A Study of Environmental Awareness among Higher secondary School Students

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Introduction

Environmental awareness is understanding the fragility of our environment and the importance of protecting it. Promoting environmental awareness is an easy way to become environmental stewards and participate in creating a brighter future for our children. One of the most compelling reasons to study environmental science and management is the fact that, in the view of many leading authorities, we are now experiencing an environmental crisis; Indeed, many authors have claimed that the current environmental crisis is unprecedented in its magnitude, speed and intensity. As a result, a wide range of environmental problems have arisen; Those problems include anthropogenic climate change ('global warming'), depletion of stratospheric ozone ('ozone hole'), acidification of surface waters ('acid rain'), destruction of tropical forests, species depletion and extinction. , and drastic reduction of biodiversity. However, while all these problems have physical (environmental) manifestations, their causes - and their possible solutions - are always tied to human attitudes, beliefs, values, needs, desires, expectations and behaviour. To avoid destruction of our environment every person should be aware about environment. In present study, the researcher investigated environmental awareness of secondary school students.

Environmental Problems

Now days, environmental problems have formed a severe situation for our planet. That's why all problems known as environmental crisis. There is broad agreement that an environmental crisis encompasses the following key issues.

- Climate change

- Stratospheric ozone depletion

- Degraded air quality

- Degraded water quality

- Scarcity of fresh water

- Land contamination

- Deforestation

- Soil erosion and degradation

- Land use change and habitat loss

- Biodiversity loss

Objectives of the Study

Objectives of present study are as follow.

1. To study environmental awareness among secondary school students.

2. To study environmental awareness among secondary school students in the context of area of schools.

3. To study environmental awareness among secondary school students in the context of grade.

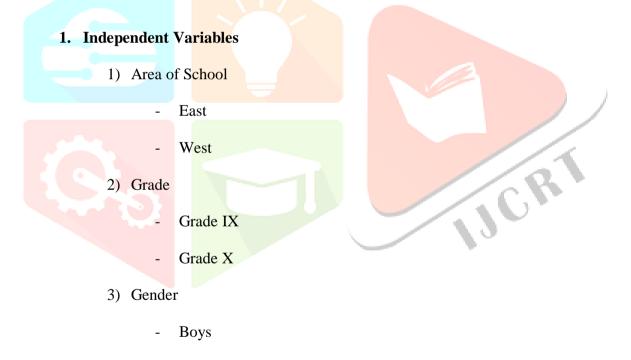4. To study environmental awareness among secondary school students in the context of gender.

Hypotheses

The researcher constructed null hypotheses for present study which are as follow.

$H0_1$ There is no significant difference between mean scores of Environment Awareness Test obtained by students of east and west area of Ahmedabad city.

$H0_2$ There is no significant difference between mean scores of Environment Awareness Test obtained by students of Grade IX and Grade X.

$H0_3$ There is no significant difference between mean scores of Environment Awareness Test obtained by boys and girls.

Variables of the Study

The researcher defined independent and dependent variables as mentioned below.

1. **Independent Variables**

   1) Area of School
      - East
      - West
   2) Grade
      - Grade IX
      - Grade X
   3) Gender
      - Boys
      - Girls

2. Dependent Variable

Score of Environment Awareness Test is dependent variable.

Limitations

Limitations of present study are as follow.

1. Present study was conducted on a selected sample of secondary schools of academic year 2022-23.

2. A random sample was selected from secondary schools of Ahmedabad city.

3. The researcher constructed Environment Awareness Test and used for data collection.

Research Method

Research methods refer to the tools that one uses to conduct research. For present study, the researcher had to collect data from a randomly selected sample of secondary school students of Ahmedabad city. For this purpose, the researcher used descriptive survey method. A survey method use to study the sample of individual units selected from a population and associated with techniques of survey data collection.

Research Tool

Environment Awareness Test was used as a data collection tool for this study. The test was constructed by researcher. It has 30 questions having four responses for each. Each question was of multiple choice. Out of four responses, only one response was correct, other three responses were incorrect. Thus, it was a test of 30 marks.

Sample of the Study

The researcher randomly selected secondary 6 schools from east and west area from Ahmedabad city. All students studying in Grade IX and Grade X in selected schools had been chosen as a final sample. Thus, in selection of students, cluster sampling technique was used. The final sample of study is drawn in Table 1.0.

Table 1.0
Sample of the Study

Area	East		West		Total
Grade/Gender	Grade IX	Grade X	Grade IX	Grade X	
Boys	37	41	38	38	154
Girls	34	35	42	32	143
Total	71	76	80	70	297
	147		150		

Procedure of Data Collection

The researcher visited selected schools for data collection. Necessary procedure for permission of principals were completed before data collection. The researcher gave Environment Awareness Test to the students of Grade IX and Grade X. Before giving test, the researcher briefly explained about awareness test. After test, answer sheets were collected, checked later and used scores for data analysis.

Data Analysis

The researcher constructed three hypotheses as mentioned above. These hypotheses were checked using t-tests. The results of t-tests are presented in tables below.

$H0_1$ There is no significant difference between mean scores of Environment Awareness Test obtained by students of east and west area of Ahmedabad city.

Table 2.0
Mean score, standard deviation and t-value for hypothesis $H0_1$

Area	N	Mean	SD	SED	t	Significance
East	147	15.20	5.28	0.61	7.73	0.01
West	150	19.88	5.16			

df	0.05	0.01
295	1.97	2.59

Above table shows result of t-test for hypothesis $H0_1$. The calculated t-value is 7.73 while table t-values for df=295 are 1.97 at 0.05 level and 2.59 at 0.01 level. Calculated t-value is more than table t-values at both levels. Thus, hypothesis is rejected and there is a significant difference between mean score of Environment Awareness Test obtained by students of east and west area. Moreover,

mean score of students of west area is more than mean score of students of east area. Therefore, it is revealed that the students of west area have more environment awareness than students of east area.

H0₂   There is no significant difference between mean scores of Environment Awareness Test obtained by students of Grade IX and Grade X.

Table 3.0
Mean score, standard deviation and t-value for hypothesis H0₂

Grade	N	Mean	SD	SED	t	Significance
Grade IX	151	15.97	5.12	0.61	5.16	0.01
Grade X	146	19.10	5.32			

df	0.01	0.05
295	1.97	2.59

Above table shows result of t-test for hypothesis H0₂. The calculated t-value is 5.16 while table t-values for df=295 are 1.97 at 0.05 level and 2.59 at 0.01 level. Calculated t-value is more than table t-values at both levels. Thus, hypothesis is rejected and there is a significant difference between mean score of Environment Awareness Test obtained by students of Grade IX and Grade X. Moreover, mean score of students of Grade X is more than mean score of students of Grade IX. Therefore, it is revealed that the students of Grade X have more environment awareness than students of Grade IX.

H0₃   There is no significant difference between mean scores of Environment Awareness Test obtained by boys and girls.

Table 4.0
Mean score, standard deviation and t-value for hypothesis H0₁

Gender	N	Mean	SD	SED	t	Significance
Boys	154	17.89	5.31	0.61	1.16	0.05
Girls	143	17.19	5.13			

df	0.01	0.05
295	1.97	2.59

Above table shows result of t-test for hypothesis $H0_3$. The calculated t-value is 1.16 while table t-values for df=295 are 1.97 at 0.05 level and 2.59 at 0.01 level. Calculated t-value is more than table t-values at both levels. Thus, hypothesis is not rejected and there is no significant difference between mean score of Environment Awareness Test obtained by boys and girls. Therefore, it is revealed that boys and girls have equal environment awareness.

Major Findings

On the basis of above statistical analysis following findings are deduced.

1. The students of west area have more environment awareness than students of east area.
2. The students of Grade X have more environment awareness than students of Grade IX.
3. Boys and girls have equal environment awareness.

Conclusion

In present study, the researcher investigated awareness of secondary school students of Ahmedabad city towards environment. The researcher selected a random sample of secondary school students from Ahmedabad city. They were given an Environment Awareness Test which was constructed by researcher. After analysis it was revealed that the students of west area have more environment awareness than students of east area. It was also revealed that students of Grade X have more environment awareness than students of Grade IX. No gender effect was found on awareness of students towards environment.

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