# SELF CONFIDENCE AND STUDY HABITS IN RELATION TO THE ACHIEVEMENT IN MATHEMATICS

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**ABSTRACT**

*Mathematics is the study of relationships among quantities, magnitudes and properties and also of the logical operations, so, it is a very important subject area of education. Due to some misconceptions students fear this subject. Investigator tried to study the relationship among self-confidence, study habits and achievement in mathematics of grade 8 students. Using Pearson's correlation technique, it was found that, self-confidence is in inverse proportion with achievement in mathematics, study habits are in direct proportion with achievement in mathematics ,self-confidence is in inverse proportion with study habits.*

***Keywords :*** *Self Confidence, Study habits, Achievement*

## Introduction

Mathematics may be defined as, "the study of relationships among quantities, magnitudes and properties and also of the logical operations by which unknown quantities, magnitudes and properties may be deduced" (Microsoft Encarta Encyclopedia). It helps in developing logical reasoning and analytical power of the students. It marks the basis of all the sciences.

Mathematics forms the basis of all the science and technical subjects. It is necessary that the students opting for atleast science subjects must have hold on mathematics. But NCERT in the Position paper on Teaching of Mathematics identified that majority of childrenhave the fear and failure regarding mathematics. This fear for mathematics has resulted to mathematics anxiety and mathematics phobia. Hannula et al. (2004) in his study indicated that the learning of mathematics is influenced by a pupil's mathematics-related beliefs, especially self-confidence.

Students widely share the common misconception that they are no good at doing math. For many reasons, simple mathematics transform into some scary dragon-headed monster that paralyzes its victims by its horrible look. However, once students realize that the story they get used to telling themselves about their math performance is a myth, the horrible monster that has been gatekeeping their future away, vanishes, leaving only a shadow of its former horror.

Fewings (2011) found that success in doing mathematics will relieve students from constant pressure and anxiety potentially affecting other non-math courses, for the greater the number of times you have achieved success, the greater your confidence is

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likely to be.

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**Significance of the Study**

In the modern world the mathematics is being used in all the fields such as science, technology, banking, computers and industries. Even each part of our body is in some proportion or dimension, in the same way we use mathematics for constructing our houses, for making various designs etc. We also use mathematics during shopping. As a result of this mathematics is very useful in daily life. Mathematics helps in the development of intellectual power like power of imagination, observation and systematic thinking and reasoning.

In India although mathematics occupies the status of a compulsory subject in the school curriculum, yet the rate of failure in this subject is alarming. Therefore it is necessary to know about the causes of failure in this subject. There are many factors such as problem solving ability, reasoning ability, motivation, self-confidence, interest and study habits etc that influence the achievement in mathematics. So it appeals the investigator to study the relationship between self-confidence and study habits with achievement in mathematics.

**Objectives of the Study**

- To study the relationship between self-confidence and achievement in mathematics of class 8th students.
- To study the relationship between study habits and achievement in mathematics of class 8th students.
- To study the relationship between self-confidence and study habits of class 8th students.

**Hypotheses**

1. There is no significant correlation between Self Confidence and Achievement in Mathematics of class 8th students.
2. There is no significant correlation between Study Habits and Achievement in Mathematics of class 8th students.
3. There is no significant correlation between self-confidence and study habits of class 8th students.

**Sample of the study**

The population of the study was all the class VIII students studying in Government senior secondary schools of Chandigarh. Two schools were selected randomly. The sample of

100 students was taken from the said schools.

**Tools Used**

In the present study the following standardized tools were used:

- Study Habit Inventory by Mukhopadhyay & Sansanwal, 2005.
- Self Confidence Inventory by Gupta, 2013.
- Mathematics Achievement Test by Dubey, 1996.

**Statistical Techniques Used**

Pearson's Correlations were computed to determine the relationship among the three variables.

**Analysis of Data and Interpretation of Results**

**Interpretation and Discussion on the Basis of Correlation**

The first objective of the study was to study the relationship between the Self Confidence and Achievement in Mathematics of class 8th students. The hypothesis was tested by employing Pearson correlation.

**Table 1 Showing Correlation between Self Confidence and Achievement in Mathematics**

| Variable | Coefficient of correlation | Level of significance |
|---|---|---|
| Self Confidence- Achievement in Maths | -0.542 | 0.01 |

Table 1 reveals that the correlation between self-confidence and achievement in mathematics for class 8th students is -0.542 which is significant at 0.01 level. The negative value of correlation shows that self-confidence is in inverse proportion with achievement in mathematics which means that as the value of self-confidence increases the value of achievement in mathematics decreases. Hence first hypothesis stating "There will be no significant correlation between self-confidence and achievement in mathematics of class 8th students" may not be accepted.

Thus, as the self-confidence increases, the achievement in Mathematics of class 8th students decreases.

The second objective of the study was to study the relationship between the Study Habits and Achievement in mathematics of class 8th students.The hypothesis was tested by employing Pearson correlation.

**Table 2 showing Correlation between Study Habits and Achievement in Mathematics**

| Variables | Coefficient of correlation | Level of significance |
|---|---|---|
| Study habits - Achievement in Maths | 0.355 | 0.01 |

Table 2 reveals that the correlation between study habits and achievement in mathematics is 0.355 which is significant at 0.01 level. The positive value of correlation shows that study habits are in direct proportion with achievement in mathematics which means that as the value of study habits increases the value of achievement in mathematics also increases. Hence, second hypothesis stating, "There will be no significant correlation between study habits and achievement in mathematics of class 8th students" may not be accepted.

Thus, as the study habits improve, the achievement in Mathematics of class 8th students also increases.

The third objective of the study is to study the relationship between the Self Confidence and Study habits of class 8th students.The hypothesis was tested by employing Pearson correlation.

**Table showing Correlation between Self Confidence and Study Habits**

| Variable | Coefficient of correlation | Level of significance |
|---|---|---|
| Self Confidence - Study habits | -0.485 | 0.01 |

Table 3 reveals that the correlation between self-confidence and study habits is -0.485 which is significant at 0.01 level. The negative value of correlation shows that self-confidence is in inverse proportion with study habits which mean that as the value of self- confidence increases the value of study habits decreases and vice-versa. Hence third hypothesis stating "There will be no significant correlation between self-confidence and study habits of class 8th students" may not be accepted.

This suggests that more self-confidence leads to poor study habits.

**Findings and Conclusions**

On the basis of analysis of the data and interpretation of the results the present study obtained through various statistical means, the following conclusions have been drawn-

- Self-confidence is in inverse proportion with achievement in mathematics which means that asself-confidence increasesthe achievement in mathematics ofstudents

studying in class 8 decreases.

- Study habits are in direct proportion with achievement in mathematics which means that as the study habits improves the achievement in mathematicsof students studying in class 8 also increases.

- Self-confidence is in inverse proportion with study habits which mean that as more self-confidence leads to poor study habits.

**References**

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