

Study Of Scientific Awareness Of Environment Of Students Under Science Faculty In Relation To Certain Variables

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Abstract

This paper is focused on the assessment on the scientific awareness of environment of college students of Ahmedabad district. These students belong to Science faculty only. The researcher used normative survey method for the research. The sample consists of 171 students from C. U. Shah College in Ahmedabad District. Simple random sampling technique has been used for selection of sample. The researcher used a self-developed questionnaire Environmental Scientific Awareness Test for assessment. t-test statistical technique is used for analyzing the data.

Keywords: Scientific Awareness, Environment, Science Faculty

Introduction

Conservation of Environment is a mandatory responsibility of every human kind. Environmental awareness play a vital role for providing a sense of responsibility in every child from very beginning of their schooling or even

prior to it. Environmental Education is to make people aware about the impact to be faced after any natural catastrophe for which we are responsible directly or indirectly.

So, Environmental awareness is essential to understand the commitment of every mankind towards nature and find for all environmental issues and to prevent new issues to arise.

1. Emergence of the Problem

As we daily see so many catastrophic impact of the environmental imbalances for which mankind is responsible. So, it is essential for the present scenario to understand the level of awareness people have for better environment for future generations. Moreover, there is need of the hour that it is not known how much aware are the students about the environment in scientific manner.

2. Statement of the Problem

*A Study of Scientific Awareness of
Environment of Students
under Science Faculty in relation to Certain
Variables.*

3. Objective of the Study

- (a) To study the scientific awareness of environment among college students of Science Faculty in relation to Gender.
- (b) To study the scientific awareness of environment among college students of Science Faculty in relation to subjects.
- (c) To study the scientific awareness of environment among Boys studying Mathematics and Boys studying Chemistry.
- (d) To study the scientific awareness of environment among Girls studying Mathematics and girls studying Chemistry.
- (e) To study the scientific awareness of environment among Boys studying Mathematics and Girls studying Chemistry.
- (f) To study the scientific awareness of environment among Girls studying Mathematics and Boys studying Chemistry.

4. Hypotheses of the Study

Ho₁ There is no significant differences in mean scores of the environmental scientific awareness in relation to Gender.

5.

(b)

(c)

(a)

Ho₂ There is no significant differences in mean scores of the environmental scientific awareness in relation to Subject.

Ho₃ There is no significant differences in mean scores of the environmental scientific awareness among Boys studying Mathematics and Boys studying Chemistry.

Ho₄ There is no significant differences in mean scores of the environmental scientific awareness Girls studying Mathematics and Girls studying Chemistry.

Ho₅ There is no significant differences in mean scores of the environmental scientific awareness among Boys studying Mathematics and Girls studying chemistry.

Ho₆ There is no significant differences in mean scores of the environmental scientific awareness among Girls studying Mathematics and Boys studying Chemistry.

Delimitation of the Study

The study is limited to C. U. Shah College, Ahmedabad only.

A self standardised tool is used for research, so limitations of tools are limitations for study also.

The study is limited to Ahmedabad city.

Methodology

Variable of the Study

Dependent Variable for this study is Scientific Awareness of Environment. It is the process of knowing about environment, environmental pollution and different ways of

environmental conservation with a scientific purview.

The **Independent Variables** for this study are mentioned below:

Table: - 7.1

Sr. No.	Independent Variables	Level	
1	Gender	Boys	Girls
2	Subject	Mathematics	Chemistry

(b) **Population of the Study**

All the science faculty students of colleges in Ahmedabad city of Gujarat.

(c) **Sample of the Study**

The sample was drawn from bachelor students of C. U. Shah Science College situated in the city of Ahmedabad. In the present study, random sampling was done. The present sample comprises 171 students comprising both girls and boys.

(d) **Tools used in the Study**

Environmental Scientific Awareness Test (ESAT)

This self-prepared tool consists of questions related to environmental awareness, environmental conservation and our responsibility towards nature. The environmental awareness means to understand the environmental problems and to develop a critical

thinking and accountability of people towards nature, flora and fauna. The researchers developed questionnaire after necessary review of literature related to study. The researcher developed **Environmental Scientific Awareness Test (ESAT)** consisting of 50 questions related to scientific awareness of environment. All the questions of the **Environmental Scientific Awareness Test (ESAT)** are of multiple choice types. For each question one mark is allotted. The total marks for the **Environmental Scientific Awareness Test (ESAT)** is 50.

The student has to identify the most appropriate answer among the choices given and tick mark against the suitable answer. Content validity of the tools was carried out by experts of the fields and reliability was tested by Split Half Method and it was found as 0.78.

(e) **Procedure**

This is a survey type descriptive research in which case the researcher seeks to understand the relationship between dependent and independent variable. The design of the study is a 2x2 simple factorial design.

7. Data Collection and Statistical Strategy

Environmental Scientific Awareness Test (ESAT) was given as questionnaire to study the level of scientific awareness of environment and data was computed using statistics analysis. Significance of hypotheses was found by using

t-test and interpretation was done on the basis of data computed.

8. Result and Discussion

The data have been statistically analysed by SPSS package (Ver – 21). The mean score of environmental awareness of sample was found to be 24.72 which equals to nearly 50% scoring in ESAT i.e. sample have average level of environmental awareness. 46.78% of the total students' scored below average and 53.21% of the total students' scored above average.

Ho₁ There is no significant differences in mean scores of the environmental scientific awareness in relation to Gender.

Table: - 9.1

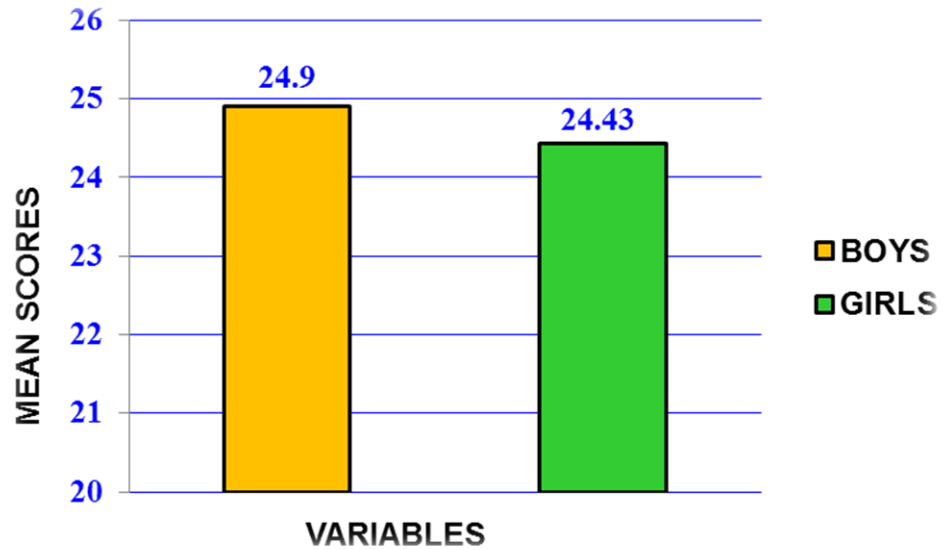
Variable	N	M	SD	t- value	Level of Significance
Boys	108	24.90	6.05	0.17	Not Significant
Girls	63	24.43	6.58		

t-value is not significant at 0.05 level of significance

It is inferred from the above table that while making the comparison between boys and girls of science colleges regarding scientific awareness of environment, it was found that

there exists no significant difference between boys and girls of LJIAS (GU) and of Mathematics & Chemistry Departments of MSU regarding scientific awareness of environment

Graphical Representation of Mean Scores of Scientific Awareness of Boys and Girls



H₀₂ There is no significant differences in mean scores of the environmental scientific awareness in relation to Subject.

Table: - 9.2

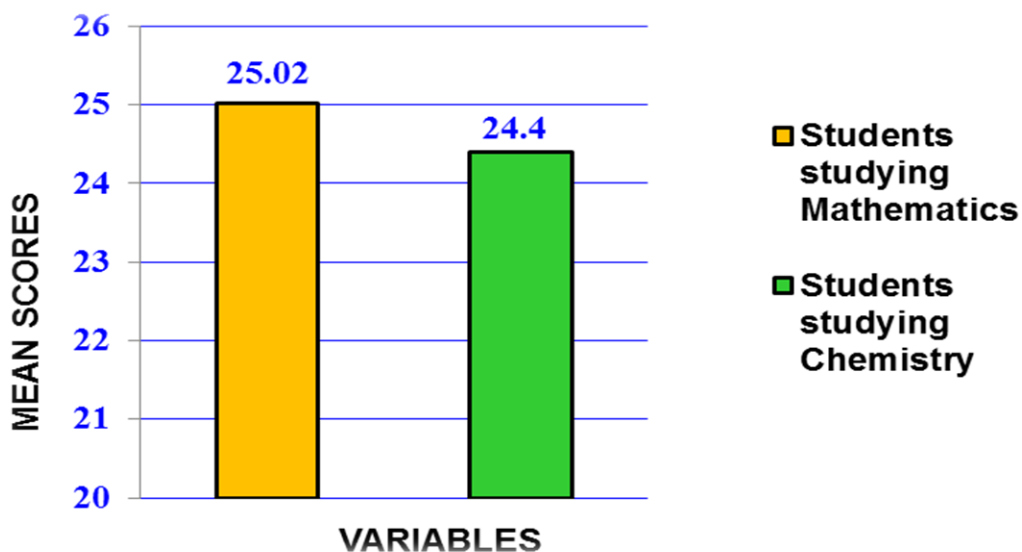
Variable	N	M	SD	t- value	Level of Significance
Mathematics Students	89	25.02	6.29	0.10	Not Significant
Chemistry Students	82	24.40	6.20		

t-value is not significant at 0.05 level of significance

It is inferred from the above table that while making the comparison between students studying in Mathematics and Chemistry regarding scientific awareness of environment, it

was found that there exists no significant difference between students studying in Mathematics and Chemistry regarding scientific awareness of environment.

Graphical Representation of Mean Scores of Scientific Awareness of Students studying Mathematics and Chemistry



H₀₃ There is no significant differences in mean scores of the environmental scientific awareness among Boys studying Mathematics and Boys studying Chemistry.

Table: - 9.3

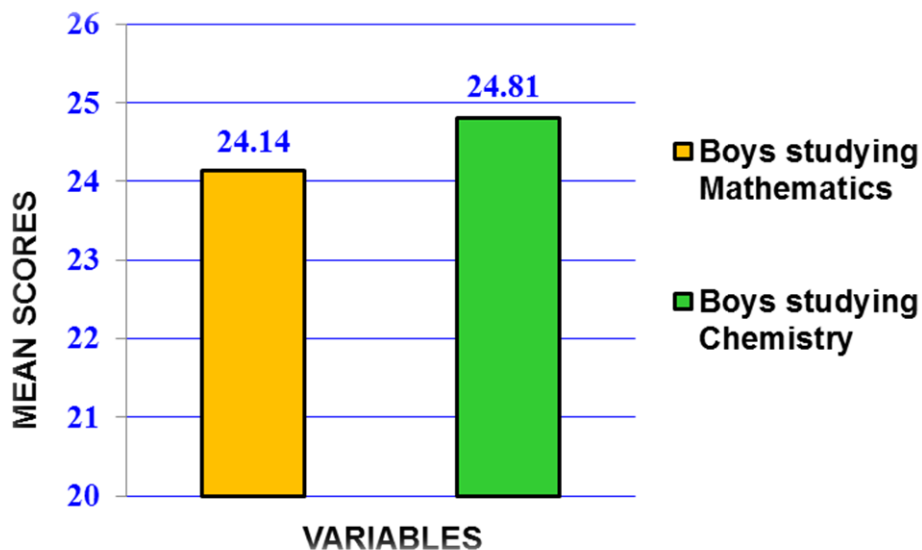
Variable	N	M	SD	t- value	Level of Significance
Boys studying Mathematics	36	24.14	7.12	0.10	Not Significant
Boys studying Chemistry	27	24.81	5.88		

t-value is not significant at 0.05 level of significance

It is inferred from the above table that while making the comparison between boys studying in Mathematics course and Chemistry course regarding scientific awareness of environment, it

was found that there exists no significant difference between boys studying in Mathematics course and Chemistry course regarding scientific awareness of environment.

Graphical Representation of Mean Scores of Scientific Awareness of Boys studying Mathematics and Chemistry



Ho₄ There is no significant differences in mean scores of the environmental scientific awareness Girls studying Mathematics and Girls studying Chemistry.

Table: - 9.4

Variable	N	M	SD	t- value	Level of Significance
Girls studying Mathematics	53	25.62	5.65	0.20	Not Significant
Girls studying Chemistry	55	24.20	6.39		

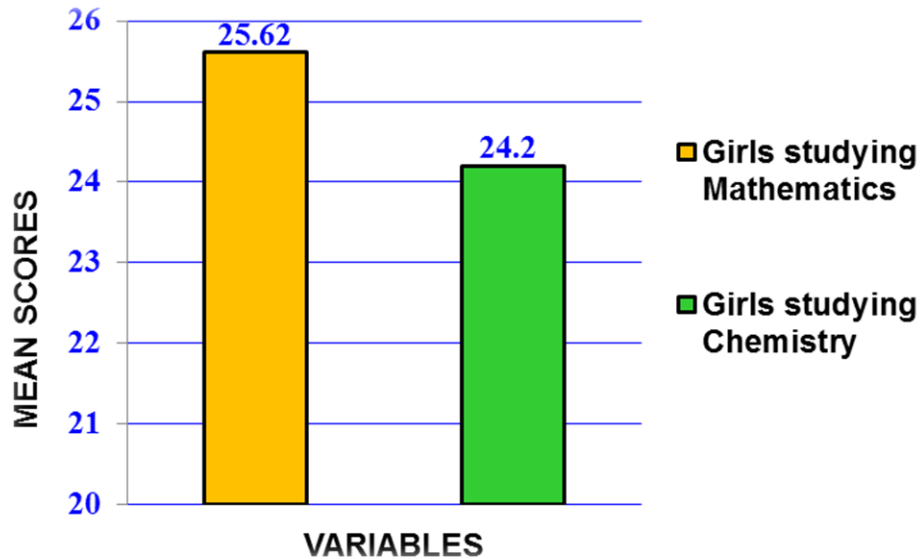
t-value is not significant at 0.05 level of significance

It is inferred from the above table that while making the comparison between girls studying in Mathematics course and Chemistry course regarding scientific awareness of environment, it

was found that there exists no significant difference between girls studying in Mathematics course and Chemistry course regarding scientific awareness of environment.

Graphical Representation of Mean Scores of

Scientific Awareness of Girls studying Mathematics and Chemistry



H₀₅ There is no significant differences in mean scores of the environmental scientific awareness among Boys studying Mathematics and Girls studying chemistry.

Table: - 9.5

Variable	N	M	SD	t- value	Level of Significance
Boys studying Mathematics	36	24.14	7.12	0.08	Not Significant
Girls studying Chemistry	27	24.81	5.88		

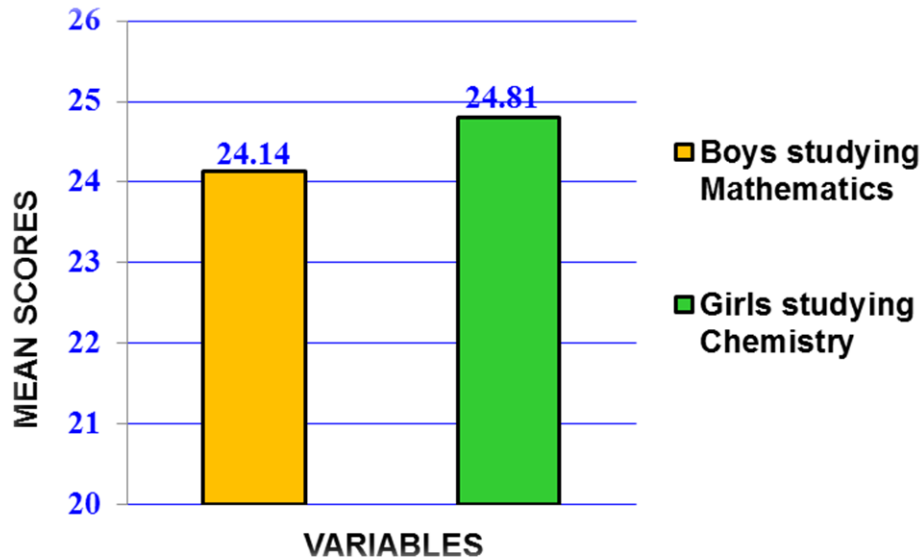
t-value is not significant at 0.05 level of significance

It is inferred from the above table that while making the comparison between boys studying in Mathematics course and girls studying in Chemistry course regarding scientific awareness of environment, it was found that there exists no

significant difference between boys studying in Mathematics course and girls studying in Chemistry course regarding scientific awareness of environment.

Graphical Representation of Mean Scores of Scientific Awareness of

Boys studying Mathematics and Girls studying Chemistry



H₀₆ There is no significant differences in mean scores of the environmental scientific awareness among Girls studying Mathematics and Boys studying Chemistry.

Table: - 9.6

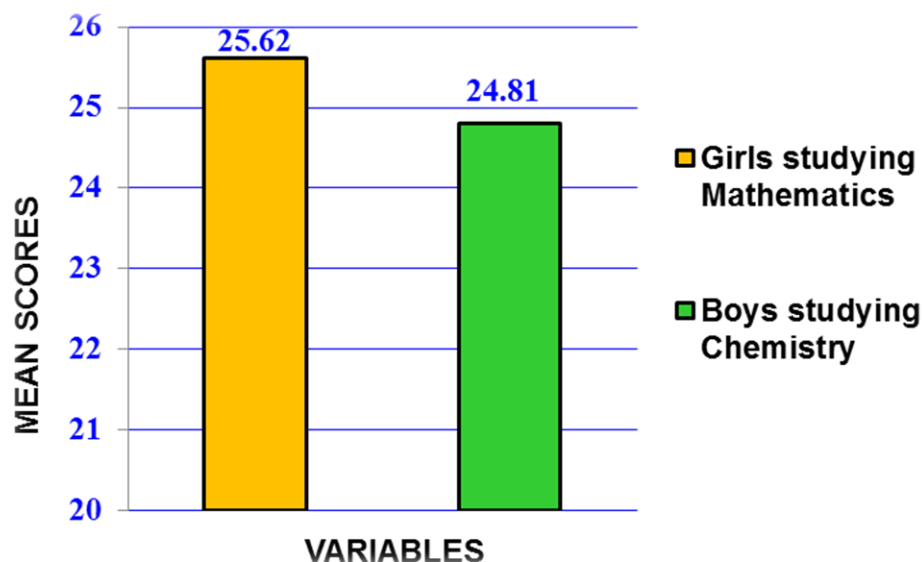
Variable	N	M	SD	t- value	Level of Significance
Girls studying Mathematics	53	25.62	5.65	0.10	Not Significant
Boys studying Chemistry	27	24.81	5.88		

t-value is not significant at 0.05 level of significance

It is inferred from the above table that while making the comparison between girls studying in Mathematics course and boys studying in Chemistry course regarding scientific awareness of environment, it was found that there exists no

significant difference between girls studying in Mathematics course and boys studying in Chemistry course regarding scientific awareness of environment.

Graphical Representation of Mean Scores of Scientific Awareness of Boys studying Chemistry and Girls studying Mathematics



10. Implications of the study

The findings of the present study reveal that in general students have average level of scientific awareness of environment. Though variables does not have any significant effect on the scientific awareness of environment in students. However, there is a need to facilitate students to improve the level. Educational policy maker should provide reforms in curriculum in all science related subject. Different awareness programme such as Seminars, camps, visits should be organized to aware them present scenario of environmental condition and how to overcome with it.

11. Recommendations of the Study

From the light of the findings of the present study, the investigator would like to recommend the following.

- (a) In textbooks, in any chapter wherever it suits, environmental conservation blocks should be added.
- (b) Seminars, Camps, Visits, Debates on Critical issues, interactive programmes, may be organized about environmental awareness of the teacher training students.
- (c) Volunteer Community activities like cleaning; panting public untidy walls, planting trees and providing awareness to all through activities
- (d) The knowledge of critical issues such as global warming, iceberg melting, scarcity of drinking water, hygiene and pollution may be specially added in curriculum as separate chapter.
- (e) World earth day, water day, world environment day, world population day, world wild life day should be observed by whole college.

12. Conclusion

In this study, investigator found that average level of Environmental scientific awareness is not enough to save our own biosphere from getting destroyed. It is felt that there is a need to necessary information must be provided to all to understand there responsibility towards the environment.

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