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SCHOOL OF SCIENCE AND TECHNOLOGY EDUCATION**

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**21ST CENTURY GLOBAL CHANGES IN EDUCATION:
IMPLICATIONS FOR
SUSTAINABLE DEVELOPMENT**

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Secondary School Teachers' Knowledge and Utilization of ICT in English Language Instruction

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Abstract

Teaching and learning have gone beyond the teacher standing in front of a group of students disseminating information to them without the students' adequate participation. ICT has the potential to accelerate, enrich and deepen skills of teachers to motivate and engage students in learning. The knowledge about and utilization of ICT tools can indeed assist students' in acquiring English language competence as well as enhance the quality of their learning experience. This paper intends to examine the ICT knowledge of secondary school teachers of English language in Minna metropolis. It will also examine how or to what extent they can utilize ICT in their language instruction. A questionnaire with a four-point scale: strongly agree, agree, disagree and strongly disagree was used to elicit valid responses from the 40 teachers of English used for the study. The result shows that some of the teachers are computer literate but their major constraints is lack of ICT infrastructural facilities. The data are collected, discussed and recommendation proffered.

Keywords: Secondary School, teachers, knowledge, utilization, ICT, English language.

Introduction

ICT, though relatively new has a lot of potentials for teaching and learning all disciplines (Emenaryo, 2005). Teaching and learning have gone beyond the teacher standing in front of a group of students disseminating information to them without the students' adequate participation. Information and Communication Technology (ICT) has the potential to accelerate, enrich and deepen skills of teachers to motivate and engage students in learning to strengthen teaching and to provide opportunity for connection between the school and the world (Ayayi, Ekundayo and Haastrop, 2009).

There is substantial evidence that, in the right hands and when used appropriately for specific purposes in specific contexts, ICT can be an effective tool in supporting teaching and learning (Iheonunekwe, Ogwudire, and Ukpai, 2010).

Integrating ICT tools into the teaching and learning of English have been found to bring other benefits too. Besides motivating learners and raising self-esteem and confidence, ICT can enhance pupil interaction, verbalization and involvement in collaborative learning (SILA Report, 2000).

Africa has witnessed the development of ICTs in various sectors over the last few decades, including education. The change from teacher-centered education system to learner-centered education the world over in the past few years contributes to the use of ICTs in education.

The use of ICTs in Nigeria and African countries generally is increasing and growing dramatically. However, while there is a great deal of knowledge about how ICTs are being used in developed countries, there is not much information on how ICTs are being introduced into schools in developing countries. (Benkes-Amos and Chiware, 2006). Unfortunately, lots of Nigerian teachers are yet to acquire the simple skill and knowledge of ICT to enable them benefit from the enormous wealth of information derivable from ICTs. Many teachers are resistant to change and have found it difficult to embrace ICTs. Some are ignorant of the innovations ICT has brought to teaching and learning. Others perceive ICTs as being too difficult to learn and therefore hold on tenaciously to their old ways (Obilo&Ibebuike, 2014). As a result, many Nigerian teachers of English language in our secondary schools are still computer illiterates and so lack the skills and knowledge needed to fully integrate ICTs into teaching and learning.

Purpose of Study

We are in the information age, teachers must be able to purposefully access information from a variety of sources, analyze and evaluate the information, and then integrate it to classroom instruction. This paper intends to find out the knowledge of teachers of English language in secondary schools in Minna metropolis of this fact. It will also find out to what extent these teachers have utilized Information and Communication Technology in the dissemination of instruction to students in their classrooms.

Theoretical Framework

The theoretical framework adopted for the analysis of the two key attributes of a teacher (knowledge and utilization of the ICT in English language classroom) is based on cognitive-constructivist theory of learning which states that the adult or teacher who teaches language must be grounded in what he teaches and be able to create situations in which children discover meaning themselves. According to the constructivist's view, language will follow experience, the teacher should be able to provide opportunities for self-discovery in the children. Since the teacher is the pivot in supporting such educational goal in children, he needs to acquire the skills and capabilities required for delivering such assistance to children.

Research Question

1. Are English language teachers in Minna knowledgeable about the use of ICT in classroom instruction?
2. If they are, to what extent have they utilized ICT in their language instructions?
3. Are facilities/infrastructures available for the use of ICT in English language classroom?

Literature Review

The field of education has been affected by Information and Communication Technology (ICT) which have undoubtedly affected teaching, learning and research (Yusuf, 2005). ICT has the potential to accelerate, enrich and deepen skills, to motivate as well as strengthen teaching and learning.

The Economic Commission for Africa (ECA) has indicated that the ability to access and use information is no longer a luxury, but a necessity for development. Unfortunately, many developing countries especially in Africa are still low in ICT application and use (Aduwa, Ogiegbaen and Iyamu, 2005).

Education systems all over the world are under increasing pressure to use the new Information and Communication Technologies (ICTs) to teach students the knowledge and skills they need in the 21st century (UNESCO, 2002). The UNESCO World Education Report (1998) describes the radical implications the new Information and Communication Technologies have for conventional teaching and learning and predicts a transformation of the teacher/learning process and the way teachers and learners gain access to knowledge and information (Okwudishu & Okwudishu, 2005).

In the developed world, the role of technology as a resource for teaching and learning of second language is increasing as educators recognize its ability to create both independent and collaborative learning environments in which students can learn the new language (Butter-Pascoe, 1997). Butter-Pascoe draws attention to the crucial characteristics and benefits of a technology-enriched curriculum for second language teaching and learning.

But in the developing countries, Nigeria in particular, the use of computer is just beginning to proliferate, and computer enthusiasts begin to explore the potentials that computer have in learning and teaching. Despite this developments, it is still not clear whether Nigerian teachers are ready to directly participate in the application of ICT into their classroom activities. (Tswana, 2006).

Generally speaking, the educational relevance of computers and other components of information technology cannot be overemphasized. Reference can be made to the period when Skinner applied programmed instructions to teaching machines, through Brunner's experiment with computers in instruction, to the current wave of information transmission and exchange via the World Wide Web (www), we have seen different applications of ICTs in enhancing cognitive developments. Thomas and Ranga in UNESCO (2004) in their classification divided the application of computers and other communication technologies in education into three broad categories. These are; **pedagogy, training and continuing education**. The pedagogical applicability of the ICTs is concerned essentially with the more effective learning and with the support of the various components of ICTs. Almost all subjects ranging from mathematics, music, language and so on can be learnt with the help of computers. Olakulehin (2007) emphasized that pedagogic application of ICTs involves effective learning with the aid of computers and other information technologies serving the purpose of learning aids, which plays complimentary roles in teaching/learning situations, rather than supplements to the teacher/instructor/facilitator.

Pedagogy through the application of ICTs has the advantages of heightening the motivation; helping recall of precious learning; providing systematic and steady feedback, facilitating appropriate practice, sequencing learning appropriately and providing a viable source of information for enhanced learning. Many different types of technology can be used to support and enhance learning. Everything from video content and digital movie making to laptop computing and handheld technologies have been used in classrooms. Similarly, new uses of technology such as the podcast are constantly emerging (Marshall, 2002). According to Marshall, various technologies deliver different kinds of contents and serve different purposes in the classroom. Word processing and e-mail promote communication skills; database and spreadsheets programs promote organizational skills; and modelling software promotes the understanding of science and mathematics concepts (Barker, 1994). When students learn from computers, they can develop high-order thinking, creativity and research skills.

Methodology

In order to determine secondary school teachers' knowledge of the existence of ICT and its utilization in the language classroom, Forty (40) English language teachers in selected secondary schools in Minna metropolis were used as subjects for the study. They were made to fill some questionnaires on knowledge and utilization of ICT in the language classroom.

Population Sample

Eight Senior Secondary Schools in Minna metropolis were randomly selected for this study. From each of the schools, five teachers were made to fill questionnaires prepared for this study. In each of the questionnaire, a four-point scale; **Strongly Agree (SA)**, **Agree (A)**, **Strongly Disagree (SD)** and **Disagree (D)** was used to elicit valid responses. In all, forty (40) teachers of English language were used and their responses were recorded and analyzed in percentages.

Data Collection

The questionnaire developed about knowledge and utilization of ICT were distributed to the respondents selected for the study. The questionnaires were give out to the respondents for about a week before they were retrieved. Their responses were collated and analyzed using simple percentage.

Data Analysis

Data collected on the study were analyzed using frequency count and percentages.

Results

Table 1a

S/N	STATEMENT	SA	A	D	SD
1.	ICT can be used in English language instruction	21 52.25%	17 42.50%	02 5.00%	00
2.	I have knowledge of how ICT can be used in English language instruction	09 22.50%	23 57.50%	05 12.50%	03 7.50%
3.	I am computer literate	15 37.50%	19 42.5%	05 12.50%	01 2.50%
4.	I can access the internet on my computer	18 45%	16 40%	04 10%	02 5%
5.	I possess sufficient ICT skills to carry out ICT related activities in the class	15 37.50%	15 37.50%	07 17.50%	03 3.50%
6.	I know the benefits I can derive from using ICT in my daily activities	23 57.50%	14 35%	03 7.50%	00
7.	ICT can make language class instruction more interesting and better	19 47.00%	18 45.00%	03 7.50%	00

Table 1a shows that most of the teachers agree that ICT can be used in English language instruction. Majority of them, 32 claim they have the knowledge of how ICT can be used in the English language classroom. 34 of them claimed that they are computer literate and can also access the internet on their computer. 10 of them agree that they do not possess sufficient ICT skills to carry out ICT related activities in the class. 27 of the teachers claim that they know the benefits they can derive from using ICT in their daily activities while 37 agree that ICT can make language class instruction more interesting and better.

Table 1b

S/N	STATEMENT	SA	A	D	SD
1.	I use ICT in English class instruction in my school	07 17.3%	13 32.5%	13 32.5%	07 17.5%
2.	ICT is not available in my school	15 37.5%	09 22.5%	08 20%	08 20%
3.	I use ICT in English language instruction to enhance my methodology	08 20%	05 12.5%	13 32.5%	14 35%
4.	I use ICT in English language instruction to improve oral English teaching	03 7.5%	12 30%	13 32.0%	12 30%
5.	I use the internet to illustrate lessons during English language instruction	02 25%	10 25%	15 37.5%	13 32.5%
6.	I use DVD recorded packages to support classroom instruction	07 17.5%	05 12.5%	15 37.5%	13 32.5%
7.	I use tape recorded materials to aid classroom instruction	06 15%	10 25%	16 40%	08 20%
8.	I encourage students to access English language learning materials from the internet	12 30%	09 22.5%	07 17.0%	12 30%

From Table 1b, it is glaring that the major constraint to the use of ICT in English language instruction in secondary schools in Minna metropolis is unavailability of ICT materials in schools. Related to this is the issue of computer literacy. Though most of the respondents claimed they are computer literate, those who are not cannot function well even if ICT learning materials are available in their schools. Very few of the teachers also agreed that they use DVD recording packages and tape recorded materials in their classes from the table it is mostly those teachers who utilize ICT materials during their lessons that also encourage students to access English language learning materials from the internet.

Discussion of Results.

On the issue of knowledge about whether ICT can be used in English language instruction, the result generally shows that apart from very few teachers who strongly disagree/agree. Majority of the respondents, English language teachers in secondary schools in Minna metropolis, agree that ICT can be used in English language classroom.

The result also shows that 34 (85%) teachers are computer literate while 15% are not. With the number that are computer literate, the number that can access the internet is (85%) and those that possess sufficient ICT skills to carry out ICT related activities in the English language classroom (75%) are not doubtful. Those who know the benefits that are derivable from using ICT in the English language classrooms are in the majority.

Generally, on the issue of knowledge, the results shows that most of the secondary school teachers of English language in secondary schools in Minna metropolis are computer literate. On the issue of utilization as shown in table 1b, 24 (60%) of the respondents claim that ICT is not available in their schools while 15 (37.5%) agree that they use ICT in English language instructions in their schools. Those who agree that they use ICT to enhance their methodology (32.5%) is also low. So also those who claim they use ICT packages like DVD and tape recorded English language learning materials from the internet.

Conclusion

From Table 1b, it is glaring that major constraints to the use of ICT in English language instruction in secondary schools in Minna metropolis is unavailability of ICT materials in schools. Related to this is the issue of computer literacy. Though most of the respondents claimed they are computer literate, those who are not literate cannot function well even if ICT learning materials are available in their schools.

It is also shown that many public and private secondary schools in Minna metropolis are now infusing ICT into their teaching activities. Teachers in schools under study have now perceived the usefulness of ICT. But it is not every teacher in the schools that is now applying the use of ICT during their English language instruction.

Recommendations

This study has shown that lack of ICT infrastructural facilities is but the main constraint to ICT utilization in English language classrooms in the metropolis. Added to this is that the ICT skills of teachers at this level of our education system need to be addressed through workshops and ICT skills training. The state ministry of Education should intensify efforts at providing computers, internet and other ICT infrastructure in all government schools so as to encourage teachers to use them.

Teachers of English language should drop their indifferent attitude to the use of ICT tools in their classrooms. A sense of commitment and dedication on the part of the teachers is necessary.

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