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ATTITUDE OF PRIMARY SCHOOL MATHEMATICS TEACHERS TOWARDS THE USE OF ACTIVITY- BASED LEARNING METHODS IN TEACHING MATHEMATICS IN NIGERIAN SCHOOLS

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ABSTRACT: *This study looks into the attitude of primary school mathematics teachers towards the use of Activity –Based Learning (ABL) methods in teaching mathematics in Nigerian Schools. Some two hundred and twenty four (224) primary school teachers made up of 60 males and 164 females were sampled using purposive sampling from Abia State of Nigeria. Four research questions and three hypotheses guided the study. Simple frequency counts, percentages, t-test and analysis of variance were used to analyze the data. The result of the study showed that primary school mathematics teachers are positively disposed to the use of Activity-Based learning methods in the sense that they understand it and prefer to use it in schools. The study also showed that the teachers agreed that Activity-Based Learning is very significant to the students learning and that ABL enhances students learning experiences. The study further identified lack of materials and time as the major impediments to Activity –Based Learning in Nigerian schools. The study further showed that gender and years of experience of the teachers do not affect the attitude of primary school mathematics teachers towards the use of Activity-Based Learning in schools. However, the study showed that there is a significant difference in the primary school mathematics teachers' attitude towards the use of Activity –Based Learning between the University degree graduate and College of Education graduate teachers.*

KEYWORDS: Activity-Based Learning, Attitude of teachers, and Mathematics teaching

INTRODUCTION

In response to the on - going global reform in the educational and technological development of the society, teachers are expected to be the best minds of any country and mathematics should be the basic tool to achieve this national set goals. Recent researches on effective mathematics teaching focus on instruction that promote students involvement on activity- based learning which is superior to so many other teaching methods. Sequel to this, there is a wide spread concern among parents, stake holders in the education sector and the general public about the methods used in teaching at the secondary school level especially mathematics in Nigeria. Tom in Emaiku(2012) observed that the inability of conventional teaching models to improve students' interest, achievement and retention has become a source of concern to many educators in Nigeria. What constitutes good teaching and learning of school subjects is the use of appropriate methods of teaching. Also, Ogunniyi in Emaiku(2012) asserted that one of the most

persistent and compelling problems besetting achievement in the teaching of mathematics in Nigeria is poor quality of teaching

The main teaching method being adopted by many mathematics teachers in Nigeria is the lecture or conventional method which has its attendant shortcomings. Lecture method can be regarded as a process whereby the teacher delivers verbally a prepared body of knowledge to his students who listen and jot down points from the teacher. It is basically teacher centered approach which encourages one way communication, though it can be used to communicate to a large crowd of students orally or through electronic media like radio or television. However, the major disadvantage in using lecture method is that it makes the students passive participants in the teaching- learning process. This eventually leads students to being spoon-fed with information and it does not encourage independent and creative thought in the students, and therefore does not accommodate individual differences of students. It also hampers teacher- students' interaction (Orji, 2007).As a result of the disadvantages of the lecture method, teachers are now being requested to move away from it and embrace the Activity –Based Learning (ABL) strategies.

Generally the attitude of teachers towards mathematics and its teaching influence students' attitude towards the subject (Obodo, 2006). Obodo further stated that the behaviour of mathematics teachers in Nigeria deviates from normal behaviour and that it scares students from learning mathematics. Aiken in Relich,Way and Martin(1994) also asserted that of all the factors affecting student attitude towards mathematics, teacher attitudes are viewed as being of particular importance. Pajares in Relich,Way and Martin(1994) reported that the attitudes and beliefs of teachers also influence the ways they organize the content they teach and the teaching methods they use in the classroom. Also Thompson in Relich,Way and Martin(1994) in his study reported that beliefs, views and preferences held by mathematics teachers play significant role in shaping their instructional behaviour. But Nworgu in Obodo (2006) stated many primary schools mathematics teachers in Nigeria are "mathemaphobic". Nworgu further stressed that if the teachers are given the option, less than 5% of Nigerian school teachers will elect to study or teach mathematics and this negatively affects the attitude and performance of primary school pupils. On the other hand (Azuka, 2013a) found out that Nigerian secondary school teachers have positive attitude toward teaching and about 67.8% of the sample indicated that mathematics teaching is their desired life career. Azuka (2003a) further reported that there is no significant relationship between gender and attitude of mathematics teachers towards the teaching of mathematics in schools.

Gupta in Dagnew(2012) reported that interest in teaching and attitude of teachers towards teaching are basic factors associated with teaching success. In Nigeria Activity-based learning methods are being introduced to the teaching of mathematics in schools. Based some studies in Nigeria there are indications that there are conflicting reports on the attitudes of teachers towards the teaching of mathematics in schools. In particular, with the introduction of Activity-based learning methods in schools, the attitudes of Nigerian primary school teachers towards its introduction and use have not been established by any empirical study. In other words, to what extent are primary school mathematics teachers in Nigeria well disposed to embrace this new

method of teaching? This is the focus of this study. This study is important as the findings will help to plan for the effective use of this model pedagogy of teaching mathematics in Nigerian schools.

LITERATURE / THEORETICAL UNDERPINNING

Activity -Based Learning is an umbrella term that refers to several models at instruction that focuses the responsibility of learning on the learners (Wikipedia, 2008). Activity-Based Learning is a procedure where students actively engage in the lesson rather than just sitting, listening and absorbing the lesson. It is a method of teaching that enables students to be involved in reading, writing, discussion, practical activities, analysis and evaluation of the topic under discussion. The models of Activity- Based Learning suggest that all learning activities involve some kind of learners' experiences which emphasizes observing and doing (Kathleen, 1996). These also promote students involvement and actively engaging with material to enhance the recall of information according to Bruner in Azuka (2013b). Learning becomes more perfect when theoretical knowledge is supplemented by learning all possible life supporting skills which can only be enhanced through Activity- Based Learning method in teaching mathematics. Learning can be termed meaningful in the life of the learners when the learned or acquired knowledge, facts, ideas, concepts, skill, behaviours and attitudes are transferred to thinking and action of the learners (Matthew, 2009).

To effectively carryout activity- based learning in mathematics classrooms, the teachers are advised to adhere strictly to the following: learning experiences should be arranged to create motivation and interest in the students to learn mathematics concept by doing; teacher should move away from telling or lecturing method and embrace the use of activity- based learning; teacher should make sure that the learning experiences are arranged according to the need of the learners and make them search and gather more information in the teaching and learning of mathematics; and learning experiences should become challenging to the students and stimulate them for more self activities. Others are that learning experiences should energize the improvement of their thinking abilities, decision- making abilities, intellectual resourcefulness and discipline in life; learning experiences should be inspiring, able to relate them to life situations and bring about desirable change in behavour thus leading to the development of personality (Mathew, 2009). The reasons while teachers are advised to embrace activity-based learning is that students understand mathematics concepts better when they are engaged in learning experiences which help to enhance higher retention in the learners and provide opportunities for them to think for themselves.

However, for any innovation to work, attitude of the practitioners is very important. Attitude is defined as a complex mental state involving beliefs and feelings. Anastasi in Dagnew (2011) defined attitude as tendency to react in a certain way towards a designed class of stimuli. Attitude is positively related to achievement in any endeavour. For instance, attitude is fundamental to the dynamics of behaviour and determines how far a student learns (Odili, 2006). Attitude has to do with the way one perceives, the opinion one holds as well as what one beliefs about a thing, people, activities, institutions, policies, administrations and phenomena in general.

Someone's attitudes about an object, event, or group of people can also determine his achievement (Harbor-peters, 2005). Attitude of teachers towards activity-based learning is an issue in education of students because if the teacher is not positively disposed to activity-based learning, he/she would not achieve the purpose and its objectives of the lesson in school. People's favourable attitudes towards their profession have a positive effect on their performance. This is more so for the profession of teaching. Dagnew (2011) highlighted some of the factors affecting the attitude of teachers towards the profession include inadequate funding of schools, lack of parent and community support and insufficient remuneration, and experience of teachers. Gender is another factor and Dodeen et .al in Dagnew reported that female teachers had more positive attitude in the teaching profession than male teachers.

Many researchers concluded that attitude of teachers influence heavily on their learners, teaching output and their success. Gupta in Dagnew(2011) concluded that interest in teaching and attitude towards teaching were factors associated with teaching success. In a series of studies pioneered by Barr and reported by Rosker and cited in Dagnew (2011) there appeared a general agreement that attitude of teachers towards teaching was significantly correlated with teaching success. In general, it may be concluded that there is an indication that teacher's attitude have positive relation with success in teaching. Bhatia and Bhatia in Dagnew (2011) identified that many factors and situation influence the development of attitude, such as the type of schooling that the individual has, the personality of the individual, the parental attitude, the attitude of friends, teachers, and siblings.

Dagnew (2011) studied the attitude of teachers towards the use of Activity learning Methods at Bahir Dar University. He found out that majority of the teachers involved in the study had good attitude towards the significance of active learning method as it enables English students to participate actively in English classes, create desirable attitudes towards communicative English, engage the students, and integrate their learning experiences. He also found out that majority of the teachers agreed that active learning enables students to experience learning in collaborative and supportive environment, resolve problems using past experience, motivated by providing real life problems, and helps classroom interaction. But the teachers disagreed that that active learning enables students to learn sufficient content in English language.

Statement of Problem

In Nigeria today school teachers are being requested to shift from the conventional method of teaching and embrace the Activity-Based Learning Methods. This is based on the belief that the ABL methods will help to arouse the interest of students and improve their academic performance in mathematics. Now school teachers are being retrained through several workshops on the use of ABL in schools especially in the teaching of mathematics. For now there is documented evidence on the attitude of primary school mathematics towards the use of Activity – based learning in schools. But there is need to determine the extent to which the school mathematics teachers are ready to embrace this new teaching strategy. Therefore, the focus of this paper is to determine the attitude of teachers towards the use of Activity-Based Learning in mathematics classrooms.

Research Questions

The following research questions were generated to guide this study:

I. What are the attitudes of school mathematics teachers on the use, significance, students learning experience, and problems of Activity-Based Learning in the mathematics classroom?
II. Do teachers' attitudes towards Activity-Based Learning differ between males and females?
III. Do teachers' attitudes towards Activity-Based Learning differ with respect to their years of teaching experience?
IV. Do teachers' attitudes towards Activity-Based learning differ with respect to their academic qualifications?

Hypotheses

The following hypotheses were tested at 0.05 level of significance:

I. There is no significant difference in school mathematics teachers' attitudes towards Activity-Based Learning between males and females;
II. There is no significant difference in school mathematics teachers' attitudes towards Activity-Based Learning with respect to their teaching experience;
III. There is no significant difference between University degree teachers and College of Education degree mathematics teachers' attitudes towards Activity-Based Learning

RESEARCH METHODOLOGY

The study adopted a descriptive survey design. A purposive sampling technique was used to select two hundred and twenty-four (224) Primary school mathematics teachers who attended National Mathematical Centre workshops for schools mathematics teachers in Abia State of Nigeria. There were 60 male and 164 female teachers. In the South Eastern part of Nigeria there are more female teachers than male teachers because most of their men usually go into business for livelihood. Majority of the teachers did not study mathematics as a discipline in Tertiary Institutions but they still teach mathematics in primary schools. The instrument used for data collection was a questionnaire titled Attitude of teachers towards the use of Activity-Based Learning methods in teaching mathematics adapted from Dangnew (2011). In adapting the instrument, the researchers added two other sections on the use and problems of activity based learning in the mathematics classroom. The questionnaire was made up of twenty-three (23) items arranged on a five point likert scale. The questionnaire also had four sections ranging from A –D respectively. Section A is on the use of activity-based learning; section B is on the significance of activity-based learning; section C is on students' learning experience; and section D is on the problems of activity based learning methods in the teaching of mathematics. The face and content validity was carried out by four experts in mathematics education in National Mathematical Centre, Abuja. The reliability coefficient of the instrument was 0.79 and this was high enough for the study.

RESULTS

Research Question 1: What are the attitudes of school mathematics teachers towards the use, significance, students learning experience, and problems of Activity-Based Learning?

Table 1. Percentage responses of school mathematics teachers on the use of ABL

S/N	ITEMS	RESPONSES						TOTAL	
		AGREE (AG)		UNDECIDED (UD)		DISAGREE (DG)			
		f	%	F	%	F	%	F	%
1	I understand activity-based learning methods	216	96.4	5	2.2	3	1.4	224	100
2	I use activity-based learning methods in my class always	173	77.2	23	10.3	28	12.5	224	100
3	Many teachers do not use activity-based learning in my school	162	72.3	19	8.5	43	19.2	224	100
4	I find it difficult using activity-based learning methods in my Mathematics class	56	25	19	8.4	149	65.6	222	100
5	I prefer to use the usual talk and chalk or conventional method of teaching in my mathematics	50	22.3	8	3.6	166	74.1	224	100

It is evidenced from Table 1 that 96% of the teachers indicated an understanding of ABL methods while only 1.4% does not understand ABL methods. Also, 77.2% of the teachers indicated that they make regular use of the ABL methods in the schools and only 12.5% disagreed that they make regular use of ABL methods. On non-use of the ABL method by other teachers in schools, 72.3% of the subjects agreed that many teachers in schools do not use ABL methods to teach mathematics. Thus, a large number of teachers in schools are not using the ABL teaching method. Also, on teachers' difficulty in the use of ABL in mathematics classroom 147 (65.6%) disagreed that they have difficulty in the use of ABL in schools meaning that a large number of teachers signified not having difficulties in using ABL method in teaching. But only 56 (25%) of the teachers agreed that they have difficulties in the use of ABL in schools. Lastly, on whether teachers prefer using the usual talk and chalk or conventional method, only 50 (22.3%) agreed and 166 (74.1%) disagreed. This means that most teachers preferred the ABL methods to the Conventional method of teaching mathematics in schools. Therefore school mathematics teachers have positive attitude towards the use of ABL methods in schools but many other school teachers are yet to embrace the use of ABL methods in schools.

Table 2: **Percentage Responses of School Mathematics Teachers' Attitude towards the Significance of ABL in Mathematic Classrooms**

S/N	ITEMS	RESPONSES						TOTAL	
		AGREE (AG)		UNDECIDED (UD)		DISAGREE (DG)			
		f	%	F	%	f	%	f	%
6	Activity-based learning method can give students a sense of participation	223	99.5	0	0	1	0.5	224	100
7	Activity-based learning can integrate the learners' experience	216	96.4	1	0.5	7	3.1	224	100
8	Activity-based learning methods create desirable attitude towards interactive mathematics teaching	205	91.5	4	1.8	15	6.7	224	100
9	In activity-based learning class, students are engaged in listening, measuring, drawing, discussions and discovery activities in mathematics teaching	208	92.8	4	1.8	12	5.4	222	100
10	Activity-based learning enhances the retention and recall of mathematics concepts by students	218	97.3	2	0.9	4	1.8	224	100

From Table 2, 99.5% of the teachers indicated that students have a sense of participation when ABL method is used in mathematics classroom. Also, 216 (96.4%) of the teachers agreed that ABL method can integrate the learners' experience, while 205 (91.5%) of the teachers agreed that ABL can create desirable attitude towards interactive mathematics teaching. Also, 92.8% of the teachers agreed that in ABL method, students are engaged in all the learning activities, and 97.3% of the teachers agreed that ABL method enhances the retention and recall of mathematical concepts by students. Therefore the school mathematics teachers are well disposed to the significance of ABL methods in schools

Table 3: **Percentage Responses of Teachers towards students' learning experience on Activity-Based Learning**

S/N	ITEMS	RESPONSES						TOTAL	
		AGREE (AG)		UNDECIDED (UD)		DISAGREE (DG)			
		f	%	F	%	f	%	F	%
11	Students experience learning in collaborative and supportive environment	212	94.7	5	2.2	7	3.1	224	100
12	Students identify, analyze, resolve problems using knowledge from previous experience	210	93.7	8	3.6	6	2.7	224	100
13	I enhance students' motivation by providing real life problems	197	87.9	10	4.5	17	7.6	224	100
14	In my class, students participate to learn sufficient content through active learning	213	95.1	5	2.2	6	2.7	224	100
15	Active learning methods help to improve classroom interaction	223	99.5	0	0	1	0.5	224	100

From Table 3, 94.7% of the teachers agreed that students experience learning in collaborative and supportive environment in ABL lessons. Also, 93.7% of them agreed that students identify, analyze and resolve questions using previous knowledge in ABL lessons. 87.9% of the teachers agreed that students are motivated by providing real life problems while 95.1% agreed that students participate to learn sufficient content through ABL. Lastly, 99.5% of the teachers agree that classroom interaction is improved and enhanced by ABL. Therefore, the school mathematics teachers understand and recognize that ABL enhance students' learning experiences that could improve their academic achievements in mathematics.

Table 4. Percentage Responses of Teachers' attitude towards problems of Activity-Based Learning

S/N	ITEMS	RESPONSES						TOTAL	
		AGREE (AG)		UNDECIDED (UD)		DISAGREE (DG)			
		f	%	F	%	F	%	F	%
16	There are not enough materials and equipment for activity-based learning in my school	192	85.7	7	3.1	25	11.2	224	100
17	The time allocated for mathematics is not enough for activity-based learning in my school	180	80.4	9	4.0	35	15.6	224	100
18	My students are reluctant to participate in activity-based learning activities	76	33.9	24	10.7	124	55.4	224	100
19	If I use activity-based learning, I will not cover the year's curriculum	71	31.7	18	8.0	135	60.3	222	100
20	The class size of students in my school affects my ability to use activity-based learning	85	37.9	12	5.4	127	56.7	224	100
21	My workload/ periods per week affect my ability to use activity-based learning	81	36.2	24	10.7	119	53.1	224	100
22	It takes a long time to prepare activity-based learning lesson	95	42.4	15	6.7	114	50.9	224	100
23	I was not trained on activity-based learning during my training	71	31.7	16	7.1	137	61.2	224	100

From Table 4, 85.7% of the teachers agreed that there are not enough materials and equipment for ABL methods and 80.4% also agreed that there is no enough time allocated to carry out ABL in mathematics class. Meanwhile only 33.9% agreed that students are reluctant to participate in ABL while and 55.4% disagreed. Also 60.3% of the teachers disagreed that they would not be able to cover the years' curriculum if they use ABL. Only 37.9% of the teachers agreed that class size affects the ABL classes while 56.7% of the teachers disagreed that class size affects ABL. This means that more than half of the teachers disagreed that class size affects ABL.

Also, 36.2% of the teachers agreed that the workload/number of periods per week affects their ability to use ABL in the mathematics class while 53.1% disagreed that workload/number of

periods per week affect their ability to use ABL. This means that more than 50% of the teachers disagreed that their workload/number of periods per week affects their use of ABL. About 42.4% agreed it takes time to prepare ABL lessons while 50.9% of teachers disagreed that it takes time to prepare ABL lesson. This means that slightly above half of the teachers disagreed that it takes time to prepare the ABL lesson. Lastly, 61.2% of the teachers disagreed that they were not trained for the ABL while only 31.7% agreed that they were trained on ABL during their training to become teachers. Therefore, to the teachers the most important problems of ABL in schools are lack of materials and sufficient time while other problems are inability to cover the curriculum, large class size, long time to prepare lessons, reluctance of students to participate in activities and lack of training for the teachers.

Hypothesis 1: There is no significant difference in School Mathematics teachers' attitudes towards Activity-Based Learning between Males and Females

Table 5: T-test Analysis of responses of Male and Female Mathematics teachers towards ABL

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
SCORES	Equal variances assumed	3.282	.071	-1.328	222	.186	-2.13902	1.61081	-5.31346	1.03541
	Equal variances not assumed			-1.150	83.049	.253	-2.13902	1.85966	-5.83779	1.55974

From Table 5 above, the sig (2-tailed) value is 0.186 which is greater than 0.05. This means that there is no significant difference in the attitude of male and female school mathematics teachers towards the use of ABL in the teaching of mathematics in schools. We therefore fail to reject hypothesis 1.

Hypothesis 2: There is no significant difference in School Mathematics teachers' attitudes towards Activity-Based Learning with respect to their years of teaching experience

Table 6: ANOVA of School Mathematics Teachers' Attitude towards ABL based on their Years of Experience

ANOVA

SCORE					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	227.519	3	75.840	.656	.580
Within Groups	25449.976	220	115.682		
Total	25677.496	223			

From Table 6 above, the sig value is 0.580 which is greater than 0.05. This implies that there is no significant difference in teachers' attitude towards ABL based on their years of teaching experience. We therefore fail to reject hypothesis 2.

Hypothesis 3: There is no significant difference between University degree teachers and College of Education degree Mathematics teachers' attitudes towards Activity-Based Learning.

Table 7: t-Test Analysis of teachers' Responses towards ABL based on their Academic Qualifications

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
SCORE	Equal variances assumed	1.796	.182	-2.332	222	.021	-3.33501	1.43012	-6.15337	-.51665
	Equal variances not assumed			-2.404	221.611	.017	-3.33501	1.38753	-6.06945	-.60057

Table 7 shows that the Sig (2-tailed) value is 0.021 which is less than 0.05. This implies that there is significant difference in teachers' attitude towards the use of ABL between NCE and University degree holders. We therefore reject hypothesis 3.

DISCUSSION

On the use of ABL in schools, it was found that 96.4% of the teachers know about ABL, 77.2% use ABL methods in schools. This is very encouraging as it will help to improve the teaching and learning of mathematics in our schools. But 72.3% of the teachers indicated that many teachers do not use Activity –Based Learning methods in schools. This is pointer to the fact that many teachers in Nigerian schools do not use ABL methods in schools. About 65.6% of the teachers disagreed that they have difficulties in using the ABL methods in the mathematics class and 74.1% disagreed that they prefer conventional method of teaching to ABL methods. This is good development which possibly is the outcome of several workshops being organized by the Federal Ministry of Education and its agencies in Nigeria. However there is need for a continuous retraining of the teachers on the use of ABL.

On the significance or importance of the use of and students' learning experience in ABL over 90% of the teachers agreed that ABL methods ensures that total participation of students is achieved , integrate the learners' experience, creates desirable attitude towards interactive mathematics teaching, and makes students to interact in class. This result supports the earlier finding by Dagnew (2011). If students participate well in the class, there will be teacher – students' interaction and integration. At that point, teaching/leaning becomes interesting and meaningful. It was also found that students are motivated to learn and discover new things with the use of ABL. The study revealed that ABL enhances students learning experiences by providing collaborative and supportive environment, enables students to resolve problems using knowledge from previous experiences, enhances motivation, enables students to learn sufficient content and improves interaction in the classroom. These results supports the findings by Dagnew. But this study does not agree with Dagnew's finding that ABL does not allow students to learn sufficient content in the curriculum. 97.3% of the teachers agreed that ABL leads to students' retention and recall of mathematics concept. This finding is not surprising because in ABL, students are allowed to work in a collaborative and supportive environment. The students are not spoon-fed but are part of the discovery of all the formulae in the concepts.

On teachers' attitude towards the likely problems of ABL, it was discovered that there are little or no materials and equipment in schools for ABL as 85.7% of the teachers attested to this. It was also found that teachers have no enough time in carrying out ABL in their lessons as indicated by 80.5% of the teachers. But less than 45% of the teachers indicated inability to cover the curriculum, class size, workload/number of periods per week, long time to prepare ABL lessons, and lack of training as the problems of ABL in schools in Nigeria. These findings support the general public outcry for lack of instructional materials in schools.

Hypotheses 1 and 2 were not rejected. That is, there is no significant difference in teachers' attitudes towards Activity-Based Learning between males and females. This supports the earlier report by Dodeen et al in Dagnew(2011) that gender is not factor of teachers' attitude towards teaching. The findings in this study also supports the earlier researches (Azuka, 2013a) that gender is not a factor determining the attitude of teachers towards the teaching of school

mathematics. Also, this study revealed that there is no significant difference in teachers' attitudes towards activity-based learning with respect to their teaching experience. However, academic qualification is a factor in ABL as hypothesis 3 was rejected. The teachers with high academic qualification embrace and use ABL than their counterparts with relatively lower academic qualification. This result supports the report of Bhatia in Dagnew(2011) that the type of school individuals attends affects his attitude to activities. The finding that the attitudes of teachers towards ABL vary with the qualifications of the teachers could be due to the teachers with university degrees are more exposed and qualified teachers than the teachers who graduated from only Colleges of Education.

In summary, this study has revealed that Nigerian primary school mathematics teachers have positive attitude towards the Activity-based learning but are encountering some problems inhibiting is usage in schools. The study also revealed that the gender of the teachers does not affect the attitude of the teachers toward the use of ABL in schools. However, the study revealed that there is a significance difference between the University degree graduate teachers and the College Education of Education graduate teachers' attitude towards the use of ABL in the teaching of mathematics in schools. This implies that the level educational background of primary school mathematics teachers determines their attitudes towards the use of ABL methods in schools

RECOMMENDATIONS

Based on the findings of this study, the following recommendations are made:

1) Every school should be provided with a mathematics laboratory with all necessary materials and equipment for the use of ABL in schools
2) Mathematics should have enough periods to accommodate the use of ABL in the classroom
3) Workshops and seminars should be organized for the training and re-training of teachers on how to use ABL in Mathematics classes.
4) All Tertiary Institutions in charge of preparation of mathematics teachers should ensure that teachers are properly prepared on the use of ABL in schools.
5). Teachers who are not University degree holders should be encouraged to go for their University degrees in Education courses.

CONCLUSION

This study considered the attitude of school teachers in Nigeria towards the use of activity- based learning methods in teaching mathematics in schools. Activity – based learning is a new teaching strategy that is in vogue in every subject and everywhere in the world. The study revealed that school many teachers in Nigeria understand the ABL methods and the need for their use in schools. In fact many of the teachers prefer ABL to the conventional method of teaching. But many others are still facing the problems of effective use of ABL in schools. Hence, there is need for a continuous retraining of teachers and provision of instructional materials to schools to facilitate the utilization of ABL in schools. The study revealed that the major problems of the use o ABL methods in schools are lack of instructional materials and time. It is revealed by the study

that gender and years of experiences of teachers do not affect their attitudes towards the use ABL in schools. However, the study revealed that there is a significance difference between the University degree graduates and the College Education of Education graduates attitude towards the use of ABL in the teaching of mathematics in schools. Taking in to account the importance of Mathematics in the school curriculum, ABL should be taken more serious in Mathematics. ABL has over whelming advantages over other teaching methods in Mathematics. Hence, teachers must embrace the use of ABL in the teaching and learning of Mathematics in schools.

SUGGESTIONS FOR FURTHER RESEARCH

This research could be carried out in other states of the Country and among the secondary school mathematics teachers to further validate the results of this study. Also other variables such as age and emotional intelligence level of teachers could be considered in future research studies. The students could be surveyed to determine the extent the teachers are utilizing the Activity-Based Learning methods in schools

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