

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. And quality of education is reflected through motivation which is a function of study habits and study behavior of students. Thus 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 achievement which is a function of

study habits of the students. Thus to enhance the quality of education, it is necessary to improve the study habits of the students.

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.

Goddy (2003) define the term study habits as:"The student's way of study whether systematic, efficient or inefficient etc."Good study habits are perceived to be the determinants of the academic performance. In Nigeria, there are so many factors influencing the ability of students to cultivate effective and efficient study habit. 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) submit that the environment of most children is not conducive for studying; it is in the light of this that made some parents to prefer their children to go to boarding school for proper discipline and to inculcate better reading 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, while opposite constitute constraints to learning and achievement leading to failure."

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 that a probe into the pattern of study habits on academic performance of Biology Students in secondary schools in Port Harcourt metropolis, Rivers State.

Statement of the Problem

Changes in learners' behavior that can be possibly achieved through education cannot be solely attributed to "Study Habit" but also to 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 hence they show poor academic performance. More also, there is increasing nature of poor academic performance of secondary school students' especially in external examinations like WAEC or JAMB. Many educationists tend to shift the blame on the teaching methodology adopted by the teachers and lack of fund from the government to provide quality textbooks. However, these might not be the main reasons why

students perform poorly in examinations. 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, it is yet to gather adequate research evidence to prove that it is a key factor on why 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 influence students' academic performance in Biology in senior secondary schools in Port Harcourt Metropolis, Rivers State.
3. Identify how learning motivation influence 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

Psychologists as well as layman have attempted some definitions of the word "study". To some of them, 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 habits 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 and health rather than men.

Learning of fact on the thought system for the purpose of recall when asked. For those who belong to the school of thought that study is not only applicable to academic work. 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 leisure to reading. 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 view and 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 effects of study habit and academic performance of student in Biology in secondary schools in 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. Out of the three hundred (300) copies distributed, three hundred (250) was retrieved and completely filled representing 83.3% rate of return. 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.

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 the study habits and 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
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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 Table 1 above shows 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 means is 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, variables of study habits, that contribute to students' academic performance in Biology in senior secondary schools in Obio/Akpor Local Government Area, Rivers State is very high.

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 Senior Secondary students 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
Grand Mean							3.56	

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 to be very high extent. 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 valuable point as variables of note taking which, enhance students academic performance in biology in senior secondary schools in Obio/Akpor Local Government Area, 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 as a factor that influences Senior Secondary students' academic performance in Biology in Port Harcourt Metropolis

S/no	Items	VHE	HE	LE	VL	Σfx	Mean	Remarks
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 Table 3 above shows the mean scores of the extent of agreement to the extent to which the following 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 extent. The above indicate that each item rating score are homogenous. The mean of means is 3.4 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, 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 on Senior Secondary Students' academic performance in Biology in Port Harcourt metropolis.

S/no	Items	VHE	HE	LE	VLE	$\sum fx$	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, 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. Moreso, 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 point enhance students' academic performance in biology in senior secondary schools in Obio/Akpor Local Government Area, Rivers State. Moreso, 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. Moreso, the respondents agreed 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. Moreso, the study showed that 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 of Findings

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

The findings of this study shows that the variables on allocation of study time enhance students 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 institutes 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 of 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 time 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 shows that the variables of note taking enhance students academic performance in biology in senior secondary schools in Port Harcourt metropolis, Rivers State are note taking during class, studying notes soon after class, reading the notes, reviewing the notes regularly, and highlighting valuable point.

This finding is backed by the study of Charles Edgar Finch In 1939. He did a study survey that listed 19 study aids and was submitted to over 2,000 students who were asked to vote which study aid helped them the most. 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 and help to advance 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 of this study shows that 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 also exhaustedly believed 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 study shows 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

This study investigated study habit and its impact on Biology students' academic performance in senior secondary schools in Port Harcourt Metropolis, Rivers State. Based on the findings of the study, the researcher concludes that some of the students within the study area have bad study habits. The study also concludes that there is significant relationship between study habits and secondary school students.

Recommendations

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

1. Students should be committed to studying every day, having an allocated time for studies, 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. Parents should motivate their ward(s) by providing financial needs for their studies and a conducive environment for studies at home. Their set out time for studies should also be respected and shouldn't be interfered with.
3. Counsellors should provide adequate counselling services to secondary students on the need to adopt an effective note taking skill during class teaching and a co-operative learning skill to boast their academic performance. This will yield a good basis for students counselling on self-motivation and right attitude toward academic work.

4. There should be a regular update on teaching techniques and refresher courses for Biology teacher and as well supervision to enforce and encourage a healthy teaching practices among teacher. This will help the student in understanding the subject better and thereby improving their academic performance.
5. Libraries in our secondary school should be equipped with modern Biology text books and students should be encouraged to used them. This will help the students who cannot afford some of the necessary but expensive Biology text books.
6. Policy maker, and education planners, should set a curriculum for secondary students which will enable collaborative learning style among students and should be furnish with a sound basis for effective supervision which will take cognizant of the effect of examination malpractice and motivate academic performance of the students.
7. Teachers should be efficient in giving of assignments and take home project/home work to students, it will enable the students to realize the benefit of doing their home work/assignment and mid-term project seriously as it will help them to perform well. Also, the teachers should mark and make necessary corrections to all assignments and take home project/home work.

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