

# Effect of Study Habits on the Mathematical Interest and Achievement of Secondary School Students

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Publication Date: 2026/04/16

**Abstract:** The present study investigates the effect of study habits on the mathematical interest and achievement of secondary school students. Study habits, including time management, practice, revision, and concentration, are considered crucial in shaping students' engagement and performance in mathematics. A sample of 100 secondary school students was surveyed using a structured questionnaire on study habits and a mathematics achievement test. Results indicate a significant positive relationship between effective study habits and students' mathematical interest and achievement. The study provides insights for teachers, parents, and educators to foster productive study habits to enhance mathematics learning.

**Keywords:** Study Habits, Mathematical Interest and Achievement.

**How to Cite:** Dr. Dola Chakravorty; Banti Prajapat (2026) Effect of Study Habits on the Mathematical Interest and Achievement of Secondary School Students. *International Journal of Innovative Science and Research Technology*, 11(4), 692-694. <https://doi.org/10.38124/ijisrt/26apr187>

## I. INTRODUCTION

Mathematics is a foundational subject in secondary education, essential for developing logical reasoning, analytical thinking, and problem-solving abilities. Students' interest in mathematics is influenced not only by their intrinsic curiosity and classroom experiences but also by their study habits. Study habits encompass the ways in which students approach learning tasks, organize their time, review concepts, practice problems, and maintain focus during study sessions. Research has shown that effective study habits significantly contribute to academic success, while poor habits can hinder students' learning, engagement, and interest in the subject.

In secondary schools, students often face challenges such as heavy curriculum load, pressure of examinations, and lack of structured study routines. These challenges can negatively affect their mathematical interest and achievement. Moreover, in the Indian context, many students rely on rote memorization and repetitive exercises rather than strategic learning and problem-solving. Identifying the role of study habits in shaping mathematical interest can provide valuable guidance to educators, parents, and policymakers to design interventions that promote effective learning strategies.

Effective study habits encourage students to actively engage with mathematical concepts, apply learned knowledge to problem-solving, and develop self-regulated learning skills. Regular practice, time management, organized revision schedules, and maintaining concentration during study sessions not only enhance achievement but also foster sustained interest in mathematics. Conversely, inconsistent study routines, distractions, and superficial engagement with content can lead to decreased motivation and poor academic outcomes.

Several studies internationally and in India highlight the importance of study habits in academic achievement. Effective study habits are closely linked to intrinsic motivation, cognitive development, and long-term retention of concepts. Students who develop disciplined, structured, and goal-oriented study routines are more likely to demonstrate higher interest in mathematics and perform better in examinations and problem-solving tasks.

The present study aims to examine the relationship between secondary school students' study habits and their mathematical interest and achievement. By understanding this relationship, teachers can incorporate strategies to guide students in developing productive study routines, parents can encourage effective learning practices at home, and school administrators can design programs that foster self-

regulated learning. This research emphasizes the critical role of students’ personal study approaches in shaping both their interest and competence in mathematics, thereby contributing to enhanced learning outcomes and academic success.

**II. REVIEW OF RELATED LITERATURE**

- Sharma & Verma (2020) found that students with disciplined study habits showed higher achievement and interest in mathematics.
- Gupta (2018) emphasized the role of self-regulated study practices in sustaining mathematical curiosity and problem-solving skills.
- Kaur (2019) reported that time management, regular practice, and organized study schedules positively influence students’ learning outcomes in mathematics.
- Pintrich & Schunk (2002) highlighted that intrinsic motivation and effective study strategies contribute to higher engagement and academic success.
- Singh (2021) observed that students who develop goal-oriented study habits are more confident and perform better in mathematics examinations.

➤ *Objective and Hypothesis*

- *Objective:*
- ✓ To examine the relationship between study habits and the mathematical interest of secondary school students.
- *Hypothesis:*
- ✓ Secondary school students with effective study habits exhibit higher mathematical interest compared to students with poor study habits.

**III. METHODOLOGY**

➤ *Research Design:*

- Descriptive survey design.

➤ *Population and Sample:*

- Secondary school students in Jaipur. A sample of 100 students was selected randomly from 4 schools.

➤ *Research Tools:*

- Study Habits Questionnaire: 20-item Likert scale measuring time management, practice, concentration, and revision.
- Mathematical Interest Scale: 15-item Likert scale measuring enjoyment, curiosity, and willingness to engage in mathematics.
- Achievement Test: Standardized mathematics test covering algebra, geometry, and arithmetic.

➤ *Data Collection Procedure:*

The researcher administered the questionnaires and achievement test during school hours. Students were assured of confidentiality and adequate time to complete the instruments.

➤ *Statistical Treatment:*

- Descriptive statistics: mean, standard deviation.
- Inferential statistics: Pearson correlation to examine the relationship between study habits and mathematical interest/achievement.

**IV. RESULTS AND DISCUSSION**

Table 1 Results and Discussion

Variable	Mean	SD	Interpretation
Study Habits	4.05	0.60	Students exhibit moderately good study habits
Mathematical Interest	3.95	0.65	Moderate to high interest in mathematics
Achievement	78	8.5	Average to high performance in mathematics
Correlation (Study Habits – Interest)	0.68	-	Significant positive relationship (p < 0.01)

➤ *Discussion*

The study reveals that students with structured and effective study habits tend to demonstrate higher interest in mathematics and better achievement. Regular practice, focused study sessions, and organized learning strategies enhance engagement and competence. These findings align with previous research emphasizing the importance of self-regulated learning and intrinsic motivation in mathematics education.

among secondary school students. Encouraging students to adopt disciplined study routines, providing guidance on time management, and promoting consistent practice can strengthen engagement and performance in mathematics.

➤ *Educational Significance*

- Assists teachers in designing study skill workshops and classroom activities to enhance mathematical interest.
- Encourages parents to support productive study routines at home.
- Helps curriculum developers integrate learning strategies that promote engagement.

**V. CONCLUSION**

Effective study habits are significantly associated with higher mathematical interest and improved achievement

- Informs policymakers about the importance of study habits in academic motivation and achievement.

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