# SCIENTIFIC ATTITUDE BETWEEN BOYS AND GIRLS STUDENT OF HOOGHLY DISTRICT IN WEST BENGAL

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## ABSTRACT

Our modern society is influenced by scientific environment and its applications. Now-a-days science is an integral part of our daily life. Our thinking, attitudes, interests, outlook have been tremendously influenced by the induction of science study. The acquisition of scientific attitude is one of the most important outcomes of science. Interest in studying science subjects prepares the students to achieve their objectives and aspirations. Both boy and girl students are equally responsible for making their scientific attitude as the world has become technical and scientific, and one having scientific attitude can survive in this ever changing life. The present study was conducted to find out the scientific attitude of boy and girl students in Hooghly district of West Bengal. The study concludes that there is no significant difference between boy students than girl students in scientific attitude.

**Key Words:** Scientific Attitude, Sex Difference, Interest, Scientific Environment.

## Introduction:

Science is an integral part of our life and we cannot think a world without science. We are living in a society which is enormously drawn into the scientific environment. The wonderful achievements of science have glorified the modern world and transformed the modern civilization into a scientific civilization. Thus, there is no need to justify the importance of science in the education of school children. A good number of students inclining towards the study of science education helps in developing scientific attitudes and critical thinking.

Scientific attitude is the most important outcome of science students. It can be inculcated among boy and girl students by the inspiration for technological world. The students should be motivated to achieve their scientific attitude. Therefore science plays the most important role in development of scientific attitude among students. It is mainly through devotion towards science that a large number of students develop enduring scientific interests, perseverance and learn to appreciate and understand the nature of science. Scientific Attitude is essential for the education of the individual because it shows the inner view of a student. One who has scientific attitude can successfully survive in this ever changing life.

We see the countless manifestations of science all around us. There is no aspect of our life today, which is not influenced by science one way or the other. This is because we live in an age of scientific culture. Science has shrunk the world and totally changed the human outlook. Science now has all pervading influence on every sphere of human activity. Science is not confined to the earth now, rather its sphere of achievements has reached beyond the earth. Great achievements of science and technology and its use in various fields have made science more important than ever before.

Scientific attitude can be defined as open-mindedness, a desire for accurate knowledge, confidence in procedure for seeking knowledge and the expectation that the solution of the problems will come through the use of verified knowledge. Thus proper scientific attitude of the individual helps to create good citizen

in our nation. The modern civilization is a scientific way of civilization. We can't live without science and scientific invention. The world changes rapidly due to invention of science. Scientific Attitude is essential for education of the individual because it shows the inner view of a student. Students are the future of our nation and they make destiny of our nation. Every boy and girl students needs to promote science and scientific attitude.

Learning of science is an unavoidable part of general education. Nobody questions its inclusion as a subject in the school curriculum. Learning of science provides training for the scientific method, and also helps to develop a scientific attitude of mind and aptitude in the learner. A student possessing scientific attitude is found to be very curious to know more and more about the things, persons and events surrounding him. He continues to explore till he gets proper explanation and satisfactory response to the queries. A student of scientific attitude holds a firm belief that nothing happens without a valid cause. In this age of science and technological advancement, it is most essential that scientific attitude must be developed in both boy and girl students.

## Related Reviews:

Shinde (1982) found that the scientific attitude of secondary school children is not related to involvement in non-formal activities. In this study the scientific attitude of boys and girls did not differ while that of different regions differed.

Mishra (1983) studied the attitude towards learning of science among scheduled caste students. Aim of the study was to assess the attitude of scheduled caste students towards learning science.

Srivastava (1983) measured scientific attitude and found that the amount of scientific knowledge or general exposure to science courses made an impact on scientific attitude.

Bandopadhyay (1984) found that parent education and SES led to favourable attitudes towards science, besides other contributory factors like teacher's influence, peers' influence, vocational value of science and the future aim in life.

Saxena (1985) found that science students have a favorable attitude towards physics and this attitude to physics is correlated with a cognitive preference style of recalling while it is negatively correlated with application style.

Ghosh (1986) also found that, while boys and girls did not differ on scientific attitude and aptitude, there was a positive relationship between scientific aptitude, attitude and academic motivation.

Udya (1991) conducted a study on the teaching of general science and the development of scientific attitude in secondary school students in relation to achievement in general science.

Freedman (1997) investigated the use of a hands-on laboratory program as a means of improving student attitude toward science and increasing student achievement levels in science knowledge

Gautam (2002) conducted a study on scientific attitude in relation to interest in science. The objective of the study was to find out whether students with high, average and low interest in science differ in their scientific attitude.

Leslie (2004) developed a new measure of attitude towards science for use among secondary school pupils which operationalise the affective attitudinal domain.

Marlow (2006) studied the level of scientific attitude and scientific aptitude possessed by tenth class students of secondary schools. The variables of the study were boy/female pupils studying in the private and govt. schools and urban/rural.

## Objectives:

The present study is an endeavor to examine the scientific attitude of students based upon the following objective:

To compare the scientific attitude of boy students and girl students of Hooghly district in West Bengal.

## Hypothesis:

$H_{01}$: There is no significant difference in the scientific attitude of boy students and girl students of Hooghly district in West Bengal.

## Methodology:

The researcher adopted the survey type design of research to study the scientific attitude of boy and girl students. In the present study, the researcher selected the sample of students from four schools of Hoogly district in West Bengal. A sample of 100 students was taken for the study which include 50 boy students and 50girlstudents, 25 students of either sex taken from each school.

The Scientific Attitude Scale developed by J. K. Sood and R. P. Sanadhya has been used by the researcher to collect the data. The data was collected through schools. The time allotted was one hour for the students to complete it. The data was tabulated as per the guidelines of the scale and statistically analyzed by using mean and standard deviation as statistical techniques. The t-test has been used to calculate the difference in scientific attitude of the sample respondents as per the objectives of the study.

## Result and Finding of the Study:

**Table – 1 : t-test showing Sex Differences in Scientific Attitude**

| Groups | N | Mean | SD | df | $SE_D$ | t-value | Significance |
|---|---|---|---|---|---|---|---|
| Boy Students | 50 | 48.16 | 13.92 | 98 | 2.45 | 0.29 | Not significant |
| Girl Students | 50 | 48.86 | 10.36 | | | | |

t at 0.05 level is 1.98.

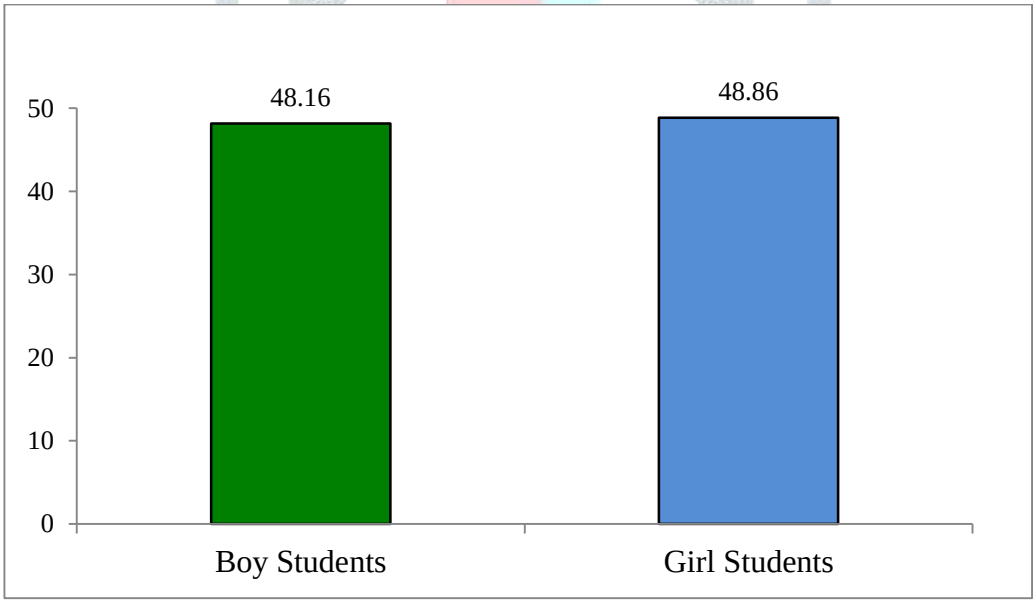


**Fig. 1: Graph showing Sex Differences in Scientific Attitude**

The major finding of the study is 'Sex differences in Scientific Attitude' The results were presented and findings were discussed below on the basis of the above mentioned hypothesis of the study.

Table–1 and Fig. 1 show the result of sex differences in the scientific attitude of students which reveals that boy students do not differ significantly with the girl students in scientific attitude as the t-value of 0.29 is less than the criterion t-value of 1.98 at 98 df. Therefore the null hypothesis $H_{01}$ is accepted.

## Conclusion:

We live in a society where scientific environment prevails. Science has become an integral part of our life and living. Now we cannot think a world without science. Interest in studying science subjects prepares the students to achieve their objectives and aspirations. Science has done miracles in our life and perhaps it seems that every one who is related with science must have some sort of scientific attitude. The

present study reveals findings about the scientific attitude existing in boy and girlstudents. The students also have same responsibility on their shoulders for making the attitude more and more scientific because, the world is becoming technical and scientific in all its aspects, and one who has scientific attitude can successfully survive in this ever changing life. Every science student has to promote science and scientific attitude in the society, so that our nation can find an elevated position among the developed countries.

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