



Effect of Study Habit on Senior Secondary I & II Students' Performance in Mathematics in Selected Public Secondary Schools in Rivers State

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ABSTRACT

This paper examined the effect of study habits on senior secondary I and II students' performance in Mathematics in public secondary schools in Ikwerre and Obio/Akpor Local Government Areas of Rivers State. Descriptive survey design was adopted for the study. The population of the study was 17,260 students which comprised of 7,519 males and 9,741 females senior secondary schools I and II students in Thirty-Two (32) Public Senior secondary schools in Ikwerre and Obio/Akpor Local Government Areas, Rivers State. The simple random technique was used to select 10 Public senior secondary schools in both Ikwerre and Obio/Akpor Local Government Areas of Rivers State. The Taro Yamane formula was used to determine the sample size. Therefore, the sample size of the study was Seven Hundred and Sixty-four (764) respondents which comprised of Three Hundred and Eighty (380) Male and Three Hundred and Eighty-Four (384) Female Students in SS I and II. An instrument titled "Effect of Study Habits on Senior Secondary I and II Students' Performance in Mathematics" was used for data collection. The reliability of the instrument gave a Cronbach Alpha index of 0.80 which was considered reliable. The data collected were analyzed using mean and standard deviation in answering the research questions while the null hypotheses formulated were tested using Pearson Product Moment correlation coefficient at 0.05 level of significance. The result showed that most of the schools do not have a functional Library and where it exists, it is ill equipped. It was also found that students have difficulty taking note in class so, they prefer coping from their classmates. The study also found that students generally had below average scores in Mathematics in third term promotional examination in Ikwerre and Obio/Akpor Local Government Area of Rivers State. A positive correlation between library utilization, note taking and performance in Mathematics was also observed. From the findings of this study it can be concluded that the below average performance in Mathematics could be due to the poor study habits of library utilization, note taking and participation in class room activities. The researcher recommended that government should build and equip libraries in secondary schools for students' utilization in order to encourage the study of Mathematics.

Keywords: Study habits, Performance, Mathematics

INTRODUCTION

The study of Mathematics is important in laying a good foundation in the Science and Technological development of any nation. Mathematics is the pivot on which all sciences; engineering, business and even social sciences revolve. Mathematics according to Bello and Ariyo (2014) is the language of Science and Technology. It is the tool for solving science subjects like Physics and Chemistry; hence prioritization of Mathematics teaching and learning in the bid for national development is inevitable. Mathematics is a compulsory subject at basic and secondary levels of education in Nigeria. Because of the importance of Mathematics, institutions of higher learning in Nigeria require a credit pass from candidates seeking admission to study various courses in their institutions. This is done to ensure the training and availability of science and technological oriented citizens who can think critically about complex issues, analyze and adapt to new situations, solve problems of various kinds and communicate their thinking effectively for economy growth of the nation.

In other to achieve this, there is need to encourage students at the primary and secondary level of education to develop good study habits which can help them understand the various techniques that can be used in the study of Mathematics.

Study habit as a concept, refers to the consistent pattern or ways of study adopted by students which has been practiced over a period of time. Study habit is one of the learning factors that largely influence students' academic achievements (Ebele & Olofu, 2017). Ebele and Olofu (2017) vividly noted that If undermined by students at all levels, teachers, Administrators, parents and guardians, school counsellors and the government, then, the trend and menace of students' abysmal performance in both internal and external examinations would continue to boom and become more devastating and alarming. According to Eremie (2017), effective study habit includes demonstrating high motivation, avoiding distraction, right learning styles with concentration, interest, ability to remember facts studied and proper time management. In essence, study habit demonstrates the extent to which the student engages in routine acts of studying effectively to achieve high performances in examination scores (Bello & Ariyo, 2014).

Considering the academic performance of students, Bashir and Matte (2012) defined academic performance as "the measure of how much knowledge the individual has acquired from school or instruction and the ability to produce such knowledge in both internal and external examination.

In a broad sense, study habits can be classified into two: good and bad study habits. Good study habits according to Katelyn (2013) are sometimes referred to as positive or productive study habits. As the name implies, they are those desired study habits which have the tendency to improve the academic performance of students or that seem to produce good results. They are the study habits which make students successful in their studies after developing and applying them throughout their academic career.

Good study habits occur as a result of practice and knowing what methods are most effective for the individual student. Bello and Ariyo (2014) recommended that when studying, students should stay away from distractions such as the Television and mobile phone. Instead of procrastinating, students should work on a long term assignment daily, instead of studying the night before, study a little each night. There is also need for the student to review what he/she learned in class every day, before starting homework. Additionally, a good tip is to is for the student to review what was taught in class the previous day at the beginning of class when there are few minutes before the teacher starts teaching.

Purpose of the study

The general purpose of this study was to investigate the effect of study habits on senior secondary I and II students' performance in Mathematics in public secondary schools in Ikwerre and Obio/Akpor Local Government Areas of Rivers State.

The specific objectives of the study were to:

1. Investigate male and female students' library utilization and its effect on performance in Mathematics in public senior secondary schools in Ikwerre and Obio/Akpor Local Government Area, Rivers state.
2. Investigate male and female students' note taking behaviour and its effect on performance in Mathematics in public senior secondary schools in Ikwerre and Obio/Akpor Local Government Area, Rivers state.

3. Investigate male and female students participation in class activities and its effect on performance in Mathematics in public senior secondary schools in Ikwerre and Obio/Akpor Local Government Area, Rivers state.

Research Questions

The following research questions were used to guide the study:

1. To what extent does library utilization affect male and female students' performance in Mathematics in public senior secondary schools in Ikwerre and Obio/Akpor Local Government Area, Rivers state?
2. To what extent does note taking behaviour of male and female students' affect their performance in Mathematics in public senior secondary schools in Ikwerre and Obio/Akpor Local Government Area, Rivers state?
3. To what extent does participation in class activities affect male and female students' performance in Mathematics in public senior secondary schools in Ikwerre and Obio/Akpor Local Government Area, Rivers state?

Null Hypotheses

The following null hypotheses formulated for the study were tested at 0.05 level of significance.

H₀₁: There is no relationship between students' library utilization and its effect on performance in Mathematics in public senior secondary schools in Ikwerre and Obio/Akpor Local Government Area, Rivers state.

H₀₂: There is no relationship between students' note taking behaviour and its effect on performance in Mathematics in public senior secondary schools in Ikwerre and Obio/Akpor Local Government Area, Rivers state.

Research Question 1: *To what extent does library utilization affect male and female students' affect their performance in Mathematics in public senior secondary schools in Ikwerre and Obio/Akpor Local Government Area, Rivers state?*

Table 1: Mean Rating of Library Utilization of Male and Female Students and its Influence on Academic Performance in Public Senior Secondary Schools in Ikwerre and Obio/Akpor Local Government Areas of Rivers State

S/N	Item	Male Students (N =380)			Female Students (N =384)		
		\bar{X}	SD	Remark	\bar{X}	SD	Remark
5.	Using the library either in school or at home helps me to study for good grades.	2.18	1.06	L	1.99	0.70	L
6.	The library provides a quite environment for my studies.	2.16	0.62	L	1.73	0.85	L
7.	I use the books available in the library.	2.09	0.45	L	3.21	0.82	H
8.	There is no library in my school.	3.77	0.70	H	3.91	0.28	H
Grand Mean/SD		2.55	0.71		2.71	0.66	

Source: Field Survey, 2019

Table 1 above showed that to a less extent both male and female students utilization of the library either in school or at home has not help them to study for good grades, and that the library provides a quite environment for studies. The Table also indicated that male student to a less extent use the books available in the library where there a library while female students to a high extent also use the books available in the library. However, both male and female students agreed to a high extent that what they have as a library can best be described as no library at all.

Research Question 2: *To what extent does Note Taking behaviour of male and female students' affect their performance in Mathematics in public senior secondary schools in Ikwerre and Obio/Akpor Local Government Area, Rivers state?*

Table Mean Rating of Note Taking Behaviour of Male and Female Students in Public Senior Secondary Schools in Ikwerre and Obio/Akpor Local Government Area, Rivers State.

S/N	Item	Male Students (N =380)			Female Students (N =384)		
		\bar{X}	SD	Remark	\bar{X}	SD	Remark
9.	I take note during my class lessons.	2.40	0.83	L	2.46	0.83	L
10.	Note taking in class have help me improved my grades.	2.13	1.16	L	1.95	0.99	L
11.	Note taking in class have help me improved my writing skills.	2.25	0.81	L	2.20	0.14	L
12.	I have difficulty taking note in class so, I prefer coping from my classmates.	2.66	0.94	H	3.74	0.48	H
Grand Mean/SD		2.36	0.94		2.59	0.61	

Source: Field Survey, 2019

The mean rating of note taking behaviours of male and female students and its influenced on academic performance in public senior secondary schools in Ikwerre and Obio/Akpor Local Government Areas of Rivers State is shown in Table 2 above. The Table revealed that both male and female students are of the opinion that to a less extent, taking note during class lessons, and writing skills have not helped to improved their grades. Table 4.3 also revealed that to a high extent both male and female students have difficulty taking note in class so, they prefer coping from their classmates.

Research Question 3: *To what extent does participation in class activities affect male and female students' performance in Mathematics in public senior secondary schools in Ikwerre and Obio/Akpor Local Government Area, Rivers state?*

Table 3. Mean Rating of Male and Female Students' Participation in Class Activities in Public Senior Secondary Schools in Ikwerre and Obio/Akpor Local Government Area, Rivers

S/N	Item	Male Students (N =380)			Female Students (N =384)		
		\bar{X}	SD	Remark	\bar{X}	SD	Remark
9.	Participating in class activities like quiz, test and class work have helped improved my grades	2.40	0.83	L	2.46	0.83	L
10.	My teachers ensure that all students in the class participate in class activities	2.74	0.44	L	1.68	0.43	L
11.	I do not like to participate in class activities	2.51	0.83	L	3.74	0.47	L
12.	Class activities are not frequent in my class	3.18	0.38	H	3.52	0.50	H
Grand Mean/SD		2.71	0.62		2.69	0.56	

The mean rating of male and female students' participation in class activities and effects on academic performance in public senior secondary schools in E er-re and Obio Akpor Local Government Area, Rivers is shown in Table .3. The Table revealed that both male and female students are of the opinion

that to a less extent participating in class activities like quiz, test and class work have helped improved their grades. Also, Table 3 showed that male respondents agreed that to a high extent their teachers ensure that all students in the class participate in class activities while their female counterpart opinion differs. Table 3 also revealed that to a high extent both male and female students do not like to participate in class activities and that class activities are not frequent in their class.

Null Hypotheses Test

H₀₁: There is no relationship between students’ library utilization and its effect on performance in Mathematics in public senior secondary schools in Ikwerre and Obio/Akpor Local Government Area, Rivers state.

Table 4. Null Hypotheses 1 testing

		Library Utilization	Performance in Mathematics
Library Utilization	Pearson Correlation	1	0.207**
	Sig. (2-tailed)		0.000
	N	764	764
Performance in Mathematics	Pearson Correlation	0.401**	1
	Sig. (2-tailed)	0.000	
	N	764	764

** . Correlation is significant at the 0.01 level (2-tailed).

Table 4 showed that Pearson correlation co-efficiency of the variable $r = 0.207^{**}$ while it’s P-Value = 0.000. From the foregoing result, it can be deduced that the strength of association between the variables is high ($r = 0.207^{**}$) and correlation coefficient is significantly different from zero ($P < 0.001$). This means that there is a strong relationship between students’ library utilization and its effect on performance in Mathematics in public senior secondary schools in Ikwerre and Obio/Akpor Local Government Area, Rivers state.

H₀₂: There is no relationship between students’ note taking behaviour and its effect on performance in Mathematics in public senior secondary schools in Ikwerre and Obio/Akpor Local Government Area,, Rivers state.

Table 5. Null Hypotheses 2 testing

		Library Utilization	Performance in Mathematics
Library Utilization	Pearson Correlation	1	0.408**
	Sig. (2-tailed)		0.000
	N	764	764
Performance in Mathematics	Pearson Correlation	0.408**	1
	Sig. (2-tailed)	0.000	
	N	764	764

** . Correlation is significant at the 0.01 level (2-tailed).

Table showed that Pearson correlation co-efficiency of the variable $r = 0.408^{**}$ while it’s P-Value = 0.000. From the foregoing result, it can be deduced that the strength of association between the variables is high ($r = 0.408^{**}$) and correlation coefficient is significantly different from zero ($P < 0.001$). This means that there is a strong relationship between students’ note taking behaviour and its effect on performance in Mathematics in public senior secondary schools in Ikwerre and Obio/Akpor Local Government Area, Rivers state.

DISCUSSION OF FINDINGS

Study habits contribute significantly in the development of knowledge and perceptual capacities (Marc, 2011). In considering Library utilization as a study habit as shown in Table 5, the study found that to a less extent both male and female students utilization of the library either in school or at home have helps them to study for good grades, and that the library provides a quite environment for studies.

The study also found that male student to a less extent uses the books available in the library where there is library while female students to a high extent also use the books available in the library. However, both male and female students agreed that what they have as a library can best be described as no library at all. These findings agreed with Mekonnen (2014) findings that in some public schools where libraries exist, there is lack of resources like reference materials, well organized selves and computers with internet access. For any nation to be proud of their educational development, it should be able to boost of a viable and functional information communication technology driven education in secondary schools especially in this fast changing world of globalization. Olayinka (2016) also opined that the library is the most vital part of learning and education process which consist of all the learning resources such as different kinds of books, tape, newspapers, computers etc. The scholar recommended that the library should be made available to students to utilize for their studies, learning and borrow books. The Availability of library facility in any school according to Olayinka (2016) makes learning processes more effective and advanced.

In the aspect of note taking behaviours in response to research question 2, the findings of this study showed that both male and female students are of the opinion that to a less extent, taking note during class lessons have help improved their grades and writing skills. This findings agreed with Kiewra et al. (2007) who opined that taking notes in class and reviewing those notes (either in class or afterward) have a positive impact on student learning. Not surprisingly, the preponderance of studies confirms that students recall more lecture material if they record it in their notes of which this study found otherwise.

The study also found that to a high extent both male and female students have difficulty taking note in class so, they prefer coping from their classmates. This is in agreement with Kiewra et al. (2007) findings that students who take notes score higher on both immediate and delayed tests of recall than students who do not take notes. This provide logical explanation to the poor performance trend in third term promotional examination for both senior secondary I and II students in public schools in Ikwerre and Obio/Akpor Local Government of Rivers State in Mathematics (Table 3 and 4).

Research question 3 which sort to find out the extent to which participation in class activities affect male and female students' performance in Mathematics in public senior secondary schools in Ikwerre and Obio/Akpor Local Government Area, Rivers state, the study found that both male and female students are of the opinion that to a less extent participating in class activities like quiz, test and class work have help them improved their grades, but to a high extent they do not like to participate in class activities and that class activities are not frequent in their class. According to Ogbodo (2010), class participation is the act of being present. It is one of the most important means through which students learn, in classes, it is very essential to the educational objectives of any school curriculum. In every class, activities like test, quiz, and assignments are crucial since learners' participation in these activities have been found to affects their academic performance. This showed that these students do not effectively participate in class activities even though their teachers try to encourage all to participate as confirmed by their below average performance in Mathematics third term promotional examination. In corroborating this, Chen and Lin (2008) found that class attendance and participation in class activities like test and quiz has a positive and significant impact on examination performance. For the two null hypotheses tested, it was found that there is a strong relationship between students' library utilization, note taking behaviour and its effect on performance in Mathematics. These findings is supported by Kiewra et al. (2007) findings that students who take notes but do not review, earn lower examination scores than students who review notes prior to the examination.

CONCLUSION

From the findings of this study, it can be concluded that the below average performance of senior secondary I and II students in Mathematics in senior secondary schools in Ikwerre and Obio Akpor Local Government Areas of Rivers State could be due to the poor study habits of library utilization, note taking and participation in class room activities.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations are made to help students improve their study habits which can lead to better performance in Mathematics:

1. Government should build and equip libraries for students' utilization.
2. Parents, Guardian, teachers and secondary school Administrators should encourage students to develop good study habits by effectively monitoring these students.
3. Non-Governmental Organization should be involved in organizing Mathematics completion with good reward for winners in other to encourage the study of Mathematics in secondary schools.

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