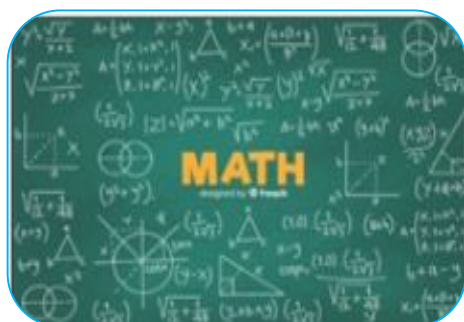




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EXPLORING THE INTEREST IN MATHEMATICS AND LEARNER STRATEGIES ASSOCIATED TO THE ACADEMIC ACHIEVEMENT AT HIGH SCHOOL LEVEL

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ABSTRACT:

Interest in mathematics is an important variable affecting the academic achievement of students. Interest is the central force that derives the whole machinery of teaching-learning process. Learner strategy is an important aspect of student learning and academic performance in classroom context. The aim of this study is to find out the relationship

between interest in the subject mathematics and learner strategies and how it influences the academic achievement. Sample of this study consisted of 738, IX standard students from the schools of Thanjavur district. The findings of the study revealed that there is significant positive relationship between all the three variables.

KEYWORDS: Interest in Mathematics, Learner Strategies, Academic Achievement in Mathematics.

INTRODUCTION

Education is the process of bringing about desirable changes and developments in an individual. The meaning of Education is all round development of the individual. Education should help a person to face all challenging situations and resolve problems. Mathematics is a basic of science without which education is incomplete. Even a person who is unable to read and write would have a basic knowledge of numbers and simple calculations. Without the basic knowledge of

mathematics survival is difficult. Mathematics equips people with a uniquely powerful set of tools to understand and change the world. These tools include logical reasoning, problem solving skills and the ability to think in abstract ways. At the same time, teaching of mathematics is challenging because many of the concepts are abstract and most mathematical problems require specific methods for the understanding of the abstract concepts.

OBJECTIVES

- To find out the significant difference in interest in mathematics of high school students based on their gender, locality of school,

- locality of residence, type of management, type of family, mother's educational qualification, father's educational qualification, mother's occupation and father's occupation.
- To find out the significant difference in learner strategies of high school students based on their gender, locality of school, locality of residence, type of management, type of family, mother's educational qualification, father's educational qualification, mother's occupation and father's occupation.
- To find out the significant difference in academic achievement in mathematics

of high school students based on their gender, locality of school, locality of residence, type of management, type of family, mother's educational qualification, father's educational qualification, mother's occupation and father's occupation.

METHODOLOGY

Normative survey method is adopted for this study. All the students who are studying at the high schools in Thanjavur district constitute the population. The sample is taken from eighteen high schools, studying in standard nine and comprises of 436 males and 302 females. Purposive sampling technique is used for this study.

TOOLS

- Interest in Mathematics Questionnaire developed by the investigator.
- Learner Strategies Scale developed by the investigator.
- Mathematics Test Paper prepared by the investigator.

DATA ANALYSIS

Table 1: Relationship between the Scores of Interest in Mathematics, Learners Strategies and Academic Achievement in Mathematics among the Students at High School Level

Variable	r-value	Remark
Interest in Mathematics and Learner Strategies	0.497	Significant at 0.05 level
Interest in Mathematics and Academic Achievement in Mathematics	0.247	Significant at 0.05 level
Learner Strategies and Academic Achievement in Mathematics	0.178	Significant at 0.05 level

Table-1 shows that there is substantial positive relationship between the Interest in Mathematics and Learner strategies, low positive relationship between Interest in Mathematics and Academic Achievement in Mathematics and negligible positive relationship between Learner Strategies and Academic Achievement in Mathematics.

FINDINGS OF THE STUDY

INTEREST IN MATHEMATICS

1. When it comes to interest in mathematics significant difference is there in gender. Females have more interest in the subject than males.
2. There is significant difference regarding type of management. Students of government aided schools and government schools have more interest than private schools.
3. There is no significant difference found with respect to Locality of school, Locality of residence, Type of family, Mother's educational qualification, Mother's occupation, Father's educational qualification and Father's occupation.

LEARNER STRATEGIES

1. There is significant difference in Learners strategies with respect to gender. Females score more in all four dimensions than males.
2. There is significant difference in Learners strategies with respect to type of management. Government aided school students score most which is followed by government school students and private school students lesser compared to the other two.
3. There is no significant difference in learner strategies regarding the other demographic variables.

ACADEMIC ACHIEVEMENT IN MATHEMATICS

1. There is significant difference in academic achievement regarding type of management. Private school students top the list followed by government school students and then government aided school students.
2. There is significant difference in achievement with respect to mother's educational qualification. Students whose mothers have college education score more than the students whose mothers have school level education only. Students whose mothers are illiterate score least.
3. There is significant difference in achievement with respect to father's educational qualification. Students whose fathers have college education score more than the students whose fathers have school level education only. Students whose fathers are illiterate score least.
4. There is significant difference in achievement with respect to mother's occupation. Students whose mothers are home makers score more marks than the students whose mothers are employed.
5. There is significant difference in achievement with respect to father's occupation. Students whose fathers are employed in government offices score more than the students whose fathers work in private organization. Students whose fathers work for daily wages show low academic achievement.
6. There is no significant difference in academic achievement regarding gender, locality of school, locality of residence and type of family.

CONCLUSION

Today in schools, there is little opportunity for systematizing skills and construct theory from their knowledge. There is little encouragement and assistance for such efforts. The school may conduct seminars, group discussion and essay competitions on Mathematics to develop high interest among high school students. Parents should help the students remove their negative attitude towards the subject by giving a conducive atmosphere at home.

REFERENCES

1. Hemalatha. (2013). Learning Styles and their influence on academic achievement. *The Educational Review*, 45(2), 30-32.
2. Pannu. (2013). Academic achievement in relation to cognitive styles, Location and gender of adolescent students. *Edutracks*, 12(5), 33-38.
3. Rani, K. V. (2016). Relationship of Perceptual Learning Styles and Academic Achievement among High School Students. *Journal on School Educational Technology*, 11(3), 10-17.
4. Savithri. (2006). Impact of metacognitive strategies in enhancing perceptual skills among high school students in learning geometry. Retrieved from shodhganga.infibnet.ac.in



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