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Analysis of Reading Habits of Secondary School Students: Implications for Physics Teaching and Learning in Ogun State Nigeria

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Abstract:

Due to persistent poor performance of secondary school students in Physics, the study investigated reading habits exhibited by Senior Secondary School year two (SSS2) students. Three research questions and one hypothesis guided the survey study. A sample of 400 students selected from a population of 3,800 was involved in the research. A reading habit inventory developed by the researcher was used for data collection which was validated by experts and the coefficient of internal consistency established to be 0.82. Data collected were analyzed using mean, standard deviation and t-test. The findings from the results revealed that: students had very poor Physics reading habits since majority of them feel asleep whenever they want to read Physics, read up only when instructed, dodge difficult concepts and give little time to Physics; boys had better reading habit than girls but the difference was not significant; factors that influence students' reading habits include disturbance from peers and outside the classroom, difficulty in understanding many concepts in Physics among others. The study recommended that the school authorities and Parents Teachers Association should organize group counseling for students on good reading habits which could help to improve their performance in Physics

Keywords: *Reading habits, Senior Secondary School, Physics classroom, Academic achievement, Academic performance*

1. Introduction

1.1. Background and Problem

Physics is simply defined as the study of matter, energy and the relation between them. Physics is in some senses, the oldest and most basic pure science; its discoveries find applications throughout the natural sciences, since matter and energy are the basic constituents of the natural world. The other sciences are generally more limited in their scope and may be considered branches that have split off from physics to become sciences in their own right. According to Amjad (2012), objectives of teaching and learning of Physics at the secondary level are given below: to enable the students acquire scientific knowledge; to present physics to the students as a stimulating subject, intellectually satisfying and significantly related to their experiences of life; to develop in the students an awareness of the structure of physics and an understanding of the fact that physics is an expanding field; to familiarize the students with fundamental principles, theories and concepts of physics in modern terms and with the scope of physics among others.

Despite these laudable objectives of Physics teaching and learning at senior secondary school level, many students perform poorly in the subject due to factors other than intellectual capacity. One of such factor is poor reading habits, which often results in poor academic performance since good reading habits have been found to influence the academic achievements of the students positively. Collins and Clerk (1999) described reading as process that requires the use of complex thought processes to interpret printed symbols as meaningful units in order to understand printed message. Reading habit is the adopted way and manner a student plans his private reading after classroom learning so as to attain mastery of the subject. It is also the behaviour which expresses the likeness of reading of individual, types and basis of reading (Sangkae, 1999). The concept of reading habits was based on Thorndike (1986) theory of reinforcement which involves three principles; law of effect which states that learning consists of forming association bonds between stimulus and response and such associations or habits become strengthened or weakened, exercise which emphasized that repeating a habit increases its strength since practice makes perfection and readiness- the habit you formed shows how prepared you will be. The reading habits influence the promotion of one's personal development in particular and social progress in general. Regular and systematic reading sharpens the intellect, refines the emotions, elevates tastes and provides perspectives for an effective participation in the social, religious, cultural and political life.

Good reading habits undoubtedly improved the students' level of achievement in any school subject. In every school setting, performance is what each student strives to achieve and the attainment of good performance can only be enhanced through good reading habits.

Supporting this assertion, Adodo and Oyeniyi (2009) investigated the student's variables as correlates of secondary school students' academic performance in Biology in Ikere LGA of Ekiti State, Nigeria, using a sample of 405 students. They found that there was a significant relationship between students' variables (attitude and study habits) and their academic performance in Biology. However, a non-significant difference between male and female students' attitude and study habits was revealed.

However, Patel's (1996) study on reading habits of students earlier revealed different results from that of Adodo and Oyeniyi. Patel showed that boys had significantly better reading habits than girls unlike Adodo and Oyeniyi. Anwar (2010) also investigated on the degree of relationship between study habits and academic achievement of senior secondary school students in Lucknow city of India. The survey study revealed high positive relationship between study habits and academic achievement. Anwar also found that academic performance of students with good and poor study habits differ significantly and good study habits results in high academic achievement. Based on the findings, the author recommended that necessary study skills be taught to students with a view to improving their academic performance.

Many factors influence the reading habits of students which include: availability of school library, parents, teachers, educational background and gender of the students, influence of electronic media and so on. Ayodele and Adebisi (2013) investigated on study habits as a determinant of academic performance of undergraduates in Nigeria. The findings from the results showed that self-concept was a very strong determinant of study habit so also was method of study, family background, socio-economic status and peer group. Gender was also found to have no significant difference on undergraduates' study habits. Clark and Foster (2005) findings also revealed that 83.9% of pupils admitted that their mothers teach them Physics, followed by their teachers (72.2%) and their fathers (65%). The most important factor in students learning and reading in schools is the quality of teaching; teachers are the chief drivers of the educational engine according to Clark and Foster because Physics is not a subject that can easily be handled by most of the parents who do not have skills in Physics teaching and reading. Definitely, the book-reading with their children in Physics will be ineffective thereby affecting their reading habits, unlike teachers

There is enough evidence of poor achievement among senior secondary school students especially in external examinations like Senior School Certificate Examination (SSCE) and University & Tertiary Matriculation Examination (UTME). Many educationists tend to shift the blame on the teaching method adopted by teachers and lack of funds from the government to provide quality textbooks. However, that might not be the main reasons why students perform poorly in examination. Some factors pointed out by researchers also implicated lack of good and effective reading skills and well-equipped libraries and laboratories. Observation and interactions with students indicated that most senior secondary school students have poor reading habits which might lead to poor academic performance. It is against this background that the study focused on the analysis of reading habits of senior secondary school students in Obafemi Owode Local Government Area (LGA) of Ogun State, Nigeria.

1.2. Research Questions

- What are the reading habits exhibited by Senior Secondary School Physics students?
- How do the reading habits of male SSS Physics students differ from that of female students?
- What are the factors that influence the reading habits of SSS students in Physics?

1.3. Hypothesis

- Male and female SSS students do not differ significantly in the mean rating of their reading habits in Physics

1.4. Method

The study adopted a descriptive survey research. In this case, the reading habits of the Senior Secondary School students were obtained through the use of questionnaire. The sample comprised 400 (180 males + 220 females) students from 10 Senior Secondary School year two (SSS2) students selected through simple random sampling technique from the population of 3,800 students from 18 public schools in Obafemi-Owode LGA of Ogun State, Nigeria. The 10 selected schools comprised of three (3) single sex boys, three (3) single sex girls and four co-educational schools. Only one arm of the class was chosen from each selected school.

A Reading Habits inventory (RHI) constructed by the researchers was used as research instrument. The RHI has two parts, A and B. Part A collected the personal information about the respondents while part B comprised of the reading habits exhibited by senior secondary school students. The instrument was on four-point scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). The RHI was validated by three experts in Educational Psychology, Guidance and Counseling and Science Education from Olabisi Onabanjo University. The reliability of the RHI was established using Cronbach alpha technique and the coefficient of the internal consistency was found to be 0.82 showing that the instrument is reliable. The researcher visited the 10 sampled schools and administered the questionnaire with the help of their form teachers at the time of normal classes. Only one arm of the class from each selected school was given the questionnaire to fill

and they were given enough time to complete and provide answers to the items in the questionnaire. The researcher thereafter retrieved all the copies of the questionnaire from their form teachers. Mean and standard deviation were used to provide answers to the research questions while the t-test was employed in testing the hypothesis at 0.05 levels of significance. In taken decisions on the negative and positive statements, the cutoff point was 2.50. Any mean score above 2.50 would be regarded as agreed while any item with mean of 2.50 and below is regarded disagreed by the respondents. In testing the hypothesis, if the calculated t-value is less than the t-value, the null hypothesis is accepted, otherwise the hypothesis is rejected

2. Results

The results were presented in tables according to research questions and hypothesis

2.1. Research Question 1: What are the reading habits exhibited by Senior Secondary School Physics students?

Table 1 shows that the students have poor reading habits because they neither generate example of key physics ideas from their own experiences when they read nor read physics with paper and pencil. In addition, majority of the students agree that they feel asleep whenever they want to read physics, read up only when instructed, dodge difficulty concept and give little time to physics unlike in other science subjects

S/N	Reading habits	Mean	Std dev	Remark
1	I read my Physics note once before any examination	1.34	0.45	Disagree
2	When I get chance, I read Physics	2.94	1.05	Agree
3	When I read, I try to generate examples of key ideas from my own experiences	2.05	0.89	Disagree
4	I always read Physics with paper and pencil	1.89	0.63	Disagree
5	I do not do most of my Physics assignment in groups	2.46	0.65	Disagree
6	If I have trouble in understanding Physics, I look for an alternative to understand it like going to library	2.12	1.02	Disagree
7	I read just to pass Physics exams	2.59	0.67	Agree
8	I read only when I am asked to read up	3.05	1.11	Agree
9	When I read I just read for the sake of reading	2.17	0.45	Disagree
10	When I read I try to underline all the formulae I met	2.72	0.98	Agree
11	I read only the introductory and summary part in order to understanding the physics concepts	2.73	1.04	Agree
12	I read for academic purposes	3.20	0.78	Agree
13	I feel asleep whenever I want to read Physics	3.00	0.93	Agree
14	When I come across difficult problems in Physics exercise I try to solve it	2.05	1.02	Disagree
15	I feel irritated whenever I want to read Physics may be because of the nature of concepts	2.86	1.01	Agree
16	I give Physics little time when reading unlike other subjects	3.05	0.55	Agree
17	Whenever I read Physics I'm distracted	2.66	0.54	Agree
18	I read Physics at pleasure or leisure time	2.94	0.89	Agree
19	When I meet a difficult problem in Physics I jump it	2.59	0.55	Agree
20	I do not solve problems when am reading Physics	2.72	0.91	Agree
21	I solve Physics problems and assignments with my classmates	2.46	0.73	Disagree
	Mean of Means	2.55	0.80	Agree

N=400

Table 1: reading habits exhibited by SSS Physics students

2.2. Research Question 2: How do the reading habits of SS2 male differ from that of the female student's in Physics?

Table 2 reveals that boys are not distracted when they read physics, solve difficult problems and assignments in physics with their classmates and they read physics at pleasure or leisure time unlike girls. However, both sexes generally have poor reading habits in mathematics though boys have better reading habits than girls. The rating scores of boys are also more homogenous than that of the girls considering their standard deviation scores on average

S/N	Reading habits	Sex	Mean	Std dev	Remark
1	I read my physics note only before the examination	Male	1.29	0.28	Disagree
		female	1.39	0.62	Disagree
2	When I get chance, I read Physics	Male	3.03	0.92	Agree
		female	2.88	1.14	Agree
3	When I read, I try to generate examples of key ideas from my own experiences	Male	2.12	0.87	Disagree
		female	2.01	0.92	Disagree
4	I always read Physics with paper and pencil	Male	2.25	0.56	Disagree
		female	1.57	0.72	Disagree
5	I do not do most of my Physics assignment in groups	Male	3.00	0.59	Disagree
		female	2.45	0.70	Disagree
6	If I have trouble in understanding Physics, I look for an alternative to understand it like going to library	Male	2.19	0.92	Disagree
		female	2.08	1.13	Disagree
7	I read just to pass Physics exams	Male	2.61	0.46	Agree
		female	2.57	0.88	Agree
8	I read only when I am asked to read up	Male	2.96	0.79	Agree
		female	3.17	1.48	Agree
9	When I read I just read for the sake of reading	Male	2.12	0.45	Disagree
		female	2.25	0.40	Disagree
10	When I read I try to underline all the formulae I met	Male	2.81	0.96	Agree
		female	2.56	1.00	Agree
11	I read only the introductory and summary part in order to understanding the physics concepts	Male	2.82	0.85	Agree
		female	2.60	1.23	Agree
12	I read just for academic purposes	Male	3.36	0.86	Agree
		female	3.03	0.71	Agree
13	I feel asleep whenever I want to read Physics	Male	2.97	0.87	Agree
		female	3.06	1.00	Agree
14	When I come across difficult problems in Physics exercise I try to solve it	Male	2.00	1.06	Disagree
		female	2.12	0.98	Disagree
15	I feel irritated whenever I want to read Physics may be because of the nature of concepts	Male	2.72	0.83	Agree
		female	3.00	1.21	Agree
16	I give Physics little time when reading unlike other subjects	Male	3.05	0.36	Agree
		female	3.06	0.77	Agree
17	Whenever I read Physics I'm distracted	Male	2.49	0.52	Disagree
		female	2.91	0.56	Agree
18	I read Physics at pleasure or leisure time	Male	3.53	0.86	Agree
		female	2.36	0.92	disagree
19	When I meet a difficult problem in Physics I jump it	Male	2.42	0.27	Disagree
		female	2.76	0.81	Agree
20	I do not solve problems when am reading Physics	Male	2.67	0.71	Agree
		female	2.76	1.12	Agree
21	I solve Physics problems and assignments with my classmates	Male	2.52	0.66	Agree
		female	2.38	0.78	Disagree
	Mean of means	Male	2.62	0.69	Agree
		female	2.52	0.91	Agree

Male=180; Female=220

Table 2: Reading habits exhibited by male and female SSS students

2.3. Research Question 3: What are the factors that influence the reading habits of SSS students in Physics?

Table 3 reveals that disturbance from peers and outside the classroom, difficulty in understanding many concepts in Physics and lack of passion in reading physics are the major factors that influence the reading habits of SSS students in Physics

S/N	Factors	Mean	Remark
1	Day dreaming distracts my attention in reading	3.00	Agree
2	Outside interruption disturbs while reading	2.99	Agree
3	The concepts in Physics are difficult for me to understand	3.37	Agree
4	The teaching skills used by my physics teacher do not make me to understand it when am reading	2.13	Disagree
5	Our school does not have library that contains enough physics textbooks	2.46	Disagree
6	I was not trained from childhood to have logical mathematical thinking	2.47	Disagree
7	I don't have passion in reading Physics	2.95	Agree
8	Textbooks used in reading Physics does not explain things well to my understanding	2.73	Agree
9	I move along with peers that do not like to read physics	2.60	Agree
10	Apart from my physics teacher I don't have people that will guide me when am reading	2.49	Disagree
	Mean of means	2.99	Agree

N=400

Table 3: Factors that influence the reading habits of students in Physics

3. Hypothesis 1

Male and female Senior Secondary School students do not differ significantly ($P < 0.05$) in the mean rating of their reading habits in Physics.

Group	N	Mean \bar{X}	Std dev	α	df	t-cal	Decision
Male	180	2.62	0.69				
				0.05	398	1.216	Not significant
Female	220	2.52	0.91				

Table 4: The t-test for significant difference in the mean ratings of male and female students of their reading habits

Table 4 shows that the t-calculated (1.216) value is less than the t-critical (1.960) value. Thus, there is no significant difference in the mean rating of male and female students reading habits in Physics

4. Discussion

The findings from the results revealed that majority of the students had very poor reading habits. Table 1 showed that they neither generate examples of key physics ideas from their own experiences when they read nor read physics with paper and pencil. In addition, majority of the students agree that they feel asleep whenever they want to read physics, read up only when instructed, dodge difficult concepts and give little time to physics unlike in other subjects. The finding gave credence to that of Anwar(2010) who found that academic performance of students with good and poor study habits differ significantly and good study habits results in high academic achievement. Sangkao (1999) also reported that Africans are not reading society but chatting society and as such the background of learning through culture and the cultural habit of people prefer to listen and chatting than reading. Perhaps, this might be one of the reasons students perform poorly in Physics examinations

The results from table 2 showed that boys had better read habits than the girls in senior secondary schools because they are not distracted when they read physics, they solve difficult problems and assignments in physics with their classmates and they read physics at pleasure or leisure time unlike girls. These contribute towards effective reading culture. However, both sexes generally have poor reading habits in physics. To find out if there is significant difference in the mean rating of boys and girls on their study habits hypothesis 1 was tested. The findings from table 4 revealed that there is no significant difference in the mean rating of male and female students of their reading habits in Physics. The findings from the results supported that of Ayodele and Adebisi (2013) who investigated on study habits as a determinant of academic performance of male and female undergraduates' study habits. However, finding from results deviated from that of Patel (1996) who reported that boys had significantly better readings habits than girls. The discrepancies among the present study, Ayodele and Adebisi and Patel reports might be as a result of difference in the subjects (English language and Physics) and the participants (secondary and tertiary school students) investigated. The findings from table 3 revealed that disturbance from peers and outside classroom environment, difficulty in understanding many concepts in physics and lack of passion in reading physics are the major factors that influence the reading habits of SSS students in Physics. The finding was in line with that of Ayodele and Adebisi (2013) who found that self-concept was a very strong determinant of study habit of Nigerian undergraduates so also was their method of study, family background, socio-economic status and peer group. The

results deviated from that of Clark and Foster (2005) who found that parents (father and mother) and teachers mostly influence the reading habits of students. However, lack of passion for reading physics might be as a result of social media influence earlier identified by Sangkaeo (1999)

5. Educational Implication of the Findings

The findings had shown that the reading habits of Senior Secondary School Students in physics in Ogun state are generally poor. Several studies have shown that there is a positive high relationship existing between reading/ study habits and students' performance in physics and other secondary school subjects. Thus, good reading habits lead to good performance, by implication, the reading habits of these students need to be improved positively. This could be achieved through many ways which include; creating an environment conducive to reading so that children feel at home and comfortable, requesting teachers to encourage students to read more physics textbooks, magazines and puzzles to boost their thinking, reasoning and habits of reading physics.

6. Recommendations

From the findings the following recommendations were made.

- The school authorities and Parent Teachers Association(PTA) should organize group counseling for students on good reading habits
- Students should be taught reading skills in order to cultivate good reading habits in physics in particular
- Stakeholders in education like parents, teachers and government should encourage students in their respective areas of responsibilities such as providing reading materials, appreciating students hard work e .t.c This will help to motivate students positively towards reading

7. References

- i. Adodo, S.O & Oyeniyi, J.D. (2009). Student Variables as Correlates of Secondary Students' *Academic Performance in Biology. International Journal of Science and Research (IJSR) 3(2),50-55*
- ii. Anwar, E. (2010). A Correlation Study of Academic Achievement and Study Habits: *Issues and Concerns. Excellence International Journal of Education and Research 1(2), 10-15*
- iii. Ayodele, C.S & Adebisi, D.R. (2013). Study Habits as Influence of Academic Performance in *University Undergraduates in Nigeria. Research Journal in Organization Psychology and Educational Studies 2(3), 72-75*
- iv. Collins, J& Clark B (2009). *Growing Up gifted: Developing the potential of children at home and at school (6th ed.)*. Upper saddle river, NJ: Merrill prentice Hall
- v. Sangkaeo, S. (1999). Reading Habit Promotion. The 65th IFLA Council and General *Conference on ASEAN libraries August 20-28, Bangkok, Thailand. Available at <http://www.ifla.org>*
- vi. Thorndike, E.L. (1986). *Human Learning*. New York: The century company