



## A Study on Curiosity of Eighth Standard Students in Relation to Their Scientific Attitude

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### Abstract

*The aim of the present study was to study the scientific attitude and curiosity of secondary students of eighth standard in Shirpur, Dhule district, Maharashtra. Random sampling technique was used and 160 students from secondary schools of Shirpur was selected. The statistical techniques mean, standard deviation, 't' test and 'r' test was used for analysis and interpretation of data. The finding of the study was the curiosity of eighth standard girls and boys of secondary schools in Shirpur is nearly same, the scientific attitude of eighth standard girls is greater than scientific attitude of eighth standard boys of secondary schools in Shirpur and*

**Keywords:** Curiosity, Scientific Attitude, Eighth standard students

### Introduction

In this modern era man achieved the development in every field only due to curiosity. This is the era of science and technology. This is the world of knowledge. At each and every moment new knowledge is created. There are many animals on earth but human being is considered as supreme among all animals because human beings are gifted by two powers, mind and brain by Almighty God. Scientists made development in science due to their scientific attitude and curiosity about many things. For development of scientific attitude curiosity is very important. To study the causality between two things curiosity is necessary.

Scientific attitude has many factors. In the curriculum structure of ten core values, to create scientific attitude is one core value. Through the knowledge of science the scientific attitude could be created in students. For creating the scientific attitude the students must have detail information about science so that they could criticise the things. Scientific attitude is also one way to live life. It is very essential in this modern age. Teacher could inculcate the scientific attitude and also rituals in their students. The secondary school students studied many subjects they have the curiosity about the new things or new knowledge. Through many experiments their scientific attitude increased. So the researcher studied the scientific attitude and curiosity of students.

### Review of Literature

Darchingpai (1989) conducted a study of science achievement, science attitude and problem solving ability among secondary students in Aizawad and found that there is significant difference in achievement in science and problem solving ability, there is significant relationship between score of scientific attitude and achievement and science.

Kumar and Udaya Sam (1991) studied the teaching of general science and the development of scientific attitude in secondary school students in relation to achievement in general science Major findings was that the scientific attitude of girls and boys are same.



Geeta Devi (2017) conducted a study on the curiosity level of girls and boys of primary school having EDUSAT and found that curiosity, achievement play an important role in the overall development of primary school learner.

Tony and Harsha (2020) examined the role of quizzing on children's curiosity and found there is no significant impact created by competitive quizzing on children's curiosity.

### **Objectives of the Study**

1. To study the curiosity of eighth standard students in secondary school.
2. To study the scientific attitude of eighth standard students in secondary school.
3. To study the scientific attitude and curiosity of eighth standard students in secondary school.
4. To study the scientific attitude and curiosity of eighth standard students in secondary school.

### **Hypotheses of Research**

1. There is no significant difference between the mean score of curiosity of eighth standard girls and boys
2. There is no significant difference between the mean score of scientific attitude of eighth standard girls and boys.
3. To study the scientific attitude and curiosity of eighth standard students.
4. There is no correlation between curiosity and Scientific Attitude of eighth standard students.

### **Operational Definitions**

#### **1. Curiosity**

The scores obtained in the standardized test of Dr.Rajeev Kumar is curiosity.

#### **2. Scientific Attitude**

The scores obtained in the standardized test of Dr. Avinash Grewal is scientific attitude.

#### **3. Secondary school students**

The students of the eighth standard students from secondary school selected by researcher are secondary school students.

### **Scope and Limitations of Study**

#### **Scope**

1. Researcher selected the eighth standard girls and boys from Shirpur in Dhule district Maharashtra.
2. The researcher selected only eighth standard students from Marathi medium school.

#### **Limitations**

1. This research is limited to only secondary school students of Shirpur from Dhule district, Maharashtra.
2. This research is limited to only one hundred sixty students of eighth standard.

#### **Methodology**

The researcher used the survey method to collect the data for this research.

#### **Sample**

The sample of the study was 160 students of eighth standard of secondary school randomly selected from secondary schools in Shirpur, Dhule district, Maharashtra.

### Tools of research

The researcher used the standardised test of scientific attitude of Dr.Avinash Grewal and standardised test of curiosity of Dr.Rajivkumar for the study of scientific attitude and curiosity of eighth standard students of secondary school in Shirpur. In the scientific attitude test there are total 20 statements and in the curiosity test contains 44 questions.

### Statistical Tools Used

For this research Mean, Standard Deviation, ‘t’ test and Pearson ‘r’ was used.

### Statistical analysis and interpretation

#### Hypothesis1

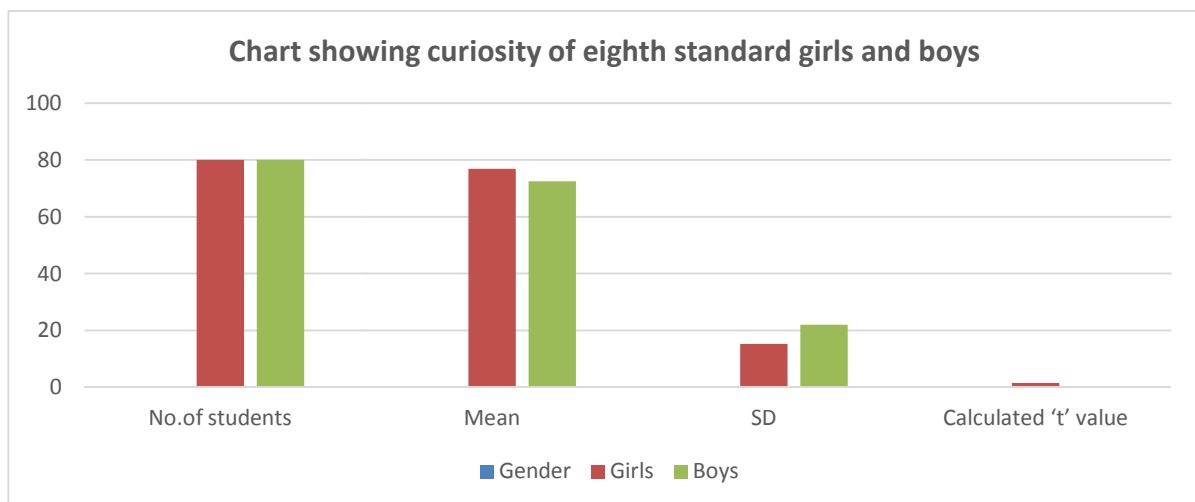
There is no significant mean difference between the mean scores of curiosity of eighth standard girls and boys in secondary schools of Shirpur.

For testing this hypothesis ‘t’ test was used.

**Table No.1**

**‘t’ table showing the comparison of curiosity of eighth standard girls and boys in Shirpur**

Sr. No.	Students Gender	No.of students	Mean	SD	Calculated ‘t’ value	Table ‘t’ Value	Hypothesis Accepted /Rejected
1	Girls	80	76.86	15.20	1.47	1.97	Accepted
2	Boys	80	72.46	21.95			



The above table shows that, for  $df = 158$  at 0.05 level the table ‘t’ value is 1.97 and the calculated t value is 1.47. So the table value is greater than the calculated ‘t’ value at 0.05 levels. Therefore, the null hypothesis is accepted. There is no significant difference between the mean scores of curiosity of eighth standard girls and boys in secondary schools of Shirpur. So, the curiosity of eighth standard girls and boys of secondary schools in Shirpur is nearly same.

#### Hypothesis 2

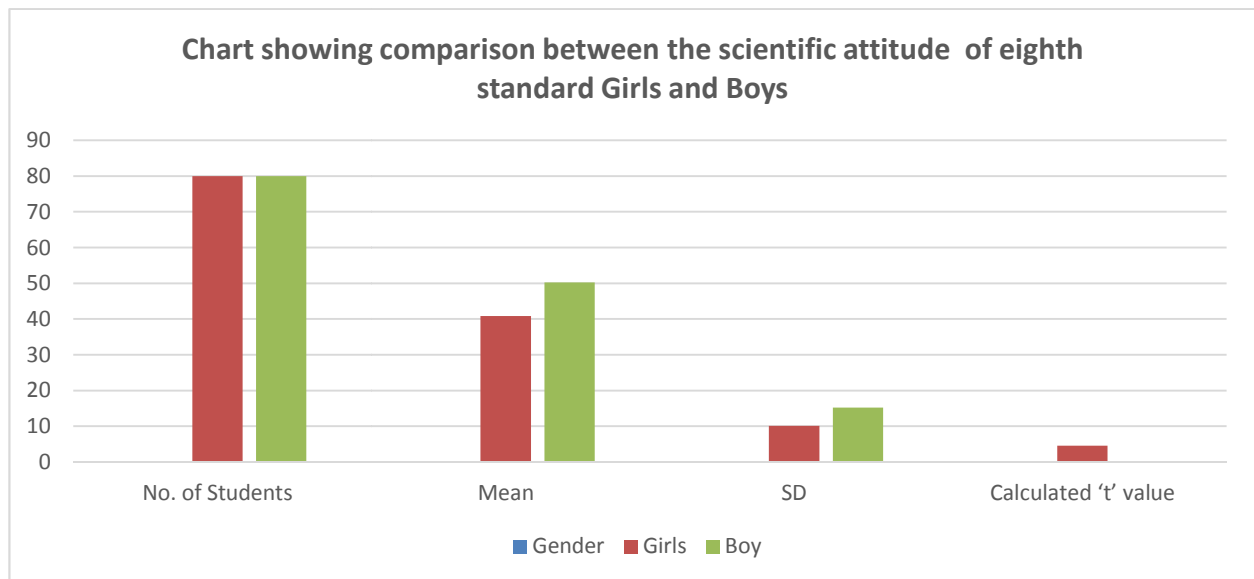
There is no significant mean difference between the mean scores of scientific attitude of eighth standard girls and boys in secondary schools of Shirpur .

For testing the hypothesis ‘t’ test was used.

**Table No. 2**

**‘t’ table showing the comparison between the scientific attitude of eighth standard girls and boys of secondary schools in Shirpur**

Sr. No.	Students Gender	No. of Students	Mean	SD	Calculated ‘t’ value	Table ‘t’ Value	Hypothesis Accepted /Rejected
1	Girls	80	40.87	10.12	4.57	1.97	Rejected
2	Boy	80	50.20	15.20			



The above table shows that, for  $df = 158$  at 0.05 level the table ‘t’ value is 1.97 and the calculated t value is 4.57. So the calculated value is greater than the table ‘t’ value at 0.05 levels. Therefore, the null hypothesis is rejected. There is significant difference between the mean scores of scientific attitude of eighth standard girls and boys in secondary schools of Shirpur. So, the scientific attitude of eighth standard girls is greater than scientific attitude of eighth standard boys of secondary schools in Shirpur.

**Hypothesis 3**

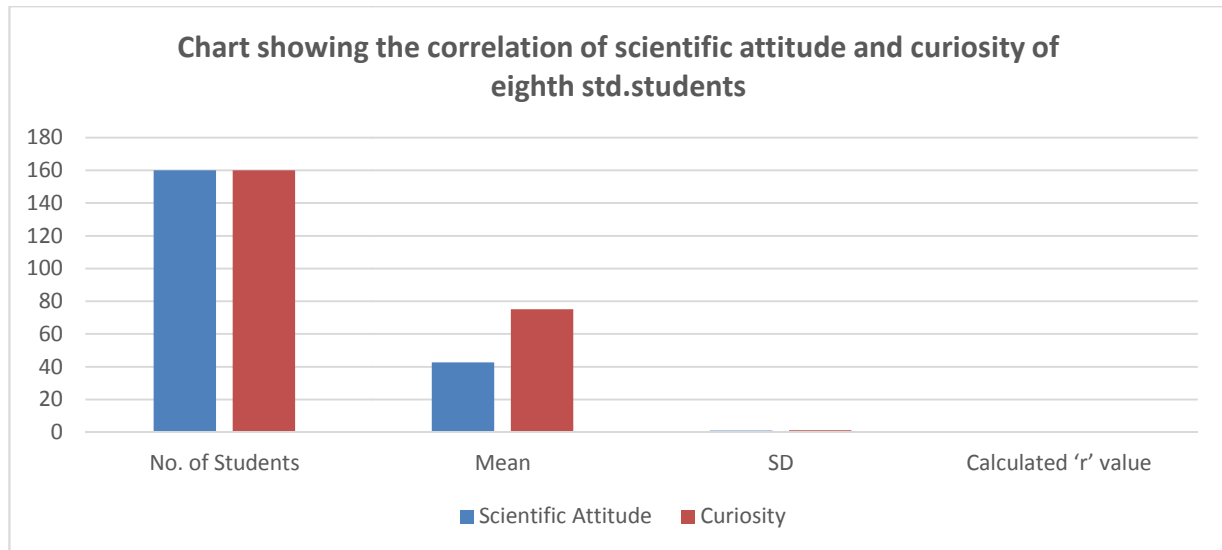
There is no correlation between the curiosity and scientific attitude of students of secondary school in Shirpur.

For testing the hypothesis Pearson ‘r’ test was used.

**Table No. 3**

**‘r’ table showing the comparison between the scientific attitude of eighth standard girls and boys of secondary schools in Shirpur**

Sr. No.	Variable	No. of Students	Mean	SD	Calculated ‘r’ value
1	Scientific Attitude	160	42.75	0.96	0.06
2	Curiosity	160	75.03	1.19	



The correlation of scientific attitude and curiosity is 0.06. This correlation between the two variables is negligible. So the hypothesis is rejected because there is significant difference between the scientific attitude and curiosity of students in secondary school of Shirpur. There is correlation between the scientific attitude and curiosity of eighth standard students.

### Conclusion

1. The curiosity of eighth standard girls and boys of secondary schools in Shirpur is nearly same.
2. The scientific attitude of eighth standard girls is greater than scientific attitude of eighth standard boys of secondary schools in Shirpur.
3. There is correlation between the scientific attitude and curiosity of eighth standard students.

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