INVESTIGATING THE UTILIZATION OF INTERACTIVE BOARD AND ITS APPLICATION IN TEACHING CHRISTIAN RELIGION KNOWLEDGE IN COLLEGES OF EDUCATION IN NORTH CENTRAL

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ABSTRACT

The paper investigated the utilization of interactive board and its application in teaching Christian Religion Knowledge in Colleges of Education in North central. Specifically the study is designed to find out the extent the teachers utilize interactive board in teaching Christian Religion Knowledge. The researchers adopted a descriptive survey design in which questionnaires were used to collect information from the respondents. The population consisted of 45 teachers of Christian Religious Knowledge in Colleges of education in North central zone. The sample for the study consists of 25 teachers of Christian Religious Knowledge in Colleges of education in North central randomly selected. The 25 teachers are made up of 15 males and 10 females. Data were obtained using a researchers structured questionnaire. The instrument was validated by three experts in Science and Technology Department of the rank of Professors from University of Jos, with reliability index of 0.67. The method used for data analysis was mean scores for the research questions and t- test analysis for the hypothesis. Results obtained showed that though interactive board is germane to effective teaching of CRK but only few of the interactive boards are found in the colleges of education, even the few that are found in the schools are hardly utilize for teaching by the lecturers. It was recommended among other things that Lecturers should always adopt the use of interactive board in the teaching of CRK for it has the potential of making teaching effective and enhancing learning.
Keywords: Utilization, Interactive board, Teaching, CRK, Colleges of Education.

INTRODUCTION

Nigerian educational sector is confronted by myriad problems. No wonder it is belief that as strategic objectives in education, improving the quality of education through the diversification of contents and methods and promoting experimentation, innovation, the diffusion and sharing of information and best practices as well as policy dialogue is key (UNESCO, 2002). To achieve the above objectives, Information and Communication Technology (ICT), which interactive board is a part, is having a revolutionary impact on educational methodology globally. However, this revolution is not widespread and need to be strengthened to reach a large percentage of the population.

The academic landscape in Nigeria includes the teaching and learning process, along with the educational programs and courses and the pedagogy or methodology of teaching; the research process, including dissemination and publication; libraries and information services; including higher education administration and management (Beebe, 2004). The integration of Information and Communication Technologies (ICTs) in higher education programs has been the topic of a good deal of debate. In Nigeria however, the relationship between the

development of ICTs penetration and use in teacher education programs and its diffusion into the programs in Schools of Education is dependent upon governmental policies.

Therefore, Information and communication technologies (ICTs) are indispensable and have been accepted as part of the contemporary world especially in the industrialized societies. In fact, cultures and societies have adjusted to meet the challenges of the knowledge age. The pervasiveness of ICT has brought about rapid changes in technology, social, political, and global economic transformation. However, the field of education has not been unaffected by the penetrating influence of information and communication technology. Unquestionably, ICTs has impacted on the quality and quantity of teaching, learning, and research in teacher education.

However, ICT provides opportunities for student teachers, academic and non-academic staff to communicate with one another more effectively during formal and informal teaching and learning (Yusuf, 2005). In the same vein, teachers need training not only in computer literacy but also in the application of various kinds of educational software in teaching and learning (Ololube, 2006). Furthermore, they need to learn how to integrate ICTs into their classroom activities and school structure. The quality of teachers is known in virtually all countries to be a key predictor of student learning (Ololube, 2005). Therefore, teacher training is crucial using ICTs, because ICTs are tools that on the one hand can facilitate teacher training and on the other hand help them to take full advantage of the potential of technology to enhance student learning (UNESCO, 2003). Correspondingly, ICTs have introduced a new era in traditional methods of teaching and offering new teaching and learning experiences to both teachers and students. Hence, Nigerian education environment should take advantage of this capability to provide easy access of information, since technologies enable the visualization of educational materials in an innovative and realistic manner.

In Nigeria, Colleges of Education offer post-secondary National Certificate in Education (NCE) training programs. The NCE is also the qualification required for teaching in junior secondary schools and technical colleges. Colleges of Education use to train teachers for junior secondary school, but now they also train primary teachers. The NCE has become the minimum qualification for primary school teaching as from 1998. Some of the colleges also offer NCE pre-primary courses in order to produce teachers for the pre-primary level of education (Moja, 2000). Looking at the very crucial role colleges of education play in the training of teachers, the need of the teachers to be competent in their method of teaching is pertinent and embracing newer method that involve interactive board which is a product of educational technology remains a desire to be fulfil by any colleges of education in North central.

An interactive board therefore, is an instructional tool that allows computer images to be displayed onto a board using a digital projector. The instructor can then manipulate the elements on the board by using his finger as a mouse, directly on the screen. Items can be dragged, clicked and copied and the lecturer can hand write notes, which can be transformed into text and saved. They are powerful tool in the classroom adding interactivity and collaboration, allowing the integration of media content into the lecture and supporting collaborative learning. Used innovatively they create a wide range of learning opportunities. However, in many environments they are not being used to their full potential, and in many cases acting as a glorified blackboard. This concern informed the decision for the conduct of this research work, the researchers will make great efforts to investigate the utilization of interactive board and its application in teaching Christian religion knowledge in Colleges of Education in North central Nigeria.

Statement of the Problem

In our contemporary world, interactive board as a product of educational technology has a tendency to make learning to be an active classroom room activity. The activities the teachers create through the interactive board can leverage the power of the visual, kinesthetic and auditory features of the active classroom to support the engagement of diverse learners collaboratively and interactively (Turel, 2011). The ability of the interactive board to reach all kinds of students with multiple learning styles makes it to be an indispensable instructional media in the hands of the teachers to make teaching and learning more effective and pleasurable.

It is in recognition of its role and place in education that captured the interest of the researchers to investigate the utilization of interactive board and its application in teaching Christian Religion Knowledge in Colleges of Education in North central Nigeria.

Aims and Objectives

The major purpose of this study is to investigate the extent of utilization of interactive board and its application in teaching Christian Religion Knowledge (CRK) in Colleges of Education in North central Nigeria. Specifically the study is designed

1. to find out the extent the teachers utilize interactive board in teaching Christian Religion Knowledge.
2. to determine the instructional effect of using interactive board in teaching Christian Religion Knowledge.
3. to determine the motivational effect of using interactive board in teaching Christian Religion Knowledge.
4. to ascertain the factors militating the use of interactive board in teaching Christian Religion Knowledge in Colleges of Education in North central Nigeria.

Research Questions

The following research questions were raised:

1. To what extent do teachers utilize interactive board in teaching Christian Religion Knowledge in Colleges of Education in North central Nigeria?
2. To what extent does interactive board affect the teaching of Christian Religion Knowledge in Colleges of Education in North central Nigeria?
3. What are the motivational effect of using interactive board in teaching of Christian Religion Knowledge in Colleges of Education in North central Nigeria?
4. What are the factors that militate the use of interactive board in the teaching of Christian Religion Knowledge in Colleges of Education in North central Nigeria?

Hypothesis

The under listed hypothesis was tested at 0.05 level of significance:

There is no significant mean difference between the perception of male and female teachers that utilize interactive board for teaching Christian Religious Knowledge.

Significance of the Study

Interactive board have been in existence for a long time, but they are often underutilized. It is expected that, following the identification of the hindrances to maximize utilization of interactive board in college of education, effort will be made to minimize the effect of the hindrances and promote adequate utilization of this product of educational technology. Discoveries from the study will guide teachers, government, sponsoring bodies and donors on the purchase of not only printed materials but also non-print materials for schools and colleges, when the utilization of interactive board is encouraged, there will definitely by a high demand for the materials and the producers will put in more efforts in the production and even come out with more methods of applying them to teaching and learning. This may tend to expose the learner more to thinking than relying on the teacher. The research will also pave the way for research into other areas of concern and interest and will give researchers insight into this topic of investigation.

METHODOLOGY

The researchers adopted a descriptive survey design in which questionnaires were used to collect information from the respondents. The population consisted of 45 teachers of Christian Religious Knowledge in Colleges of education in North central Nigeria. The sample for the study consists of 25 teachers of Christian Religious Knowledge in Colleges of education in North central Nigeria randomly selected. The 25 teachers are made up of 15males and 10 females. Data were obtained using a researchers structured questionnaire, which is made up of two sections, section A to elicit personal information and section B was a five point likert scale responses of items designed to elicit answers from the respondents used for the study. The average mean of 3.50 was used as the minimum scale of positive result so that mean score below 3.50 is a negative result while mean score above 3.50 indicates positive response. The instrument was validated by three experts in Science and Technology Department of the rank of Professors from University of Jos, with reliability index of 0.67. The method used for data analysis was mean scores for the research questions and t- test analysis for the hypothesis.

RESULT

Question 1:

To what extent do teachers utilize interactive board in teaching Christian Religion Knowledge in Colleges of Education in North central Nigeria?

Table 1: Mean score perception of students on teachers' utilization of interactive board in teaching Christian Religion Knowledge in Colleges of Education in North central Nigeria.
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Do you utilize the Interactive Board for Teaching CRK in your school?	N	Mean	Decision
1. The department do not have enough Interactive boards for teaching CRK	25	3.2	Disagree
2. I always use Interactive Board when teaching CRK to my students	25	3.3	Disagree
3. My course content is not suitable with using Interactive Board	25	3.2	Disagree
4. I use the Interactive Board just as a presentation tool for teaching CRK	25	3.6	Agree
5. I prefer using the chalk board to the Interactive Board to teach CRK	25	3.8	Agree

From Table 1 the data show that the mean score of items 1-3 are below the mean score of 3.5 which implies that interactive board are not enough in the school, teachers do not always use interactive board when teaching CRK, that all course content are suitable for interactive board teaching method. While items 4-5 have means of 3.6 and 3.8 which is greater than the mean score. This result shows that most teachers only use interactive board as a presentation tool without creating interactivity, also most teachers prefer using chalk board despite the importance of interactive boards.

Question 2:
To what extent does interactive board affect the teaching of Christian Religion Knowledge in Colleges of Education in North central Nigeria?

Table 2: Mean score perception of the extent interactive board affect teaching of Christian Religion Knowledge in Colleges of Education in North central Nigeria.

Does the use of interactive board affect Teaching of CRK in your school?	N	Mean	Decision
1. Interactive board facilitate the classroom management for me	25	3.6	Agree
2. Interactive board helps my lessons be more interactive	25	3.5	Agree
3. My lessons have become more effective with Interactive board	25	3.7	Agree
4. Interactive board helps me to manage my instructional time effectively	25	3.6	Agree
5. Interactive board provides advantages to make course content more visual	25	3.8	Agree
6. I believe using an interactive board helps my students learning	25	3.7	Agree
7. Using an interactive board makes it easier for my students to remember what they learned in class	25	3.6	Agree
8. My students learn faster when I teach with an Interactive board	25	3.5	Agree
9. Interactive board helps my students learn in groups	25	3.4	Disagree
10. Using an interactive board helps students to learn concepts easier	25	3.6	Agree

The data in Table 2 show that the mean scores of items 1-8 and 10 are above the mean score with the range of 3.5 to 3.8 which implies that the respondents generally agreed that interactive board enhance teaching and learning of CRK but item 9 with a mean score of 3.4 has it that the respondents do not agree that interactive board encourages students to learn in groups.

Question 3:

What are the motivational effect of using interactive board in teaching of Christian Religion Knowledge in Colleges of Education in North central Nigeria?

Table 3:Mean score perception of motivational effect of using interactive board in teaching of Christian Religion Knowledge in Colleges of Education in North central Nigeria.

Does Interactive board has motivational Effect in the teaching of CRK?	N	Mean	Decision
1. I enjoy teaching with an interactive board	25	3.5	Agree
2. Because of using an interactive board, I feel myself more prepared for instruction	25	3.7	Agree
3. I notice my interactive board skills are improving day by day	25	3.6	Agree
4. Learning how to use an interactive board is essential to me	25	3.5	Agree
5. Interactive board makes my courses more enjoyable	25	3.8	Agree

Data in Table 3 show that the mean scores of the items 1-5 listed as interactive board having emotional effect in teaching have means score greater than 3.5 which is the minimum mean rating for positive response. It can then be concluded that interactive board have great emotional effect on the teachers as well as the students positively to learn CRK.

Question 4:

What are the factors that militate the use of interactive board in the teaching of Christian Religion Knowledge in Colleges of Education in North central Nigeria?

Table 4: Mean perception of the factors militating the use of interactive board in the teaching of Christian Religion Knowledge in Colleges of Education in North central Nigeria.

Do you agree on the following as problems Militating against utilization of interactive Board in teaching CRK.	MALE N=15 Mean	Dec.	FEMALE N=10 Mean	Dec.
1. Inadequate supply of interactive board in my department	3.7	Agree	3.6	Agree
2. Lack of required skills and competences on the part of teachers	3.5	Agree	3.6	Agree
3. Inadequate interactive board digital materials and resources to be used with the interactive board	3.7	Agree	3.5	Agree
4. Poor connection between the interactive board and computer	3.2	Disagree	3.4	Disagree
5. Virus problems, which lock programs and files	3.6	Agree	3.7	Agree
6. Low quality of speakers	3.4	Disagree	3.3	Disagree
7. Computer programs which are not updated such as multimedia programmes	3.4	Disagree	3.3	Disagree
8. Epileptic power supply	3.8	Agree	3.5	Agree
9. Technician is not always available in the classroom when there are some problems with interactive board.	3.5	Agree	3.7	Agree

10. There is no shared vision among the
     staff concerning how the interactive
     board is to be used for teachingCRK.3.6   Disagree3.5   Agree

	Cluster mean	**3.54**	**3.52**

From Table 4, items 1,2,3,5,8, and 9 have means greater than the minimum mean rating for positive response. By implication it then means that these items are the factors militating against successful utilization of interactive boards in the teaching of CRK, while items 4,7 and 10 with means below 3.5, leads to the conclusion that the items do not serve as factors that militate against utilization of interactive boards in the teaching of CRK.

Hypothesis Testing

There is no significant mean difference between the perception of male and female teachers that utilize interactive board for teaching Christian Religious Knowledge.

Table 5: t-test of non-significant difference between the mean perception of male and female teachers on the factors militating against utilization of interactive board in teaching of CRK.

Groups	N	Mean	S.D	DF	t-cal.	t-crit.	Remark
Male	15	3.54	2.112	149	1.613	1.960	Accepted
Female	10	3.52	2.115				
Total	**25**						

From Table 5, calculated t-value is 1.613 which is less than critical t-value of 1.960 at degree of freedom of 149; hence the null hypothesis is accepted. The study concludes that there is no significant difference between the mean perception of factors militating against utilization of interactive board in teaching of CRK in Colleges of Education in North central Nigeria.

DISCUSSION

The attitude of teachers towards the old fashion method of teaching using the chalk board has lingered for so long despite the introduction of a newer methods that educational technology avail to the disposal of the 21st century teachers. This concern informed the conduct of this research work.

From the research work, it was discovered that interactive board are not enough in the school and the teachers do not always use the few available interactive board when teaching CRK, this corroborates Walker, 2002 who noted that teachers have Interactive boards inside the classrooms, yet they are doing chalk-and-talk thing.

The results from the data obtained also deduce generally that interactive board enhance teaching and learning of CRK ,this is in line with the work of Smith, 2005 which shows that using Interactive boards helps teachers with streamlining their preparation, being more efficient in their Information and Communication Technology (ICT) integration.

It was discovered that interactive board have great positive emotional effect on the teachers as well as the students to learn CRK. This is in consonance with Yanez and Coyle, 2011 which showed that the use of interactive board can enhance the learning process and influence learning styles as well as increase teachers and students' motivation.

The research work discovered furthermore that inadequate interactive board, Lack of required skills and competences on the part of teachers, Inadequate interactive board digital materials and resources to be used with the interactive board and there is no shared vision among the staff concerning how the interactive board is to be used for teaching CRK among others as seen in Table 4 are factors that militate against the use of interactive boards in the teaching of CRK in Colleges of Education in North central Nigeria. This corroborate Jessica   and Lisa, 2007who's study showed that there were still some tensions and challenges faced by teachers as they incorporated ICT into classroom literacy experiences.

Similarly, the hypothesis testing showed clearly that there is no significant difference between the mean perception of factors militating against utilization of interactive board between male and female teachers in teaching of CRK in Colleges of Education in North central Nigeria. This indicate that both male and female

teachers hold the same view as to the factors that militate against the use of interactive board. This is buttress by the submission Kosoko-Oyedeko and Adeyinka, 2010 which showed that generally that irrespective of gender, teachers have the same perception that ICT contributes immensely to students' performance.

Summary of Findings
Interactive boards are germane to effective teaching and learning of CRK. Only few supply of interactive boards are at the disposal of lecturers of colleges of education in North central Nigeria. Interactive boards have the potential of improving the instructional strategies of lecturers to make them efficient in teaching CRK. There are myriad of factors that affect the use of interactive boards in teaching of CRK, this ranges from inadequate interactive board, Lack of required skills and competences on the part of teachers, Inadequate interactive board digital materials and resources to be used with the interactive board and there is no shared vision among the staff concerning how the interactive board is to be used for teaching CRK among others. There is no significant mean difference between the perception of male and female teachers that utilize interactive board for teaching Christian Religious Knowledge in Colleges of Education in North central Nigeria.

CONCLUSION
The perceived lack of interest by teachers informed the decision for the conduct of this research work, the researchers therefore made an attempt to investigate the utilization of interactive board and its application in teaching Christian religion knowledge in Colleges of Education in North central Nigeria. It was discovered from the study that though interactive board is germane to effective teaching of CRK but only few of the interactive boards are found in the colleges of education, even the few that are found in the schools are hardly utilize for teaching by the lecturer. The nonchalant attitude of not using the interactive board was attributed to the fact that there are factors that militate against the utilization of the interactive board for teaching CRK. From the findings, it was concluded that interactive board is effective in teaching and its utilization can make teaching more efficient and pleasurable for the teacher which can also improve the learning of CRK in Colleges of Education in North central Nigeria.

Recommendations
The following recommendations were made:
1. Lecturers should always adopt the use of interactive board in the teaching of CRK for it has the potential of making teaching effective and enhancing learning.
2. It is recommended that teachers should be train on how to use interactive board for teaching CRK
3. Government, sponsoring bodies and donors should come in and support the purchase of interactive boards in large quantity to go round the large population of teachers to teach all level of students in the Colleges for the teaching of CRK.

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