

Reading Habit as Correlates of Students' Academic Achievement in Chemistry in Secondary Schools in Ekiti State, Nigeria

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Abstract

The study investigated reading habit as correlates of students' academic performance in Chemistry 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 I (SSS I) offering Chemistry as a subject in all the public Secondary Schools in Ikere Local Government Area, Ekiti State. Stratified random sampling technique was used to select twenty (25) Chemistry students each from each of the six (6) selected SSS class I in Ikere LGA of Ekiti State, Nigeria. A total of one hundred (150) SSS I Chemistry 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' reading habit and academic performance in Chemistry in secondary schools and it also revealed that there is no significant relationship between male and female students reading habit with respect to their academic performance in Chemistry in secondary schools.. Based on the findings of the study, conclusion and recommendations were made.

Keywords: Reading, Habit, Interest, Reading habit and interest in Physics

Introduction

Science is a body of knowledge that involves observation, synthesizing, formulation of hypotheses, testing of hypotheses, experimenting, analysis and evaluation processes. Mishra & Yadav (2013) defined science as a body of empirical, theoretical and practical knowledge that explains the natural world as an evidence of consistent and cumulative process which emphasizes observation, explanation and prediction of real world phenomena through experiments. Science and technology is the parameter upon which the development of any nation is measured today. One major characteristics of the Nigerian school system is the emphasis placed on science subjects. Science subjects in Nigerian secondary schools are classified mainly into Chemistry, Biology and Physics. All the three subjects have their uniqueness and relevance to man's daily activities. Meanwhile, chemistry is very unique in the sense that it explains chemical process that takes place with living things and non-livings, thereby being useful in biology and useful in the change of chemical and energy process in physics.

Chemistry has been identified as great and indispensable cornerstone of science, technology and industrial development. The role that chemistry plays in the national development is visible as it is the backbone of industrial drive, power behind economic development and enhance resourcefulness of nation potentiality. As such it helps to provide some social amenities and has been the pivot of science and hence the most needed tool, scientifically, for human, capital and national development. The wheel of progress have in no small way slowed down, thereby hindering the overall development of science and chemistry education in the nation. The concept of chemistry as a science is centered on life and this encompasses the three states of matter-solid, liquid and gas in a give and take processes (Ibrahim, Adamu, Ibrahim, Ismaila & Abubakar, 2017). Chemistry addresses the needs of majority through its relevance and functionality in content, practice and application. What many nations like Nigeria need now is a functional chemistry education that will assist in national development. Chemistry education has been identified to be one of the major bedrock for the transformation of our national economy.

Learning which starts right from birth entails acquiring knowledge about various phenomena and understanding them. The more a person reads, the more he learns. Awodun (2016) cited Orasamu (2012) that reading is 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).

Awodun (2016) cited Deavers (2010) that to know about the world and its environment, a child helps himself through reading books, newspapers and other magazines. 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 (Awodun, 2016). 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 (Awodun, 2016). 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.

Awodun (2016) opines 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 (Awodun, 2016).

Even the cankerworm of examination malpractices may be traceable to the prevalent poor reading habits and lack of interest 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. Today, many of them prefer to watch cinemas and other shows on the television, audio-CD, video-CD and playing video-games to reading. The setting and atmosphere of “crashed programmes,” quite prevalent in the school systems today have not been supportive to the development of the good practice of reading. Thus, the enthusiasm associated with the urge to engage in reading practices voluntarily, pleasurably and extensively are almost nearly absent among the greater number of students in the schooling systems today.

People’s beliefs about their abilities in particular domains are thought to be important in motivating them to do what they can do to achieve (Haw, 2004). The three aspects that have received the most attention are self-efficacy defined as confidence in one’s abilities to successfully perform a particular task, outcome expectancy defined as beliefs that a particular behavior will result in particular outcomes and causal attribution defined as one’s judgment about what causes success or failure to perform task.

Gender is a cultural construct that distinguishes the roles, behaviour, mental and emotional characteristics between females and males developed by a society. Umoh (2003) defines gender as a psychological term used in describing behaviours and attributes expected of individuals on the basis of being born as either male or female. According to Okeke (2003), the study of gender is not just mere identification of male and female sexes. Scholars have gone further to identify responsibilities assigned to opposite sexes and to analyze the conditions under which those responsibilities are assigned. Furthermore, Okeke (2003) specifically notes that the study of gender means the analysis of the relationship of men and women including the division of labour, access to resources and other factors which are determined by society as opposed to being determined by sex. It further involves the study of the socio-cultural environment under which responsibilities are assigned and the relationships emanating from it.

Gender is a major factor that influences career choice and subject interest of students. Further explanation in this context shows that Home Economics, Nursing, Secretary-ship and other feminine related careers have been traditionally regarded as aspects of the school curriculum reserved for females (Umoh, 2003). Based on this, males chose male stereotyped occupations and females chose female stereotyped occupations. According to Umoh (2003) more difficult tasks are usually reserved for males while less difficult ones are considered feminine in a natural setting. Example of this is breaking of firewood, which is often seen as manly task while washing of plates could be seen as a female task at home. Thus at school males are more likely to take to difficult subject areas and challenging problem-solving situations while female on the other hand prefer simple subjects and often shy away from difficult tasks and problem-solving situation.

The purpose of this study was to investigate the reading habit as correlates of students’ academic performance in Chemistry 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’ reading habit and academic performance in Chemistry in secondary schools.
2. There is no significant relationship between male and female students reading habit with respect to their academic performance in Chemistry 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 (Reading Habit and Gender in Chemistry) as the effect on students’ academic performance in Chemistry. The target population for this study comprised of all students in Senior Secondary School I (SSSI) offering Chemistry 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 twenty (25) Chemistry students each from each of the Six (6) selected Senior Secondary Schools in class I from Ikere Local Government Area of Ekiti State. A total of one hundred (150) students were used as samples for the study.

The research instrument for the student 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 (20 items each on Students’ reading habit in Ikere) eliciting relevant information from the Chemistry students. The face and content validity of the instrument was established. The instrument was subjected to validity and reliability mechanism and it was found appropriate for the study. The researcher administered instrument on the respondents and the terminal continuous assessment scores of the respondent were also collected from their school authorities. Pearson Product Moment correlation(r) statistical analysis was used to analysed the two null hypotheses formulated for the study.

Results and Discussion

Results

Research Hypothesis 1

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

Table 1: Pearson’s Product Moment Correlation showing the relationship between the students’ reading habit and academic performance in Chemistry in secondary schools

VARIABLES	N	Mean	SD	df	r_{cal}	r_{tab}	Remark
Students’ Reading Habit	150	50.16	4.38	298	0.641	.165	*
Students’ Academic Performance	150	43.39	5.16				

$P < 0.05$, * = significant

Table 1 shows the relationship between the students’ reading habit and academic performance in Chemistry in secondary schools. The result obtained from the analysis shows that the value of r_{cal} (0.641) 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 Chemistry in secondary schools.

Research Hypothesis 2

There is no significant relationship between male and female students reading habit with respect to their academic performance in Chemistry in secondary schools.

Table 2: Pearson’s Product Moment Correlation showing the relationship between male and female students reading habit with respect to their academic performance in Chemistry in secondary schools.

VARIABLES	N	Mean	SD	df	r-cal	r-tab	Remark
Male Students	75	26.14	1.68	148	0.109	.165	^ *
Female Students.	75	27.61	1.42				

P < 0.05 , ** = Not significant

Table 2 shows the relationship between male and female students reading habit with respect to their academic performance in Chemistry in secondary schools. The result obtained from the analysis shows that the value of r-cal (0.109) is less than r-table value (0.165) at 0.05 level of significance. Therefore, the null hypothesis is upheld. This implies that there is no significant relationship between male and female students reading habit with respect to their academic performance in Chemistry 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, there is significant relationship between the students’ reading habit and academic performance in Chemistry in secondary schools. The findings agreed with that of Guthrie, Benneth & McGough (2007), Gallo (2007) and Awodun (2016) cited Orasamu (2012) that good reading habit is a key factor to a better academic achievement.

Also, hypothesis 2, table 2 shows the relationship between male and female students reading habit with respect to their academic performance in Chemistry in secondary schools. The result obtained from the analysis shows that the value of r-cal (0.109) is less than r-table value (0.165) at 0.05 level of significance. Therefore, the null hypothesis is upheld. This implies that there is no significant relationship between male and female students reading habit with respect to their academic performance in Chemistry in secondary schools.

Conclusion

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

1. there is significant relationship between the students’ reading habit and academic performance in Chemistry in secondary schools.
2. Students’ gender has no effect on student reading habit with respect to their academic performance in Chemistry in secondary schools.

Recommendations

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

1. Parents and teachers should encouraged Chemistry students to cultivate reading habit. This will enhance their better performance in Chemistry.
2. Chemistry 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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