

Influence of Study Habit on the Academic Performance of Biology Students in Senior Secondary schools in Port Harcourt Metropolis, Rivers State.

Abstract

The study investigated study habits on academic performance of students in Biology in senior secondary schools in Port Harcourt Metropolis of Rivers State. Four research questions were formulated to guide the study. A descriptive research design was used in the study. Two Hundred and fifty (250) students were randomly selected from five secondary schools in Port Harcourt metropolis. Study Habits and Academic Performance Questionnaire (SHAPQ) was the instrument for data collection. The data collected for the studies were analyzed using frequency counts and mean for the research questions. In computing the mean (\bar{X}), the response alternatives were assigned on a 4-point Likert scale. The scaling point was used to describe the extent to which the respondents perceived each item. Based on the values, the mean (\bar{X}) was used to determine the acceptance or rejection of the items. Any item with a mean score of 2.50 and above is a benchmark for acceptance. The findings of this study revealed that allocation of study time, note-taking, learning motivation and memorization are variables of study habits that contribute to students' academic performance in Biology in senior secondary schools in Port Harcourt Metropolis, Rivers State. It is recommended that Students should be committed to the variables of study habit that will help to improve the study habits of secondary school students on Biology with the help of education Policy makers, Teachers and Parents.

Key words: Study habits, Academic performance, Biology

Introduction

“Educational performance, besides other factors, depends upon study habits and study behavior of students. Education is reflected through motivating which is a function of study habits and study behavior of students. To enhance the quality of education, study guidance is necessary to improve the study habits and study behavior motivation of students. The quality of a nation depends upon the quality of its citizens. The quality of citizens depends on the quality of their education and quality of education, besides other factors depends upon study habits of the learners. Quality of education is reflected through academic which is a function of study habits of the students. In order

to enhance the quality of education, it is necessary to improve the study habits of the students”. (Nuthana & Yenagi, 2009)

“Student's academic performance occupies a very important place in education as well as in the learning process. It is considered as a key criterion to judge one's total potentialities and capacities (Nuthana & Yenagi, 2009), which are frequently measured by the examination results. It is used to pass judgment on the quality of education offered by academic institutions. In fact, it is still the most topical debate in higher learning institutions that caused great concern to educators and researchers due to the alarming examination performance of students”.

Good study habits are perceived to be the determinants of the academic performance. In Nigeria, several factors affect the ability of students to cultivate effective and efficient study. Ozmert (2005) emphasized “the importance of environmental influence as a major factor in the development of students studying habit”. In the same vein, Adetunji and Oladeji (2007) submitted that “the environment of most children is not conducive for studying can affect study habit. Study habit is the adopted way and manner a student plans his private readings, after classroom learning so as to attain mastery of the subject. Good study habits are good assets to learners because they (habits) assist students to attain mastery in areas of specialization and consequent excellent performance”. !

In a more recent meta-analysis, Crede and Kuncel (2008) found that “non-cognitive factors like study habit, skill and study motivation, among other attitudinal constructs accounted for incremental variance in academic performance beyond standardized tests and previous grades”. Moreover, a literature review by Nagaraju (2004) pointed

out that, “for good academic success, good study habits and attitudes are important. Hence, it is imperative and desirable investigate into the influence of study habits on academic performance of Biology students in secondary schools in Port Harcourt metropolis in Rivers State”.

Statement of the Problem

Changes in learners' behavior that can be possibly achieved through education and affective orientations. This is because, study habit as an affective construct, has been described as the basis for both "intellectual preparedness" and motivation in learning. Akinmade (2002), has confirmed that “students' study habits toward science are ‘sine qua non’ for higher achievement in science. That is why efforts are made to develop and improve study habits in students. Secondary school students in public schools come from economically poor and average income families. These families face various problems causing emotional disturbance among their children. They have poor study habits and they show poor academic performance. Increasing nature of poor academic performance of secondary school students’ especially in external examinations (WAEC or JAMB) had led many educationists tend to shift the blame to the teaching methodology adopted by the teachers and lack of funding from the government to provide quality textbooks. However, these might not be the main reasons. It is clear from indications that most secondary school students have poor study habit which might lead to poor academic performance. As true as this might sound, adequate research gather evidence to prove that it is a key factor students fail”.

Purpose of the Study

The main purpose of the study is to examine the influence of study habits on **Biology** students and academic performance of Biology students in senior secondary schools in Port Harcourt Metropolis, of Rivers State. Specifically, the study sought to:

1. Identify how allocation of study time influences academic performance in Biology in senior secondary schools in Port Harcourt Metropolis, Rivers State.
2. Identify how note taking **influences** students' academic performance in Biology in senior secondary schools in Port Harcourt Metropolis, Rivers State.
3. Identify how learning motivation **influences** students' academic performance in Biology in senior secondary schools in Port Harcourt Metropolis, Rivers State
4. Identify how memorization influences students' academic performance in Biology in senior secondary schools in Port Harcourt Metropolis, Rivers State.

1.4 Research Questions

The following questions were asked as a guide to the study:

1. To what extent do **allocation** of study time stand as a factor influencing students' study habit and the academic performance of Biology students in senior secondary schools in Port Harcourt Metropolis, Rivers State?
2. To what extent does note taking influence students' academic performance in Biology in senior secondary schools in Port Harcourt Metropolis, Rivers State?

3. To what extent does learning motivation influence student's academic performance in Biology in senior secondary schools in Port Harcourt Metropolis, Rivers State?
4. To what extent does memorization influence students' academic performance in Biology in senior secondary schools in Port Harcourt Metropolis, Rivers State?

LITERATURE REVIEW

Study Habits

To the psychologist, study means hard work and is usually associated with school work. To others, study is applicable to other situations in life, other than academic work. Study is a systematic acquisition of knowledge and an understanding of facts and principles that calls for retention and application. Study is the application of one's mental capacity to the acquisition, understanding and organization of knowledge. It often involves some form of formal learning. Crow and Crow (2000) explained that "study is a programme of subject matter mastery. It involves hard work. However, study involves the individuals' thinking, feeling, personality, social interaction, physical activities on the thought system for the purpose of recall, when asked". Olatubosun in Oladele (2000) explained that "a teacher is studying when he examines the results of an experiment, a lawyer when he prepares his case, a salesman when he learns about his product, and a citizen when he tries to understand the issues in an upcoming election. Studies require time spent in a deliberate attempt to learn. It should be differentiated from simple reading for leisure". Thomas and Robinson (2000) emphasized that "the learner needs to use a systematic discipline and purposive approach to study. Effective study consists of a conscious sequential series of interrelated steps and processes". Okorodudu (2005) asserted that, "study involves the total of all behavioral patterns (addition, verbal, psychomotor, emotional) determined purpose, and enforced practices that the individual adapts in order to learn and achieve competence".

Factors influencing study habits are the environmental factor, time Planning factor, effective and fast reading factor, concentration factor, reading and note taking habit, homework and assignment habit and parent involvement in homework. Looking at the concepts of study habit revealed that study habit is the pattern of behavior adopted by students in the pursuit of academics. However, these ideas have not gone deep into how study habits affect the academic performance of students in Biology. So to this end, this study focuses on the influence of study habit on the academic performance of Biology students in senior secondary schools in Port Harcourt Metroplis (Obio/Akpor and Port Harcourt Local Government Areas) in Rivers State.

Methodology

The descriptive survey research design was adopted for this study. Port Harcourt is the capital of Rivers State. Geographically, Rivers State is located in the South-South Zones of Nigeria. Port Harcourt Metropolis comprises of Obio-Akpor and Port Harcourt city Local Government. Target population for this study consisted of all students in senior secondary school class II (SS2) of selected schools within Obio/Akpor and Port Harcourt Local Government Area of Rivers State. Five (5) secondary schools were randomly selected from the total number of secondary schools in the Port Harcourt metropolis. They were randomly selected from the target population for this research purpose. The research instrument for data collection for this study was a structured questionnaire developed by the researcher. Validity of the instrument was done by two experts. Based on the findings of the experts and their input, the instrument was restructured before it was administered. Reliability of the Instrument was obtained by using the test-retest reliability method. Three hundred (3) copies of the questionnaire were administered by the researcher to the respondents at the aforementioned schools with the help of two research assistants. These research

Assistants were instructed by the researcher on how to administer the questionnaire so as to ensure safe handling and return of the instrument. Three hundred (300) copies distributed but 83.3% were retrieved and completely filled. The two hundred and fifty (83.3%) copies were used for data analysis. The data collected for the studies were analyzed using frequency counts and mean for the research questions.

Result

DATA PRESENTATION

Analyses of data and Results

Research Question 1: To what extent do allocation of study time stand as a factor influencing students' study habit and the academic performance of Biology students in senior secondary schools in Port Harcourt Metropolis, Rivers State?

Table 1: Mean response on the variables of study-time-allocation influence on academic performance of Senior Secondary Students' in Biology in Port Harcourt Metropolis. (N=250)

S/no	ITEM	VHE	HE	LE	VLE	$\sum fx$	Mean	Remark
1.	I read better during school hours' break.	800	150	0	20	970	3.88	Accepted
2.	Reading at non-school hours is elevating.	840	75	-	15	930	3.72	Accepted
3.	I have a set-out time to study.	784	72	20	20	896	3.58	Accepted
4.	I ensure that I regularly study without distraction.	840	75	10	15	930	3.72	Accepted
5.	Studying at scheduled time makes me perform better academically	720	156	36	-	912	3.65	Accepted

Total Mean	18.55
Grand Mean	3.71 Accepted

The analysis of the table above showed that the mean scores of the extent of agreement to the variables of study habits contribute to senior secondary students' academic performance in Biology. With regards to the decision mean, the result indicated that item 1, 2, 3, 4 and 5 were considered to be very high extent. The grand mean of 3.66 revealed that the extent to which the reading at non-school hours, setting out time for study, regular study without distraction, and studying at a schedule time contribute to students' academic performance in Biology in senior secondary schools in Port Harcourt Metropolis in Rivers State.

Research Question 2: To what extent does note taking influence Senior Secondary Students' study habit and academic performance in Biology in Port Harcourt Metropolis?

Table 2: The mean response on the variables of note-taking influencing academic performance in Biology.

S/no	Items	VHE	HE	LE	VLE	Σfx	Mean	Remark
1.	Taking notes during class helps me	956	21	-	4	981	3.92	Accepted
2.	Studying my notes soon after class helps me.	896	78	-	-	974	3.90	Accepted
3.	Reading the notes helps me to pass exams.	784	72	20	20	896	3.58	Accepted
4.	Reviewing my notes regularly helps.	688	45	86	20	839	3.36	Accepted
5.	Highlighting valuable points in the notes is very important.	416	222	100	22	760	3.04	Accepted
	Total Mean						17.8	Accepted

The analysis of Table 2 above shows the mean scores of the extent of agreement to the extent to which the following variables of note taking enhance students' academic performance in Biology. With regards to the decision mean, the result indicated that item 1, 2, 3, 4 and 5 were considered. The grand mean is 3.48 revealing that the extent to note taking during class, studying notes soon after class, reading the notes, reviewing the notes regularly and highlighting points taking in the notes enhance students' academic performance in Biology in senior secondary schools in Port Harcourt Metropolis in Rivers State is very high.

Research Question 3: To what extent does learning motivation influence students' academic performance in Biology in senior secondary schools in Port Harcourt Metropolis?

Table 3: Mean response on the variables of Learning Motivation influencing academic performance.

S/no	Items	VHE	HE	LE	VL	$\sum fx$	Mean	Remarks
					E			
1.	Academic success in Biology motivates me to study.	688	45	66	20	819	3.28	Accepted
2.	Conducive learning environment is motivating.	760	180	-	-	940	3.76	Accepted
3.	My parents motivate me to study Biology.	600	150	10	20	780	3.12	Accepted
4.	My desire for success motivates me to study more.	416	222	100	22	760	3.04	Accepted
5.	My desire for success motivates me to study more.	600	210	-	30	840	3.36	Accepted

Total Mean

16.56

Grand Mean

3.31 Accepted

The analysis of the mean scores showed the extent of agreement variables of learning motivation enhances students' academic performance in Biology. With regards to the decision mean, the result indicated that item 1, 2, 3, 4 and 5 were considered to be very high. The above indicate that each item rating is homogenous. The grand mean is 3.31 revealing that the extent to success in Biology, conducive learning environment, parents motivation, desire to success, and the Biology teachers as variables of learning motivation that enhance academic performance of students in Biology in senior secondary schools in Port Harcourt Metropolis in Rivers State is very high.

Research Question 4: To what extent does memorization influence students' academic performance in Biology in senior secondary schools in Port Harcourt Metropolis?

Table 4: Mean response on the variables of memorization influence academic performance.

S/no	Items	VHE	HE	LE	VL	$\sum fx$	Mean	Remark
1.	I study to memorize regularly in order to perform better in examinations	416	222	100	22	760	3.04	Accepted
2.	I read more than once to memorize what was taught in Biology.	600	225	10	20	855	3.42	Accepted
3.	I memorized illustrations so as not to forget during assessment of Biology.	784	72	20	20	896	3.58	Accepted
4.	I remember very well what I memorized Biology	416	222	104	20	762	3.05	Accepted
5.	Having a good explanation helps me memorize properly	600	210	-	30	840	3.36	Accepted
Total Mean							16.45	
Grand Mean							3.29	Accepted

The analysis of Table 4 above shows the mean scores of the extent of agreement to the extent to which the following variables of the memorization contribute to students' academic performance in Biology. With regards to the decision mean, the result indicated that item 1, 2, 3, 4 and 5 were considered to be very high extent. The mean of means is 3.28, revealing that studying to memorize, remembering what was memorized, memorizing the teaching illustration, and memorizing through good teaching explanation as variables of memorization in learning skills that enhance students' academic performance in Biology in senior secondary schools in Port Harcourt metropolis in Rivers State is very high.

Summary of Findings

1. The respondents agreed that reading at non-school hours, setting out time for study, regular study without distraction, and studying at a schedule time are variables of study habits that contribute to students' academic performance in Biology in senior secondary school, in Port Harcourt metropolis, Rivers State. The study showed that there is a significant difference in the mean responses of Biology students on the allocation of study time to students' academic performance in Biology in senior secondary schools in Port Harcourt metropolis Rivers State.
2. The respondents agreed that note taking during class; studying notes soon after class, reading the notes, reviewing the notes regularly, and highlighting valuable enhance students' academic performance in Biology in senior secondary schools in Obio/Akpor Local Government Area, Rivers State. The study showed that there is a significant difference in the mean responses of

Biology and students on note taking to students' academic performance in Biology in senior secondary schools in Port Harcourt metropolis, Rivers State.

3. Respondents agreed that for success in Biology, conducive learning environment, parents' motivation, desire for success, and the Biology teachers are variables of co-operative learning skills that enhance academic performance of students in Biology in senior secondary schools in Port Harcourt Metropolis, Rivers State. There is a significant difference in the mean responses of Biology students learning motivation on academic performance in Biology in senior secondary schools in Port Harcourt metropolis, Rivers State.
4. Finally, the respondents agreed that studying to memorize, remembering what was memorized, memorizing the teaching illustration, and memorizing through good teaching explanation are variables of collaborative learning skills that enhance students' academic performance in Biology in senior secondary schools in Port Harcourt metropolis, Rivers State. The hypothesis further revealed that there is a significant difference in the mean responses of Biology students on memorization on academic performance in Biology in senior secondary schools in Port Harcourt metropolis Rivers State.

Discussion

Variables of allocation of study time enhance students' academic performance in Biology in senior secondary schools in Port Harcourt Metropolis, Rivers State.

The findings reveals the variables on allocation of study time enhance academic performance in Biology in senior secondary schools in Port Harcourt metropolis,

Rivers State are commitment to the reading at non-school hours, setting out time for study, regular study without distraction, and studying at a schedule time.

“There have been many studies in support of this finding that found association between greater academic achievement and effective time management as students acquire strategies that helps them in meeting competing demands” (Nadinloyi *et al.*, 2013; Kharadze, Gulua, & Davit, 2017). “The curriculums in higher education are designed in a way that gets to peak and troughs in the workload of student requiring them to manage between their work-life balances, often without the support institution. The non-cognitive personal behavior i.e., perspective of students regarding time management is also an effective predictor of educational achievement as with poor time management skills it gets difficult for students to plan their studies, and which causes them anxiety and agitation at the assessment which usually takes place at the end of the course” (Scherer, Talley, & Fife, 2017). Students have previously linked negative educational results with poor time management.

Variables of note taking enhance students’ academic performance in Biology in senior secondary schools in Port Harcourt Metropolis, Rivers State.

The findings of this study showed the variables of note taking enhance students’ academic performance in Biology in senior secondary schools in Port Harcourt metropolis in Rivers State are note taking during class, studying notes soon after class, reading the notes, reviewing the notes regularly, and highlighting valuable. This finding is support the study of Charles Edgar in 1939. “The survey listed 19 study aids and was given to over 2,000 students. Note-taking received more votes than any other aid that was listed” (Finch, 1939). Approximately 700 students voted that learning

how to make strategic notes would be most helpful in their learning their study habits. “This holds true to this day as Boyle (2011) explained that learning occurs through three main processes of thought note-taking. In the first process, students write down incoming materials and see which content is relevant or irrelevant. The second one being that students organize relevant information and creates mental representations. The third process is that students relate information that they learned with existing knowledge from their memory” (Boyle, 2011).

Variables of learning motivation enhance students’ academic performance in Biology in senior secondary schools in Port Harcourt Metropolis, Rivers State.

The findings showed the variables of memorization enhance students’ academic performance in Biology in senior secondary schools in Port Harcourt metropolis, Rivers State are conducive learning environment, parents motivation, desire for success, and the Biology teachers. The finding is in agreement with the works of Vansteenkiste *et al.*, (2005) who opined that “motivation has been shown to positively influence study strategy, academic performance, adjustment and well-being in students in domains of education other than medical education. It has been accepted that students' motivation is relevant in attaining high academic performance”. Meanwhile, (Orhan-Özen, 2017; Yazıcı & Altun 2013; Oriahi, 2009) broadly believed that “students' motivation has high positive significant correlation in their academic performance or achievement. This implies that when students are adequately motivated, they tend to achieve better academically”. This result is in agreement with earlier findings by a study carried out by Oriahi (2009) who found that “motivation generally has a high positive correlation with students' academic performance”. Also,

Arbabisarjou *et al.*, (2016) found that “there was a significant relationship between motivation and academic performance of students”.

Variables of memorization enhance students’ academic performance in Biology in senior secondary schools in Port Harcourt Metropolis, Rivers State.

The findings of this showed that the variables of note taking enhance students’ academic performance in Biology in senior secondary schools in Port Harcourt metropolis, Rivers State are studying to memorize, remembering what was memorized, memorizing the teaching illustration, and memorizing through good teaching explanation. In support of this finding, this study examined the contribution of verbatim memory skills, as shaped by past and current memorization and recitation practice, to undergraduate students' learning in the Kingdom of Saudi Arabia (KSA). “The study was sparked by a truism, based on classroom observations collected throughout several years of undergraduate-level teaching. Namely, Saudi undergraduate students, who express critical thinking abilities in a variety of venues, often exhibit a proclivity toward rote rehearsal as a mode of preparation for class presentations, written assignments and tests” (Alkubaidi, 2019; Almusharraf, 2021; El Alaoui *et al.*, 2019). “The latter then translates into their expectation that good performance can be achieved through the exercise of verbatim memory. Not surprisingly, educators in KSA and in the Arab world at large, tend to be bewildered by their students' reliance on memorization” (Gregory & Bend, 2019; HamdanAlghamdi, 2014; Hamza, 2010; McLellan, 2012). Yet, a little prodding as well as relevant issues/topics are generally sufficient to induce such students to

demonstrate their critical thinking abilities, express interest in knowing relevant facts and understand background information.

Conclusion

The study investigated on the influence of study habit on academic performance of Biology students in senior secondary schools in Port Harcourt Metropolis in Rivers State. Specifically, the study investigated on four factors that influence study habit of students which affect their academic performance in Biology. The factors are allocation of study time, note taking, learning motivation and memorization. Based on the findings of the study, the researcher concludes that there is significant relationship between study habits and secondary school students. The respondents agreed that all the four variables of study habits contribute to students' academic performance in Biology in senior secondary school in Port Harcourt metropolis in Rivers State.

Recommendations

The following recommendations were made based on the results from the study:

1. Students should be committed to allocation of study time every day, creating quiet place at home or anywhere to study and asking for help if one is struggling with his/her studies taking notes as they study as well as organizing notes in a notebook or folder, time management skills, habit of concentration, among others.
2. The respondents agreed that note taking during class; studying notes soon after class, reading the notes, reviewing the notes regularly, and highlighting

valuable point enhance students' academic performance in **Biology** in senior secondary schools in Obio/Akpor Local Government Area, Rivers State.

3. Respondents agreed that for success in Biology, conducive learning environment, parents' motivation, desire for success, and the Biology teachers and co-operative learning skills that enhance academic performance of students in Biology in senior secondary schools in Port Harcourt Metropolis in Rivers State.
4. Finally, the respondents agreed that studying to memorize, remembering what was memorized, memorizing the teaching illustration, and memorizing through good teaching explanation are variables of collaborative learning skills enhance students' academic performance in Biology in senior secondary schools in Port Harcourt metropolis in Rivers State.

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