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# Study of Academic Achievement of Mathematics Subject in the Context of Study Habits of Students

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## ABSTRACT

Students have different study habits from one another and from location to location. It is a crucial component of education since students' study practices have a big effect on their achievement in academics. Parents, educators, administrators, and members of the public are increasingly concerned about the poor level of mathematical comprehension in our country. Researchers and educators have worked very hard to determine the causes of the low performance in the subject. Despite all of these initiatives, the issues persist. Students' study habits are a powerful indicator of both their academic performance in mathematics and the quality of their education. It is unrealistic to expect students to acquire all there is to know about a subject from their teachers in the classroom; students' study habits are a combination of what they learn in and outside of the classroom. Sorenson (1991) listed several beneficial study habits, one of which is that the main goal of study should be understanding. One must focus on this for an extended period of time rather than rushing through. Effective study techniques, according to Crow & Crow (1992), include setting up a specific workspace, creating a timetable, and taking concise, well-organized notes.

**Keywords:** Habits, Study, Class Learning, Achievement.

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## Introduction:

Good habits can be developed in children in their childhood itself. Just as a small plant can be straightened easily, but when it grows into a big tree, it becomes difficult to straighten. Similarly, development of good habits in children is possible only in the initial period of their life. Once habits are formed, it is difficult to change them. Along with the development of morality, study habits can also be developed in children through education. The contribution of teachers, parents and society will be very important in this work. In the presented research, according to the findings regarding the impact of students' study habits on their educational achievement, it was found that their study habits have a significant impact on the achievement of mathematics subject. When a person does any work willingly and repeatedly, so he gets used to doing that work. What we call habits are the result of learning and definitely influence

achievements. In the present times, there has been a massive change in the study habits and attitudes of students. Students study not only to succeed in examinations but also to succeed in professional examinations. Therefore, meaningful efforts should be made to give a positive shape to the study habits and attitudes of the students so that by developing study habits, the academic achievement of the students can be increased and their future can be made brighter.

Study habits are the actions and routines people engage in to support their academic progress and learning. These practices include methods for planning, scheduling, goal-setting, and efficiently interacting with study resources. Creating effective study habits can enhance academic performance in general and learning outcomes in particular. Effective study techniques can lower stress levels, increase comprehension and memory of material, increase learning efficiency, and boost academic achievement.

### **Objectives of the research:**

The objectives of the research are as follows –

1. To find out the Academic Achievement of the students studying at higher secondary level in Mathematics subject.
2. To gather data regarding the study habits of secondary school students.
3. To determine the effect that higher secondary students' study habits have on their academic performance in the mathematics course.

### **Hypotheses:**

The following hypotheses of the presented research are –

1. There will be a good relationship observed between the academic performance of secondary school students in mathematics and their study habits.
2. Students studying at the upper secondary level from rural and urban locations will differ significantly in their study habits.
3. There is a notable distinction between the academic performance of mathematics students enrolled in higher secondary education programs from rural and urban locations.

### **Limitation:**

This study is limited to 100 students studying in 02 urban and 02 rural government schools of Lucknow district.

### **Research method:**

In the presented research survey method has been used.

### **Sample:**

In the presented research study, random sampling method based on probability theory has been used. For the research work, 100 students of class 10<sup>th</sup> who are studying in Hindi medium government schools have been selected, out of which 25 boys and 25 girls have been selected from urban areas and 25 boys and 25 girls have been selected from rural areas.

**Equipment for this Research:**

The following instruments have been used –

1. Study Habit Scale – Standardized instrument created by Dr. C.P.G. Mathur
2. Scholastic Achievement Scale - Self Made Tool

**Variables:**

In the present research there are the following variables –

1. Independent variable - Study Habit
2. Dependent Variable - Academic Achievement

**Statistical Analysis:**

In the presented research, mean, standard deviation, significance difference of mean was calculated for statistical analysis.

**Hypothesis-1**

“There will be a good relationship observed between the academic performance of secondary school students in mathematics and their study habits.”

The value of correlation coefficient between the study habits of the students and the academic achievement of mathematics subject was found to be 0.549. It is clear that the correlation coefficient between the study habits of the students and the academic achievement of mathematics subject is moderately positive. Students' study habits have a positive effect on academic achievement in mathematics. Therefore, hypothesis number-1 is accepted.

**Hypothesis- 2**

"Students studying at the upper secondary level from rural and urban locations will differ significantly in their study habits."

**Table-1**

	N	M	CR	df	Significance
<b>Rural</b>	50	39.9	2.69	98	Significant at 0.01 level
<b>Urban</b>	50	44.1			

The value of t for the significant difference in the study habits of mathematics subject of urban and rural students was found to be 2.69, which is 98 for df is greater than the true value of 2.63 at the 0.01 confidence level. Therefore, a significant difference has been found in the study habits of urban and rural students and hypothesis number -2 is accepted.

**Hypothesis- 3**

"There is a notable distinction between the academic performance of mathematics students enrolled in higher secondary education programs from rural and urban locations"

**Table-2**

	<b>N</b>	<b>M</b>	<b>CR</b>	<b>df</b>	<b>Significance</b>
<b>Rural</b>	50	25.9	2.73	98	Significant at 0.01 level
<b>Urban</b>	50	28.1			

A significant difference will be found in the academic achievement of Mathematics subject.” The value of t was found to be 2.73 which is more from the actual value 2.63 at 0.01 confidence level for 98 df for the significant difference in the academic achievement of Mathematics subject of urban and rural students. Therefore, a significant difference has been found in the academic achievement of the urban and rural students in Mathematics subject and hypothesis number-03 has been accepted.

### **Conclusion:**

The following are the conclusions of the present research-

1. The students' study habits and their academic accomplishment in the mathematics subject were shown to have a straightforward positive association, meaning that study habits enhance academic achievement in the mathematics topic.
2. In the mathematics, there was a difference in the academic performance of pupils from rural and urban areas. In mathematics, urban children perform better academically than their rural counterparts.
3. There were differences between the study habits of students in rural and urban locations. It was discovered that urban students had more study habits than rural pupils.

### **Suggestion:**

In light of the study's conclusions, the following suggestions are presented –

1. Necessary educational material, library, books should be arranged in all the schools of urban and rural areas.
2. Untrained teachers of urban and rural areas should be trained and subject orientation; training should be organized for teachers of mathematics subjects on time.
3. Mathematics subject laboratory should be made in schools of both rural and urban areas.
4. Children are not able to make proper plans for studies. Therefore, proper guidance should be given to develop their study habits.
5. Students should make full use of the school library.

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