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FROM THE EDITORIAL DESKS

The Journal of Information, Education, Science and Technology (JIEST) publish by School of Science and Technology Education, Federal University of Technology, Minna, Nigeria released volume 4, No. 1 (June, 2017 Edition).

JIEST is a multi-disciplinary Journal that contains research findings on diverse topics in Information, Education, Science and Technology. The Editorial Board receives articles throughout the year.

My unreserved appreciation goes to the Dean, School of Science and Technology Education of the above University for her tireless efforts in making sure that the demand of the Editorial Board are always met, I thank the University management for assisting in disseminating information regarding this Journal using the University website and Bulletin.

I thank the Editorial Board for their good work and for ensuring that articles are published twice in a year (June and December). The efforts of the contributors to this volume are commendable. It is not easy to conduct a research and have it published. The Editorial consultants and Reviewers made their inputs towards improving the work of contributors and I really appreciate their efforts.

Our readers comments, advice, suggestions are welcome for further improvement on the quality of the Journal.

Prof. Gambari A. Isiaka
Managing Editor.

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ICT ACCESS AND INTEGRATION INTO THE ENGLISH LANGUAGE CLASSROOM

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Abstract

The use of Information Communication Technology (ICT) for diverse purposes is becoming a part of life in many parts of the world. Technologically advanced countries have taken a leap into the use of ICT for teaching and learning with diverse results. Not much is known about the use of ICT in education in developing countries like Nigeria. This study therefore, investigated the access and integration of ICT into English Language learning in selected urban and sub-urban senior secondary schools in Oyo State. Descriptive survey was adopted for the study. Two local government areas were purposively selected, one from the urban and one from the sub-urban. The validated questionnaire was administered on 240 randomly selected students in eight randomly selected schools in the two locations. Two null hypotheses were tested at 0.05 level of significance and data were analysed using inferential statistics of t-test. Results showed no significant difference in ICT access in the urban and sub-urban secondary schools where there is no ICT presence ($\text{Crit.}t = 1.96, \text{Cal.}t = .947, df = 234, P > .05$). Results also showed no significant difference in the integration of ICT in English language in the two locations where ICT facilities were not available for integration ($\text{Crit.}t = 1.96, \text{Cal.}t = 1.434, df = 234, P > .05$). It was, therefore recommended that ICT be made available and accessible to students in both locations for English language learning.

Key Words: Access, ICT, Integration, Urban and Sub-urban, English language learning.

Introduction

The use of Information and Communication Technology (ICT) is gradually and enthusiastically invading all strata of modern society and significantly affecting modern life in diverse ways. ICT is increasingly becoming popular as a crucial tool for facilitating the educational process. The place of ICT in education has therefore become a significant area of interest to researchers and educators in view of the general belief that ICT can exert positive impact on teaching and learning. Corbett and Williams (2002) posited that students' use of technology in education is expected to improve educational outcomes, increase skills in the use of Technology and also decrease inequalities between groups. Cummins, Brown and Sayers (2006) believe that "technology can play a significant role in promoting literacy, among all students." Yves Punie, Dieter, and Marcelino (2006) noted that "there is a widespread belief that ICTs have an important role to play in changing and modernizing educational systems and ways of learning stressing that it will affect the learning process." Ayo (2001) argued that, the essence of ICT is to help individuals and societies achieve greater access to knowledge and ideas for the benefit of humanity.

However, the laudable benefits accruing to ICT users in education may not apply to those who do not have meaningful access to it. The measure of ICT impact on learning would depend on the extent of its access to learners. Learners in other areas outside English language could also immensely benefit from ICTs only when the resources are available and accessible for integration into learning.

The integration of ICT in this context considers the inclusion of ICT into the English language teaching and learning curriculum as an educational tool. Kumar and Tammelin (2008) stated that, language learning can use multiple teaching and guiding methods by combining face-to-face sessions with online activities and utilizing a mix of technology-based materials. This can be done by combining classroom teaching with on-line modules and activities (blended learning). They noted that the growing use of ICT in blended learning environment has changed the face of language teaching and learning in a beneficial way. To Robinson and Zaitun (2006), the idea of integration is the incorporation of multimedia applications into English Language lessons which can exert powerful motivation and provide exciting new ways of learning.

Information Communication Technology (ICT) which most often is interchangeably used with the term Information Technology (IT) was earlier synonymous with computer but later came to cover other equipment created to enhance acquisition, storage and dissemination of information. With the

advancement in technology, ICT has now encompassed any medium used to record information, such as magnetic disk, tape, optical disks, CD/DVD, flash and paper record, and technology for broadcasting information - radio, television, and technology for communicating through voice and sound or images (microphone, camera, loudspeaker, and telephone/cellular phone) It also includes a wide variety of computing hard wares such as desktop computer, laptop, server, mainframe, networked storage. Included also is the internet which has created a borderless surge of information.

Statement of The Problem

The provision of modern learning materials is fundamental to the educational attainment of learners. The belief that secondary schools should be equipped with ICT facilities is predicated on the premise that technology can improve the rate, quality, amount and effectiveness of learning. Despite the claims of availability of ICT resources in Nigeria, not much is known about its access in the English language classroom. This has necessitated this study which focuses on how much of ICT has been extended and used in teaching and learning especially in public schools. This study therefore focuses on ICT access and integration into the English language classroom in selected urban and sub-urban public secondary schools in Oyo State, Nigeria.

Hypotheses

- HO₁:** There is no significant difference in the ICT access in the English language classroom in the urban and sub-urban secondary schools.
- HO₂:** There is no significant difference in the ICT integration into English language learning in the urban and sub-urban secondary schools.

The Goals of Ict In Language Education

Language teachers exploit ICT potentials in the classroom to take advantage of unlimited repertoire of educational tools, their possibilities, and combinations they afford. ICT can contribute in important ways to the enhancement of language teaching and learning and education in general. tiscannizzaro(2000) pointed the following as probable aims of introducing ICT in language teaching:

1. to present the English language as a means to learn and communicate about content;
2. to build a learning environment in which teachers and learners can create context for real communication inside and outside the classroom;
3. to transform the realism of the contexts created in class simulations into reality;
4. to break school isolation;
5. to establish new relationships between school and society;
6. to establish new relationships between school and youth languages.

Haggins (2003) in a professional user review of UK research identified the drive towards heavy UK investment on ICT for schools as aiming at modernizing schools and equipping the pupils of today with skills that will make them able to use such technology in the workplace once they leave school. Haggins (2003) also noted that investment in ICT aimed at reducing teacher workload by making planning and resources available over the internet and reducing bureaucracy by providing and exchanging information in electronic form. Specially, Haggins (2003) identified the ultimate goal in promoting the use of ICT in schools as efforts to increase the effectiveness of teaching and improve pupils learning.

Similarly, Cummins, Brown and Sayers (2006) citing Oppenheimer(1997), noted that United States invested more than \$90 billion in technology for schools during the 1990s whose rationale is:

- a. to promote the development of the kinds of literacy (and numeracy) skills required to function effectively in the global economy and society of the twenty-first century;
 - b. to improve traditional learning outcomes for all students, but particularly for under-achievers.
- Presenting the importance of ICT-based English language educational content, Fatema (2009) stated that the D. Net (Development Research Network) intervention on ICT in Bangladesh aimed among others at:

1. improving the capacity and approach of mainstream English course teachers for English language teaching;
2. creating enabling environment for the rural children and youths to learn English language;
3. Increasing interest and reducing anxiety among the rural children and youths to learn English using instructional Cds.

In the Nordic countries, the wider policy target, "to improve pupils' learning" is the major overall objective of ICT in schools (Balanskat, Blamire, Kefala, 2006) because it is assumed that there is a causal relationship between ICT and pupils' learning. The expectation of the revolution that the ICT can bring into teaching and learning is that it can dramatically enlarge the repertoire of learning. Consequently, individuals, organisations and societies are investing in ICT to take advantage of its affordances, with more research focusing on the area.

Ict Access as a Factor in Integration

In discussing the current global investment and use of ICT in education, access to these ICT tools is a major issue of consideration. 'E-mature' countries have so been called because of their wide access to ICT both by teachers and learners. Citing the Canadian Education Statistics Council, (2000), the recent Pan-Canadian Education Indicators Programme (PCEIP) report noted that 88 percent of elementary and 97 percent of secondary school students attend a school that has ICT access for instructional purposes (Stuve, 1997). Despite the PCEIP statistics, Tremblay, Ross and Berthelot (2001) found that 70 percent of teachers in Ontario schools reported that their students had either limited access or no access to a computer at school, in accordance with availability. In a review of Programme for International Students' Assessment (PISA) and Youths in Transition Survey (YITS) studies, Bussiere and Gluszyński (2004) found just over one in ten respondents (12.1%) reported almost never having access to computers at school. This means that, 87.9% has access to computers at school. In Sweden, Sheridan and Samuelsson (2003) reported that grade schools have at least one computer for each classroom while preschools have at least one or two computers to be shared among three to four classes. From the foregoing, it could be seen that even in ICT advanced countries, ICT access in schools is not 100%.

However, quoting Parsad & Jones (2005), Cummins, Brown and Sayer (2006) reported on school-based internet access in Canada that between 1994 and 2003, the percentage of public schools with access to the internet increased from 35 to almost 100 percent. Internet access was available in 93 percent of instructional rooms in 2003 compared to just 3 percent in 1994. Even schools with the highest poverty concentration in 2003 had 5 students for each instructional computer with internet access while schools with the lowest poverty concentration had 4 students to each instructional computer with internet access.

In Malaysia, Robinson and Zaitun (2006) in their study on utilization and integration of ICT tools in promoting English language teaching and learning reported that many urban schools then had already been equipped with ultramodern IT facilities but in hundreds of rural schools, computer infrastructure facilities are still at the bare minimum. Robinson and Zaitun (2006) argued that adequate infrastructure facilities and resources would, of course, provide a learning climate and an environment rich in authentic interaction.

In an ICT Impact Report on studies done on schools in Europe, Balanskat, Blamire and Kefala (2006) stated that the availability of computers in most EU countries is substantial and in nearly all countries (except for the Slovak Republic and Latvia) almost all secondary schools had access to the internet quoting report indicators and benchmarks (2006) as showing that ICT penetration in schools is continuously increasing. The authors also made reference to recent UK studies which indicated that just over 11% of schools can reasonably be described as having embedded ICT successfully into teaching and learning. They, however, noted that in most EU countries, ICT is not used very frequently by a majority of students at school but a substantial number of students had opportunities to use ICT in several ways, probably outside school, according to Pelgrum (2004). In considering access to ICT, availability is important. In Nigeria, there is not much empirical data on the access level of ICT in schools because not much research has been conducted in this area in this manner. This study is therefore important in generating information on ICT access in schools and also its integration into English language learning.

Importance of Ict in Language Education

It is believed that with ICT in education, there will be diversification and enlargement of pedagogic repertoire of the tools/materials used or designed for instruction, matched with learner's needs and levels of competence as closely as possible. ICT can be used as a tool to support traditional pedagogy to evolve a completely different way of teaching. It can be used to enhance students' learning through motivation and increased participation. It can cause teachers and learners to extend their access to educational resources that can make things more visible and more comprehensible. Tella *et al* (2007) gave an array of ICT tools that could be used to support and enhance the teaching and learning process, ranging from audio and video resources, interactive whiteboard or e-presence, photo stories, internet conferencing to laptop computing and handheld technologies. Each of these technologies provides a different type of content and serves a different purpose in the classroom. For instance, the online services provide access to a rich resource of authentic information including foreign language video clips and podcasts. Halm (2002) cited Jean-Claude Bertin as finding out that recent multimedia language learning materials make it easier for teachers to develop a more flexible learner-centred curriculum that allows for customization to different learner types and learning styles.

In his practical tips on using ICT to enhance the teaching and learning of modern foreign languages, Dale (2010) stated that language teachers should use ICT basically to enhance learning and to build on traditional methodology. Dale (2010) also noted that ICT suites provide interaction activities with free application and more importantly allow learners to work independently and practice interactive activities such as listening and reading comprehensions, matching, reordering and gap filling exercises at their own pace. Dale (2010) added that in a classroom situation, flip cameras, video cameras, Mp3 recorders, can be used to record class activities as children manipulate and reinforce language items and vocabulary. Fatema (2009) noted that in an animated English learning content, learners will be able to watch the figure, thereby accelerating the learning process. In consent to this view, Dale (2010) stated that dry exercises are transformed into something far more engaging with immediate feedback allowing learners to monitor their own progress more easily. The use of these ICT applications depends of their availability and access.

Methodology

This study adopted descriptive survey design. The population for the study comprised all public senior secondary school students in class II (SSII) in Akinyele local government area (sub-urban location) and Ibadan North local government area (urban location). Four mixed schools were purposively selected from each local government area for the study. The subjects consisted of 240 randomly selected students from the two local government areas. 30 SSSII students were randomly selected from each school in both local government areas.

Both male and female students were selected without bias to a particular gender.

Instrumentation

Validated questionnaire was the major instrument used for data collection. Ten statement items were structured in a 4-point Likert-type scale of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The statements focused on student's access of ICTs as language learning tools in the schools and their actual integration in language learning. The six ICT facilities focused are film projector, computer, audio tape recorder, interactive white board, video equipment and the internet. The students were required to identify the ones that they access and use in language learning.

Procedure and Data Analysis

The researcher visited the selected schools personally to administer the instrument. Before filling the questionnaire, explanations were given to the respondents on the essence of the study and also on how to fill the questionnaire. The researcher also collected completed copies personally. However, two questionnaires were invalid in each local government area because they could not provide required data and were discarded. Inferential statistics of t-test was also used to test the hypotheses at 0.05 level of significance.

Results

HO₁: There is no significant difference in ICT access in the English Language classroom in the urban and sub urban secondary schools:

Table1: Summary of t-test to show the difference in ICT access in urban and sub-urban secondary schools

ICT Access in Urban and Sub -Urban Secondary Schools	N	Mean	Std. Dev.	Crit -t	Cal- t.	df	P
Urban Schools	118	32.745	6.7510	1.96	.947	234	.344
Sub-Urban Schools	118	31.889	7.1238				

Table I shows that there is no significant difference in students' ICT access in the urban and sub-urban secondary schools. (Crit-t= 1.96, Cal.t = .947, df= 234, $P > 0.5$ level of significance) as there is barely any ICT presence in both locations. The null hypothesis is not rejected.

HO2: There is no significant difference in ICT integration in English language learning in the urban and sub-urban secondary schools.

Table 2: Summary of T-test to show the difference in ICT integration in urban and sub-urban secondary schools

Integration of ICT in the urban and sub - urban secondary schools	N	Mean	Std. Dev.	Crit- t	Cal-t.	df	P
Urban Schools	118	88.8559	17.2465	1.96	1.434	234	.153
Sub-Urban Schools	118	91.7712	13.8048				

TableII shows that there is no significant difference in the integration of ICT in English language teaching and learning in urban and sub-urban secondary schools. ICT is not integrated into English language teaching and learning in either of the two locations because of its non-availability and accessibility. (Crit-t -1.96, Cal.t = 1.434, df= 234, $P > .05$ level of significance). The null hypothesis is therefore not rejected.

Findings from investigations reveal that:

1. ICT facilities are not accessible to students in public secondary schools in urban and sub urban areas.
2. there is no significant difference in the integration of ICT in English language teaching and learning both in the urban and sub-urban schools. ICT facilities are not available for integration in the two locations studied.

Discussion

The first hypothesis states that there is no significant difference in ICT access in urban and sub-urban secondary schools. The result reveals that there is no significant access to ICT facilities for teaching and learning in both urban and sub-urban schools studied. Some students in these areas are not familiar with some ICT facilities let alone have access to them. This is not far from the findings of Ogunbote and Odunewu (2009) which discovered that even in Nigerian universities, ICT is sparingly available and access is inadequate. This is also in line with the report of Telia *et al* (2007) which indicated non availability of internet and ICT infrastructure in Nigerian secondary schools. In contrast to this, Robinson and Zaitun (2006) found out in Malaysia that many urban schools as at the time of the research had already been equipped with ultramodern IT facilities while hundreds of rural schools barely had minimal computer infrastructural facilities.

The second hypothesis states that there is no significant difference in the ICT integration in English Language teaching and learning in urban and sub-urban secondary schools. Findings reveal that senior secondary schools in urban areas are as empty of ICT facilities as their counterparts in sub-urban areas. The result of this study is contrary to the major goals of ICT in language education according to Oppenheimer(1997), Itiscannizzaro (2000) and Haggins (2003), among which is to promote the development of the kind of literacy (and numeracy) skills required to function effectively in the global economy and society of the twenty-first century. The absence of technology in schools is a crucial hindrance to ICT access and integration in teaching and learning. Findings here imply that our secondary

school students may not be globalizing with their counterparts elsewhere in the world. This is a major setback to technology skill acquisition for the up-coming school leavers which implies that future graduates may have to enroll for special training on ICT application in their future work places.

Conclusion

The evidence from the result reveals the level of ICT application in the classroom for knowledge acquisition in English language. Despite global application of ICT in the classroom, many students in Oyo State are yet to access ICT in the classroom for learning.

Recommendations

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

1. ICT should be made available and accessible to students for learning especially at the senior secondary school level for better English language performance.
2. There should be coherent strategies backed by official policies to provide ICT facilities that should be accessible to students for language learning in schools.
3. In order to enhance students learning, government should ensure that ICT facilities are sufficiently provided in schools particularly for spoken English lessons and exercises.
4. There should be greater emphasis on ICT resources application in English language textbooks.
5. Schools in the urban and sub-urban areas should be equally equipped with ICT educational facilities since their products will be expected to exhibit similar levels of competency in job performance.

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