



The Influence of Study Habits on Secondary School Students Interest in Mathematics in Makurdi Local Government Area of Benue State

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ABSTRACT

This study investigated the influence of study habit on secondary school students interest in mathematics in Makurdi Local Government Area of Benue State. Three research questions were asked and answered while two hypotheses were formulated and tested at 0.05 level of significance. The study employed a well structured questionnaire which were used for Data collection. Data were analyzed using mean and standard and Chi-square statistics were used to test the hypothesis. The results revealed that study habit has significant influence on senior secondary school students interest in mathematics. In addition, study habit has a significant influence on male and female senior secondary school students in mathematics.

Keywords; Study Habit, Interest, Mathematics and Gender.

1. Introduction

Mathematics is the science of structure, order, and relation that has evolved from elemental practices of counting, measuring, and describing the shapes of objects. Alechenu (2012) described Mathematics as the “queen” of the sciences without which it would be difficult for people to study other sciences like Physics, Chemistry, Biology and Computer Science/Information Technology. According Abarietal.(2019) Mathematics deals with the study of shapes, size and the property of space. It deals with logical reasoning and quantitative calculation, and its development has involved an increasing degree of idealization and abstraction of its subject matter. Since the 17th century, mathematics has been an indispensable adjunct to the physical sciences and technology, and in more recent times it has assumed a similar role in the quantitative aspects of the life sciences.

A habit is a settled or regular tendency or practice, especially one that is hard to give up. It can also be described as something that is done on scheduled, regular and planned basis that is not relegated to a second place or optional place in one's life (Michael, Samuel, and Peter, 2014). It was further stated that a habit is what is simply done, no reservation, no excuses and no exceptions. Thus, the habit formed can be improved upon by constant practice; and it is very hard to give up a habit once it is formed. Study is to buy out the time and dedicate self to the application and task of study, and to become engrossed in a process of learning, practice, enlightenment and education of one's self. Therefore, study habit can be derived from the above as buying out a dedicated schedule and uninterrupted time to apply one's self to the task of learning.

Students' interest towards learning Mathematics and their implications for Mathematics instruction have long been a common concern among Mathematics educators. Interest towards Mathematics has been considered an important factor influencing participation and success in the subject. Mathematics is made up of a set of concepts, facts, principles, and operations that are fundamentals to the existence of every individual (Hafiz & Hina, 2016). Gender has also been reported to play a role in students' interest and hence achievement in Mathematics. For instance, Eccles and Wang (2015) emphasized that females express less interest in Mathematics than their male peers.

Gender is an analytic concept that describes sociological roles, cultural responsibilities and expectations of men and women in a given society or cultural setting (Chinelo, 2019). It describes the personality traits, attributes, behavior, values, relative power, influence, roles and expectations (femininity and masculinity) that society ascribes to the two sexes on a differential basis (Ezeh, 2013). Gender is a psychological term and a cultural constant developed by society to differentiate between the roles, behavior, mental and emotional attributes of males and females (Chinelo, 2019).

There may be a number of reasons like different levels of intelligence, lack of good infrastructural facilities, and lack of good libraries and so on. But one of the reasons is that students fail to make good an effort to learn what their teachers taught them in the school and also do not study at home because they fail to recognize the importance of study habits to their academic achievement. The need for this study on “the influence of study habits on secondary school students interest in mathematics in makurdi local government area of Benue state.

The following research questions are therefore pertinent to this study:

- i. What is the study habit used by secondary school students in learning mathematics?
- ii. What is the influence of study habits on secondary school students interest in mathematics? and;
- iii. What is the influence of study habit on male and female secondary school students' interest in mathematics?

The following Hypotheses will be formulated and tested at 0.05 level of significance

1. Study habit has no significant influence on secondary school students in mathematics

2. Study habit has no significant influence on male and female secondary school students interest in mathematics.

2.0 Methodology

The designs that will be employed for this research will be descriptive design specifically the survey research design which will make use of well-structured questionnaire for data collection. This design is appropriate for this study because the research is concern with the opinion of the people on the subject matter.

A total of one hundred and fifty (150) respondents were be selected as sample size using multistage sampling procedure, involving simple random selection technique. The first stage will involve a purposive sampling of five (5) secondary schools based on their co-educational station as the study involving both Male and Female students. The second stage will involve a random selection of ten (10) students from each class category of senior class given a total of hundred and fifty (150) respondents for the study.

Data was collected using structured questionnaire.

The validated instrument was trial tested to ascertain the reliability of the instrument using Cronbach Alpha method which yielded an alpha coefficient of 0.60. The data collected was analyzed using descriptive and inferential statistics. Descriptive statistics of mean and standard deviation was used to answer the research questions while chi-square was used to test the hypotheses at 0.05 level of significance.

3.0 Results

Research Question 1

What is the study habits used by senior secondary school students in learning mathematics ?

Table 1: This table shows the responses of students on various study habits used by senior secondary school students in learning mathematics, in Markudi LGA

S / N	I	T	E	M	M e a n	S t d	N	D e c i s i o n
1	.	I am able to study Mathematics for a sustained period (at least forty-five minutes)		3	. 0 6	0 . 8 8 4	1 5 0	A g r e e d
2	.	Do I arrange my study time and area so that distractions and interruption are minimized when I am learning Mathematics.		2	. 6 1	1 . 0 6 1	1 5 0	A g r e e d
3	.	I am of the habit of reviewing each Mathematics topic regularly during the term.		2	. 6 1	1 . 0 6 9	1 5 0	A g r e e d
4	.	I study Mathematics with my mates after the topic is taught by my teacher.		2	. 9 7	0 . 9 5 1	1 5 0	A g r e e d
0 5	.	I use textbooks to learn about topics in Mathematics before they are taught.		2	. 5 7	0 . 9 5 8	1 5 0	A g r e e d
0 6	.	I have my personal time table for learning Mathematics.		2	. 5 7	1 . 0 5 8	1 5 0	A g r e e d
0 7	.	I meet my Mathematics teacher to explain topics I do not understand		2	. 7 2	1 . 0 3 7	1 5 0	A g r e e d

From Table 1 above , the mean for the seven items are : 3.06, 2.61, 2.61, 2.97, 2.57, 2.57 and 2.72 respectively. All the means for the items are more than 2.5 . This implies that the students agreed that they study mathematics for sustained period of time and also meets their mathematics teacher to explain topics they do not understand.

Research Question 2

What is the influence of study habits on secondary school students interest in mathematics, in Makurdi LGA ?

Table 2: This table shows the responses of students on the Influence of study habits on senior secondary school students interest in mathematics.

S / N	I	T	E	M	M e a n	S t d	N	D e c i s i o n
1	.	I like Mathematics because I can do it on my own for a sustained period of time		2	. 8 5	1 . 0 7 0	1 5 0	A g r e e d
2	.	I like Mathematics because it is interesting to learn it with my mates		2	. 7 8	0 . 9 9 6	1 5 0	A g r e e d
3	.	I like Mathematics because it is interesting to learn using textbooks		2	. 8 0	1 . 0 5 6	1 5 0	A g r e e d
4	.	I like Mathematics because of the support of my Mathematics teacher		2	. 6 8	1 . 0 5 8	1 5 0	A g r e e d
0 5	.	I like Mathematics because it helps me to solve problems		2	. 3 7	1 . 2 4 0	1 5 0	D i s a g r e e d

From Table 2 above, the mean for item 1,2,3,4 and 5 are 2.58, 2.78, 2.80, 2.68 and 2.37 respectively. From table 2, the means for items 1, 2 ,3, 4 are more than 2.5 while item 5 is less than 2.50. This implies that the students agreed with item 1-4 but disagreed with item 5, implying that mathematics does not help them to solve problem.

Research Question 3

What is the influence of study habit on male and female secondary school students' interest in mathematics?

Table 3: influence of study habit on male and female senior secondary school students' interest in mathematics.

I T E M	1	2		3		4		5			
		N	XSD	X	SD	XSD	X	SD	XSD	X	SD
M a l e	81	2.69	1.09	2.65	0.92	2.80	0.95	2.78	1.01	2.14	1.13
F e m a l e	69	2.45	1.03	2.93	1.06	2.80	0.95	2.57	1.10	2.65	1.30

From Table 3, the means for male and female for item 1 to 5 are 2.69(2.45), 2.65(2.93), 2.80(2.80), 2.78(2.57) and 2.14(2.65) respectively. This shows that for item 1 male agreed while female disagreed, for item 2,3 and 4, both male and female agreed and for item 5 male disagreed while female agreed.

Hypothesis 1

Study habit has no significance influence on senior secondary school students' interest in mathematics.

Table 4: chi-square statistics for Hypothesis I.

V a r i a b l e	N	d f	S i g .	A l p h a
S t u d y h a b b i t a n d i n t e r e s t	150	12	0.05	0.05

From Table 4, the sig. value is 0.05 this value is equal to 0.05. Therefore the null hypothesis is not accepted. This implies that study habit has significance influence on senior secondary school students' interest in mathematics.

Hypothesis 2

There is no significance influence of study habit on male and female senior secondary school students interest in mathematics.

Table 5: Chi-square statistics for Hypothesis 2.

V a r i a b l e	N	d f	S i g .	A l p h a
G e n d e r a n d s t u d y h a b i t	150	20	0.00	0.05

From Table 5 the sig. value is 0.00 this value is less than 0.05. Therefore the null hypothesis is rejected, which implies that study habits has significant influence on male and female senior secondary school students' interest in mathematics.

4.0 DISCUSSION OF FINDINGS

From Table 1 above, the mean for the seven items are: 3.06, 2.61, 2.61, 2.97, 2.57, 2.57 and 2.72 respectively. All the means for the items are more than 2.5. This implies that the students agreed that they study mathematics for sustained period of time and also meets their mathematics teacher to explain topics they do not understand. This finding is in line with the view of by Karjanto (2017) as he states that students have positive attitude towards mathematics.

From Table 4, the sig. value is 0.05 this value is equal to 0.05. Therefore the null hypothesis is not accepted. This implies that study habit has significance influence on senior secondary school students' interest in mathematics. Which is in line with the view of Osiris (2005) who revealed that there was a significant relationship between the study habits and mathematics interest of students.

From Table 5 the sig. value is 0.00 this value is less than 0.05. Therefore the null hypothesis is rejected, which implies that study habits has significant influence on male and female senior secondary school students' interest in mathematics.

Finally our study revealed that, study habits has significant influence on senior secondary school students interest in mathematics and also applicable to gender as well.

REFERENCES

- Abari M.T., Dr.(Mrs) Gimba, R. W., Dr. Hassan A.A. & Dr. Jiya, M.(2019) Effect of Geogebra Instructional Package on Secondary School Students Retention in Geometry. International Journal of Research and Innovation in Social Science (IJRISS) | Volume III, Issue IV, April 2019|ISSN 2454-6186.
- Alechenu, S.O. (2012). Gender related differential Item functioning in Mathematics multiple choice test items set and administered by National Examination Council. Journal of Mathematics Science Education. Abuja: Federal Capital Territory, Nigeria.
- Alex G (2011). Definitions of Study Habits Retrieved on 4th February, 2013 from: www.answers.com.
- Chinelo, B. O. (2019). The Influence of Gender on Mathematics Achievement of Secondary School Students in Bayelsa State. African Journal of Studies in Education, 2019, 14(2): 196-206. ISSN: 0189-241X.

- Eccles, J. S & Wang, M. T. (2015). What motivate females and males to pursue careers in mathematics and sciences. *International Journal Behaviour Development*, 40, 100-106.
- Ezeh, A. (2013). Is Gender a Factor in Mathematics Performance among Nigerian pre-Hafiz T. J & Hina H.A (2016). Causes of poor performance in mathematics from teachers, parent and student's perspective. *American Scientific Research Journal for engineering, technology and sciences*, 15(1), 122-136.
- Hafiz T. J & Hina H.A (2016). Causes of poor performance in mathematics from teachers, parent and student's perspective. *American Scientific Research Journal for engineering, technology and sciences*, 15(1), 122-136.
- Michael, J., Samuel, O., and Peter, O. (2014). Study habits, use of school libraries and students' academic performance in selected secondary schools in Ondo West Local Government Area of Ondo State. *Int. J. Lib. Inf. Sci.* <https://academicjournals.org/journal/IJLIS/article-full-text-pdf>.