



ORIGINAL RESEARCH PAPER

Education

A STUDY OF MATHEMATICAL ATTITUDE, MATHEMATICAL INTEREST AND MATHEMATICAL ACHIEVEMENT OF SECONDARY SCHOOL STUDENTS

KEY WORDS: Mathematical Attitude, Mathematical Interest, Mathematical Achievement, Secondary School Students.

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ABSTRACT

The present study is based on the correlation among mathematical attitude, mathematical interest and mathematical achievement of X class students of Secondary School in Bageshwar District. A sample comprised of 243 students studying in class X was selected randomly from Secondary schools of Bageshwar district. The both research tool developed and standardized by Dr. Ali Imam and Dr. Tahira Khatoun was administered to the students. Pearson product moment correlation technique was used in the present research. The result of the study shows that there was found a significant relationship between (i) mathematical attitude and mathematical achievement (ii) mathematical interest and mathematical achievement of class X students of secondary schools.

Introduction:

Mathematics is an important area in the field of education for the students of secondary level. Mathematics is considered as a major and difficult subject at secondary level. Almost in all walks of life, there is use of mathematics. Students often struggle to see applications of mathematics.

Mathematics Achievement:-

Since the beginning of formal education, mathematical achievement has been the deciding factor for the success of a student in the modern era of science and technology. It is assumed that the better the mathematical achievement, the more success one gets in this modern life. Mathematical achievement refers to the level of learning of different students in the subject of mathematics. It can be defined as the total marks obtained by the student in the subject of mathematics.

Mathematics attitude:-

According to Good (1973) "Attitude is readiness to react towards or against some situation, person or thing or sentiment to a particular degree of intensity."

It was often seen that, students of secondary level possess a feeling of hatred and dislikes towards mathematics and feel that it is a boring subject. The attitude towards mathematics is just a positive or negative emotional disposition towards mathematics.

Mathematical Interest:-

Interest may refer to the motivating force that impetus us to attend to a person, a thing or an activity, or it may be the effective experience that has been stimulates by the activity itself. Mathematical interest is operationally defined as a study of individuals likes and dislikes in to a given group of things or activities within the subject mathematics. Its measurement is the scores obtained in the mathematical interest scale.

Statement of the Problem:-

A study of mathematical attitude, mathematical interest and mathematical achievement of Secondary school students.

Objective of the study:-

- (i) To study the correlation between mathematical attitude and mathematical achievement of X class students of Secondary School.
- (ii) To study the correlation between mathematical attitude and mathematical achievement of X class students of Secondary School.

Research hypotheses:-

- (i) There is a no significant relationship between mathematical attitude and mathematical achievement of class X students of secondary schools.
- (ii) There is a no significant relationship between mathematical interest and mathematical achievement of class X students of secondary schools.

Method:-

The descriptive or survey research method was used for present research work.

Population of the study:-

All the students studying in class X of government and private Secondary schools of Bageshwar District.

Sample and sampling method:-

For the present study a representative sample of 243 students of class X from government and private Secondary Schools in Bageshwar district was selected randomly.

Research tool:-

Both the research tools of mathematic interest and mathematical attitude were developed and standardized by Dr. Ali Imam and Dr. Tahira Khatoun were administered to the students in the present study.

Statistical methods:-

In order to attain the objectives of the study, Karl Pearson product moment correlation technique research method was used in the present research.

Analysis and interpretations of data:-

Table 1: Coefficient of correlation between mathematical attitude and mathematical achievement:

Size of sample (N)	Calculated r	Level of significant	Interpretation
243	0.27	0.1	Significant

The variable of mathematical attitude was positively and significantly correlated with the variable of mathematical achievement of the students of class X level (r=0.27). The value of r was found statistically significant at 0.01 level of significance.

Table 2: Coefficient of correlation between mathematical interest and mathematical achievement:

Size of sample (N)	Calculated r	Level of significant	Interpretation
243	0.23	0.1	Significant

The variable of mathematical interest was positively and significantly correlated with the variable of mathematical achievement of the students of class X level (r=0.23). The value of r was found statistically significant at 0.01 level of significance.

Findings and conclusions of the study:-

The present study shows that:

- 1- There is found a significant relationship between mathematical attitude and mathematical achievement of class X students.
- 2- There is found a significant relationship between mathematical interest and mathematical achievement of class X students.

References

1. Good, V. C. (1973). Dictionary of Education. New York: McGraw Hill Book Company.