An Analyses and Evaluation of Some Selected Factors towards Enhancing Interest in Teaching and Learning Mathematics

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Abstract: -This study analyzed and evaluates some selected factors that can enhance the interest in mathematics. The factors are teachers related factor, students related factor, parents related factor, school related factor, community related factor, and government related factor. 97questionnaires were randomly distributed to secondary school's teachers of both public and private school in Jos Plateau state, were 85 questionnaires were systematically distributed to senior secondary school students. The data collected were analyzed using ordinal regression in SPSS Version 25. The results of the study reveal that there is an effective prediction between independent variables and dependent variable with 1.000 at P=.000. Moreover, this reveals there is a very strong significant relationship to (students, teachers, parent, school, community and government related factors towards interest in mathematics. It is recommended that assessment of teachers behaviour, qualification and use of ICT where school should remodel, restructure and equalized there aim to educational goals.

Keywords: -Analyses, Enhancing, Evaluating, Factors, Interest, Mathematics, Teaching and Learning.

I. INTRODUCTION

Mathematics is man's chief tool that helps him to understand and master the world in which he lives, mathematics is in partner with physics, chemistry and other sciences discipline including social science subject. The subject mathematics is the numerical and calculation part of man's life and knowledge; it helps man to give exact interpretation to his ideas and conclusion. It deals with quantitative facts and relationship, as well as problems involving space and it also deals with relationship between magnitudes. Mathematics studies other abstract from the particular objects and phenomena, which exhibits it and in a generation form (Saleem & Khalid 2000).

Mathematics to most is a complex and difficult subject. The tendency for most students is to consider as one that is being thus discussed. This poses great challenges for teachers and educators, especially in secondary school level where in a good study habit and a firm grasp of basic concepts should developed. Mathematics has a purpose and that purpose lies outside mathematics, If we don't present that purpose, we are failing to utilize the strongest motivation for studying mathematics. The incessant poor achievement in mathematics field in Nigeria may be traceable to lack of interest in the

discipline. The term interest can be described as two distinct (though often co-occurring) experiences: an individual momentary experience of being captivated by an object, thing, field, as well as more lasting feelings that the object is enjoyable and worth further exploration. Interest is therefore both a psychological state characterized by increased attention, effort, and affect experienced in a particular moment (situational interest) as well as enduring predisposition to reengage with a particular object or topic over time (Hidi & Renninger, 2006).

These suggest that mathematical interest has to do with preparedness or mastery of the pre-requisite skills in other to cope with further or next level of education. Indeed mathematics has a relationship with interest significantly in other to have a good achievement in the discipline. A mathematics interest test can be developed and used as an indicator of success in any mathematics course (Idigo, E .C . 2010, Goolsby, 2013).

The following factors have been identified in *literature* as reasons associated with lack of interest in teaching and learning mathematics. These include;

    a. Students Related factor

    b. Teachers Related factor

    c. Parents Related factor

    d. School Related factor

    e. Community Related factor

    f. Government Related factor

Various researches and investigations have been conducted to explore factors contributing to enhance interest toward mathematics. However, few of them have paid attention to some of the above factors.

(a) Student Related Factors: -Plays vital role in teaching and learning process. Lack of student interest in mathematics education there is no possibility to achieve knowledge in the subject matter. Student achievement depends on their need, interest, practices and seriousness in subject matter (Bed Raj Acharya 2017). Students related factors include mathematics anxiety, knowledge background, and constant practice. The following factors are associate with students related factor.

i. Mathematics Anxiety

Mathematics Anxiety has been found to have a negative relationship with mathematics performance (Hambree, 1990). According to (Karimi, 2009) found that mathematics anxiety has a significant correlation with mathematics performance but no significant correlation is detected with academic hardness.

Mathematics Anxiety has a core relationship with mathematical interest, which significantly refers to lack of confidence feeling of tension and fearing in the subject matter It affects the student's effort of knowing mathematics in the learning process and achievement.

ii. Knowledge Background

This is another aspect of student related factor which means lacking a pre-requisite skill determine poor evaluation to the subject matter. Those students who have poor knowledge background did not want to learn and could not get success in the further level (Bed Raj Acharya, 2017). Mathematics Knowledge Background has a vital link with interest, having sufficient interest towards mathematics education can cause not to be doing good to the subject matter.

iii. Constant practice

To master anything in this life, constant practice is part of that evolution. Mathematics is a complex subject that deals with structure and patterns, for a learner to have confidence, and develop interest there is a need for constant drilling. Lack of students to have an extra time for practicing is one of a significant problem to enhance interest in maths.

Generally, mathematics achievements determine students labour in present situation; students are not labourious in mathematics learning. (Bed Raj A., 2017).

(b)Teachers Related Factor: - has a great impact to teaching and learning process, it serves a custodian of knowledge who develop interest to learners. According to (Hornby, 2006) a teacher is somebody who shows somebody how to do something so that they will be able to do it themselves. In this section the researcher emphasized on teacher related factors which include teachers behaviour, teacher's qualification, applying mathematics in a real-world situation and the use of ICT in mathematics education.

i. Teachers Behaviour

Behaviour is a response, which an individual show to his environment at different times. Behaviour can be positive or negative, effective or ineffective, conscious or unconscious, overt or convert and voluntary or involuntary (Yousef and Balaramulu, 2013). This, implies teachers behaviour can be broad as action, interaction, communication, methodology, styles, illustrations, improvising materials, motivation, concept, attitude, and assessment of students. This suggests that mathematical interest is dependent on teachers behaviour.

ii. Teachers Qualification

This section has to do with the above qualities i.e, it has an intersection with teachers behaviour. In Nigeria poor achievement in mathematics has link with situation and condition of having a qualified teacher in all level of education. Therefore, a qualified mathematics teacher who is composed with knowledge, teaching styles, good train mind, competence, ideas, principles and various instructional strategies in teaching mathematics enhance students and teachers' interest to learn mathematics.

According to (Leonard, 2016), a qualified mathematics teacher can arouse students' interest in mathematics learning and ensure success in the learning of the subject through the use of appropriate instructional strategies in teaching the students.

iii. Applying mathematics in real world situation

This is another related factor that create boundary to have interest in mathematics, majority of people perceive mathematics as a difficult and abstract subject, connecting it with real life situation will definitely enhance interest in the discipline. The student's willingness and curiosity to learn may also increase as students feel what they learn has a connection to their lives.

According to study of (Dweck, 1986; Mensah, 2013 etal). The study of mathematical interest has revealed that students' interest in mathematics increase, if they understand the skills and how that skills is developed. This study suggests applying mathematics to real life situation and condition enhance the connection to mathematics education which will lead to a better achievement.

iv. The use of ICT in mathematics education

The use of ICT has brought tremendous effect in the field of education in developed and developing countries and it has also brought revelation in teaching and learning process of mathematics by changing the roles of teachers and learners.

Al-Balawi (2001) undertook a study aimed at identifying the effect of ICT on the retention of learning during the teaching of a statistics. The study sample comprised 66 students who were divided equally into groups, an experimental group consisted of 33 and the traditional method is the same. The findings of the study revealed that there were significant differences in the skills of understanding, applications and over all post-test favour the experimental group.

The factor explores the use of ICT has a relationship with students'interest, they use of ICT such as computer, mathematical games, software and other gadget that will drive and enhance interest in mathematical achievement.

(c) Parental Related Factor: -

Parents support for their child's learning can make good achievement in education. 0In Nigeria most of the parents of public schools they are illiterate. It does not matter to them to

know how their child achieve and perform. School can benefit positively if they involve parents in decision making which affect student's achievement. Student interest are determined by family support, they can help significantly by motivating their child that can occur as enhancing the interest in mathematics. They major factor of parents towards to the child's learning include their educational level and economic status.

i. Educational level

According to (Bed R., 2017) in his investigation found out that educational background of parent is one and important aspect of parent, play a role for studying mathematics. The education of child does not depend on only teachers' role but also depend on their parent's awareness, interest and knowledge about handling and guiding their children at home.

ii. Economic status

In Nigeria is obviously parent who have a good economic condition install their child's in private schools and settles them with a good instructional materials, extra class and home tutors, this significantly modeled student to have interest and zeal to learn mathematics and vice versa.

This suggests that parent should put more effort to their child's education and motivate them towards their trapping factors. Indeed, this has a relationship with predicting interest to mathematics.

(d) School Related Factor

School related factor is an important aspect to enhance interest in mathematics, because this is the place where teaching and learning process take place. The major factors that affect school in enhancing interest include classroom management, mathematics laboratory, extra classes, special prize for mathematics, and organizing science clubs.

i. Classroom management

This include the class size, classroom arrangement, time management and use of teaching aids were variable has contribution towards enhance the interest of mathematics when use appropriately.

ii. Mathematics laboratory

Mathematics laboratory is a room where learners can learn and explore various mathematical concepts and verify different mathematical facts and theories using varieties of activities and materials (Igbokwo, 2000).

According to (Ebele and Abigail, 2008) students taught with mathematics laboratory achieved better than those taught without it. This suggest that the use of mathematical lab has effect to enhance interest tremendously.

iii. Extra classes

This is an act of adding additional lesson to mathematics in other to mastered the content. The impact of extra classes in an educational, social, and economic system is that all learners do not learn at the same rate each and every has a level of understanding, Extra classes has a great impact to enhance students' interest.

iv. Organize Special Price

Special price is a form of reinforcement that is positive and at the same time a good motivation. School can create prizes in other to praise the behavior of student that's demonstrate in the learning activities with the provision of this prize student would be eager to be the best in learning process. This suggests that there is a significant prediction between special prize and enhancing interest to mathematics achievement.

(e) Community Related Factor

Community related factor influence much to the development of mathematical interest which include motivational factor, guiding and counseling to learners.

Motivation, guiding and counseling is not only a job of a teacher but has a relationship of an elderly person who can guide a learner to have an interest to a subject matter.

Fluctuation of community saying 'mathematics subject is difficult and abstract' this has impact to negative influence to the subject.

(f) Government Related Factor

Government related factor is associated with student's mathematical interest, this include organizing a workshop for maths teachers, programming TV, radio program and provision of educational facilities. Government intervention by providing of the above programs and educational facilities may correlate positively with student's mathematics interest. (Leonard, 2016) Investigation reveals that government factor contributed greatly to student's mathematics interest.

Many researchers have considered each of these factors either singly or in combination of two, but this study examines six factors widely which has relationship with students' interest to mathematics achievement.

Statement of the problem

To enhance mathematics interest, poor attainment in mathematics may be traceable to lack of interest in studying the subject. Six factors (Teachers related factors, student related factors, parent related factors, school related factors, community related factors and government related factors) have been identified as the problem to the discipline.

II. PURPOSE OF STUDY

The purpose of this study is to investigate and analyze some factors and conditions that motivate, encourage student and teachers to have interest in mathematics. Specifically, the study sought the following:

a. To examine and analyze some selected factors that can contribute to enhance mathematical interest towards teaching and learning.
b. To predict relationship between Teachers, students, School, Parents, Community and Government related factor to Interest in Mathematics.

Research Questions

The research questions below were formulated to guide the study.

a. To what extent do the basic factors enhance mathematical interest towards teaching and learning?
b. What is the relationship between Teachers, students, School, Parents, Community and Government related factor to mathematical interest?

Hypothesis

H_0-There is no significant relationship between selected factors that enhance interest in mathematics towards teaching and learning.

H_1- There is no significant prediction between selected factors that enhance interest in mathematics towards teaching and learning.

III. RESEARCH METHODOLOGY

Research Design

This work adopts the survey method as its research. It is concerned with the collection of data for the purpose of investigating some factors that can enhance the interest toward teaching and learning mathematics.

Area of Study

The study was carried out in Jos North Area of Plateau State. Jos North is the capital of Plateau state and located in North central Nigeria. The area was purposely selected because of its potential in terms of education sample.

The target population of the study comprised 87 private schools and 19 public schools in Jos North L.G.A were estimated, for the purpose of this study 43 private schools and 3 publics were randomly sampled out of the secondary schools. In all this schools only mathematics teachers were used for the study.

Moreover, the researcher systematically samples85 secondary school students of same school with their teachers chosen for the effectiveness of the study; these students were selected base on their good grade scale.

Research Instruments

For the purpose of this research work questionnaires were administered to both teachers and students.

i. Teachers'Questionnaire

Teachers questionnaire were designed to serve as independent variable (A) to the study. Open and closed ended question contained both in the questionnaire, out of the 43 sampled private schools 77 questionnaires were randomly distributed to mathematics teachers, and only 69 were returned successful, where for the 3 sample public schools 20 questionnaires were distributed to mathematics teachers and only 16 were returned. The administration of the instruments was done with the permission of the principals of the schools used for the study.

ii. Students' questionnaire.

This questionnaire was developed to serve as Independent variable (B) in other to see if it has a relationship with independent variable (A) and to predict interest in mathematics. The instrument was systematically administered 85 sample and there were chosen by their teachers and authorized by their principals for effectiveness of the study.

Below is the information of the respondents.

Table I: mathematics teachers – Respondents to their various school

School	Private school	Public school
N	69	16
Total	85	

Table II: Information on Academic qualification of respondents.

Private schools

Academic qualification	Associated diploma	B.sc	B.sc ed	M.sc Ed
N	25	3	20	5

Public schools

Academicqualification	NCE/OND/ ND	B.sc	B.sc ed	M.sc Ed
N	8	3	4	1

Table III: classes of the senior secondary school student's respondents

CLASS	SS1	SS2	SS3
N	38	26	21

Data Analysis

The data generated with the instruments were analyzed using Ordinal Regression analysis technique in statistical package for social science (SPSS) version 25.

Variables

A variable is measurable characteristic that varies. It may change from group, person to person, or even within one person over time. To this study, two types of variables have been used for sample. The independent variable (A) are the teachers who teach mathematics (teachers' questionnaire), and the Independent variable (B) are the Senior secondary school

students while the dependent variable is the interest in mathematics.
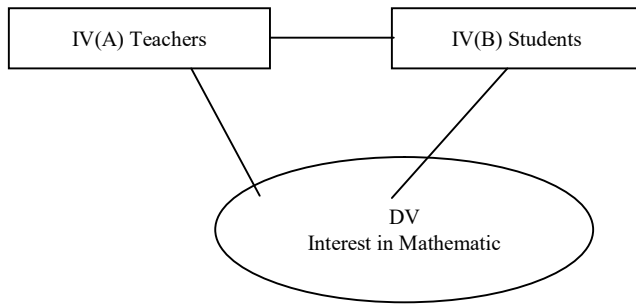
The Fig. 1 Conceptual framework of IVs to DV.

IV. RESULTS

Table IV: Does teacher's behaviour on enhancing the interest in teaching and learning of mathematics a significant problem?

Indicator	Undecided	No Problem	Minor Problem	Moderate Problem	Big Problem	Total
N	2	13	17	19	34	85
Percentage	(2.35%)	(15.29%)	(20.01%)	(22.35%)	(40%)	100

The Table IV shows mathematics teachers' behaviour base on the analysis of the respondents indicate about 40% signify and predict teachers behaviour is a serious problem to student.

Table V: Teacher's qualification is very important on enhancing the interest in teaching and learning of mathematics, is it?

Indicator	Undecided	No, It is not Important	Yes, it fairly Important	Yes, it is Important	Yes it very Important	Total
N	0	8	18	37	22	85
Percentage	0	(9.4%)	(21.17%)	(43.52%)	(25.88%)	100

The table V shows teachers qualification is a very important factor that participants respond to about 43.52%.

Table VI: Ability to apply mathematics concept in real world problems, what is your rate as enhancing the interest in teaching and learning mathematics?

Indicator	Undecided	Poor	Fair	Good	Very Good	Total
N	3	11	9	41	21	85
Percentage	(3.52%)	(2.94%)	(10.58%)	(48.23%)	(24.70%)	100

Table VI shows 48.23%, rate the ability to apply mathematics concept in real world problems will definitely increase interest in mathematics.

Table VII: To what extend can you indicate the impact of ICT in teaching and learning mathematics?

Indicator	Very Low	Low	Medium	High	Very High	Total
N	6	17	29	19	14	85
Percentage	(7.05%)	(20%)	(34.12%)	(22.35%)	(16.47%)	100

The Table VII shows applying ICT in teaching and learning of mathematics has a high impact of about 34.12%.

Table VIII: How important is the economic status of parent on enhancing interest in teaching and learning mathematics?

Indicator	Undecided	It is not Important	It is important	It is very Important	It is highly Important	Total
N	7	15	11	43	9	85
Percentage	(8.23%)	(17.64%)	(12.94%)	(50.59%)	(10.59%)	100

The Table VIII shows how economic status of parentsis directly important to achievement of mathematics interest for about 50.59%

Table IX: Level of education and awareness of the parent can be useful on enhancing the interest in teaching and learning mathematics.

Indicator	Undecided	No, it is not Useful	Yes, is moderately useful	Yes, is useful	Yes, can be very useful	Total
N	3	10	21	32	19	85
Percentage	(3.52%)	(11.76%)	(24.71%)	(37.64%)	(22.35%)	100

The Table IX indicates level of education and awareness is very useful to enhancing mathematical interest for about 37.64%.

Table X: How will you rate the motivational factor as a useful means of enhancing the interest in teaching and learning mathematics in your community.

Indicator	Undecided	Useless Factor	Moderate Factor	very useful	Highly Useful factor	Total
N	10	14	27	21	13	85
Percentage	(11.76%)	(16.47%)	(31.76%)	(24.71%)	(15.29%)	100

The Table X shows Motivational factor has high impact in mathematical interest for about 31.76%.

Table XI: To what extend does Guidance & Counselling help have on enhancing the interest in teaching and learning mathematics.

Indicator	Undecided	Improper guiding	Proper Guiding	Absolutely proper guiding	Highly proper guiding	Total
N	1	7	21	45	11	85
Percentage	(1.17%)	(8.24%)	(24.71%)	(52.94%)	(12.94%)	100

The table XI indicates a good guidance and counselling in a community is absolutely proper in enhancing mathematical interest for about 52.94%.

Table XII: If Government would organize workshop for mathematics teachers, what impact does it have on enhancing the interest in teaching and learning mathematics.

Indicator	Very Low	Low	Medium	High	Very High	Total
N	0	2	18	43	22	85
Percentage	0	(2.35%)	(21.17%)	(50.58%)	(25.88%)	100

The Table XII shows 50.58% agree when government is organizing workshop for mathematics teachers, an interest in mathematics will be fully enhanced.

Table XIII: Mathematics anxiety is negative effect on learning process, rate it impacts on enhancing the interest in teaching and learning mathematics.

Indicator	0%	20%	40%	60%	80%	Total
N	1	14	20	18	32	85
Percentage	(1.17%)	(16.47%)	(23.52%)	(21.17%)	(37.64%)	100

The table XIII shows the response of senior secondary school students on mathematics anxiety is a wide range problem to mathematic discipline, which almost all students affect with about 37.64%.

Table XIX: Does student knowledge background have impact on enhancing the interest in teaching and learning mathematics?

Indicator	Undecided	No there is no Impact	Yes there is very low impact	Yes there is moderate impact	Yes there is high impact	Total
N	4	12	16	39	14	85
Percentage	(4.7%)	(14.11%)	(18.82%)	(45.88%)	(16.47%)	100

The Table XIX shows good knowledge background subsides to help students in acquiring and enhancing knowledge for about 45.88%.

Table XX: How significant mathematics Laboratory is on enhancing students' interest in teaching and learning mathematics?

Indicator	Not Applicable	insignificant	Partial Significant	Absolutely significant	Highly significant	Total
N	0	5	17	47	16	85
Percentage	0	(5.88%)	(20.00%)	(55.29%)	(18.82%)	100

The Table XX indicates mathematics laboratory can simplify and enhance the interest in mathematics absolutely for about 55.29%.

Table XXI: How far does Classroom Management matters on enhancing the interest in teaching and learning mathematics.

Indicator	Undecided	Not interesting	Partially Interesting	Very Interesting	Highly Interesting	Total
N	11	8	19	29	18	85
Percentage	(12.94%)	(9.41%)	(22.35%)	(34.11%)	(21.17%)	100

The table XXI shows good decorations make human beings to be comfortable. Designing and management of mathematics period indeed has a moderate significant for about 34.11%.

Table XXII: Does the Extra Classes Activity boost the psycho-motor domain of students' on enhancing the interest in teaching and learning mathematics?

Indicator	Undecided	No	partially affect	Absolutely	Highly affect	Total
N	9	13	17	40	6	85
Percentage	(10.58%)	(15.29%)	(20.00%)	(74.05%)	(7.05%)	100

The Table XXII shows extra classes activity boost students understanding and simplified difficult concept in enhancing interest in mathematics for about 47.05%.

Table XXIII: Interest in teaching and learning of mathematics has a link with students' constant practice, how often did you feel about that.

Indicator	Almost never	Never	sometimes	Often	Very often	Total
N	1	5	27	35	17	85
Percentage	(1.17%)	(5.88%)	(31.76%)	(41.17%)	(20.00%)	100

The Table XXIII indicate no doubt that constant practice makes you to understand mathematics and when you understand mathematics pattern makes you feel excited and have zeal and interest to learn for about 41.17%

Table XXIV: To what extend does mathematics and science Club is important on enhancing the interest in teaching and learning mathematics.

Indicator	Undecided	Not important	It is important	Very Important	Highly Important	Total
N	2	10	22	46	5	85
Percentage	(2.35%)	(11.76%)	(25.88%)	(54.11%)	(5.88%)	100

The Table XXIV below shows how important science club is for about 54.11%

Table XXV: How will you assess the value of Special Prize for mathematics subject on enhancing the interest in teaching and learning mathematics in your school.

Indicator	Very Low	Low	Medium	High	Very High	Total
N	3	6	19	40	17	85
Percentage	(3.52%)	(7.05%)	(22.35%)	(47.05%)	(20.00%)	100

The Table XXV indicate the assessment of special prize enhance interest to student to perform better for materialistic achievement for about 47.05%.

Table XXVI: Did you agree with the impact of Programming Television, Radio and inter-local government competition on the interest in teaching and learning of mathematics?

Indicator	Undecided	Strongly Not Agree	Not Agree	Agree	Strongly Agree	Total
N	0	4	21	41	19	85
Percentage	0	(4.7%)	(24.70%)	(48.23%)	(22.35%)	100

The Table XXVI shows Programming television and radio mathematical contents enhance interest of mathematics education for about 48.23%.

Table XXVII: The table below shows the result of ordinal regression technique that was analyze to predict Teachers' Responses and Students' Responses as Independent Variables to mathematical interest as dependent variable using SPSS.

Model Fitting Information				
Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	232.087			
Final	.000	232.087	45	.000
Link function: Logit.				

The Table XXVII shows the significant o f chi-square statistically indicates that the model gives a significant prediction over the baseline intercept-only model. This

basically tells us that the model gives a better prediction and with p=.000 shows that the model is a very good finding on how well does the model fits the data.

Table XXVIII

Goodness-of-Fit			
	Chi-Square	df	Sig.
Pearson	.482	135	1.000
Deviance	.960	135	1.000
Link function: Logit.			

The table XXVIII is containing chi-square Pearson's and deviance statistic for the model. Both the deviance and Pearson indicate a strong significant of 1.000 at p=000. The above model shows that there's a highly prediction and association between Independent variables to mathematical interest.

Table XXIX

Test of Parallel Lines[a]				
Model	-2 Log Likelihood	Chi-Square	df	Sig.
Null Hypothesis	.000			
General	.000[b]	.000	135	1.000

The null hypothesis states that the location parameters (slope coefficients) are the same across response categories.[a]

a. Link function: Logit.

The table XXIX shows test of parallell Lines indicate that the null hypothesis is rejected where by the alternative hypothesis is accepted significantly with 1.000 at p=.000.

Table XXX

Parameter Estimates								
		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[DV_Mathematical_Interest = 1.00]	-40.398	12.995	9.665	1	.002	-65.867	-14.929
	[DV_Mathematical_Interest = 2.00]	-28.816	11.730	6.035	1	.014	-51.806	-5.826
	[DV_Mathematical_Interest = 3.00]	-16.678	10.713	2.424	1	.120	-37.676	4.319
	[DV_Mathematical_Interest = 4.00]	-6.081	9.376	.421	1	.517	-24.459	12.296
Location	[IVA_Teachers_Responses=11.00]	-46.435	24.284	3.656	1	.056	-94.032	1.161
	[IVA_Teachers_Responses=12.00]	-46.435	24.284	3.656	1	.056	-94.032	1.161
	[IVA_Teachers_Responses=14.00]	-46.435	24.284	3.656	1	.056	-94.032	1.161
	[IVA_Teachers_Responses=16.00]	-34.591	17.616	3.856	1	.050	-69.118	-.064
	[IVA_Teachers_Responses=17.00]	-34.591	29.806	1.347	1	.246	-93.010	23.828
	[IVA_Teachers_Responses=18.00]	-34.591	29.806	1.347	1	.246	-93.010	23.828
	[IVA_Teachers_Responses=20.00]	-34.591	23.624	2.144	1	.143	-80.893	11.710
	[IVA_Teachers_Responses=22.00]	-34.591	15.091	5.254	1	.022	-64.169	-5.013
	[IVA_Teachers_Responses=23.00]	-34.591	17.616	3.856	1	.050	-69.118	-.064
	[IVA_Teachers_Responses=24.00]	-34.591	17.616	3.856	1	.050	-69.118	-.064
	[IVA_Teachers_Responses=25.00]	-34.591	15.091	5.254	1	.022	-64.169	-5.013
	[IVA_Teachers_Responses=26.00]	-34.591	31.093	1.238	1	.266	-95.532	26.350
	[IVA_Teachers_Responses=28.00]	-34.591	31.093	1.238	1	.266	-95.532	26.350
	[IVA_Teachers_Responses=29.00]	-34.591	25.228	1.880	1	.170	-84.037	14.854
	[IVA_Teachers_Responses=30.00]	-22.708	18.370	1.528	1	.216	-58.712	13.296

[IVA_Teachers_Responses=31.00]	-22.708	13.875	2.679	1	.102	-49.902	4.486
[IVA_Teachers_Responses=32.00]	-22.708	18.370	1.528	1	.216	-58.712	13.296
[IVA_Teachers_Responses=33.00]	-22.708	18.370	1.528	1	.216	-58.712	13.296
[IVA_Teachers_Responses=34.00]	-22.708	19.424	1.367	1	.242	-60.779	15.363
[IVA_Teachers_Responses=36.00]	-22.708	24.012	.894	1	.344	-69.771	24.356
[IVA_Teachers_Responses=37.00]	-22.708	11.907	3.637	1	.057	-46.045	.630
[IVA_Teachers_Responses=39.00]	-22.708	18.370	1.528	1	.216	-58.712	13.296
[IVA_Teachers_Responses=40.00]	-11.444	12.090	.896	1	.344	-35.141	12.253
[IVA_Teachers_Responses=41.00]	8.239E-16	9.189	.000	1	1.000	-18.010	18.010
[IVA_Teachers_Responses=42.00]	1.655E-15	11.623	.000	1	1.000	-22.781	22.781
[IVA_Teachers_Responses=43.00]	7.533E-16	9.189	.000	1	1.000	-18.010	18.010
[IVA_Teachers_Responses=44.00]	1.801E-15	9.189	.000	1	1.000	-18.010	18.010
[IVA_Teachers_Responses=45.00]	0[a]	.	.	0	.	.	.
[IVB_Students_Responses=11.00]	0[a]	.	.	0	.	.	.
[IVB_Students_Responses=13.00]	0[a]	.	.	0	.	.	.
[IVB_Students_Responses=14.00]	0[a]	.	.	0	.	.	.
[IVB_Students_Responses=15.00]	-11.844	24.374	.236	1	.627	-59.617	35.928
[IVB_Students_Responses=17.00]	-11.844	24.374	.236	1	.627	-59.617	35.928
[IVB_Students_Responses=18.00]	0[a]	.	.	0	.	.	.
[IVB_Students_Responses=19.00]	-2.418E-14	24.043	.000	1	1.000	-47.124	47.124
[IVB_Students_Responses=21.00]	-1.612E-14	15.740	.000	1	1.000	-30.850	30.850
[IVB_Students_Responses=22.00]	-9.573E-15	15.740	.000	1	1.000	-30.850	30.850
[IVB_Students_Responses=23.00]	0[a]	.	.	0	.	.	.
[IVB_Students_Responses=24.00]	1.330E-14	18.175	.000	1	1.000	-35.622	35.622
[IVB_Students_Responses=26.00]	1.184E-14	14.840	.000	1	1.000	-29.085	29.085
[IVB_Students_Responses=27.00]	0[a]	.	.	0	.	.	.
[IVB_Students_Responses=29.00]	-2.607E-15	25.621	.000	1	1.000	-50.216	50.216
[IVB_Students_Responses=30.00]	-1.236E-15	18.059	.000	1	1.000	-35.394	35.394
[IVB_Students_Responses=31.00]	0[a]	.	.	0	.	.	.
[IVB_Students_Responses=32.00]	0[a]	.	.	0	.	.	.
[IVB_Students_Responses=33.00]	0[a]	.	.	0	.	.	.
[IVB_Students_Responses=34.00]	4.908E-15	21.787	.000	1	1.000	-42.702	42.702
[IVB_Students_Responses=35.00]	4.268E-15	18.159	.000	1	1.000	-35.590	35.590
[IVB_Students_Responses=36.00]	5.504E-15	21.787	.000	1	1.000	-42.702	42.702
[IVB_Students_Responses=37.00]	4.958E-15	15.464	.000	1	1.000	-30.310	30.310
[IVB_Students_Responses=38.00]	0[a]	.	.	0	.	.	.
[IVB_Students_Responses=39.00]	-11.444	16.771	.466	1	.495	-44.315	21.427
[IVB_Students_Responses=40.00]	-11.444	16.771	.466	1	.495	-44.315	21.427
[IVB_Students_Responses=42.00]	-11.444	16.771	.466	1	.495	-44.315	21.427
[IVB_Students_Responses=43.00]	-11.444	11.371	1.013	1	.314	-33.730	10.842
[IVB_Students_Responses=44.00]	4.619E-14	22.967	.000	1	1.000	-45.015	45.015
[IVB_Students_Responses=45.00]	0[a]	.	.	0	.	.	.
Link function: Logit.							
a. This parameter is set to zero because it is redundant.							

Table XXX shows that IVA (Teacher's Responses) in the location is significant at p=.000. we also have a statistically significant result for IVB (Student's Responses) at p=.0001.

The six independent variables had significant correlation on mathematical Interest when taken together with 1.000 at p=.0001. The result further showed how the model was fits for enhancement of mathematical interest by the independent

variables. The test of parallel lines to the assumption of the study was test highly significant and reject the null hypothesis. However, the regression correlations which is positive in the interest test is due to the six factors taken together. Concerning the relative influence of the independent variables on Teachers' and students' mathematics interest, the correlation coefficients of the individual variables indicated significant results. This means that relationship exists between the independent variables and mathematics interest. With1.000 and p=.0001 there is high significant multiple relationship between teachers' related factor, students' related factor, parents' related factor, school related factor, community related factor and government related factor to mathematics interest. Null Hypotheses is was therefore rejected(P=.000).That means scores in the independent variables significantly predict Interest in mathematics.

V. DISCUSSION

The following are the findings and discussions for this study:

The finding of the study showed that teachers, students, parents, school, community, and government related factor are the influences towards enhancement of mathematical interest. Those factors were found to be highly positively significantat p=000. In an alternative dimension independent variable were effective in mathematic interest. The study showed that independent variables signify with 1.000 at p=.0001. This is an indication that the effectiveness of combination in teachers, students, school, parents, community and government related factor reflects achievements in mathematical interest.
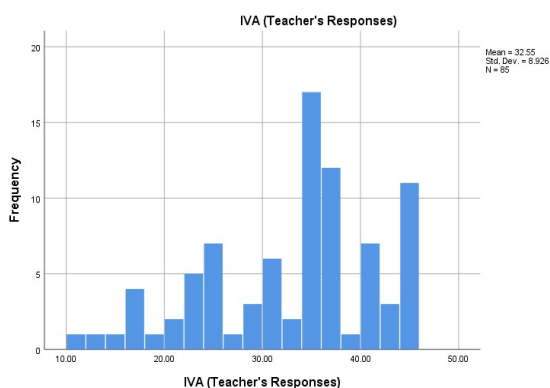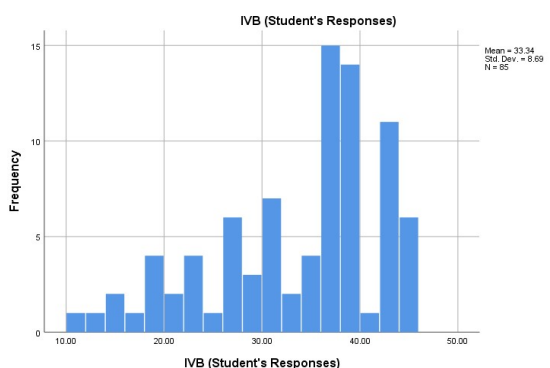

Figure 2: Below is the histogram charts of Independent Variables.

Table XXXI

Statistics		IVA (Teacher's Responses)	IVB (Student's Responses)
N	Valid	85	85
	Missing	2	2
Mean		32.5529	33.3412
Std. Deviation		8.92629	8.68983
Minimum		11.00	11.00
Maximum		45.00	45.00

The table XXXI shows how statistically the Independent Variables correlate with the charts above. The standard Deviation and medium indicate good and highly prediction over interest in mathematics.

This finding is supported by earlier reports which confirmed that some factors teachers, students, school, parents, societal and instructional strategy and so on (Safiyeh Khayati, 2014; Leonard .c., 2016; Muhammad Asif, 2011; Terna Godfrey and Eraikhuemen, 2017, Bed Raj A, 2017; who all reported teachers, students, parents, school, community and government related factor singly or in combine has a relationship towards enhancing teaching and learning of mathematics.

VI. CONCLUSION

This study reveals that prediction of interest in mathematics depend on students related factor, teachers related factor, parents related factor, school related factor, community related factor and government related, all these variables were positively significant and related to interest in mathematics

VII. RECOMMENDATIONS

The result of these findings shows how these factors were positively related to enhance mathematical interest. Therefore, the following recommendations should be attended to: -

   a. Assessment of teachers behaviour, qualification, methodology and his barrier to the use of ICT should be made before enrollment as a teacher.
   b. Parents should put more efforts by monitoring, assessing, motivating and providing the child's want before he needs it.
   c. Secondary schools should remodel, restructured and equalized their aim to educational goal.
   d. Community should be in habits of guiding and counseling, motivation and monitoring of learners not to be influencing students that "math's is difficult".
   e. Government should provide schools with infrastructural facilities in addition to equipped and functional mathematics laboratory with trained mathematics laboratory assistant and lab attendants.
   f. Government should engage with organizing a workshop, TV, radio and competition to mathematics

teachers and student respectively for better attainment in field.

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