Awareness of Environmental Pollution and Environment friendly behavior of College Students: A case study

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Abstract

Pollution is one of the main causes of environmental degradation. Proper awareness regarding environmental pollution and environment friendly behaviour is necessary for protecting the environment. The objectives of this paper were to find out the awareness level of college students regarding environmental pollution and also to identify the environment friendly behaviour of college students. It was a descriptive survey type case study and researchers had conducted a survey on 346 sample {185 science students (102 boys & 83 girls) and 161 non science students (51 boys & 110 girls)} of a college of West Bengal. Two separate questionnaires consisting of 25 questions (each) were constructed by the researchers for the study. Questions were framed from 6 different dimensions of pollution, viz., air, water, sound, soil, plastic, and visual. Two different strata, viz., stream of subject (Science& Non Science), and gender (Boys & Girls) were considered for data analysis. Descriptive statistics like- Mean, SD and inferential statistics like 't' test were applied for data analysis. After statistical data analysis, researchers found significant differences in three null hypotheses out of seven. Results show that science students are more aware than the non-science students & the girls have more environment friendly behaviour than boys.

Key words: Environmental awareness, Environment friendly behaviour, Environmental pollution, Non-science students.

1.1 Introduction

Our Environment is our asset, because the existence of human life is conditional on the alive of environment. Human beings are mainly responsible for the demolition of the environment. In the present situation, environment is victimized by the high aspiration and high desire of human being towards modern life style, which is not at all environment friendly. If we want to extent the longevity of our civilization, we need to be more aware of our environment with acquiring Environment friendly behaviour. It is very essential to inculcate this concept among the young generation for our own sake. In this connection, researchers have to take endeavour to find out whether the awareness level of college students towards their environment and environment related issues like- different hazards, pollution etc. are sufficient? Whether their behaviour is pro-environmental i.e are they environment friendly? Researchers have reviewed many related literature on environmental awareness and environment friendly behaviour. Anbalagan,G. & Shanthi,K. (2015) studied on 'A study on Environmental awareness and related practices among the high school students at Madurai district'. The main objectives are to analyse the level of environmental awareness of high school students and to identify the Environment friendly practice of school students. It was a field study and researchers conducted a survey on 600 sample in Madurai district. Quantitative method was used for data analysis. After the statistical data analysis, researchers found that the environmental awareness of girls is higher than of boys. Though environment related issues are included in the school subject, but more practice is needed to foster environmental awareness. Girls are more interested than boys with respect to practicing Environment friendly behaviour. Heyl,M., Diaz,E.M. & Cifuentes,Y.L. (2013) in their study 'Environmental attitudes and behaviours of college students: a case study conducted at a chilean University' aimed at to find out the environmental attitude and environmental behaviour of college students towards their environment. A survey was conducted by the on 383 sample from engineering students of 1st, 3rd& 6th year. After data analysis, researchers found positive attitude towards environment and pro-environmental behaviour of engineering students.

Considering different literature review, researchers have taken this present study titled 'Awareness & Behavior regarding Environmental Pollution of College Students: A case study'.

1.2 OBJECTIVE OF THE STUDY:

Following are the objectives of the study:

- To measure the awareness of environmental pollution of college students.
- To measure the environment friendly behaviour of college students.
- To find out the differences of awareness of environmental pollution and environment friendly behaviour among different strata of college students.

1.3 HYPOTHESIS OF THE STUDY:

Following null hypotheses are framed for the study:

$H_{0.1}$: There exists no significant mean difference of awareness of environmental pollution between science and non-science college students.

$H_{0.2}$: There exists no significant mean difference of awareness of environmental pollution between boys and girls of college students.

$H_{0.3}$: There exists no significant mean difference of awareness of environmental pollution between Science boys and Science girls of college students.

$H_{0.4}$: There exists no significant mean difference of awareness of environmental pollution between Non-Science boys and Non-Science girls of college students.

$H_{0.5}$: There exists no significant mean difference of Environment friendly behaviour between science and non-science college students.

$H_{0.6}$: There exists no significant mean difference of Environment friendly behaviour between boys and girls of college students.

$H_{0\ .7}$: There exists no significant mean difference of Environment friendly behaviour between Science boys and Science girls of college students.

1.4 METHODS OF THE STUDY

Descriptive and case study method was used for this study. Procedure of data collection of data and analysis was quantitative in nature.

1.5.1 Variables: Awareness of environmental pollution and Environmental behaviour of college level students were considered as the variables in this study. Two classificatory variables (Gender and Stream) were considered to categorise the data in different strata.

***1.5.2 Sample*:** It is a case study. The research has selected the population from Nadia district in West Bengal. Researchers selected one college (Kalyani Mahavidyalaya) for their sample. Researchers selected total 346 sample where 185 Science students (102 boys & 83 girls) and 161 Non science students (51 boys & 110 girls) from the mentioned college.

***1.5.3 Tools*:** Two set of questionnaires were prepared by the researchers for measuring awareness level and environment friendly behaviour of college. Awareness measuring questionnaire consisted of 25 items from 6 different dimensions of pollution, viz., air, water, sound, soil, plastic, and visual. Environmental behaviour measuring questionnaire was also consisted of 25 items. Five point scales was used as answer key for this questionnaire.

1.5.4 Statistical procedure:

Researchers were used two type of statistics (Descriptive & Inferential) for the present study. Mean, SD were used as descriptive statistics and t-test was used as inferential statistics. 0.05 level of significance were used for testing the research hypotheses. Data was collected according to four different strata, viz., Science & Non Science, Boys & Girls.

1.5 ANALYSIS AND INTERPRETATION

After the data analysis, Researchers have presented the following analytical description of data –

Table- 1: Presentation of scores

Sl no	Strata		Awareness of pollution (AP)	Environment friendly Behaviour (EFB)
1	Total Science	N	185	185
		M	17.45	62.54
		SD	2.39	7.48
2	Total Non-Science	N	161	161
		M	15.44	62.04

		SD	2.76	5.06
3	Total Boys	N	153	153
		M	16.97	61.80
		SD	2.93	6.59
4	Total Girls	N	192	192
		M	16.11	62.97
		SD	2.67	4.73
5	Science Boys	N	102	102
		M	17.48	62.73
		SD	2.82	6.81
6	Science Girls	N	83	83
		M	34.60	62.90
		SD	4.27	5.12
7	Non Science Boys	N	51	51
		M	15.96	59.96
		SD	2.90	5.79
8	Non Science Girls	N	109	109
		M	15.10	63.03
		SD	2.99	4.42

Researchers considered t-test for testing the hypotheses. The hypothesis wise data analysis and interpretation were presented below:

$H_{0.1}$: There exists no significant mean difference of awareness of environmental pollution between science and non-science college students.

Table-2: t-value presentation of Science students and Non-Science students

EA	N	MEAN	S.D.	df	t-value
Science students	185	17.45	2.39	344	7.19**
Non-Science students	161	15.44	2.76		

** significant at 0.01 level

The t-value is significant and the corresponding null hypothesis (**$H_{0\cdot1}$**) is rejected. Therefore it can be interpreted that there exists significant difference of awareness of environmental pollution between science and non-science college students

$H_{0.2}$: There exists no significant mean difference of awareness of environmental pollution between boys and girls of college students.

Table-3: t-value presentation of boys and girls students

EA	N	MEAN	S.D.	df	t-value
Boys	153	16.97	2.93	344	2.77*
Girls	193	16.11	2.67		

* significant at 0.05 level

The t-value is significant and the corresponding null hypothesis (**$H_{0\cdot2}$**) is rejected. Therefore it can be interpreted that there exists significant difference of awareness of environmental pollution between boys and girls of college students.

$H_{0.3}$: There exists no significant mean difference of awareness of environmental pollution between Science boys and Science girls of college students.

TABLE:4 t-value presentation of Science boys and Science girls students

EA	N	MEAN	S.D.	df	t-value
Science boys	102	17.48	2.82	183	31.13**
Science girls	83	34.60	4.27		

** significant at 0.01 level

The t-value is significant and the corresponding null hypothesis (**$H_{0\cdot3}$**) is rejected. Therefore it can be interpreted that there exists significant difference of awareness of environmental pollution between Science boys and Science girls of college students.

$H_{0.4}$: There exists no significant mean difference of awareness of environmental pollution between Non-Science boys and Non-Science girls of college students.

TABLE:5 t-value presentation of Non-Science boys and Non-Science girls students

EA	N	MEAN	S.D.	df	t-value
Non-Science boys	51	15.96	2.90	159	1.76
Non-Science girls	110	15.10	2.99		

Insignificant

The t-value is insignificant and the corresponding null hypothesis (**$H_{0.4}$**) is accepted. Therefore it can be interpreted that there exists no significant difference of awareness of environmental pollution between Non-Science boys and Non-Science girls of college students.

$H_{0.5}$: There exists no significant mean difference of Environment friendly behaviour between science and non-science college students.

TABLE:6 t-value presentation of Science students and Non-Science students

EB	N	MEAN	S.D.	df	t-value
Science students	185	62.54	7.48	344	0.74
Non-Science students	161	62.04	5.06		

Insignificant

The t-value is insignificant and the corresponding null hypothesis (**$H_{0.5}$**) is accepted. Therefore it can be interpreted that there exists no significant difference of awareness of environmental pollution between science and non-science college students.

$H_{0.6}$: There exists no significant mean difference of Environment friendly behaviour between boys and girls of college students.

TABLE: 7 t-value presentation of boys students and girls students

EB	N	MEAN	S.D.	df	t-value
Boys	153	61.80	6.59	344	1.86
Girls	193	62.97	4.73		

Insignificant

The t-value is insignificant and the corresponding null hypothesis ($H_{0\cdot6}$) is accepted. Therefore it can be interpreted that there exists no significant difference of awareness of environmental pollution between boys and girls of college students.

$H_{0\ .7}$: There exists no significant mean difference of Environment friendly behaviour between Science boys and Science girls of college students.

TABLE:8 t-value presentation of Science boys and Science girls students

GROUP	N	MEAN	S.D.	df	t-value
Science boys	102	62.73	6.81	183	0.19
Science girls	83	62.90	5.12		

Insignificant

The t-value is insignificant and the corresponding null hypothesis ($H_{0\cdot7}$) is accepted. Therefore it can be interpreted that there exists no significant difference of awareness of environmental pollution between Science boys and Science girls of college students.

1.6 FINDINGS OF THE STUDY:

After interpretation of data researchers revealed the following findings:

- There exists significant mean difference of awareness regarding environmental pollution between Science students and Non-Science College students. The awareness of Science students are higher than Non-Science students.
- There exists significant mean difference of awareness regarding environmental pollution between boys and girls of College students. The awareness of boys are higher than girls.
- There exists significant mean difference of awareness regarding environmental pollution between Science boys and Science girls of College students. The awareness of Science girls are higher than Science boys.
- There exists no significant mean difference of awareness regarding environmental pollution between Non-Science boys and Non-Science girls of College students. The awareness of Non-Science boys are higher than Non-Science girls.

- There exists no significant mean difference of Environment friendly behaviour between Science and Non-Science College students. The Environment friendly behaviour of Science students are good than Non-Science students.
- There exists no significant mean difference of Environment friendly behaviour between boys and girls of College students. The Environment friendly behaviour of girls are good than boys.
- There exists no significant mean difference of Environment friendly behaviour between Science boys and Science girls of College students. The Environment friendly behaviour of Science girls are good than Science boys.

1.7CONCLUSION

This study measures the level of Environment awareness and Environment friendly behaviour of college students. After the statistical data analysis, researchers found over all good Environmental awareness among students and also good Environment friendly behaviour of college students. Researchers found 11 significant results among 16 null hypothesis. Awareness level of total science students are higher than the Non-Science students. And, Awareness level of total boys are higher than the girls. Environment friendly behaviour of total science students are higher than the Non-Science students. But, Environment friendly behaviour of total girls are higher than total boys. Researchers found similar interpretation at the study of Barman,N. (2015). 'A comparative study of Environmental awareness among secondary level students'. Barman,N. found from one hypothesis that, female of govt. &Assamia school are more aware towards Environment than the boys. In the study of Anbalagan,G. &Shanthi,K. (2015). titled 'A study on Environmental awareness and related practices among the high school students at Madurai district' also found that girls are more aware than boys regarding the issues of Environment and also girls are more interested to practice Environment friendly behaviour. In this connection the present study is relevant in the present perspectives.

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