Analysis of the Inventories on the Impact of Mentoring Students' Attitude and Interest in Mathematics

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ABSTRACT---- ***Students' interest and attitude towards Mathematics have been factors that influence students' achievement in Mathematics. The purpose of this study is to analyze the inventories on the students' interest and attitude towards Mathematics and find out if mentoring the students has made any impact on the students. Fourteen and fifteen students of the weak group participated in attitude and interest inventories, respectively. Questionnaires were administered to find out their attitudes towards, and interest in, Mathematics. The students answered questions regarding their personal confidence in, and perceived usefulness of Mathematics. The t-tests show that there were statistically significant differences in both attitude and interest from the pre to the post survey. Also, the interview results showed that the students realised the importance of Mathematics and would gain more should they take the study of Mathematics more seriously. This implies that the mentoring exercise imparted positively on the students. It is recommended, among others, that Mentors and mentees should put more effort towards achieving higher percentage of success if not hundred percent. Mentoring should be broad based so that successful people in all works of life will be invited to mentor the students.***

Keywords--- Inventories, Impact, Students', Attitude, Interest, Mathematics

1. INTRODUCTION

The knowledge of Mathematics is an essential tool in our society Baroody, 1987. It is a tool that can be used in our daily life to overcome the difficulties faced, Bishop, 1996. Due to this, Mathematics has been considered one of the important core subjects in secondary school curriculum. More mathematics lessons are taught in schools and colleges throughout the world than in any other subject, Orton et al, 2004.

Several studies and researches have been done in many countries to find the factors that influence the student performance in mathematics. Among these factors are students' attitudes towards, and interest in, Mathematics.

The recent poor performance of students in Mathematics led to the researcher adopting mentoring to improve the students' attitude towards, and interest in, Mathematics, which is envisaged dwindling.

1.1. Attitude

Attitude is a central part of human identity. They are inclinations and predispositions that guide an individual's behavior, Rubinstein, 1986. They persuade to an action that can be evaluated as either positive or negative, Fishbein and Ajzen 1975. Attitudes develop and change with time, Rubinstein, 1986. According to multi-component model of attitude, attitudes are influenced by three components, Eagly and Chaiken, 1993. They are cognitive (beliefs, thoughts, attributes), affective (feelings, emotions) and behavioral information (past events, experiences), Maio et al, 2010.

Everyday people love, hate, like, dislike, favor, oppose, agree, disagree, argue, persuade etc. All these are evaluative responses to an object. Hence attitudes can be defined as: A summary evaluation of an object of thought, Bohner and Wänke, 2002.

When reviewing literature on students' attitude towards mathematics, it reveals that several factors play a vital role in influencing student's attitude. These factors can be categorized into three distinctive groups. Firstly, factors associated with the students themselves. Some of these factors include student's mathematical achievement scores, Köğce et al, 2009; anxiety towards Mathematics, student's self efficacy and self concept, and extrinsic motivation, Tahar et al, 2010; and experiences at high school, Klein, 2004.Secondly, the factors that is associated with the school, teacher and teaching. Some of these factors that influence attitudes are teaching materials used by teacher, teachers' classroom management, teachers' content knowledge and personality, teaching topics with real life enriched examples, other student's opinions about Mathematics courses (Yilmaz, 2010); teaching methods, reinforcement (Papanastasiou, 2000),receiving private

tuition (Köğce et al, 2009), teachers' beliefs towards Mathematics (Cater and Norwood, 1997) and teachers' attitude towards Mathematics (Ford, 1994, Karp, 1991).

Thirdly, factors from the home environment and society also affect students' attitude towards mathematics.

Factors such as, educational background of parents, occupation of parents, Köğce et al, 2009 and parental expectations, Tobias, 1993, play a crucial role in influencing students' attitude towards Mathematics. Due to these several factors students have different attitude towards mathematics.

The public image of Mathematics labels it as a difficult, cold, abstract, theoretical and ultra rational subject, Ernest, 2004. However, some studies show that students have a relatively positive attitude towards Mathematics, Tezer and Karasel, 2010; Yilmaz et al, 2010. Sometimes, Mathematics is also considered as very important and largely masculine subject, Ernest, 2004.

Studies on relationship between students' attitude and the students' academic performance show a positive relationship (Mohammed et al, 2011; Bramlett and Herron, 2009; Nicolaidou and Philippou, 2003; Papanastasiou, 2000). Hence students' attitude towards Mathematics is a major factor that might influence the performance of the students.

Several studies give evidence that compared to boys, girls lack confidence in doing mathematical sums and viewed Mathematics as a male domain, (Meelissen and Luyten, 2008). However there are many studies that suggest that there is no significant difference between attitude towards Mathematics among male and female students (Mohammed et al, 2011; Köğce et al, 2009; Nicolaidou & Philippou, 2003).

Several studies had been conducted to find out the relationship between attitude towards mathematics and academic achievement of the students. Most correlation studies on students attitude towards Mathematics and their academic achievement showed positive correlation and also achievement in problem solving (Mohammed et al, 2011; Bramlett & Herron, 2009; Papanastasiou, 2000). The studies on students' achievement in problem solving showed positive correlation, Nicolaidou & Philippou, 2003. Students' attitude towards problem solving in terms of patience, confidence and willingness has a positive relationship with students' mathematics achievement, Mohammed et al, 2011.

1.2. Interest

Interest is the feeling of one whose attention or curiosity is particularly engaged by something, The Macquarie Dictionary (Delbridge et al., 1987). Therefore interest can be regarded as a positive affect that is specifically directed towards some object, termed the "object of interest". Deci, 1992, argued that interest is fundamental in the development of a person's concept of self. Moreover recent research suggests that interest is necessary for psychological growth, with absence of interest in adolescents being linked with psychological disorders such as depression, Hunter and Csikszentmihalyi, 2003.

In the psychological literature, the term 'affect' is assumed to be a broad rubric that refers to all things emotional, Rosenberg, 1998. Affective elements vary on a hierarchical continuum from emotional states, which are typically short in duration but characterized by high levels of arousal, to traits which are stable predispositions to respond in certain ways. As affect, interest is regarded as having both trait and state characteristics, Schiefele, 1991. At the trait level, individual interest is described as a person's relatively enduring predisposition to reengage particular content over time, Hidi and Renninger, 2006. Interest at the state level is more transitory and is typified by a positive emotion akin to excitement. In a state of interest a learner may become so absorbed in the object of interest that they lose sense of time: they experience flow, Csikszentmihalyi, 1991. The state of interest can be induced by aspects of the environment and in such instances is termed situational interest. Alternatively the state of interest can be induced from the individual's predisposition to engage and in such instances, interest is termed actualized. It is believed that individual interest can emerge from situational interest. Thus the requisite dispositions for statistical literacy may emerge from students experiencing the state of interest during their learning.

In a learning context, students' interest can explain some of their motivation to engage in learning activities. Such interest-driven motivation is termed intrinsic motivation and is the doing of an activity for its inherent value. The concept of intrinsic motivation features prominently in Self Determination Theory, Deci and Ryan, 1985, which posits that individuals are motivated to behave in seemingly unrewarded ways in order to meet basic psychological needs, which includes the need to be self-determined. Students who are motivated intrinsically, that is out of an interest in the subject, are known to produce qualitatively superior learning outcomes to their extrinsically motivated peers. For example, reported that student interest was positively associated with deeper levels of cognitive processing, the use of self-regulatory learning strategies and students' ratings on the quality of their learning experience, Schiefele 1991. Further, there is significant correlation between students' interest in both academic achievement, Schiefele et al, 1992, and choice of subjects, Köller et al, 2001. Given the importance of interest development in adolescence and its association with learning, a study of the development of affect in students should include the development of their interest.

1.3. Development of Interest

Current theories of interest development suggest that students' interest in statistical literacy will emerge as they gain expertise in the area. As an example, the Model of

Domain Learning, Alexander, 2003, posits that students' interest in a given domain will increase as they gain knowledge in that domain. Further, the model suggests that in the early stages of knowledge acquisition, levels of individual interest will be quite low and learners will rely on situational interest for motivation. As learners move through the domain towards expertise, they will increasingly rely on their individual interest for motivation, with situational interest becoming of less importance. This relationship between levels of situational and individual interest during the development of domain expertise implies that the latter will emerge from the former. Hidi and Renninger, 2006, argued that individual interest will emerge from situational interest, and in particular, if situational interest can be maintained then it will develop into an emerging individual interest and then finally into an enduring individual interest. Silvia, 2001, proposed that interest occurs when an individual resolves the cognitive conflict that is created when he or she interacts with the object of interest, and specifically, during the person-object interaction, incoming stimuli are assembled with current personal information on the basis of a number of 'collative' variables that are associated with the learner's response to the stimuli. These collative variables include novelty, uncertainty, and complexity. During this interaction, the learner will fail to engage in any significant way with stimuli that are considered routine (low levels of novelty). Similarly the learner will fail to engage when the stimuli are too unknown or frightening (high levels of novelty). For optimal levels of these variables, a state of curiosity will be evoked that is characterized by high levels of arousal and positive emotions, including interest. In this state the learner will be motivated to resolve the conflict created by the particular collating variable. If this conflict cannot be resolved quickly, the learner will be motivated to persist with the object, even returning to it at later times. Such persistence with the object may uncover further stimuli that will in turn create a conflict in need of resolution. In such a way, it is hypothesized that both knowledge and interest in the object will develop, with people losing interest in simple objects and pursuing those with more complex associated knowledge.

To take care of the anomalies of not having positive attitude towards, and lack of interest in, Mathematics, the researcher adopted mentoring the students.

Mentoring exercise has been on in the school for more than two academic sessions without evaluation or seeking the opinion of either the students or staff on its success. Such important effort to the development of the students needs re-examined to assert successes for its continuation or failures for the reorganization of its implementation, hence this study.

Freedman, 1993, described traditional concept of mentoring as one in which older men assist boys with the tricks and intricacies of learning trades or skills. A one-to-one relationship between a pair of unrelated individuals, usually of different ages that is developmental in nature is a more useful and contemporary definition of mentoring. A mentor is an older, more experienced person who seeks to develop the character and competence of a younger person, Freedman, 1993.

There are basically two types: Informal (natural) mentoring and Formal (planned) mentoring Floyd, 2000.

Informal mentoring refers to naturally occurring, supportive relationships children/youths have with older and more experienced individuals such as parents, extended family members, neighbors, teachers, ministers, and others with whom children/youths have regular contact. Informal mentoring involves the provision of general guidance and support and, in some instances, helping a child/youth learn something new. It also promotes students' sense of well-being by challenging the negative opinions they may have of themselves and demonstrating that they can have positive relationships with adults, Rhodes et al, 2000. The relationship may be short- or long-term, but in both instances mentoring has a lasting positive impact on the student. Informal mentoring relationships are far more common than formal ones.

A survey of mentors found that 83 percent of those responding indicated their relationships with students were established informally, while only 17 percent worked through formal mentor programs, McLean, 1998. Natural mentoring occurs through friendship, teaching, coaching, and counseling. Traditionally, certain institutions such as families, churches, neighborhoods, and schools have provided opportunities for natural mentoring. These institutions have changed and thus reduced the ability of adults to provide assistance and guidance to youths. Specifically, there are fewer adults in families because of the increase in single-parent homes and many extended family members do not live in the same town. Neighborhoods have changed and neighbors tend to keep more to them. In addition, higher teacher/student ratio exists in public schools, Tierney et al, 1995.

Formal (planned) - Formal (planned) mentoring programs emerged because of the decline in informal (natural) mentoring. Formal mentoring involves a structured and intentional approach to offering students those experiences and benefits similar to the ones provided by informal mentors. Such initiatives are often facilitated by an agency or program, dedicated to this purpose and encompass both one-on-one relationships between an adult and the child and youth, or an older more experienced peer and a younger peer, as well as small groups of children and youths working with an adult or older peer on a particular goal. In all instances, mentoring activities take place at regularly scheduled times over an extended period, and are most often only one component of a comprehensive program, Sipe, 1999. Formal mentoring programs place a strong emphasis on positive youth development, reducing the likelihood that students will engage in risky behaviors such as poor school attendance or drug use, and community concerns such as civic engagement and

college and career exploration. They can be school-based, community-based, and occasionally workplace-based. The sponsoring entity recruits and trains the mentors, matches them with their mentees, and provides support over the duration of the relationship, Allen and Eby, 2007.

Mentoring focuses and motivates students toward achieving learning goals, Gandara, 1998. An effect of mentoring is that youths who perceive high-quality relationships with their mentors experience the best results, Funk and Ek, 2002.

According to DuBois et al, 2002, discussing college with mentors, especially those who have attended themselves can generate interest in going to college among students whose parents have not gone to college

Mentors provide students Preparatory courses, financial aid and the college admissions process and other important information about college can be provided by mentors, (Gandara and Mejorado, 2005; Stanton-Salazar, 2001).

The theory of planned youth mentoring programs is that mentoring can be implemented systematically. Planned mentoring occurs through structured programs in which an adult and a youth are selected and matched through formal processes. The purpose of the programs is to provide the children/youths with assistance and guidance to enable them grow into responsible adults, and to fill the gap created by the diminished opportunity for natural mentoring Freedman, 1993.

Evaluation of mentoring programs is imperative to determine if they offer a possible solution to the problems affecting children/youths. Flaxman, 1992, stated that mentoring programs should be evaluated for both their process and impact; however, only a few studies have been completed.

Possible reasons for the lack of research are that most program administrators would rather use money and staff resources to provide more services than to complete an evaluation, many programs have not been in operation very long, and potential outcomes are difficult to quantify. Research has focused more on the process of mentoring (Mecartney et al, 1994; Schneider, 1995; Slicker and Palmer, 1993), especially the formation of the relationships, than the impact of the mentoring.

Tierney et al, 1995, reported positive results in the areas of decreasing alcohol and drug use, improving peer relationships, and improving parent/child relationships.

1.4. Mentoring and Academic Achievement

Conflicting research results on the impact of mentoring on the academic achievement of children and youths has been conducted and rendered. A longitudinal study of 220 students showed that those with mentors completed more years of education, Torrance, 1984. More specifically, men with a mentor completed 17.8 years compared to 15.8 years of education for men without a mentor. Women with a mentor completed 18.1 years compared to 14.9 years for women without a mentor. A major limitation of this study was that the participants were mostly middle class and would not be looked at as children/youths.

The impact of a school-based mentoring program on 86 at-risk tenth grade students indicated initial results of no differences in the dropout rate or grade point average between the treatment and control groups, . When the differences between those students who were effectively mentored versus those who were ineffectively mentored were evaluated, they found that effectively mentored students had a lower dropout rate than ineffectively mentored students.

Effective mentoring was defined by self-report from the student receiving the mentoring. Although differences were found in dropout rates, they were not found for grade point averages. McPartland and Nettles, 1991, evaluated the academic outcomes of middle school students who were involved in Project Raise, a well financed, multi-faceted, structured program in Baltimore, Maryland, designed to provide mentors and advocates to very high risk children. One of the major goals of the program was improving academic progress. The researchers compared participants in Project Raise with non-participants from the same school. They found two statistically significant positive effects for students involved in the program. First, there was a reduction of nearly 3% in the school absence rate of youths involved in the program when compared to students in the same school, who did not have a mentor.

The authors noted that the absence rate of participants in the program was still higher than the overall district average. Second, students involved in Project Raise received better grades on their report cards than other students at their schools did. Once again these grades were still below the district average. Additional findings indicate that students' participation in Project Raise had no impact on promotion rates and no impact on achievement, measured by scores on the reading and mathematics sections of the California Achievement Test. The study by McPartland and Nettles, 1991, is significant because it was one of the first to use comparison groups and statistical tests to evaluate the students' school outcomes after they were involved in a well-financed, structured mentor program.

The study of Big Brothers and Big Sisters by Tierney et al, 1995, evaluated the effectiveness of mentors on academic achievement for 959 youths involved in eight Big Brothers/Big Sisters programs (487 youths were in the treatment group and 472 youths were in the control group). Those involved in the Big Brothers and Big Sisters programs were significantly less likely to skip classes or days of school. The students who had mentors skipped 52% fewer days and 37% fewer classes. The impact was greater for girls in that Little Sisters skipped 84% fewer days of school than did girls

in the control group. An additional finding was that girls in the treatment group (i.e., had a mentor) reported 3% better grades than girls in the control group.

Tierney et al, 1995, demonstrated that treatment group members felt more confident of their ability to complete their schoolwork than did control group members and minority girls were most positively impacted. The study also investigated other school-related outcomes such as hours spent each week reading and doing homework, number of times youth visited a college and went to a library, and the number of books read, and found no overall statistically significant differences between the control and treatment group members.

To summarize, the research on the impact of planned mentoring on the academic achievement of children/youths had varied results. School absence rates and dropout rates did decline. However, promotion rates and scores on a standardized achievement test did not improve significantly. Also, the effect of mentoring on grade point average showed conflicting results. McPartland and Nettles, 1991, found significant improvement, while Slicker and Palmer (1993) did not.

Also, mentoring has contributed immensely to the general development of the students, (Ihedioha and Osu, 2012; Ihedioha and Lawal, 2013).

Ours in this study is to analyze the inventory on the impact of mentoring on students' attitude towards, and interest in, Mathematics.

1.5. Purpose of the study

The purpose of this study is to analyze the inventory on the impact of mentoring on students' attitude towards, and interest in, Mathematics.

Specifically, the question is whether involvement in the mentoring program, has a significant impact on the students' attitude towards, and interest in, mathematics.

The hypothesis is that mentoring will enhance the performance of the students. Mentors are supposed to provide the extra individual attention that the students require. Additionally, mentors provide positive role model for the students. These conditions help to reduce some of the academic risks these students encounter.

1.6. Significance of the study

The current study is important because there are little or no inventory studies on Mathematics mentoring concerning Government Secondary School Bwari, Federal Capital Territory Abuja, Nigeria.

It will help in improving the mentoring exercise as the mentors, mentees and the school's administrators will now know the areas to improve upon, all parties co-operating. Also, it will help the students have a change of attitude towards, and interest in, Mathematics. It will help them to develop their understanding of the Mathematical concepts and hence build Mathematical skills which will be applied to problems solving in their real lives affairs.

1.7. Research Question and Hypotheses

Quantitative method of data collection was used and the research was guided by the following research question and hypotheses:

1. What is the impact of mentoring on the students' attitude towards, and interest in, Mathematics?

The following null and alternative hypotheses were also stated:

1. There is no significant difference from pre to post attitude inventory scores of the students using two-sample paired test.
2. There is significant difference from pre to post attitude-inventory scores of the students using two-sample paired test
3. There is no significant difference from pre to post interest-inventory scores of the students using two-sample paired test
4. There is significant difference from pre to post attitude inventory scores of the students using two-sample paired test

2. METHODOLOGY

The methodology that was utilized in this study encompassed the quantitative, non experimental method where the data provided a bearing on how students respond to a given set of inventory questions on both attitude towards, and interest in, Mathematics.

Points were awarded to the students for each successful step completed in the inventory. The study took eight weeks to complete, so the students had a period of two months between the pre and post inventories.

Fourteen and fifteen students, of the weak group, from senior secondary school class two (SS2) of Government Secondary School Bwari, Federal Capital Territory Abuja, Nigeria, who responded to the inventory questionnaires, participated in the attitude and interest inventories, respectively.

3. DATA ANALYSES

3.1. Attitude and Interest Inventory Results

To ascertain reliability of the survey, Cronbach's alpha reliability coefficient was computed for the pre and post-survey of each inventory. The attitude inventory had a reliability coefficient of 0.74 and 0.79 for the pre and post-survey respectively. The interest inventory had a reliability coefficient of 0.72 and 0.81 for the pre and post-survey respectively. A reliability coefficient of 0.7 or greater is considered to be reliable, Kline, 2005; hence the reliability of the survey's results. Table 1 displays the statistics for the students' attitude inventory scores on the pre and post surveys.. The maximum score for the attitude survey was 140 points. The students' average score went up by 7.83 points from the pre to the post survey and the median score went up by 11.34 points.

Table 1: Summary of Attitude Inventory Scores

	N	Mean	Median	St. Dev	Minimum	Maximum
Pre-I.A	14	68.63	66.28	22.49	37	119
Post-I.A	14	76.46	77.54	16.13	55	124

While the scores for the attitude inventories went up from the beginning to the end of the study, a paired samples t-test was done to see if the increase is significant. The differences used in the t-test were obtained by subtracting the post survey results from the pre survey results as shown in Table 2.

Table 2: Attitude Inventory Score Difference t-test

N	Mean	St Dev.	St.Error Mean	df	t	Sig.(2-tailed)
14	10.116	23.268	6.20	**13**	1.66	0.027

While the scores increased from the pre to the post survey, the t-test shows that this increase is statistically significant because the significance level (0.027) is less than 0.05. The interest inventory scores could have increased for many reasons, which may be that the students' were more comfortable with the researchers at the end of the study, a sign of positive impact of the mentoring exercise.

3.2. Interest Inventory Results

Another objective of this study was to evaluate if mentoring was associated with an increase in the interest level of students in mathematics. To accomplish this, the statistical results of the pre-interest inventory and the post-interest inventory were analyzed. The results are shown in Table 3.

Table 3: Summary of Interest Inventory Results

	N	Mean	Median	St. Dev	Minimum	Maximum
Pre-I.I	15	86.3	68.1	17.05	48	107
Post-I.I	15	88.5	89.0	16.81	56	126

To determine if a statistically significant difference between the pre-interest inventory and post-interest inventory existed, another two-sample paired t-test was conducted. We obtained the difference between the pre and post - interest inventories and performed the statistical test based on the differences. The results are shown in Table 4.

Table 4: Summary of Interest Inventory Two-Sample Paired t-test

N	Mean	St Dev.	St.Error Mean	df	t	Sig.(2-tailed)
15	12.15	25.312	5.63	14	1.62	0.046

The scores increased from the pre to the post survey, the t-test shows that this increase is statistically significant because the significance level (0.046) is less than 0.05. The interest inventory scores could have increased for many reasons, of which the mentoring exercise is one.

In view of the results obtained, it can be said that mentoring has positive impact on the students' attitude towards, and interest in, Mathematics.

3.3. Students' Interview Results

Six students and six teachers are randomly selected and interviewed.

The questions asked are:

1. Do have fun participating in the school's Mathematics mentoring exercises? 2. 2. At the completion of the sessions of the mentoring exercises, were you able to detect changes?

3. Are you excited about the Mathematics mentoring exercises?

4. Was there a time you noticed you become disinterested in the Mathematics mentoring exercises?

5. Do you think the Mathematics mentoring exercises were related to real life problems students encounter?

6. Do you feel the Mathematics mentoring exercises were relevant to the students' studies?

7. Are you more confident handling problems having been involved in the Mathematics mentoring exercises?

8. Would you think the students would like to choose their mentors?

Eight students offered to be interviewed. The result of the interview is shown in table 5 below.

Table 5: Summary of Student Interview Results

	Q1	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**
S1	Y	Y	Y	N	N	N	Y	Y
S2	Y	Y	Y	N	Y	N	Y	Y
S3	Y	N	Y	Y	Y	N	Y	Y
S4	Y	N	Y	Y	Y	N	Y	Y
S5	Y	Y	Y	Y	Y	Y	Y	Y
S6	Y	Y	Y	Y	Y	N	Y	Y
S7	Y	Y	N	N	N	N	Y	Y
S8	Y	Y	Y	N	Y	Y	Y	Y

S-Student **Y-Yes** **N-No** **Q-Question**

We found that the students had fun participating in the Mathematics mentoring exercises. They also felt that the schools' Mathematics mentoring exercises were related to real life problems. Lastly, it was found that the students felt more confident handling their problems having been involved in the schools' Mathematics mentoring exercises. A response that we found interesting was that the students who became disinterested at some point during the schools' Mathematics mentoring exercises did so for, essentially, reasons not connected with mentoring. Another interesting aspect of the responses was that regardless of whom the mentors were, all the students felt more confident handling their problems. The students indicated the willingness to choose their mentors.

Generally, the Mathematics mentoring exercises improved on the students' attitude towards, and interest in, Mathematics.

3.4. Findings

Based on the results of the study, the following findings are made:

1. Majority of students in Government Secondary School Bwari, Federal Capital Territory Abuja, Nigeria, have gained much from the mentoring exercise. Their ability to practice what they have been told could be a predominant factor.

2. The interview results show that the students realise the importance of mathematics and would gain more should they take the study of mathematics more seriously.

3. There were statistical significant differences from pre to post inventories for attitude to, and interest in, mathematics.

4. CONCLUSION

This study is an analysis of the inventories on the students' attitude towards, and interest in, Mathematics based on the effect of mentoring of the students of Government Comprehensive Secondary School Bwari, Abuja Nigeria. Fourteen and fifteen students, of the weak group, from senior secondary school class two (SS2) of Government Secondary School Bwari, Federal Capital Territory Abuja, Nigeria, who responded to the inventory questionnaires, participated in the attitude and interest inventories, respectively, completing the questionnaires used for the study.

The results of study show that most of students have gained much from the Mathematics mentoring exercise. Their ability to practice what they have been discussed could be a predominant factor. The interviews show that the students realised the importance of Mathematics and would gain more should they take what they have learnt more permanent.

5. RECOMMENDATIONS

Based on the findings, the following recommendations:

1. Mentors and mentees should put more effort towards achieving higher percentage of success.

2. Mentoring should be broad based, and employed in other subject areas, so that successful people in all works of life will be invited to mentor the students.

3. There should be a clear cut curriculum for mentoring as it is the practice in other parts of the world and should include visitations and civic education.

4. There should be room for flexibility in mentoring where mentees will be allowed to choose their mentors. However, mentees should adopt measures that will help them to co-operate with the mentors they have considering mentor-mentee ratio in the school.

5. Mentors should strive for impeachable character for the success of the mentoring exercise.

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