

STUDENTS' ATTITUDE TOWARDS MATHEMATICS IN FEDERAL COLLEGE OF FRESHWATER FISHERIES TECHNOLOGY, NEW BUSSA**Samuel Adamu¹; Ogunleye Adeoye²; Liman A.A.³ and Maksha A.N.⁴**Federal College of Freshwater Fisheries Technology,
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ABSTRACT

Students' attitude towards mathematics has been a factor that is known to influence students' achievement in mathematics. This study examined the attitude of student's towards Mathematics and factors influencing students' attitude towards mathematics in Federal College of Freshwater Fisheries Technology, New Bussa, Niger State, Nigeria. A random sampling technique was used to select 120 students for the study. The composition of the sample is made up of 15 Agric Extension students, 80 Fisheries Technology students, 20 Food Technology students, and 5 Pre-ND students. Questionnaires were used to gather data from the respondents. The students answered questions regarding their personal attitude to mathematics, and factors responsible for their attitude towards mathematics. It was found that, attitude of students towards mathematics in the studied college is poor and it was also found that, poor background in mathematics, lack of interest in mathematics, discouragement from parents and friends are the major factors responsible for students' poor attitude towards mathematics in FCFFT, New Bussa. Implications of the findings were discussed and recommendations have been proffered for practice.

Key words: Mathematics, students, attitude, factors, influence.

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INTRODUCTION

The knowledge of mathematics is an essential tool in our society^[4]. Every individual require the knowledge of mathematics to function effectively and efficiently in today's world irrespective of

his/her job or profession ^[16]. It is a tool that can be used in our daily life to overcome the difficulties faced ^[5].

In our march towards scientific and technological advancement, we need nothing short of good performance in mathematics at all levels of schooling. Unfortunately performance of students in mathematics at the end of secondary education has not improved in the past decade. It is disheartening that research and data from National Examination Bodies like West African Examinations Council (WAEC) have shown a consistent poor performance in this subject.

Several studies and researches have been done in many countries to find out factors that influence the students' performance in mathematics. Among these factors, students' attitude towards mathematics is one important factor that has been consistently studied ^[10].

Attitude towards mathematics plays a crucial role in the teaching and learning processes of mathematics. It affects students' achievement in mathematics ^[14]. Attitude towards Mathematics is just a positive or negative emotional disposition towards Mathematics ^[22]. Attitude towards Mathematics can also be define as an aggregated measure of "a liking or disliking of mathematics, a tendency to engage in or avoid Mathematical activities, a belief that one is good or bad at Mathematics, and a belief that Mathematics is useful or useless" ^[15]. Similarly, individual attitude towards Mathematics from multidimensional perspectives can be defined as a more complex phenomenon characterized by the emotions that he associates with Mathematics, his beliefs about Mathematics and how he behaves towards Mathematics ^[8].

Various researchers concluded that students' positive attitude towards mathematics leads towards success in mathematics ^[14]. Poor attitude towards mathematics has often been cited as one factor that has contributed to lower participation and success of girls in mathematics ^[20]. Students' beliefs and attitudes towards mathematics teaching and learning play an important role in mathematics education ^[12]. The learning outcomes of students are strongly related to their beliefs and attitudes towards mathematics ^{[7][11][19]}. If school students have a belief that mathematics is not useful in their lives or future careers, they may resist spending time or effort needed to be successful at it. That is why weakness in mathematics is thought not to be a problem or something anyone should be ashamed of, because many people do not seem to realize the importance of the subject and of its knowledge ^[16].

Student's attitude towards mathematics could be enhanced through effective teaching strategies. It has in fact been confirmed that effective teaching strategies can create positive attitude on the students towards school subjects ^{[1][3][17]}.

Studies showed that, the public image of mathematics is labeling it as a difficult, cold, abstract, theoretical and ultra rational subject ^[6]. Not many school children have interest in the subject even right from the primary school level ^[16]. However, some studies show that students have a relatively positive attitude towards mathematics ^{[18][21]}.

Also there are many studies that suggest that there is no significant difference between attitude towards mathematics among male and female students^{[9][13]}. But still research indicates that this difference prevails in some areas of complex mathematical tasks^[14].

However, Federal College of Freshwater Fisheries Technology, New Bussa do not have any research conducted on students' attitude towards mathematics and factors responsible for students' attitude towards mathematics.

This study tries to examine students' attitude towards mathematics and factors influencing students' attitude towards mathematics in Federal College of Freshwater Fisheries Technology (FCFFT), New Bussa, Niger State, Nigeria.

The general objectives of the paper are to evaluate students' attitude towards mathematics in some selected departments in FCFFT, New Bussa. Other specific objectives include;

- To find out the students' attitude towards mathematics in FCFFT, New Bussa.
- To find out factors influencing students' attitude towards mathematics in FCFFT, New Bussa.

METHODOLOGY

The following methods and procedures were adopted to conduct this study.

Population and Sample

This is a quantitative study which explores students' attitude towards mathematics and factors influencing students' attitude towards mathematics in FCFFT, New Bussa.

Students of both genders constitute the population of this study. Sample of the study was 120 students (male = 80 and female = 40) from four Departments of FCFFT, New Bussa.

Procedures for Data Collection and Analysis

The study sought to find out the attitude of students towards Mathematics and factors influencing students' attitude towards mathematics in FCFFT, New Bussa.

The questionnaire instrument was administered to randomly selected number of students individually by the researchers.

Descriptive statistics including tables and mean were used in the analysis. Where mean is given by; $Mean = \bar{x} = \frac{\sum fx}{\sum f}$.

The questionnaire for students comprised of 12 items based on a 4-point likert scale measuring their attitude towards Mathematics and factors influencing students' attitude towards mathematics. The response were rated as; Strongly Agree = 4, Agree = 3, Disagree = 2 and Strongly Disagree = 1.

During the Analysis, an attitude mean score of less than 2 was considered as negative response and a mean score of more than 2 considered as positive response. A mean score of 2 was a neutral point.

RESULTS AND DISCUSSION

The paper evaluates students' attitude towards mathematics in FCFFT, New Bussa. It also finds out factors influencing students' attitude towards mathematics. Based on the findings of this study, the majority of the respondents are male (80) which represents 67% and 40 which represent 33% are female students. In addition, about 90% Of the respondents are between the ages of 18 to 27 years old.

Table 1: Respondents (2014/2015 Academic Session)

Departments	Population	Respondents
Agric Extension & Management	22	15
Fisheries Technology	185	80
Food Science Technology	31	20
Pre-ND	13	5
Total	251	120

Source: FCFFT Records 2015

Table 1 above shows that four departments were selected. The total number of students in the four departments is 251. Fisheries Technology has the highest number of registered students. Special focus was given to final year students of the selected departments of the college. The choice of the final year students was due to the fact that the respondents were exposed to at least two mathematics and other mathematics related courses.

Table 2: Students' attitude towards mathematics

S/No	Question	Strongly Disagree	Disagree	Agree	Strongly Agree	Mean
1	Mathematics is not enjoyable and stimulating to me.	5(4.2%)	16(13.3%)	45(37.5%)	54(45%)	3.2
2	Everything about mathematics is boring.	7(5.8%)	11(9.2%)	41(34.2%)	61(50.8%)	3.3
3	Mathematics subject is difficult among other subjects.	8(6.7%)	26(21.7%)	36(30%)	50(41.7%)	3.1
4	Studying mathematics makes me feel nervous.	7(5.8%)	11(9.2%)	41(34.2%)	61(50.8%)	3.3
5	Mathematics is not important in everyday life	10(8.3%)	15(12.5%)	70(58.3)	25(20.8%)	2.9
6	The skills I learn in mathematics class will not help me in other classes for my major.	10(8.3%)	17(14.2%)	69(57.5%)	26(21.7%)	3.0

Source: Field survey 2015

Responses on perceived attitudes towards mathematics in table 2 show that, respondents have unfavorable attitude towards the subject. Respondents agreed that mathematics is not enjoyable and stimulating to them (M=3.2), rather it's boring (M=3.3). These finding agreed to that of Okafor et al (2013) who found that, not many school children have interest in the subject even right from the primary school level. The students further agreed that mathematics as a subject is difficult (M=3.1), studying mathematics makes them nervous (M=3.3). This findings support that of Ernest, P. (2004) and Yilmaz et al (2010) that, the public image of mathematics is labeling it as a difficult, cold and abstract. The students also feel that mathematics is not important in everyday life (M=2.9), skill learn in mathematics will not help them in other classes of their major (M=3.0). These findings contradict the report of Bishop, A. J. (1996) that mathematics is a tool that can be used in our daily life to overcome the difficulties faced.

Table 3: Factors influencing students' attitude towards mathematics

S/No	Question	Strongly Disagree	Disagree	Agree	Strongly Agree	Mean
1	I am not confident about mathematics	10(8.3%)	10(8.3%)	62(51.7%)	38(31.7%)	3.1
2	There are no relevant mathematics text books in FCFFT library.	11(9.2%)	8(6.7%)	60(50%)	41(34.2%)	3.1
3	Lack of qualified teachers in FCFFT hinders me from learning mathematics.	59(49.2%)	41(34.2%)	20(16.7%)	0(0.0%)	1.7
4	My friends discourage me from studying mathematics.	10(8.3%)	20(16.7%)	55(45.8%)	35(29.2%)	3.0
5	My parents discourage me from studying mathematics.	8(6.7%)	20(16.7%)	58(48.3)	33(27.5%)	3.0
6	My background in mathematics hinders me from learning mathematics subject.	2(1.7%)	8(6.7%)	60(50%)	50(41.7%)	3.3

Source: Field survey 2015

Responses on perceived factors influencing students' attitude towards mathematics in table 3 shows that, the respondents are of the opinion that poor background in mathematics, lack of interest, discouragement from parents and friends are the major factors responsible for students poor attitude towards mathematics in FCFFT, New Bussa.

The findings show that, students lack confidence about mathematics (3.1). The respondents disagree that, lack of qualified teachers in FCFFT, New Bussa hinder them from learning mathematics (1.7), but agree that, there are no relevant mathematics text books in FCFFT (3.1). The research further shows that, Friends and parents discourage the respondents from studying mathematics (3.0). This proves the report generated by Foxit PDF Creator@Foxitsoftware.com that a conscious effort on part of the teachers and parents can bring about a constructive change in the attitude towards mathematics of the students. Poor background hinders many students from learning mathematics subject (3.3). This is in agreement with a finding of Popoola & Olarewaju (2010) that, failure to understand mathematics in elementary school leads to in adequate comprehension of mathematics at secondary and tertiary level.

CONCLUSION AND RECOMMENDATION

Attitude seems to matter most and in this study, students' attitude towards mathematics in FCFFT, New Bussa is poor. This may negatively affect the performance of students in mathematics and mathematics related subjects in the study area.

Several factors play a vital role in influencing student's attitude towards mathematics in FCFFT, New Bussa. These factors include; poor background in mathematics, lack of interest, anxiety towards mathematics, lack of teaching topics with real life enriched examples, discouragement from parents and friends. Due to these several factors, most of the students have poor attitude towards mathematics.

The following are the recommendations:

1. Teachers at FCFFT, New Bussa, should motivate and encourage students to understand that mathematics could be studied and passed just like other subjects, and to appreciate that the subject is an essential tool, a prerequisite for further education.
2. Teachers of mathematics in New Bussa should motivate school children to have interest in the subject right from the primary school level.
3. Federal College of Freshwater Fisheries Technology, New Bussa should acquire more mathematics text books and other relevant literature.
4. Teachers and other stakeholders in New Bussa's education industry should organize periodic seminars and workshops for students, parents and teachers designed to promote positive attitudes towards mathematics.
5. Further studies should be carry out, to find the correlation between students' attitude towards mathematics and students' achievement in mathematics in FCFFT, New Bussa.

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