



ORIGINAL RESEARCH PAPER

Education

A STUDY ON THE ATTITUDE TOWARDS SCIENCE AMONG HIGH SCHOOL STUDENTS OF AIZAWL CITY

KEY WORDS: Attitude, Science, High School, Students.

Rebeck Lalrinpuii

Research Scholar, Institute of Advanced Studies in Education, Aizawl, Mizoram.

Dr. Lalchawimawii Ngente*

Assistant Professor, Institute of Advanced Studies in Education, Aizawl, Mizoram. *Corresponding Author

ABSTRACT

A descriptive study was conducted with an objective to find out the level of high school students' attitude towards science. The study was conducted with a sample of 180 students from government and private high schools within Aizawl city, Mizoram. The tool used was Attitude Towards Science Scale (ATSS) developed by Dr. Anuradha Agnihotri, Lecturer, Dev Samaj College of Education, Chandigarh. The findings of the study showed that the overall attitude of students towards science is low. The result also revealed that private high school students have better attitude towards science than government high school students. It was concluded that special emphasis and steps may be taken by teachers to motivate their students in developing scientific attitude and positive attitude towards science. Moreover, schools must realize the needs and interests of the students in developing scientific attitude and promote science learning.

INTRODUCTION

Science attitude has been understood as the positive and negative feelings than an individual holds about science. In general attitude towards science refers to an interest in science, attitude toward scientists, or attitude towards social responsibility in science.

It is clear that science is one of the most important subjects for students in shaping their future. Students who have more interest in science subjects are likely to pursue further scientific education and scientific careers. So in order to succeed in the school and beyond, students must have positive attitude towards science.

NEED OF THE STUDY

The attitude of a learner relates to all aspects of education. For example, a learner's attitude towards science will determine the measure of the learner's attractiveness or repulsiveness to science. Due to the fact that the academic performance of students relates with the attitude towards science, it is vital to enable students to have positive attitudes toward science which in turn affect the future. This helps in the realization of the importance of study about students' attitudes toward science and other related concepts. So in order to have better performance in science subjects there is the need to determine students' attitude to science and science subject.

OBJECTIVES OF THE STUDY

1. To find out the level of high school students' attitudes towards science.
2. To compare the attitude towards science of boys and girls.
3. To compare the attitude of government and private high school students towards science.

HYPOTHESES OF THE STUDY

1. There is no significant difference between the attitude of boys and girls towards science.
2. There is no significant difference between government and private high school students' attitudes towards science.

MATERIALS AND METHODS

Descriptive survey method was adopted for the study. The study was conducted in Aizawl city. The target population for the study was all the high school students within Aizawl. Sample of 180 students from private and government high schools were selected. The tool used for data collection was Attitude Towards Science Scale (ATSS) developed by Dr. Anuradha Agnihotri. The analysis of data was done by using

descriptive statistics like measures of central tendency and variability and inferential statistics like t-test for testing the hypothesis.

ANALYSIS AND INTERPRETATION OF THE DATA COLLECTED

Objective 1. To find out the level of high school students' attitudes towards science.

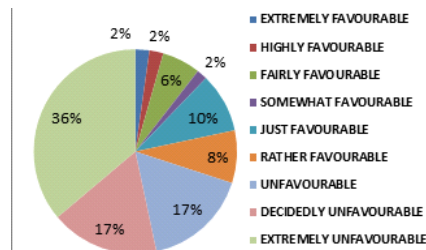


Fig.1. Level of students' attitude towards science

From percentage distribution shown in the above chart majority of the students (36%) scored attitude level of 'Extremely Unfavourable'. So according to the norms of the ATSS Scale, the overall attitude of students towards science is Low.

Objective No.2. To compare the attitude towards science of boys and girls.

Table.1. t-test for attitude towards science of boys and girls.

Gender	N	Mean	SD	t-value	df	Significant Level
Male	92	81.79	10.493	0.17	178	Not Significant
Female	88	82.056	10.26			

table value of t at 0.05 level=1.972267588 and 0.01 level=2.60140873

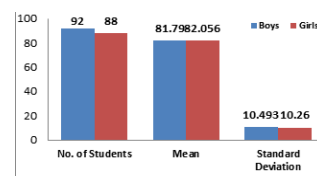


Fig.2. Graph showing attitude towards science of boys and girls

According to Table.1 and Figure.2., the mean score of boys is found to be 81.79 and standard deviation is 10.49 while the mean score of girls is 82.06 and standard deviation is 10.27. The values of mean and standard deviation were calculated to find out the t value which is 0.17 at degrees of freedom 178. So the calculated value of t was found to be less than the table value of t at 0.05 level.

Therefore the Null hypothesis cannot be rejected which means that there is no significant difference between boys and girls in their attitude towards science.

Objective No. 3. To compare the attitude of government and private high school students towards science.

Table.2. t-test for attitude towards science of government and private high school students.

School Type	N	Mean	SD	t-value	df	Significant Level
Govt.	90	79.01	7.86	3.916	178	Significant at 0.01
Private	90	84.22	11.67			

table value of t at 0.05 level=1.972267588 and 0.01 level=2.60140873

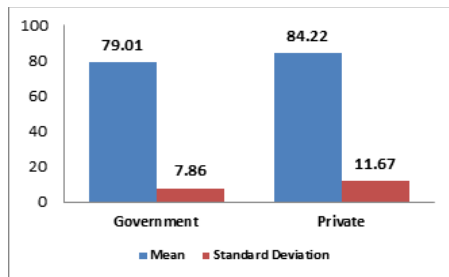


Fig.3. Graph showing attitude towards science of government and private high school students.

From Table.2 and Figure.3., the mean score of government school students is found to be 79.01 and standard deviation is 7.86 while the mean score of private high school students is 84.22 and standard deviation is 11.67. The calculation of values of mean and standard deviation of attitude scores gives the t value of 3.91 with degrees of freedom 178. The calculated value of t is greater than the table value of t at 0.01 level.

Thus the Null hypothesis was rejected which means that there is significant difference between government and private school students' attitude towards science. This shows that private school students have greater attitude towards science than government school students.

RESULTS AND DISCUSSIONS

The results of the study revealed that the attitude towards science of high school students of Aizawl city is low. The negative attitude towards science can be due to many reasons and may influence in low enrollment in science subject or choosing of different subjects other than science in higher education. However studies made by Banu (1986) suggested that the low enrollment in science is not due to the lack of interest or negative attitudes to the subject but may be due to some other variables that need to be investigated.

Result regarding students' attitude towards science in relation to gender revealed that there is no significant difference between boys and girls in their attitude towards science. The investigator felt that it is difficult to generalize the effect of gender on attitude towards science because there were several previous studies (Banu,1986, Anderson (2006), Najafi et. al (2012) and R. Lalremtuanga, (2015) which revealed that male students have high positive attitude towards science than female.

The statistical result of the study revealed that attitude towards science of private school students of Aizawl city was better than government school students. This indicates that the type of school and different components involved in the school had influenced in shaping and developing the attitude of students towards science.

SUGGESTIONS FOR FURTHER STUDY

1. As a result of the present study, students attitude towards science is low. Due to this the investigator suggested that study on factors influencing students attitude towards science should be conducted.
2. A comparative study of attitude towards science between secondary students of different districts of Mizoram for representing the whole population should be conducted.

CONCLUSION

1. The overall attitude of high school students of Aizawl city towards science was found to be low. This means that the students had no or little interest in science and science subject.
2. Boys and girls were found to have similar unfavorable attitude towards science. This shows that the students' negative or positive attitude towards science is not influenced by gender.
3. Students studying in private schools showed better attitude towards science than students of government schools. This indicates that the type of school and different components involved in the school had influenced in shaping and developing the attitudes of students towards science. Schools must realize the needs and interests of the child in developing scientific attitude and promote science learning.

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