

# Attitude of Adolescent Students towards Environmental Education



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## Abstract

In the present study, the adolescent students studying in various higher secondary schools in the arts and science streams were compared on their attitude towards environmental education in the general group, in boys groups and in the girls groups. Moreover the sex differences were also found out among the students of arts and science streams on the environmental education. The study was conducted on the 200 students selected from the arts and science streams of different higher secondary schools of district Samba of J&K. The scale Attitude towards Environmental Education prepared by Anjali Suhani was used to collect data from the sample students. The statistical techniques viz. Mean S.D. and C.R values were used to analyze the data and compare the scores of adolescent students on their attitude towards environmental education.

**Keywords:** Attitude, Environmental Education, Adolescents, Attitude Scale, Critical Ratio

## Introduction

Man is a part and parcel of his environment. Primitive man observed nature with all its beauty and mysteries. The word Environment is derived from the French word "Environ" which means "surrounding". Environment is a complex of many variables which surrounds man as well as the living organisms. The environment includes physical or non-leaving and living environment. There is struggle going on between man and nature in which the former is trying to dominate the latter. Man with all nature claims no longer to be nature slaves but its master. Due to this there is extent of causing serious ecological and environmental imbalance.

Environmental education seeks to influence and change this attitude towards the environment and, ultimately, instill a stronger sense of responsibility for safeguarding the environment. Unlike the commonly held understanding that the 'environment' only constitutes what we fondly refer to as 'Mother Nature', it also encompasses social, political and economic influences. The admittedly ambitious aim of bringing about change to safeguard the environment can only be achieved if different players within society actually come to understand why they should take on such responsibility. Environmental education involves an intricate process where stakeholders may start off as being passive observers of what is going on within their surrounding environment, but are transformed into taking responsibility and action for its protection. For this to happen, one must be able to see the link between the issue at hand and oneself – this is why the education is an indispensable tool for environmental protection. It is a cognitive process that involves a delicate mixture of a number of components, including information, emotion, empathy & the ability and courage to apply critical thinking. Indeed, education is a powerful tool and each and every one of these educational element must bear responsibility for the role they play in forming opinions and facilitating, or hindering, the individual understanding of environmental issues. This responsibility is not insignificant, yet it is often overlooked and it is time that this state of affairs is changed to ensure that the potential to bring about positive change becomes a tangible reality. Studying EE creates Enthusiastic Students, Innovative Teacher-Leaders - EE offers opportunities for rich, hands-on, real world and relevant learning across the curriculum (Archie, 2003).

The environment damage already reeked due to alarming on-going population explosion, rapid movement towards urbanization and industrialization. Increasing need of energy and fast scientific and technological advancement cannot be reversed unless there is collective thinking, will and effort towards environmental degradation and ecological

education. Together with sound legislation, sustainable execution and responsible actions by individuals and communities is an important component of an effective policy framework for protecting and managing the environment.

Environmental education employs and enhances critical thinking and basic life skills. It is difficult to overstate the importance of environmental education. Popular understanding of the relationships between society and the natural foundation, upon which civilization is constructed, is critical to our future and exposure to nature is likewise vitally important to the healthy emotional and cognitive development of children and young adults. Now-a-days the subject of Environmental science has been introduced in the elementary, secondary, higher secondary and college level to spread the awareness among students towards environment. The survival of human beings is linked with the environment. So, it is desirable to have full awareness of environment around.

In the view of this, the present investigation was undertaken to study the attitudes of adolescent students towards environmental education. The students studying in the arts and science streams were compared on the general view, in the boys as well as in the girls group. Moreover the sex differences among the students of arts and science streams were also found out.

#### **Objectives of the Study**

1. To study and compare the significant difference between the attitude of the students of Arts and Science streams towards environmental education.
2. To study and compare the significant difference between the attitude of boys of Arts and Science streams towards environmental education.
3. To study and compare the significant difference between the attitude of girls of Arts and Science streams towards environmental education.
4. To study significant sex differences in the attitude among the students of Arts and Science streams towards environmental education.

#### **Hypotheses**

1. There will be no significant difference between the attitude of students of Arts and Science streams towards environmental education.
2. There will be no significant difference between the attitude of boys of Arts and Science streams towards environmental education.
3. There will be no significant difference between the attitude of girls of Arts and Science streams towards environmental education.
4. There will be no significant sex differences in attitude among the students of Arts and Science streams towards environmental education.

#### **Delimitations of the Study**

1. The present study was confined to Government and Private Higher Secondary Schools of district Samba of Jammu & Kashmir.
2. The study was confined to Co-educational schools only.
3. The study was confined to the schools with Arts and Science streams.

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4. The study was confined to the schools recognized by J&K Government and affiliated to JKBOSE.
5. The study was confined to English knowing students as the tool used was in English language.

#### **Survey of Related Research Literature**

Environmental Education is one of the most recent advanced and fast growing area of education research. It is observed that major work in the field of Environmental education has been done since 1980 and an attempt has been made here to review the studies related to the present topic in a systematic way.

Deopuria (1984) made a comparative study of teaching of Science through environmental and traditional approach in schools of Madhya Pradesh. The objectives were to compare the effectiveness of two different approaches in developing environmental awareness, attitude towards environmental education and cognitive achievement in science among students. The study revealed that the environmental approach group obtained higher achievement scores due to teaching of science through environmental approach.

Gupta (1986), in his study, attempted to develop a tool, which can measure the attitude of teachers towards EE. The data for his study were collected from 150 teachers working in primary and secondary schools and junior colleges. The study showed that the teachers had favorable attitude towards EE but the degree of favorableness was the highest among college teachers and the lowest among primary school teachers. The study identified that crowded classroom, lack of time for proper planning of activities and loss of interest in the absence of follow up actions as stumbling blocks to the implementation of EE program.

Biswas (1990) conducted a study on attitude of secondary school students towards environment in Itanagar. This study revealed that all the students have a positive attitude towards Environment. There is a significant difference in the attitude towards environment between boys and girls. Boys are more significantly positive towards environment than the girls. Also, there is a significant difference in the attitude towards environment between rural and urban students. Urban students are more significantly positive towards environment than the rural students.

Shahnawaj (1990) conducted a study to find out the level of awareness about the environment among teachers and students, to know the attitudes of students and teachers towards the environment and to find out the differences between teachers and students, and male and female groups concerning the environment. The study was conducted mainly through a survey and the application of the tool developed by the investigator to test attitudes and awareness. The observations of the study were:

1. A positive environmental attitude was observed in 95% teachers and 94% students.
2. The environmental trained teachers and untrained teachers did not differ in their attitude.

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3. Teachers had more awareness of the environment than students.
4. Trained and untrained teachers did not differ on environmental awareness.
5. Girls possessed significantly more awareness of the environment than boys.

Praharaj, B. (1991), conducted a study to determine the level of environmental knowledge and attitude of in-service and pre-service secondary school teachers and to study their perception regarding environmental education in the secondary schools. The sample for the study consisted of 302 in-service teachers serving in 50 secondary schools and 416 pre-service teachers of three teachers' training colleges in Puri District of Orissa.

Major findings of the study were:

1. The level of environmental knowledge was found low among pre-service teachers, although conceptual knowledge was moderate.
2. Among the in-service teachers, environmental knowledge was moderate and factual knowledge about the environment was low.
3. Both the groups differed significantly in their level of environmental knowledge. They had a favorable attitude towards environmental education although the in-service group had a higher level of attitude than that of the pre-service group.
4. There was a moderate correlation between environmental knowledge and environmental attitude.
5. Teachers perceived that environmental education could be core part of 'social science' and 'general science' also and science subjects in secondary schools as well as mass media have a potential role to play in imparting environmental education.

Rou's (1995) studied on awareness and attitude of teachers and students of high school towards environmental education in Jabalpur district. His study revealed that the male and female teachers differed significantly on their environmental attitude i.e. female teachers exhibited better environmental attitude than male teachers. Also the government school teachers and the private school teachers were found to differ significantly in their Environmental Attitude in favor of the government school teachers.

Rout and Agarwal (2006) conducted a study of environmental awareness and environmental attitude of students at high school level. The study revealed that the students of science stream have more environmental awareness and environmental attitude than the students of non-science stream. Also, the students belonging to urban background are comparatively better in terms of their environmental awareness and environmental attitude as compared to the students belonging to rural background. Further male and female students do not differ significantly in terms of their environmental awareness and environmental attitudes.

Mahbub Sarkar (2011) examined secondary students' environmental attitudes in Bangladesh by employing a standardized environmental attitude scale. The study found that overall students from both

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the urban and rural areas expressed favorable environmental attitudes with girls having significantly higher level of favorable environmental attitudes than boys in particular, rural girls had the highest level of environmental attitudes comparing among others.

Anisa Yousuf et al. (2012) conducted a study on secondary school students' attitude towards environmental issues in Karachi, Pakistan. The aim of the study was to find out whether there is a difference between male and female students' attitude towards environmental issues. A total of 312 students (n = 154 girls; n = 158 boys; and) attending government (n = 151) and private schools (n = 161) located in Karachi, (Pakistan), participated in the study. The results of the study indicate that there was no significance difference between male and female students' attitude towards environmental issues. The results of the study provide significant insights into male and female students' attitude towards environmental issues towards discipline in both government and private secondary schools.

Sra (2012) studied the effect of teaching of Environmental Education on the environmental awareness and attitudes towards environment among the students after studying the subject of Environmental Education at undergraduate level. The sample of 300 students was drawn from five randomly selected colleges of Chandigarh affiliated to Punjab University, Chandigarh. The sample of the students was taken from the first year of the undergraduate class. The students showed more environmental awareness after studying the subject of EE at undergraduate level. The study revealed that after studying the subject of EE the students have gained more environmental awareness, the attitude of students have become more favorable towards the Environment after studying the subject of Environmental Education and environmental awareness and attitude toward environment are correlated to each other. The students who have higher environmental awareness have more favorable attitude towards environment.

Devi, Rimpay (2014) conducted a study on the topic: "Attitude of college students towards environmental education" and she found that the science streams, in the general view, in the boys groups and in girls groups depicted more favorable attitude towards environmental education than arts stream counterparts. Similar results were also found by Dubey, Neha (2018)

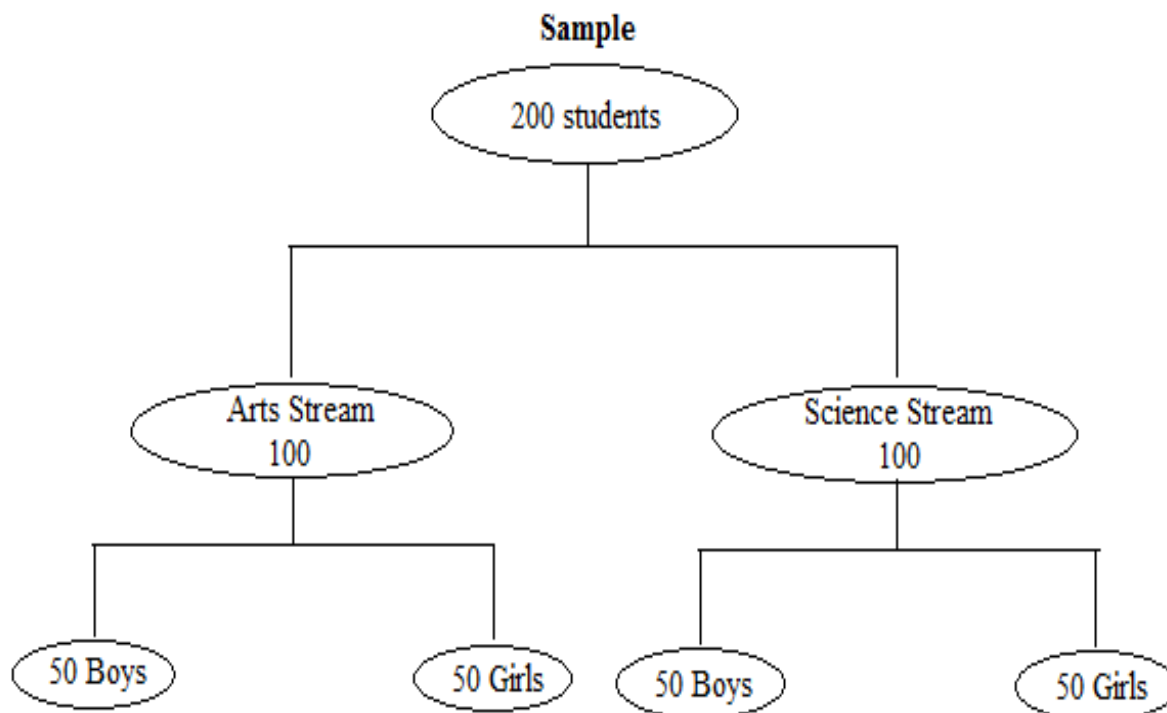
### **Plan and Procedure**

#### **Population**

The population of present study was comprised of all the students of arts and science streams studying in various Government and Private Higher Secondary schools of district Samba.

#### **The Sample**

The sample of present study was comprised 200 adolescent students (Arts stream: 100, Science stream: 100) with equal number of boys and girls. These students were picked randomly from various Higher Secondary Schools.



**Table 1.Detail of Sample of Students from Government and Private Schools of District Samba**

S.No.	Name of School	Arts Stream		Science Stream	
		Boys	Girls	Boys	Girls
01	Govt. Higher Secondary School,Sumb, Samba	03	05	02	03
02	Adarsh Vidhya Peeth Higher Seondary School Samba	04	03	03	04
03	Govt.Higher Secondary SchoolTaloor, Samba	02	03	05	04
04	Govt.Higher Secondary School Nud,Samba	03	04	04	05
05	Arvind Ghosh Higher Secondary School Vijaypur Samba	05	04	04	04
06	Govt.Higher Secondary School,Ghagwal Samba	03	04	05	03
07	Shishu Niketan Higher Secondary School Samba	04	03	04	05
08	Vaid Higher Secondary,Vijaypur Samba	05	04	04	04
09	Govt.Higher Secondary School,Sarna Samba	04	03	05	03
10	Ajanta Higher Secondary School Swankha Samba	03	02	04	04
11	Govt.Higher Secondary School,Rajpura,Samba	04	05	03	03
12	Narsing Higher Secondary School,Ghagwal Samba	02	03	03	02
13	Govt.Higher Secondary School Goran,Samba	03	04	02	03
14	Govt.Higher Secondary School,Ramgarh Samba	05	04	02	03
	Total	50	50	50	50

**Tool Used**

Attitude Scale - Attitude towards Environmental Education”, prepared by Anjali Suhani.

**Statistical Techniques Employed**

Mean S.D and Critical Ratios

**Analysis of Data and Presentation of Results**

Mean comparison between students of arts and science streams with regard to attitude towards environmental education

The first objective of the present study was to study and compare the significant difference between the attitude of students of arts and science streams towards environmental education. The students of arts and science streams were compared on attitude towards environmental education scores and this comparison is presented in the table 2.

**Table 2  
Comparison of Mean Scores between the Students of Arts and Science Streams on Attitude Towards Environmental Education**

S.N	Academic Stream	N	M	S.D	SEM	SEDM	CR
1	Arts	100	115.10	39.14	3.91	5.62	3.13*
2	Science	100	132.70	40.41	4.04		

\*Significant at 0.01 level

Mean comparison between students of arts and science streams in the boys group with regard to attitude towards environmental education

The second objective of the present study was to study and compare the significant difference between the attitude of students of arts and science

streams in boys group towards environmental education. The boys of arts and science streams were compared on attitude towards environmental education scores and this comparison is presented in the table 3.

**Table 3**  
**Comparison of Mean Scores between the Boys of Arts and Science Streams on Attitude towards Environmental Education**

S.No	Sex	Academic Stream	N	M	S.D	SEM	SEDM	CR
1	Boys	Arts	50	121.90	38.50	5.45	7.72	1.97**
2		Science	50	137.10	38.70	5.47		

\*\*Significant at .05 level

Mean comparison between students of arts and science streams in the girls group with regard to attitude towards environmental education

The third objective of the present study was to study and compare the significant difference

**Table 4. Comparison of Mean Scores Between The Girls Of Arts And Science Streams On Attitude Towards Environmental Education**

S.No	Sex	Academic Stream	N	M	S.D	SEM	SEDM	CR
1	Girls	Arts	50	112.3	38.60	5.46	8.02	1.99**
2		Science	50	128.3	41.60	5.88		

\*\*Significant at 0.5 level

Sex differences among students of arts and science streams with regard to attitude towards environmental education

The fourth objective of the present study was to study and compare the significant sex differences

between the attitude of students of girls of arts and science streams towards environmental education. The girls of arts and science streams were compared on attitude towards environmental education scores and this comparison is presented in the table 4.

in the attitude among the students of arts and science streams towards environmental education. The boys and girls of arts and science streams were compared on attitude scores towards environmental education and these comparisons are presented in the table 5.

**Table 5**  
**Sex Differences in Attitude towards Environmental Education among Students of Arts and Science Streams**

S.No.	Academic Stream	SEX	N	M	S.D	SEM	SEDM	CR
01	Arts	Boys	50	121.90	38.50	5.45	7.71	1.25
		Girls	50	112.30	38.60	5.46		
02	Science	Boys	50	137.10	38.70	5.47	8.03	1.09
		Girls	50	128.3	41.60	5.88		

**Main Findings**

1. Significant difference is found between the students of arts and science streams on attitude towards environmental education. The students of science stream depict more favorable attitude towards environmental education than arts streams counterparts.
2. Significant difference is found between the boys of arts and science streams on attitude towards environmental education. The boys of science streams depict more favorable attitude towards environmental education than arts streams counterparts.
3. Significant difference is found between the girls of arts and science streams on attitude towards environmental education. The girls of science streams depict more favorable attitude towards environmental education than arts streams counterparts.
4. No significant sex differences are found among the students of arts and science streams on attitude towards environmental education.

**Educational Implications**

In the present study, the science stream students in general view, in boys and girls groups depicted more favorable attitude towards environmental education than arts stream

counterparts. On the basis of these findings, the following steps shall be taken.

1. The higher secondary educational institutions should involve the students of arts stream in various environmental related studies, activities and programmes.
2. The subject of environmental science should be introduced for all the classes at higher secondary level.
3. The subject of environmental science should be considered as compulsory subject for final examination.
4. Special environmental awareness campaigns shall be launched by the schools in the whole sessions for spreading awareness about environment among students.
5. The topic of environmental related issues, problems, approaches etc. should be included in the curriculum at higher secondary schools.
6. The higher secondary schools should organize various co-curricular activities based on environmental issues and all the students especially arts stream students should be involved and encouraged to participate in such programmes.
7. The students of arts streams should be given assignment or projects work on environmental and allied areas.

8. Special training programmes for spreading awareness regarding environment shall be organized for the teachers of arts stream

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