

# Relationship of Study Habits with Mathematics Achievement

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## Abstract

The study examined the relationship of study habits of students and their achievement in mathematics. The method used for the study was correlation design. A sample of 500 students were randomly selected from 25 public secondary schools in Delta Central Senatorial District, Delta State, Nigeria. Questionnaires were drawn to gather data on students' study habits. Students' results in mathematics were also collected from their various schools to gather data on their achievement in mathematics. Two research questions were formulated to guide the study. Regression and ANOVA were used to analyse the data. The following are the major findings: There was significant relationship between students' study habits and mathematics achievement. There was a significant difference in mathematics achievement between good study habits and poor study habits.

## Introduction

The study habits of students vary from one student to the other and from one place to another. It is an important aspect of learning because students' achievement in schools depends greatly on their study habits. The low understanding level in mathematics has become great concern for our country, parents, educationists and government. The researchers and educationists have made frantic efforts to find out the causes of low achievement in the subject. In spite of all these efforts the problems still persist. The study habits of students play a vital role in reflecting the standard of education and the students' achievement in mathematics. The students cannot be expected to learn everything needed about the subject from their teachers in the classroom alone, it is the combination of both the classroom learning and out of classroom learning that make up students study habits. Sorenson (1991), while listing the good basic study habits stated that one must study with the primary aim of understanding. This requires one not to be in a hurry of getting through, rather sustained concentration is necessary. Crow and Crow (1992) stated that effective study habits include plan/place, a definite time table and taking brief of well organised notes.

Many studies have been carried out by researchers like Adeyemo (2005) and Gbore (2006) on effective study habits. They argue that study habits have strong relationship with the academic performance of students. A student who cultivates certain study habit will perform differently from a student who has another set of study habit. It is believed that student who lacks effective and efficient means of studying would be building on shaking foundation and consequently have weak foundation. The teachers teach all the students collectively but all the students do not have the same grades, here we see underachievers and high achievers in mathematics. With these the teachers get puzzled with the sight of such situations and then try or push too much (Riaz, Asma, and Niaz, 2002). There may be a number of reasons like different levels of intelligence, lack of good infrastructural facilities, and lack of good libraries and so on. But one of the reasons is that students fail to make good a effort to learn what their teachers taught them in the school and also do not study at home because they fail to recognise the importance of study habits to their academic achievement. According to Riaz et al (2002), the study habits of the students could play pivotal role in the learning process reflected in the academic achievement of the students in mathematics. Abid (2006) stated that the quality of a nation depends upon the quality of its citizen while quality of citizen depends on the quality of its education which in turn depends on the study habits of the students. Quality of education is reflected through academic achievements which is a function of students' study habits. The purpose of this study is to find out if there is a relationship between students' study habits and their achievement in mathematics and also to find out if students with good study habits are better than those with poor study habits in mathematics. To achieve this the following research questions were raised to guide the study.

1. Is there any significant relationship between students' study habit and their achievement in mathematics?
2. Is there any significant difference between students with good study habit and those with poor study habit in mathematics achievement?

## METHODOLOGY

The study aimed at the determination of the relationship of study habits and the achievement of students in mathematics. In this study, academic subject investigated for the study was mathematics. The respondents consisted of 500 students selected from 25 secondary schools in Delta Central Senatorial District, Delta state, Nigeria. Subjects were chosen using the stratified random sampling techniques. The research design was correlation. The instrument used to gather information on students' study habits was questionnaire. The students

past results in mathematics were collected from their various schools which was used to measure their achievement in mathematics. Regression and ANOVA were used to analyse the data.

## RESULTS AND DISCUSSION

In Table 1, 0.029 is the relationship between students study habits and their mathematics achievement. This shows that there is a positive relationship between study habits and mathematics achievement and further indicates that as the students study habits improve their achievement also improves. The results also shows that study habit contribute to students' achievement in mathematics. Ansari (1980) stated that study habits are significant variables which determine the academic performance of students in mathematics. The reason students are not doing well in mathematics is because of ineffective study habits. Most students do not solve or practice mathematical problems because they assume that mathematics consume their time and the consequence is low achievement. Riaz et al (2002) observed that there is positive relationship between study habit and mathematics achievement. With these we can conclude that study habits is a predictor of students achievement in mathematics and that for a student to do well in the subject he/she must use an appropriate method for studying the subject mathematics.

Table 2 revealed that there was a significant difference between good study habit and poor study habit in mathematics achievement. The mean level reported by good study habit was 18.35 while that of poor study habit was 8.11. The difference in means indicated that there was a significant difference between students with good study habits and those with poor study habits in mathematics. Since the mean of good study habit was greater than that of poor study habits we can conclude that students with good study habit and those with poor study exhibited difference achievement scores favouring those with good study habit.

Since students with good study habit have higher means it shows that study habit contribute to mathematics achievement. Abid (2006) stated that better study habits leads to better achievement. Riaz et al (2002) in their research work on the relationship between study habits and achievement concluded that there exist a significant and positive relationship between achievements of students and study habits. They also observed that good study habit lead to good achievement. Sarwa (2002) concluded that high achievers have better study habit than that of low achievers. Some students claim to thrive in any environment even with music at the background but studies had proved that it is only peaceful environment that can yield optimum results in a studying situation. It is essential to remember that good environment makes it much easier for students to concentrate. If students study habits are bad, eventually such students cannot achieve well in mathematics.

Table 1: Correlation analysis of Students' study habits and their achievement in mathematics

	Mathematics achievement	Study habit
Mathematics achievement	1.000	0.029
Study habit	0.029	1.000
Sig.(1-tailed)		0.260
N	500	500
	500	500

Table 2: Difference between students with good study habit and poor study habit in mathematics achievement

Groups	Count	Sum	Average	Variance
Mathematics achievement	500	18814	37.628	252.2461
Poor study habit	473	3835	8.107822	23.73199
Good study habit	497	9120	18.3501	35.32476

## Conclusion

The study revealed that study habits influence students' achievement in mathematics. It also revealed that good study habits leads to better achievement in mathematics. It was also observed that students with good study habit have better achievement compare to those with poor study habit. From the findings we discovered that lack of good study habits, results to poor achievement in mathematics.

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