dimensions. The tool was standardized by applying Test-retest method and Content validity.

1.5.6 Statistical procedure:

For this present study, Mean, SD (Descriptive stat) and t test, (Inferential stat) were employed and also 0.05 level of significance was used to test the hypotheses. Data was taken according two different strata, like class IX students, class XI students.

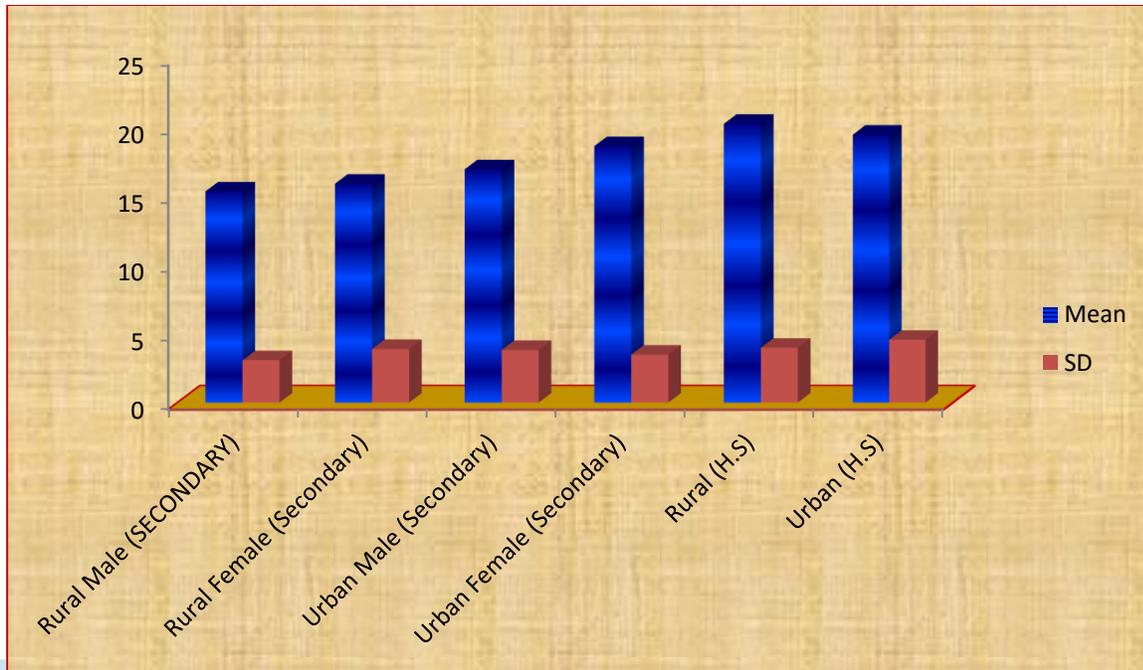
1.6 Analysis and Interpretation:

The mean and SD of the scores of the students is shown in table-A.

Table-A: Scores of the students in the awareness towards environmental pollution-

Group	Category	Sample No.	Mean	S.D
Rural students (secondary)	Male	62	15.35	3.09
	Female	48	15.91	3.91
Urban(secondary)	Male	66	16.95	3.84
	Female	61	18.63	3.5
Rural (H.S)	M + F	30	20.25	4
Urban (H.S)	M + F	30	19.46	4.58

Fig-1: Graphical representation of statistical data



For this study Researchers used different descriptive and inferential statistics after collecting data. Then he confirmed the assumptions regarding using parametric test. After that the collected data were analyzed by applying t-test.

Table-1. Environmental pollution awareness between the rural and urban student.

Group	N	Mean	S.D	Total df	t-value
Rural (Male + Female)	30	20.25	4	56	0.70
Urban (Male + Female)	30	19.46	4.58		

In case of the 1st null hypothesis, the value of t is 0.70. This value is not significant here. The null hypothesis is, therefore, acceptable. The conclusion is: There is no significant difference between the rural higher secondary level students and urban higher secondary level students of the environmental pollution awareness.

Table-2. Environmental pollution awareness between the rural male and rural female student.

Group	N	Mean	S.D	Total df	t-value
Rural Students (male)	62	15.35	3.09	108	0.817

Rural Students (female)	48	15.91	3.91		
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In case of the 2nd *null hypothesis* the value of t is 0.817. This value is not significant here. Therefore, the 2nd *null hypothesis* is acceptable. The conclusion is: There is no significant difference between the rural male secondary level students and the rural female secondary level students of the environmental pollution awareness.

Table-3. Environmental pollution awareness between the urban male and urban female student.

Group	N	Mean	S.D	Total df	t-value
Urban Male	66	16.95	3.84	125	2.608
Urban female	61	18.63	3.5		

*Sig. at 0.05 level

In case of the 3rd *null hypothesis* the value of t is 2.608. The table-value is 1.98 at the level of 0.05. Therefore, the test is significant and the *null hypothesis* is rejected. Therefore, the conclusion is: There is significant difference between the urban male secondary level students and the urban female secondary level students of the environmental pollution awareness.

Table-4. Environmental pollution awareness between the rural male and urban male student.

Group	N	Mean	S.D	Total df	t-value
Rural Male	62	15.35	3.09	126	2.605
Urban Male	66	16.95	3.84		

*Sig. at 0.05 level

In case of the 4th *null hypothesis*, the value of t is 2.605. The table value is 1.98 at the level of 0.05. Therefore, the test is significant and the null hypothesis is rejected. Therefore, the conclusion is: There is significant difference between the rural male secondary level students and urban male secondary level students of the environmental pollution awareness.

Table-5. Environmental pollution awareness between the rural female and urban female student.

Group	N	Mean	S.D	Total df	t-value
Rural Female	48	15.91	3.91	107	3.78
Urban Female	61	18.63	3.5		

*Sig. at 0.05 level

In case of the 5th null *hypothesis*, the value of *t* is 3.78. This value is not significant here. The *null hypothesis* is, therefore, accepted. The conclusion is: There is no significant difference between the rural female secondary level students and urban female secondary level students of the environmental pollution awareness.

1.7 Interpretation:

Researchers fined the following findings after statistical analyzing and interpreting data-

- No significant difference was found in the mean scores of awareness of rural and urban students towards environmental pollution. But, the awareness level scores were significantly higher in case of rural students.
- No significant difference was found in the mean scores of awareness of rural male and rural female students towards environmental pollution. But, the awareness level scores were significantly higher in case of rural female students.
- Significant difference exists in the mean scores of awareness of urban male and urban female students towards environmental pollution. Wherein; the awareness level scores were significantly higher in case of urban female students.
- Significant difference exists in the mean scores of awareness of rural male and urban male students towards environmental pollution. Wherein; the awareness level scores were significantly higher in case of urban male students.

- No significant difference was found in the mean scores of awareness of rural female and urban female students towards environmental pollution. But, the awareness level scores were significantly higher in case of urban female students.

1.8 Conclusion:

Present study provides to know the awareness level of secondary school students towards environmental pollution. After finishing the statistical analysis Researchers has reached in the generalization. The final results indicated that there is significant difference in the awareness level of students towards environmental pollution. The overall finding shows that no difference in the awareness level of rural students and the urban students. But urban male and female are more aware than rural male and female towards environmental pollution. Same result were found in the study of Prashant Kumar Austali (2011). He study on “A study of Environmental Awareness among Higher secondary student and some Educational Factors affecting it” and found that male student are more aware than the female students towards environment. So, in these perspectives, the present study is relevant in the real context.

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