A STUDY OF ENVIRONMENTAL AWARENESS AMONG HIGHER SECONDARY SCHOOL STUDENTS IN ANAND DISTRICT

*Dr. Rucha Desai & **Mr. Alpesh Sonara

*ABSTRACT

Environment is very crucial element for existence and survival of any living being. Without maintaining healthy, clean and pure environment we cannot think of survival of entire planet. Today environment is our concern because we human being have harmed environment through our all the activities. In order to satisfy the greed, human being has destructed environment severely. Bringing awareness and studying the level of awareness among the prospective citizens is thus becomes essential for maintenance of clean and green environ. The present paper describes a research study on status of awareness of higher secondary students of anand district on environment. Objectives were,to Study the Environmental Awareness among Higher Secondary School Students, to Study the Environmental Awareness among Higher Secondary School Students Gender-Wise and Stream-Wise. Survey method was employed. The researcher gathered the data using Environmental Awareness Attitude Scale and Achievement Scale. Population of the Present Study Consisted of 11th Standard Students of the Higher Secondary Schools of Anand District. The Higher Secondary Schools of Anand district i.e. Pioneer High School, Sharda High School, T.V Patel High School, R.P.T.P Higher Secondary School, and Bavis Gam Vidyalaya constituted the Sample. Selection of Students was done by Cluster Sampling. Data were analyzed employing % analysis, t-test and ANOVA. A Large majority (i.e. 60.33%) of students have moderately favorable attitude towards environment where as 39.34% of student have highly favorable attitude. Significant difference was found in Mean Achievement Score of Male and Female Students.Significant difference was found in Mean Attitude Score of Arts Stream Students and Science Stream Students.

Key Words: Environmental Awareness, Anand District

*Assistant Professor, Naranlala Institute of Teacher Education, Navsari, Gujarat.
rnd_desai123@yahoo.co.in
**PGT- Accountancy, Anand

Introduction

Environment includes all living and non-living objects. We live in the environment and use the environmental resources like air, land and water to meet our needs. Development also means meeting the needs of the people. While meeting the ever-growing needs, we put pressure on the environment. When the pressure exceeds the carrying capacity of the environment to repair or replace itself, it creates a serious problem of environmental degradation. If we use any environmental resource such as ground water beyond its limit of replacement, we may lose it forever. Therefore, there is a need to create 'awareness' about Environmental protection. While efforts are being made at the national and international level to protect our environment, it is also the responsibility of every citizen to use our environmental resources with care and protect them from degradation. Environment constitutes a very important part of our life. To understand life without studying the impact of environment is simply impossible. All human activities have an impact on environment. But in the last two centuries or so, the human influence on environment has increased manifold due to the rapid population. Growth and the fast development of science and technology are the major factors in reducing the quality of environment and causing its degradation. The environmental degradation poses a great danger to man's own survival. It should be realized, sooner than later, that conservation and improvement of the environment are vital for the survival, and well being of mankind. Natural resources of land, air and water have to be used wisely as a trust to ensure a healthy environment for the present and future generations.

Statement of the Problem

A Study of Environmental Awareness among Higher Secondary School Students inAnand District

Objectives of the Study

1) To Study the Environmental Awareness among Higher Secondary School Students.
2) To Study the Environmental Awareness among Higher Secondary School Students Gender-Wise.

*Assistant Professor, Naranlala Institute of Teacher Education, Navsari, Gujarat.
**PGT- Accountancy, Anand

3)   To Study the Environmental Awareness among Higher Secondary School Students Stream-Wise

4)   To Study the Environmental Awareness among Higher Secondary School Students School-Wise

Hypotheses of the Study

1) There is no significant difference between the Mean Attitude Score of higher Secondary School Students Gender-wise.

2) There is no Significant difference between the Mean achievement Score of higher Secondary School Students Gender-wise.

3) There is no significant difference between the Mean Attitude Score of higher Secondary School Students Stream-wise

4) There is no significant difference between the Mean Achievement Score of higher Secondary School Students Stream-wise

5) There is no significant difference between the Mean Attitude Score of Higher Secondary School Students School wise

6) There is no significant difference between the Mean Achievement Score of Higher Secondary School Students School wise

Research Design of the Study

Survey method was used for this study. As primary data is important for this study, the researcher gathered the primary data using Environmental Awareness Attitude Scale and Achievement Scale.

Population of the Study

Population of the Present Study Consisted of 11th Standard Students of the Higher Secondary Schools of Anand District.

Sample of the Study

The Higher Secondary Schools of Anand district constituted the Sample. i.e. Pioneer High School, Sharda High School, T.V Patel High School, R.P.T.P Higher Secondary School, and

Bavis Gam Vidyalaya. In view of the objective to investigate the Environmental Awareness of Higher secondary school students, it was decided to draw the sample from various higher secondary schools situated in Anand district. Selection of Students was done by Cluster Sampling.

Delimitation of the Study

The Study is delimited to 11ᵗʰ Standard Students of the Higher Secondary School of Anand and V.V Nagar only.

Operationalisation of Term

In the Context of Present Study awareness is considered as individual's knowledge about environment(i.e. achievement scores) and attitude towards environment.

Tools for Data Collection

1. Attitude Scale

The Tool Contains 30 Statement out of which 22 Statement are having Positive Polarity and remaining 8 Statement are Negative Polarity.

2. Achievement Scale

Data Collection

Researcher first seeks Permission from the Schools and then implemented tools on Students of eleventh Standard. The tool is constructed in Gujarati Language. Students were given sufficient time to fill up the tool. This way data collection was done by Researcher Personally.
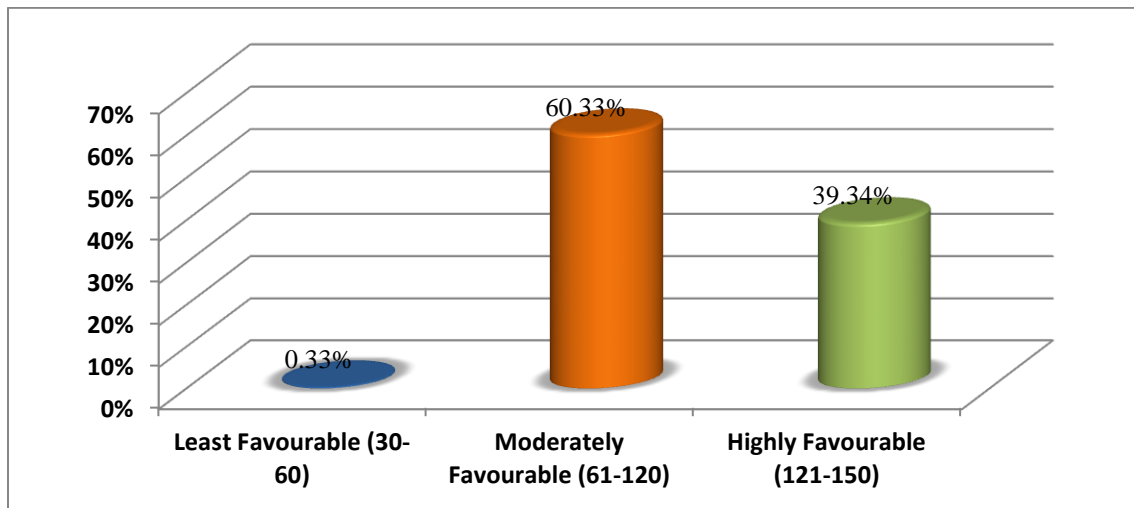
Data Analysis and Interpretation

To realize the first objective of the study i.e. to study the attitude of the Students towards Environment the collected data analyzed quantitatively using % analysis.

First Statement Wise Score is given to each students according to the category they have Chosen. Then total Score for each Student was obtained by adding Score on each Statement. The Total

Score of the Students were organizing in ascending order. Then the Score has been divided into three categories, Namely Least Favourable (30-60), Moderately Favourable (61-120), and Highly Favourable (121-150), Students who fall under each category were counted and % analysis was done of that frequency.The analyzed data has been presented through Table-1.
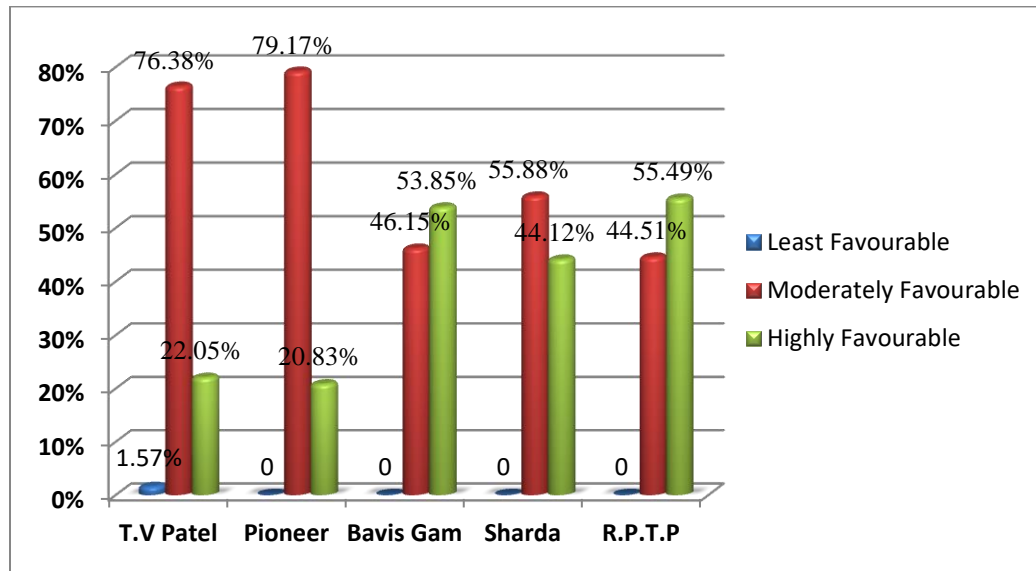
Table- 1 Favourableness of Attitude

Least Favourable (30-60)		Moderately Favourable (61-120)		Highly Favourable (121-150)	
No. of Students	Percentage (%)	No. of Students	Percentage (%)	No. of Students	Percentage (%)
2	0.33	362	60.33	236	39.34

As a whole 0.33 % of Higher Secondary Students have least favourable attitude towards Environment whereas 60.33 % of Higher Secondary Students have moderately favourable attitude and 39.34 %of Higher Secondary Students have highly favourable attitude towards environment.

*Assistant Professor, Naranlala Institute of Teacher Education, Navsari, Gujarat.
**PGT- Accountancy, Anand

Table - 2 Favourableness of Attitude School Wise

School	Least Favourable (30-60)		Moderately Favourable (61-120)		Highly Favourable (121-150)	
	No. of Students	Percentage (%)	No. of Students	Percentage (%)	No. of Students	Percentage (%)
T.V Patel	2	1.57	97	76.38	28	22.05
Pioneer	-	-	95	79.17	25	20.83
Bavis Gam	-	-	36	46.15	42	53.85
Sharda	-	-	57	55.88	45	44.12
R.P.T.P	-	-	77	44.51	96	55.49

From the analysis of collected data, It is revealed that 1.57 % of T.V Patel School Students have Least Favourable attitude where as 76.38 % Moderately Favourable Attitude and 22.05 % is Highly favourable attitude. The Pioneer High School Students have 79.17% Moderately Favourable attitude and 20.83% is Highly Favourable Attitude. The Bavis Gam Vidyalaya Students have 46.15% Moderately Favourable attitude and 53.85% is Highly Favourable Attitude. The Sharda High School Students have 55.88% Moderately Favourable attitude and 44.12% is Highly Favourable Attitude. And The R.P.T.P High School Students have 44.51% Moderately Favourable attitude and 55.49% is Highly Favourable Attitude

To realize the Second objective i.e. To Study the Environmental Awareness among Higher Secondary School Students Gender-Wise.. Researcher has found out Environmental Awareness Attitude Score and Achievement Score of Male and Female Students, and t value was computed. The analyzed data have been presented below.

Table-3(a) Mean, SD, SEm, t-value Gender wise (Attitude Test)

Gender	No. of Students	Mean	SD	SEm	df	t-value
Male	427	115.82	15.53	0.75	598	0.62
Female	173	116.60	13.43	1.02		

Here calculated value of t 0.62 is less than table t value of 2.58 and 1.96 at 0.01 and 0.05 Level respectively for 598 degree of freedom (df). Therefore null hypothesis is not rejected. It means there is no significant difference between the Mean Attitude Score of higher Secondary School Students Gender-wise.

Table-3(b) Mean, SD, SEm, t-value Gender wise (Achievement Test)

Gender	No. of Students	Mean	SD	SEm	df	t-value
Male	427	15.12	4	0.19	598	3.54
Female	173	16.29	3.55	0.27		

Here Calculated value of t 3.54 Greater than table t value of 2.58 and 1.96 at 0.01 and 0.05 Level respectively for 598 degree of freedom (df). Therefore null hypothesis is rejected. It means there is no Significant difference between the Mean achievement Score of higher Secondary School Students Gender-wise.

To realize the Third objectives i.e. To Study the Environmental Awareness among Higher Secondary School Students Stream-Wise. Researcher has formulated Null Hypothesis there is no significant difference between the Mean Attitude Score of higher Secondary School Students Stream-wise.

*Assistant Professor, Naranlala Institute of Teacher Education, Navsari, Gujarat.
**PGT- Accountancy, Anand

Table-4(a) Mean, SD, SEm, t-value Stream wise (Arts& Science) (Attitude Test)

Stream	No. of Students	Mean	SD	SEm	df	t-value
Arts	209	107.25	14.84	1.03	424	12.2
Science	217	123.11	11.66	0.79		

The Computed t value 12.2is greater than the table t value of 2.59 and 1.97 at 0.01 and 0.05 levels for 424 degree of freedom. Therefore Null Hypothesis is rejected. It means there is significant difference between the Mean Attitude Score of Higher Secondary School Students of Arts Stream Students and Science Stream Students.

Table-4(b) Mean, SD, SEm, t-value Stream wise (Arts& Science) (Achievement Test)

Stream	No. of Students	Mean	SD	SEm	df	t-value
Arts	209	13.50	3.72	0.26	424	28.73
Science	217	17.12	3.58	0.24		

The Computed t value 28.73 is greater than the table t value of 2.59 and 1.97 at 0.01 and 0.05 level for 424 degree of freedom. Therefore Null Hypothesis is rejected. It means there is significant difference between the Mean Achievement Score of Higher Secondary School Students of Arts Stream Students and Science Stream Students.

Table-5(a) Mean, SD, SEm, t-value Stream wise (Arts & Commerce) (Attitude Test)

Stream	No. of Students	Mean	SD	SEm	df	t-value
Arts	209	107.25	14.84	1.03	381	7.26
Commerce	174	117.78	13.43	1.02		

The Computed t value 7.26is greater than the table t value of 2.59 and 1.97 at 0.01 and 0.05 level for 381 degree of freedom. Therefore Null Hypothesis is rejected. It means there is significant difference between the Mean Attitude Score of Higher Secondary School Students of Arts Stream Students and Commerce Stream Students.

*Assistant Professor, Naranlala Institute of Teacher Education, Navsari, Gujarat.
**PGT- Accountancy, Anand

Table-5 (b) Mean, SD, SEm, t-value Stream wise (Arts & Commerce) (Achievement Test)

Stream	No. of Students	Mean	SD	SEm	df	t-value
Arts	209	13.50	3.72	0.26	381	6.08
Commerce	174	15.75	3.48	0.26		

The Computed t value 6.08is greater than the table t value of 2.59 and 1.97 at 0.01 and 0.05 level for 381 degree of freedom. Therefore Null Hypothesis is rejected. It means there is significant difference between the Mean Achievement Score of Higher Secondary School Students of Arts Stream Students and Commerce Stream Students.

Table-6 (a) Mean, SD, SEm, t-value Stream wise (Commerce & Science) (Attitude Test)

Stream	No. of Students	Mean	SD	SEm	df	t-value
Commerce	174	117.78	13.43	1.02	389	4.13
Science	217	123.11	11.66	0.79		

The Computed t value 6.08 is greater than the table t value of 2.59 and 1.97 at 0.01 and 0.05 level for 381 degree of freedom. Therefore Null Hypothesis is rejected. It means there is significant difference between the Mean Attitude Score of Higher Secondary School Students of Commerce Stream Students and Science Stream Students.

Table-6 (b) Mean, SD, SEm, t-value Stream wise (Commerce & Science) (Achievement Test)

Stream	No. of Students	Mean	SD	SEm	df	t-value
Commerce	174	15.75	3.48	0.26	389	3.91
Science	217	17.12	3.58	0.24		

*Assistant Professor, Naranlala Institute of Teacher Education, Navsari, Gujarat.
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The Computed t value 6.08 is greater than the table t value of 2.59 and 1.97 at 0.01 and 0.05 level for 381 degree of freedom. Therefore Null Hypothesis is rejected. It means there is significant difference between the Mean Achievement Score of Higher Secondary School Students of Commerce Stream Students and Science Stream Students.

To realize the Fourth objectives i.e. To Study the Environmental Awareness among Higher Secondary School Students School-Wise. Researcher has formulated Null Hypothesis there is no significant difference between the Mean Attitude Score of Higher Secondary School Students School wise.

Table 7(a) ANOVA test - School Wise (Attitude Score)

SUMMARY

Groups	Count	Sum	Average	Variance
Pioneer High School	122	13287	108.9098	263.5868
T V Patel High School	125	13528	108.224	227.9978
RPTP High School	173	21154	122.2775	135.7249
BavisGamVidyalaya	78	9571	122.7051	153.0678
Sharda High School	102	12085	118.4804	137.658

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	24641.86	4	6160.465	33.57	2.86E-25	2.3869
Within Groups	109200.1	595	183.5296			
Total	133842	599				

The Computed F value 33, 57 is greater than the table F value of 3.36 and 2.39 at 0.01 and 0.05 level for 599 degree of freedom. Therefore Null Hypothesis is rejected. It means There is significant difference between the Mean Attitude Score of Higher Secondary School Students School wise.

*Assistant Professor, Naranlala Institute of Teacher Education, Navsari, Gujarat.
**PGT- Accountancy, Anand

Table 7(b) ANOVA Test - School Wise(Achievement Score)

SUMMARY

Groups	Count	Sum	Average	Variance
Pioneer HighSchool	122	1679	13.7623	10.6951
T V Patel High School	125	1737	13.896	16.01329
RPTP High School	173	2947	17.03468	13.46391
BavisGamVidyalaya	78	1371	17.57692	11.26024
Sharda High School	102	1543	15.12745	12.38954

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1447.19	4	361.7976	27.91	2.92E-21	2.39
Within Groups	7713.928	595	12.96458			
Total	9161.118	599				

The Computed F value 27.51 is greater than the table F value of 3.36 and 2.39 at 0.01 and 0.05 level for 599 degree of freedom. Therefore Null Hypothesis is rejected. It means there is significant difference between the Mean Achievement Score of Higher Secondary School Students School wise

Findings

- A Large majority (i.e. 60.33%)of students have moderately favourable attitude towards environment where as 39.34% of student have highly favourableattitude.

- A Large majority (i.e. 79.17%) of Pioneer High School students have moderately favourable attitude towards Environment where as 76.38% of T.V Patel High School, 55.88% of Sharda

*Assistant Professor, Naranlala Institute of Teacher Education, Navsari, Gujarat.
**PGT- Accountancy, Anand

High School, 46.15% of Bavis Gam Vidyalaya and 44.51% of R.P.T.P School students have Moderatelyfavourable attitude towards Environment.

- No Significant difference was found in Mean Attitude Score of Male and Female Students.
- Significant difference was found in Mean Achievement Score of Male and Female Students.
- Significant difference was found in Mean Attitude Score of Arts Stream Students and Science Stream Students.
- Significant difference in Mean Achievement Score of Arts Stream Students and Science Stream Students was found.
- Significant difference in Mean Attitude Score of Arts Stream Students and Commerce Stream Students was found.
- Significant difference was found in Mean Achievement Score of Arts Stream Students and Commerce Stream Students.
- Significant difference was found in Mean Attitude Score of Commerce Stream Students and Science Stream Students.
- Significant difference in Mean Achievement Score of Commerce Stream Students and Science Stream Students was found.
- Significance difference was found in Mean Attitude Score of Students of Pioneer High School, T.V Patel High School, Sharda High School, Bavis gam Vidyalaya, and R.P.T.P High School.
- Significance difference was found in Mean Achievement Score of Students of Pioneer High School, T.V Patel High School, Sharda High School, Bavis gam Vidyalaya, and R.P.T.P High School.

Implication of the Present Study

- Teacher educators and planners should arrange special awareness programs in the form of seminars, symposiums, camp and community visits to provide awareness among teachers, students, parents and society at large.
- At higher level, the research work regarding different environmental problems, their reasons, effect and solution should also be given proper place in the curriculum.

- Various co-curricular activities in schools may be encouraged to help in developing student's environmental Awareness

- Teacher can play an important role in educating their Students about environment which is possible only when the Teachers themselves have the necessary Level of Environment Awareness

- Students should be inculcated with civic sense.

- Environmental Education could be taught as inter - disciplinary subject.

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*Assistant Professor, Naranlala Institute of Teacher Education, Navsari, Gujarat.
**PGT- Accountancy, Anand