



INTRODUCING ICT GRAPHICS IN TEACHING AND DEVELOPMENT OF ENGLISH LANGUAGE IN PRIMARY EDUCATION IN NIGERIA

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Abstract

The paper aimed at assessing the role of Information and Communication Technology tools in effective teaching and learning English language in Primary Education in Nigeria. The study looks at the impact and opportunities provided by ICT for teaching and learning in primary schools and on the learning environment, also the researcher looks at its limitations towards implementation and the way forward. From the study the researcher found out that some of the problems that limit the integration of ICT tools in primary education includes: cost of the machines, availability of electricity and technological tools and low level of technical know-how are some of the reasons that hinder full integrations of ICT in our primary schools. The researcher recommends that government and agencies involved should contribute more towards

implementation of ICT in our primary schools to ease teaching and learning also the Primary school teachers should improve and

KEYWORDS:

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update their pedagogy to allow all learners to reach their full potential through the creative and innovative use of ICT.

Introduction

Information and communication technology (ICT) are technological tools used in collecting, managing and storing of information for further reference, such as mobile phones, computer, television, radio etc. Technology involves the modification of the natural world to suit specific purpose. Technology comes from two Greek words, translated “techne and logos” techne means art, skills or craft why “logo” means word the utterance by which inward thought is expressed, or an expression, but more generally, it refers to the diverse collection of the processing and knowledge that people use to extend human ability and to satisfy human needs and want. Information and Communication Technology often refers to a particular context as I.C.T. (Gorischek, 2017) The integration of ICT into education has developed in different ways in different countries and regions, at different times sometimes starting at the upper secondary level and spreading downwards through the lower secondary to primary to early childhood education; sometimes at the primary level spreading both upwards and downwards; sometimes through the establishment of Computer Science or Informatics or ICT as a school subject, which then broadens out to affect other subjects and other teachers (UNESCO 2012).

In the last two decades, governments and educators all around the world have recognized or are coming to recognize the exceptional promise of ICT to foster teaching and learning in primary schools. However, it is important to note that for ICT to enhance teaching and learning, it needs to be supported by education and school policies and effective professional development for teachers. There have optimistic beliefs about the changes in teaching and learning practices among both educational researchers and policy makers regarding adaptation of ICT. Although, there have been several development projects, experiment and pilot studies on using ICT educational sectors, the studies about long term and unending effects of ICT is still few (Kozma, 2003).

Although, there various research evidence that shows positive changes and development since the inception of ICT, Thus, this study set out to critically examine the impact of information and communication technology (ICT) on teaching and development in Nigerian primary education.

Statement of the Problem

The fundamental role of Information and Communication Technology (ICT) as a tool of digital world can serve as a catalyst in advancement of teaching and learning process. Most of put early education in Nigeria, have not adopted the method of inculcating ICT in teaching process which will ease communicating the knowledge effectively. Lack of using graphics at the fundamental level has made English language to be one of the most difficult subjects in most Nigerian schools.

Objective of the Study

The aim of this study is to investigate the impact of introducing Information and Communication Technology (ICT) on teaching and development in primary education in Nigeria, The specific objectives are:

- i. To determine the role of ICT in technology and learning process of English Language
- ii. To assess the factors hindering the use of ICT in teaching and learning English language.

Research Questions

This study is guided by the following research questions:

- i. What are the impacts of ICT on educational sector?
- ii. What are the limitations that hinder full implementation of ICT in the Nigerian primary schools education.
- iii. To what extent does information Technology accepted in teaching and learning pupils in Nigerian primary schools?

CONCEPTUAL FRAME WORK

Information and communication technology (ICT) are technological tools used in collecting, managing and storing of information for further reference, such as mobile phones, computer, television, radio. ICT can be seen as “all the communication gadgets, equipment or facilities which improve/enhance the manner in which messages are stored, relayed, disseminated, preserved and recalled for meaningful communication purposes” (Nwabueze, 2005).

The issue of integrating Information and Communication Technology (ICT) in primary education is not new, research have been made by different scholars to the pros and best method on how ICT will be implemented to help and facilitate promote teaching of primary schools pupils using graphic, and illustrations in other to enhance and broad their leaning skills, a study conducted by IITE, in co-operation with the International Federation for Information Processing (IFIP) and the Institute of New Technologies in Education (INT) and recommend that

“These Recommendations are aimed at providing a source of information about the state of the art in the informatization of primary education; another goal is to outline the trends in the field, presenting some ideas useful in the long-term outlook. The ever-increasing speed of technological progress makes our somewhat ambitious goals even more difficult to achieve. We need an even broader perspective in order to plan educational strategies, which rely so heavily on the information and communication technologies of today and tomorrow”. The fact that ICT and education are evolving at different tempos is very relevant for our considerations. Informatics for Primary Education (2000: 6)

Availability and the use of I.C.Ts for effective teaching of English in Nigerian schools cannot be over emphasized as it strengthens the nation’s education opportunities in qualified staff books and equipment.

ICT also helps in achieving universal school of education with quality for all children. It is being used for both attracting students to school and thereby improving environment rate as well as for providing computer aids education and computer proficiency skills to students. (Akintunde & Angulu, 2015). Implementation of ICT in the educational sector will aids both teaching and learning that will enable them utilize and use the opportunities that are provided in ICT for better understanding and foster the students understanding in English language also, Improved standard of education The crises facing human resources development of Africa is clearly manifested in educational sector of Nigeria in form of limited access and poor quality.

According to report by World Bank (2005:9) “the task confronting education policy makers in Africa are to transform education institution and current schooling practices into a global and technology driven world. Thus, the main focus of the education policy process in Africa is to address the twin challenge of increasing asses to and improving quality and relevance of education for all young people in the region. In the long run, modern communication technologies are expected to widely develop for broad based technology enhanced education will be implemented through a collaborative partnership system in Africa countries. The pilot phrase of this e-learning initiative is currently being implemented in selected Africa countries. (Akintunde, & Angulu, 2015) ICT can enhance teaching by enhancing what is already practiced or introducing news and better ways of learning and teaching (European Schoolnet, 2004). It has a positive effect on behaviour, motivation, communication and process skills of students and teachers.

Opportunities Provided by ICT for Teaching and Learning in Primary Schools

ICT has played vital role in different sectors, and it has proven with no doubt implementing ICT brings about desired objective within the shortest period of time. ICT weaves itself into educational sector in the primary, secondary and tertiary level, it brings about changes in learning

and teaching activities, in curriculum, and in interpersonal relationships in the learning environment, and it is reciprocally affected by the very changes it causes especially in primary schools.

Integration of ICT in schools must focus on the whole configuration of events, activities, contents, and interpersonal processes taking place in the context that ICT is used. Depending on the expected learning outcomes and activities, ICT plays different roles in the learning environment. In this section, we examine the opportunities ICT provides for teaching and learning in primary schools with respect to enhancing learning outcomes in: (i) literacy, (ii) numeracy, (iii) science, and (iv) 21st century skills. (UNESCO, 2012) ICT may serve various roles in schools for the purpose of enhancing students' learning. Based on how an ICT tool is used in the classroom.

Lim and Tay (2003) classified ICT tools into four types:

- i. **Information tools.** These are applications that provide information in various formats (e.g., text, sound, graphics or video). Examples include multimedia encyclopedias or resources available in the World-Wide Web (www).
- ii. **Situating tools.** These are systems that situate students in an environment where they may “experience” a context and happenings. Such systems include simulations, games and virtual reality.
- iii. **Construction tools.** These are usually tools that can be used for manipulating information, organizing one's ideas or representing one's interpretations. For instance, mind mapping or social networking applications that allow students to organize their ideas or reflections, and communicate these ideas and share with others.
- iv. **Communication tools.** These are applications that facilitate communication between teacher and students or among students beyond the physical barrier (of space, time or both) of the

classroom. The important examples are e-mail, e-conferencing and e-discussion boards.

In addition to these four types of roles, ICT may also serve other roles such as tutorial and diagnostic tools; and in real classroom practices, ICT often serves more than one mediating role simultaneously.(UNESCO, 2012)

Impact of ICT on the Learning Environment

ICT has the following impacts on the learning environment according to (Nwigbo1&Madhu, 2016) few impact of ICT to the educational sector include the following:

- i. **Investigating reality and building knowledge:** ICT allows students to investigate more thoroughly the real world. They can more readily access information sources outside the classroom and can use tools to analyze and interpret such information. Information may be accessed through online systems or through data logging systems. It also makes it easier for individuals to interact and gain expert knowledge with a very short time, thus making the acquisition of knowledge to take place easily within a very short period of time (Amalnik, Moayyedi, & Mirzaei, 2015)
- ii. **Active learning and authentic assessment:** ICTs potentially offer increased possibilities for codification of knowledge about teaching and for innovation in teaching activities through being able to deliver learning and cognitive activities anywhere at any time (Larsen & Vincent-Lancrin, 2005). In many classroom situations it is difficult to allow students to be sufficiently active as participants. Typically students are often passive, spending a lot of time listening or reading. It is well known that students are more likely to be interested and attentive and will achieve a wider range of learning outcomes if they can be active. Their engagement with the curriculum will increase as they are afforded opportunities to create their own information and represent their own ideas. Expert system can be used to provide students with learning experiences where they are interacting directly with the computer system, and are not just passive but active participants in the

- learning process, thus increasing the quality of education (Salekhova, Nurgaliev, Zaripova & Khakimullina, 2013).
- iii. **Engage students by motivation and challenge:** The interactive and multimedia nature of modern computer system has provided the opportunity for software developers to create increasingly more stimulating features. Computer system does provide the opportunity to create a wide range of interesting learning experiences as it makes learning, participatory and a social process supporting personal life goals and needs (McLoughlin and Lee, 2007). This is likely to help to maintain student interest and interest a wide range of students. The interactive and multimedia features within software can be used to help students grapple with concepts and ideas.
 - iv. **Provide tools to increase student productivity:** In the past students have spent a lot of time doing repetitive, low-level tasks particularly involving writing, drawing and computation. While it may be necessary for students to developing these skills at some times on most occasions they are pre-requisite to some higher level task. Unnecessary repetition of low-level tasks is inefficient, non-motivational and may obscure the real purpose of the learning activity. Many computer applications provide the tools to support students in quickly completing these lower-level tasks so that they can focus on the main purpose of the activity.
 - v. **Provide scaffolding to support higher level thinking:** There is an increasing range of software tools which can be used to support the development of higher thinking skills such as application, analysis and synthesis (The National Foundation for the Improvement of Education, 2001). Tools can be used to analyze data, present data, link data or information, present information in different formats, simulate environments and conditions and support interactive communications. This allows teachers to consider providing a range of activities to assist students to become critical thinkers, designers and problem solvers.
 - vi. **Increasing learner independence:** Computer systems are increasingly being used to provide learning experiences when and where they are needed. This provides students with greater

independence not only in terms of when and where they learn but also what they learn (Cradler and Bridgforth, 2002).

- vii. **Educational productivity:** Productivity is a concept most happily found in economics textbooks where the productivity of a worker or economic unit is defined by dividing the output (revenue) by the input (cost). This is more difficult to define for the education industry since the output is not easily measured, particularly not in monetary terms to compare with the costs. The output is largely the quantity and quality of learning demonstrated by students, or learning outcomes. Educational technology should influence educational outcomes and costs. If the most appropriate educational technology is selected by a teacher then student learning should be optimized, which means an increase in the value of the outcomes.
- viii. **Student learning** there are many potential uses for computers in the learning process. In some situations changes in relevant industries makes computer use in schools imperative. For example, to provide courses in music, technical drawing, statistics, and business which do not incorporate computer use reduces the relevancy of the courses to the real world. Here the rationale cries out from the work place but needs to be responded to with careful impact of ICT on learning and teaching.

Limitation of Integrating ICT in Nigerian Primary Schools

It is clear that introducing a new technology into any learning situation requires a great deal of thought and planning, and a good deal of developmental testing. This process requires multidisciplinary approaches involving teachers, researchers, technologists, developers and students (Hartley, 2007). Furthermore, the United Nations Economic Commission for Africa (UNECA 2000) has identified the following as major constraints to the use of ICTs in language education:

- ✓ Electricity, phone lines, internet facilities etc. are either unreliable or expensive.
- ✓ Video recorders and other ICTs are locked in storage closets because only few teachers know how to operate and incorporate them into their instructional programmes.

- ✓ ICT trained teachers often quit teaching for more lucrative jobs because teaching is not attractive especially in Nigeria.
- ✓ Poor maintenance of the existing ICT gadgets (where provided) is a debilitating factor against the use of ICT in language education.
- ✓ Large or overcrowded classes may interfere with the objectives of the use of ICTs

CONCLUSION

The English language is generally acknowledged as a global language, in view of its numerous

Functions and preference over several other languages around the globe In conclusion of the above findings it is found that Technology has the potential of promoting Nigeria educational sector from basic primary to tertiary institutions and produce qualified and competent graduates who are equal to the task. The research made a considerable stride in the understanding of the impact of ICT.

RECOMMENDATIONS

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

- ✓ It is recommended that Primary school teachers should improve and update their pedagogy to allow all learners to reach their full potential through the creative and innovative use of ICT.
- ✓ There is a need for primary school teachers to use Communication technology tools, such as audio and video conferencing, enabling children to communicate their ideas.
- ✓ Policy makers should include new policies of ICT literacy and competency in the curriculum by the primary school teachers.
- ✓ It is recommended that government should invest and contribute towards deployment of ICT in Nigerian primary schools
- ✓ It is recommended to adopt the use of computer graphics as technology aid which will reduce the use of theoretical method to practical method with pictures and videos.

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