

Students' Attitude and Reading Habit as Correlates of Students' Academic Performance in Biology in Secondary Schools in Ekiti State, Nigeria

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ABSTRACT

The study investigated students' attitude and reading habit as correlates of students' academic performance in Biology in Secondary Schools in Ikere Local Government Area of Ekiti State, Nigeria. The study adopts descriptive survey of research design. The population for this study consists of all students in Senior Secondary School II (SSS 2) offering Biology as a subject in all the public Secondary Schools in Ikere Local Government Area, Ekiti State. Stratified random sampling technique was used to select forty (40) Biology students each from each of the five (5) selected SSS class II in Ikere LGA of Ekiti State, Nigeria. A total of two hundred (200) SSS II Biology students were used as samples for the study. Two null hypotheses were formulated and tested at 0.05 level of significance. The instrument for this study was self-designed questionnaire. The data collected were analysed using correlation statistical analysis package. The results of the analyses showed that there is significant relationship between the students' attitude towards Biology and academic performance in Biology in secondary schools and the study also revealed that there is significant relationship between the students' reading habit and academic performance in Biology in secondary schools. Based on the findings of the study, conclusion and recommendations were made.

Key words: attitude, students' attitude to biology, Reading, Habit and Reading habit.

Introduction

Biology education offers the learners a wide range of relevance to all aspects of life (Araoye, 2009). Most of the students in the senior secondary schools in Nigeria opt for Biology in their senior secondary schools. Not these alone; Biology stands in the central position among the basic sciences (Physics and Chemistry). Biology is quite popular at all levels of Nigerian education. It also has a large student's enrolment than any other science subject especially at the tertiary level of the Nigerian education (Ofoegbu, 2003). This has been attributed to several factors including the students' perception of the subject

as simple and non availability of other science subjects in some schools such that Biology is made compulsory for both science and other art students. In spite of the importance of Biology as enumerated above, it is pertinent to note that most students still see and learn Biology as an abstract subject. In particular, reports on WAEC results of Senior School Certificate Examination in Ekiti State over the years often revealed low performance of students in biology. A fluctuation trend was recorded in the performance of students in Biology in the past six years (between 2008-2013) in May/June WASSCE (Table 1).

Table 1: Summary of trends of performance in Biology in the West African Senior Secondary School Certificate Examination, Ekiti State (between 2008-2013)

Year	No. Registered			A1 to C6				D7 to E8				Failure			
	M	F	Total	M	F	Total	%	M	F	Total	%	M	F	Total	%
2008	6627	6217	12844	1376	1395	2771	21.57	2065	1956	4021	31.30	3186	2866	6052	47.10
2009	6490	5855	12345	2430	1421	3851	31.20	1829	1788	4144	33.60	2210	1934	4350	35.20
2010	7726	6862	14588	4280	3412	7692	52.70	3520	3241	3762	25.80	2042	1720	3134	21.50
2011	8883	8249	17132	3889	3564	7453	42.50	3327	3417	6126	35.80	3264	2862	3553	20.70
2012	3358	3317	11527	919	1542	2461	21.35	1664	1691	4175	36.20	1459	1432	4891	42.40
2013	3647	3692	7339	175	210	385	5.25	2272	2364	4636	63.17	1145	1173	2318	31.60

Ekiti State Ministry of Education, Science and Technology (2013)

This poor result calls for serious concern and this concern has been expressed by parents, teacher, employers of labour and the entire society. Several researchers have also pointed out different reasons for students' poor performance, some of which are due to the abstractness of certain aspects of biology, negative attitude, poor reading habit, lack of understanding on the students' part, certain biological concepts etc. As a result of failure experiences, some students begin to doubt their intellectual abilities and come to believe that their efforts to achieve are futile. Hence, there is a great need for students to be motivated to develop positive attitude which is crucial to performance in any subject most importantly biology.

Attitude is an opinion or general feeling about something (Encarta Dictionary, 2004). Also, Oxford Advance Learner's Dictionary (7th Edition) defines attitude as "the way that you think and feel about somebody or something". Gul and Arshad (2012) asserted that attitude is a hypothetical construct that indicates an individual's likes and dislikes towards an item. It may be positive, negative or neutral. Similarly, Muellerleile (2005) defined attitude as an approach, temperament, sensation, situation etc. with regards to a person or thing: inclination or course, especially of the mind. In the same way, Kagiteibasi (2004) contended that attitude is a tendency for an individual to organize thoughts, emotions and behaviours towards a psychological object. He stressed further that human beings are not born with attitude; they learn them afterwards. Some attitudes are based on people's own experiences, knowledge and skills while some others are gained from other sources. However, attitude is not static; it changes in the course of time (Erdermir, 2009).

Adesoji (2002) also defined attitude as cognitive, emotional, and action tendency to a particular behavioural intent. He ascertained that attitude is an important factor that determined achievement of students in sciences. Akinyemi (2009) stated that attitude are required through learning and can be changed through persuasion using variety of techniques. Attitude, once established, helps to shape the experiences the

individual has with an object, subject or person. Although attitude changes gradually, people constantly form new attitudes and modify old ones when they are exposed to new information and new experiences (Adesina and Akinbobola, 2005).

Students' attitude towards science is more likely to influence achievement in science courses than achievement influencing attitude (Craker, 2006). Similar results were stated by O'Connel (2000), who found that students need to have a positive attitude towards problem-solving to be successful, and this problem-solving requires students' knowledge and problem-solving skills to overcome risks. Jegede (2003) in the study of the effect of component task analysis method of instruction on students' performance in chemistry reported that students' positive attitude to science correlate highly with their science achievement. Similarly, Rajib (2013) opined that there is significant and positive association between attitude and achievement in general science.

Learning which starts right from birth entails acquiring knowledge about various phenomena and understanding them (Awodun, 2016). The more a person reads, the more he learns. Reading, which Orasamu (2012) defined as the art of interpreting printed and written words, is one of the most effective processes of conscious learning and sometimes, it influences the extent and accuracy of information as well as the attitudes, morals, beliefs, judgment and action of readers. A creative and pragmatic education involves the habit of personal investigation. The art of personal investigation requires self-study to be followed by self-thinking and analysis. Self-study, otherwise referred to as reading at one's own accord, requires a habit, which, according to Smith (2012), is known as reading habit. Reading makes way for a better understanding of one's own experiences and it can be an exciting voyage to self-discovery. "The reading habit is best formed at a young impressionable age in school, but once formed it can last one's life" (Green, 2001).

To know about the world and its environment, a child helps himself through

reading books, newspapers and other magazines (Deavers, 2010). Once the child has been taught to read and develop a love for books, he can explore for himself the wealth of human experience and knowledge. Children, missing the opportunity of getting in touch with books at this stage, find it hard to acquire reading habit in their later years. According to Fisher (2001) "... reading is an intellectual action which is possible only if a man has formed a habit of reading and practicing it since childhood". The reading habit, therefore, plays a very crucial role in enabling a person to achieve practical efficiency. "Laws die but books never." Indeed, books are the most suitable medium through which knowledge is transmitted from generation to generation. Gallo (2007) enthused, "books, yield their best to you, if you read them at the age at which each particular masterpiece can ideally be chewed and digested".

There is little knowledge about the everyday reading practices of tertiary education students and how these practices affect their academic achievement. Everyday reading consists of individuals' reading activities for a variety of purposes, such as for relaxation or information. Previous research has documented that, from middle childhood through adulthood, reading becomes a major component of studying, and much information learned through studying is initially acquired through reading. The everyday reading activities in which students engage may, therefore, considerably influence their studying skills and subsequent academic performance. There is a general sense in which one appreciates the link between good habits of reading and the academic performance of students generally. Nigeria, like other African countries, adopts the English Language as its official language of communication or *Lingua Franca*. This has a great implication for the formation of good reading habits among Nigerians, especially, the youths who have to study and learn in a second language and outside of their mother tongue. To form the good habits of reading, therefore requires constant and continual practice on the part of the learner.

The term "habit" has been defined as "something that you do often or regularly" (Grellet, 2007). On its own part, "reading" is the

act of getting meaning from printed or written words, which is the basis for learning and one of the most important skills in everyday life (Guthrie, Benneth & McGough, 2007). This explains why reading is usually associated with books as only the written words provide a complete picture of the act of reading. There is no doubt that through reading, the individual is able to build or fix things, enjoy stories, discover what others believe and develop ideas/beliefs of their own. Thus, reading provides the key to all forms of information necessary for our day-to-day survival and growth. Broadly, reading is linked closely with other uses of language and with thinking. Central to the concept of reading is its dependence on the readers' memory and experience in order to understand what is read. It also involves how well a reader remembers, uses and reacts to the materials read; stressing such skills as word recognition, vocabulary development and comprehension.

It follows then that if you are in the practice of reading regularly without thinking about it because of the permanence of its continuity, one can conclude that good reading habits have been formed. This is because a habit has been formed when an individual does something many times unconsciously having become a part and parcel of such a person's life. Hence, reading habits have been conceived as positive in that they have the potency to contribute meaningfully to the growth, development and progress of such individuals as engaged in the habits. Incidentally, many Nigerian students do not belong in the category of those with good reading habits. Their poor/bad reading habits could be partly held responsible for general poor performance that the school systems usually record in both internal and external examinations. This affects all aspects of their examinable subjects but most especially the English language examination, which also serves as the general medium of official communication and conduct of all examinations.

Perhaps, due to lack of good reading habits among the students, academic performance with respect to their examination results had been dismal, nowadays creating a great source of worry and concern to all stakeholders in the educational

sub-sector. The cankerworm of examination malpractices may be traceable to the prevalent students' negative attitude to and poor reading habits among the wide spectrum of students. In addition, the by-products of scientific and technological inventions and innovations have also contributed greatly to the dwindling fortunes of the good practice of reading among majority of the students. Therefore, this study investigated students' attitude towards Biology students' reading habit as correlates of students' academic performance in Biology in Secondary Schools in

Ikere Local Government Area of Ekiti State, Nigeria.

Research Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance:

1. There is no significant relationship between the students' attitude towards Biology and academic performance in Biology in secondary schools.
2. There is no significant relationship between the students' reading habit and academic performance in Biology in secondary schools.

Methodology

The study was a descriptive survey of research design which was questionnaire based. The survey allows for proper description of students variables (students' attitude towards Biology and students' Reading Habit) as the effect on students' academic performance in Biology. The target population for this study comprised of all students in Senior Secondary School II (SSS2) offering Biology as a subject in all the public secondary schools in Ikere Local Government Area of Ekiti State, Nigeria.

Stratified random sampling technique was used to select forty (40) Biology students each from each from the five (5) selected Senior Secondary Schools in class II from Ikere Local Government Area of Ekiti State. A total of two hundred (200) students were used as samples for the study.

The research instrument for the study was self-designed questionnaire which comprises of two sections. The first section consisted of students' bio-data and the second section comprises of several questions (15 items each on Students' attitude to Biology and reading habit of the students) eliciting relevant information from the Biology students on their attitude towards Biology and students' Biology reading habit respectively. The face and content validity of the instrument was established. The instrument was administered on the students.

Results and Discussion

Results

Research Hypothesis 1

There is no significant relationship between the students' attitude towards Biology and academic performance in Biology in secondary schools.

Table 2: Pearson's Product Moment Correlation showing the relationship between the students' attitude towards Biology and academic performance in Biology in secondary schools

VARIABLES	N	X	SD	df	r-cal	r-tab	Remark
Students' attitude to Biology	200	34.65	3.43	398	0.723	.165	*
Students' Academic Performance	200	35.44	5.22				

$P < 0.05$, * = significant

Table 2 shows the relationship between the students' towards Biology and academic performance in Biology in secondary schools. The result obtained from the analysis shows that the value of $r_{\text{-cal}}$ (0.723) is greater than $r_{\text{-table}}$ value (0.165) at 0.05 level of significance. Therefore, the null hypothesis is rejected. This implies that there is significant relationship between the students' attitude towards Biology and academic performance in Biology in secondary schools.

Research Hypothesis 2

There is no significant relationship between the students' reading habit and academic performance in Biology in secondary schools.

Table 3: Pearson’s Product Moment Correlation showing the relationship between the students’ reading habit and academic performance in Biology in secondary schools

VARIABLES	N	X	SD	df	r-cal	r-tab	Remark
Students’ Reading Habit	200	54.34	4.65	398	0.667	.165	*
Students’ Academic Performance	200	45.43	5.34				

$P < 0.05$, * = significant

Table 3 shows the relationship between the students’ reading habit and academic performance in Biology in secondary schools. The result obtained from the analysis shows that the value of r_{-cal} (0.667) is greater than r_{table} value (0.165) at 0.05 level of significance. Therefore, the null hypothesis is rejected. This implies that there is significant relationship between the students’ reading habit and academic performance in Biology in secondary schools.

Discussion

The results of the study were discussed based on the two null hypotheses formulated and tested at 0.05 level of significance.

As shown in table 1, that there is significant relationship between the students’ attitude towards Biology and academic performance in Biology in secondary schools. The findings agreed with that of Craker (2006) that Students’ attitude towards science is more likely to influence achievement in science courses than achievement influencing attitude. It also agreed with the finding of O’Connel (2000), who found that students need to have a positive attitude towards problem-solving to be successful, and this problem-solving requires students’ knowledge and problem-solving skills to overcome risks. It also agreed with finding Rajib (2013) that there is significant and positive association between attitude and achievement in general science.

Similarly, as shown in table 2, there is significant relationship between the students’ reading habit and academic performance in Biology in secondary schools. The findings agreed with that of Guthrie, Benneth & McGough (2007), Gallo (2007) and Orasamu (2012) that good reading habit is a key factor to a better academic achievement.

Conclusion

Based on the results of this study, it can be concluded that:

- There is significant relationship between the students’ attitude towards Biology and academic performance in Biology in secondary schools.
- there is significant relationship between the students’ reading habit and academic performance in Biology in secondary schools.

- reading habit of students has significant contribution to students performance in science courses especially Biology.
- Students’ attitude towards Biology has serious effect on the performance of students in Biology.

Recommendations

Based on the findings of this study, the following recommendations were made:

- Students should be motivated to develop positive attitude towards Biology to enhance their performance in the subject.
- Parents and teachers should encouraged Biology students to cultivate good reading habit. This will enhance their better performance in Biology.
- Biology courses should be introduced by the teachers to the students in such a way that students would not see it as difficult area of study.

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