TEACHERS' ATTITUDE TOWARDS UTILIZATION OF ICT FOR TEACHING GEOGRAPHY IN SECONDARY SCHOOLS IN OYO METROPOLIS, OYO STATE, NIGERIA

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Abstract
The study focused on the attitude of Geography Teachers towards ICT in selected Secondary Schools in Oyo township, Oyo State. Data for this study was collected through the use of questionnaire instrument tagged TATICT (Teachers' Attitude towards information and communication technology in the teaching of geography), the respondents were mainly 42 geography teachers of selected schools in the four Local Government Areas of Oyo Town. Simple percentage technique was adopted to analyse the data collected while students 'T' test was used to test the stated hypothesis and the findings revealed positive attitude of teachers towards ICT and poor provision of ICT equipment in schools. Also, there is no gender difference of teachers towards ICT, it was however, recommended that government should strive to provide necessary ICT equipment in schools and that teachers should be trained and re-trained so as to conform to the 21st century ICT ideas, concepts and knowledge among others.

Keywords: *Attitude, information and communication technology, gender, equipment.*

Introduction

Computer technology plays an important and vital role in our various lives whether personal or national. The ability to use computer technology is the Language for the 21st century and it is of importance that teachers be trained so that they also may be able to compete successfully in order to face the challenges in the century, for future generations to maximize their capability to operate within competitive and technological driven economics, it is critical to foster computer abilities at every level of schooling process, and teachers are central to this endeavour, just as literacy and numeracy have become imperative in school education, so also has technology Seamanh (2000).

The increasing emphasis on the importance of ICT in all sphere of the society indicates that is of great importance for the integration of ICT in the school curriculum and teaching learning situations. Technology changed the teacher's role from a traditional one to that of facilitator in the classroom (Paraskeva, et al 2008).

Professional development for teachers in information and communication technology (ICT), is currently a major priority for school systems internationally. Information and Communication Technology (ICT) has not only changed the role of teaches in classrooms but has also provided them with a large number of software and websites which can be utilized for educational purposes (Ruthrenet et al, 2005, seal and Przasnyski, 2001). Power Point, Ms Word and Excel are among the most commonly used software packages in schools today and their Pedagogical benefits and contributions to learning and teaching have been Baritisch and Cober, 2003; Rozalind and Muir, 2004, studied and tested long ago (Fitzpatrick, 1993; Joshua, 2005). Rapid technological development is giving teachers new opportunities to test many more software packages and websites in their lessons. Despite this, teachers have experienced increasing expectation to incorporate ICT into their teaching, they are required to have a large and wide range of skills and be able to adapt these skills to diverse set of classrooms situations.

Statement of Problem

For future generation to maximize their capability to operate within competitive and technological driven world it is critical to foster computer abilities at every level of schooling process and teachers are central to this endeavour, which cannot be attained without positive efforts from the teachers, and this positive

efforts from the teachers is closely dependent on the teachers' positive attitude to information and communication technology (ICT) in the teaching of geography. A pertinent questions then are, what is the teachers attitude towards utilization of Information and Communication Technology for Teaching and Learning of Geography in Secondary Schools and are the ICT equipment available in schools for the teaching of Geography. This study seeks to provide answers to these questions.

Research Questions

1. What is the teachers' attitude towards impacts of information and communication technology in their bid to transfer knowledge to the students?
2. What is the perceived relevance of information and communication technology to the geography teaching?
3. What are the necessary ICT equipment in the schools that can enhance incorporation of ICT in the teaching and learning of Geography?
4. Are the teachers ready to acquire necessary skills in information and communication technology?
5. Does ICT makes the teaching – learning of geography easier for the teachers?

Also, the following hypothesis will be tested during the course of this research
H0: Teachers' Attitude towards ICT is not gender bias.

Research Methodology

The research method adopted for this study was survey type otherwise known as descriptive research. This is a type of research based on information gathered through questionnaire. As such, answers were sought to research questions. Also, efforts were made to test hypothesis whose results were inferred on the population of the study. The study area was divided into four areas using stratified sampling technique, thereafter five schools were randomly selected from each area. The researcher used simple random sampling to collect the data, 42 respondents were randomly selected from the entire population. The sample consists of both males and female teachers from the selected schools from Oyo West, Oyo East, Afijio and Atiba Local Government Areas of Oyo Town.

The major instrument for data collection was a researcher designed questionnaire instrument titled Teacher Attitude towards Information and Communication Technology in the Teaching of Geography Questionnaire (TATICT).

The questionnaire has there sections, section A sought for demographic data of the respondents, Section B sought for information on Information and Communication Technology with Yes and No options while section C also south for similar information using a four point likert scale model of strongly agree (SA), Agreed (A), Strongly Disagree (SD) and Disagreed (D) to measure the attitude of teachers towards information and Communication Technology. A re-test reliability method gave reliability of 'r' of 0.84 considered and reliable. The instrument administration received 100% return rate. The data obtained were analysed using descriptive statistics such as percentages, mean and standard deviation.

Literature Review

Information and Communication Technology (ICT) has not only changed the role of teacher in classrooms but has also provided them with a large number of software and websites which can be uitilised for educational purposes (Ruthven et al, 2005, seal and przasnyski, 2001). Power Point, Ms Word and Excel are among the most commonly used software packages in schools today and their pedagogical benefits and contributions to learning and teaching have been studied and tested long ago (Fitzpatrick, 1993; Bartsch and Coben, 2003; Rozalind and Muir 2004; Joshua 2005). Rapid technological development is giving teachers new opportunities to test many more software packages and websites in their lesson.

Positive outcomes of using technology in education has led many governments to initiate programs for the integration of technology into schools. Government are competing to equip schools with more computers, assessing progress in terms of computer – to – student ratio. In the USA, around $8 billion was spent by school districts in 2003 – 2004 school year alone to equip schools with necessary technology, primarily in the form of computers. In the USA, the Computer-to-student ratio was 1:41 in 2004 (Hew and Brush, 2007). The computer-to-student ratio in schools was around 1:7 in Canada and UK in 1999 and the

same ratio in those countries is close to that of the USA now (Watson, 2001, Granger et, al 2002) supplying schools with high number of computers does not necessarily mean that educational goals to integrate technology into the curriculum are accomplished. Many studies report failure in different countries to incorporate ICT into educational system (Dooley, 1999, Rusell, 2003, Scheffler, 1999; Ottesen, 2005; Eteokleons, 2008; Keengwe and Onchwari, 2008). Despite reports of an increased in number of Computers at Schools, Computers are not extensively used in classrooms in many countries (Scheffler, 1999, Eteokleons, 2008). As Watson (2001) indicated in his study, although teachers own and use computers for their own administrative work, many of them never use computers in their classrooms. The results of a survey conducted by Keengwe and Onchwari (2008) indicate that many teachers use technology less today than they did in the mid-1980's. These studies show that merely making technology available to teachers and students in schools and classrooms is not sufficient to attain educational goal and to ensure that the technology contributes to learning and teaching what is needed is effective integration of technology into instruction.

By making a very detailed literature review Hew and Brush (2007) indentified 123 barriers to technology integration in schools and classified them into six main categories barriers related to (a) resources, (b) Knowledge and Skills, (c) Institutions, (d) Attitudes and Beliefs (e) Assessment, and (d) Subject culture.

Research studies in education have shown that technologies engaged students in higher – order thinking only if they coupled with the necessary pedagogical strategies (Lim 2007). If barriers are examined from this perspective, it is seen that teachers are at the heart of the success or failure of technology integration in classroom (Watson 2001). Technology integration is a complex phenomenon that involves understanding teachers' motivations, perceptions and beliefs about learning and technology (Keengwe and Onchwari, 2008). If teachers like a type of technology and belief that it is beneficial for their lessons, technology integration can be achieved easily (Hew and Brush 2007). In other studies, teachers' lack of competence, lack of knowledge, lack of prior experience and their resistance to apply new technologies in their lessons have been found to be major obstacles Schefler 1999; Ottesen 2006; Zhang 2007; Sadik 2008; Paraskera et al 2008, when teachers lack the necessary confidence to integrate a technology into their lessons, they tend to ignore it Dooley (1999). Access to resources, quality of software and hardware, ease of use, incentives to change, support, collegiality in the school, and commitment to professional learning are among other factors influencing teachers' decisions to use new technologies in classrooms (Mumtaz, 2000).

Integrating technology into curricula with the intent of positively influencing teaching and learning has been in a state of evolution over the past 20 years (Dias &Akinson, 2001). When used appropriately, ICT can help to strengthen the importance of education to increasingly networked society, raising quality of education by making learning and teaching an active process connected to real life (Zaman, Shamim and Clement, 2011). Technology can support pedagogical, curricular and assessment reforms, which intend to support the process of knowledge creation (Kozima, 2005).

According to Webber (2003) the impact of technology is one of the most critical issues in education. The use of ICT creates a powerful learning environment and it transforms the learning and teaching process in which students deal with knowledge in an active, self directed and constructive way (Volman and Van Eck 2001) ICT is not just regarded as a tool, which can be added to or used as a replacement of existing teaching methods but an important instrument to support new ways of teaching and learning.

ICT plays a key role in enhancing the quality of education. However, successful implementation of ICT requires strategic planning. As (Wagner et al 2005) observes, "Research suggests that simply putting computers into schools is not enough to impact student learning, despite successful efforts to acquire computers hardware and to raise the students to computer ratio, there has been less success in identifying which computer skills should be taught in school and how computers can be used for teaching and learning (Dooling, 2000). Thus, current attention has turned to what is actually happening in the classroom with computer technology. Understanding the pedagogical, psychological and cognitive barriers to the successful use of information technology is a vital precondition for improving the utilization of computers and other technological aids in the educational process (Benzie, 1995).

Teachers' Attitudes to Information and Communication Technology

Attitude is a predisposition to respond favourably or unfavourably to an object, person, or event Ajzen (1988). To successfully initiate and implement educational technology in schools' programmes depends strongly on the teachers' support and attitudes. It is believed that if teachers perceived technology programs as neither fulfilling their needs nor their students' needs, it is likely that they will not integrate the

technology into their teaching and learning. Among the factors that influence successful integration of ICT into teaching are teachers' attitude and belief towards technology (Hew and Brush 2007; Keengwe and Onchwari, 2008). Tella (2007) found that computer use was predicted by intentions to use and that perceived usefulness also strongly linked to these intentions. If teachers' attitude are positive toward the use of educational technology then they can easily provide useful insight about the adoption and integration of ICT into teaching and learning processes.

'Becta (2004) claims that one key area of teachers' attitudes towards the use of technologies is their understanding of how these technologies will benefit teaching and their students' learning schoepp's study (2005) found that, although teachers felt that there was more than enough technology available, they did not believe that they were being supported, guided, or rewarded in the integration of technology into their teaching. According to Empirical (2006), teachers who are not using new technology such as computers in the classroom are still of the opinion that the use of ICT has no benefits or unclear benefits.

Teo (2008) conducted a survey on pre-service teachers' attitude towards computer use in Singapore. A sample of 139 pre-service teachers was assessed for their computer attitudes using questionnaires with four factors; affect (liking), perceived usefulness, perceived control, and behavioral intention to use the computer. The researcher found that teachers were move positive about their attitude towards computers and intention to use computer than perceptions of the usefulness of the computer and their control of the computer.

Although computer assisted learning (C.A.L.) may still be evolving at all educational levels, there is no subject better suited to the many use of computers than geography (Bachenko and Fitzpatrick 1990). The assertion that Geography is a natural discipline for making use of computers is based on arguments such as the Geography teacher having to deal with vast libraries of textual information, numerical data, and graphic displays, all of which need to be constantly updated and experience from a range of perspectives. Geography provides a rich and varied context for the use of computer technology to enhance both learning in the subject and to reinforce ICT skills.

Results and Discussion

The survey was responded to by 42 geography teachers working in different High Schools in Oyo township, twelve teachers from Oyo West Local Government, twelve teachers from Oyo East, twelve teachers from Atiba while the remaining six come from Afijio Local Government Area of township.

Personal Characteristics and Teaching Experience of Teachers

Most of the respondents (60%) were men, with 40% of respondents being women. The ages of the teachers who responded to the survey were between below 30 and above 50 years, with below 30 years having 41%, 30 – 39 years having 41% also, 40 – 49 years having 14% and 50 years above 4%.

In terms of working experience more than half of the teachers (54%) have more than 10 years teaching experience, almost one fifth of the teachers (19%) had teaching experience between 1 and 4 years while around one fouth of the teachers (27%) had been teaching geography for 5 to 9 years, 64% of the teachers have e-mail address while 36% do not have 24% of teachers possess personal computers while 76% of teachers do not have personal computers, 10% of schools sampled have geography laboratory while 90% of the schools do not have geography laboratory.

Research Questions

Research Question 1: what is the teachers' attitude towards the impact of information and communication technology in their bid to transfer knowledge to the students?

Table 1
Teachers attitude towards impact of information and communication technology

S/N	STATEMENT	SA	A	D	SD
a.	Computer technology plays an integral role in teaching geography	17(41%)	24(25%)	2(1%)	NIL
b.	Information and communication technology is currently a on major priority of school system	18(44%)	22(52%)	1(2%)	1(2%)

Data in Table 1 had high percentages of agreement on all the issues raised on the attitude of geography teachers to the information and communication technology for instance computer technology plays an integral role in teaching of geography had 41% strongly agreed while Agreed had 57%, while information and communication technology is currently a major priority for school system had 44% of strongly agreed, with 52% of Agreement while Disagreement had 2% and strongly disagreed had 2% also. Thus, geography teachers have positive attitude to the impact of information and communication technology in their bid to transfer knowledge to the students.

Research Question 2: What is the perceived relevance of ICT to the geography teaching?

Table 2
Perceived Relevance of ICT to the geography teaching.

S/N	STATEMENT	SA	A	D	SD
c.	Geography provides numerous opportunities for teachers to use ICT skills to enhance the subject teaching	20(48%)	19(45%)	2(5%)	1(2%)
d.	ICT is not needed in geography teaching and learning	3(7%)	12(29%)	18(43%)	9(21%)

The data from the Table 2 show the relevance of ICT to the geography teaching, with Geography provides numerous opportunities for teachers to use ICT skills having 48% of strongly Agreed, 45% of Agreement with 5% and 2% in respect of strongly disagreed and disagreed. ICT is not needed in geography teaching and learning had 7% and 29% of strongly Agreed and Agreed while 43% and 21% stand for strongly disagreed and disagreed, thus ICT is strongly relevant to the teaching of geography in schools.

Research Question 3: What are the ICT equipment in the schools that can enhance incorporation of ICT in the teaching of Geography?

Table 3:
ICT equipment in the schools where geography are instructed

Types of technology	Frequency
Computer	14
LED Projector	02
Internet Connection	NIL
Printer	10
Television – Video System	07
Over-head projector	Nil

In all schools sampled both private and public only 14 computer sets were found LCD projector 2 were found, 10 printers and 7 television-video with no school with over-head projector. Thus there is poor provision of necessary equipment that can enhance incorporation of ICT into the teaching and learning of Geography in schools, infact some schools have no single computer system and this will affect negatively the positive attitude of teachers towards ICT.

Research Question 4: Are the teachers ready to acquire necessary skills in ICT?

Table 4:
Respondents perception on Teachers Readiness to Acquire ICT Skills

S/N	STATEMENT	SA	A	D	SD
e.	Teachers need to engage in self directed and life long computer learning	12(29%)	25(60%)	05(1%)	0.0%
f.	Teachers needs to develop adoptive computer learning skills	13(31%)	24(57%)	05(12%)	0.0%

Data in Table 4 had high percentage agreement on all the issues raised, for instance Teachers need to engage in self directed and life long computer learning had 29% and 60% of strongly Agree and Agree,

While Teachers need to develop adoptive computer learning skills had 31% and 57% of strongly agree and agree with 12% of strongly disagree and 0.0% of disagree, this point to the fact that teachers of schools are set and ready to acquire necessary skills in area of ICT.

Research question 5: Does ICT makes the teaching – learning of geography easier for the teachers?

Table 5:

Respondents perception on ICT making Teaching -Leaning Easier

S/N	STATEMENT	SA	A	D	SD
j.	ICT will make geography teaching easy	20(48%)	20(48%)	02(4%)	NIL 0.0%
k.	The use of ICT will make geography real and permanent	23(55%)	17(41%)	02(4%)	NIL 0.0%

Table 5 answered the research question 5 ICT will make geography teaching easier had 48% of strongly agreed and 48% of agree with 4% of strongly disagree. While the use of ICT will make geography real and permanent had 55%, and 41% of strongly agree and agree respectively with 4% of disagreement, thus the incorporation of ICT will make the teaching of geography easier and remove the abstract nature of the subject, hence, promote learning of various concepts in geography.

Testing of Hypothesis

H0: Teachers' Attitude towards ICT is not gender bias.

Table 6

T.test for male and female teachers on their attitude towards ICT.

Attitude Towards ICT	N	Mean	Std.dev	t cal	df	Sig.	t critical
Male	25	4.56	2.78	41	0.42	0.05	0.64
Female	17	4.27	12.72		1.04		

Significant at $p < 0.05$

From the table above, calculated t is 0.641 with 41 df and $p>0.05$ level of significance, then the null hypothesis is not rejected since t-cal 0.641 is less than 1.04 crit.t therefore the null hypothesis is not rejected. Hence, there is no gender difference of teachers' attitude towards ICT.

Discussions

One major finding of this study is that majority of teachers have positive attitude to the use of ICT in the teaching of geography. This finding is evident in the responses of the teachers towards ICT as majority of them strongly Agreed and Agreed to positive impact of ICT.

Recommendations and Conclusion

Premised on the findings of this study, it could be concluded that information and communication technology plays a greater role to make teaching of geography easier and effective, however, it was observed that despite the positive attitude of teachers towards ICT, there is poor provision of ICT equipment in all the schools sampled it is therefore recommended that.

Government should increase accessibility of teachers to educational technological materials by providing the needed ICT equipment to all schools so as to encourage the incorporation of ICT to the teaching learning process.

Teachers need to be trained and retrained in the area of ICT in order for them to acquire ICT skills needed for this 21st century.

Also, apart from the provision of ICT equipment, computer should be incorporated to the curriculum of not only the Junior Secondary Schools but also Senior Secondary Schools.

Government should make schools conducive for learning by making sure that all facilities are provided and they are in good condition.

Workshops, seminars and conferences should be organized on regular bases for the secondary schools geography teaches so as to keep them inform on the latest innovation in area of ICT.

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