The relevance of ICT in language teaching in Nigeria

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Abstract
All over the world, technology is playing a greater role in teaching/learning. Language teachers in Nigeria need the modern technology for a better method of delivery in order to enhance the process of learning in this new age as ICT puts forward an influential base for efficient education. Therefore, the central theme of this paper is the roles of Information and Communication Technology in language teaching/learning particularly, the English Language. Through a qualitative method of research, this paper examines: the place of language in ICT, the relationship between ICT and language, ICT and teaching, the new technology and language learning, the relevance of ICT in language teaching, the challenges of ICT in language teaching in Nigeria. Also, it forwards that ICT in language teaching represents a complement to present models contributing to an evolution towards the concept of a new culture of learning.

1.0 Introduction

Teaching is one of the oldest professions God has bequeathed to man. Virtually all aspects of human development

involves teaching from cradle to vale of age as man embarks on the journey of self discovery, pursuit of essence and attempts to find meaning in the cosmic configuration of the universe for human advancement and a better world order. Because of the critical place of teaching in human affair, quite a lot of scholarly works, over time, has been done on theoretical framework, methodology and other consequential aspects of teaching; therefore this work does not intend to dabble into such areas, but to explore a new vista of innovative teaching, especially in language pedagogy using ICT to bring freshness to the old profession of teaching. Therefore in order to appreciate and situate ICT in language teaching this paper will undertake exploratory discourse of this intriguing phenomenon known as Information Communication Technology (ICT).

1.1 **ICT defined**

ICT is used to describe a whole body of infrastructural facilities designed and deployed to guarantee storage and transfer of data, be they textual, audio or visual, from one point to another using computer and other similar application via a unified communication and integrated telecommunication signalling systems. It consists of a wide range of technology and innovative products and applications such as computers and computer networks, telephony, audio visual system and such similar devices.

ICT is one of the evolutions of the 21st century. It is global in dimension as it makes information to be transferred via a world wide network that can be accessed at any point in the global circuit

of interrelationship and interdependence. ICT plays significant role in the management of information strategy as individuals perform existential functions in a changing world. ICT has come with a lot of opportunities, prospects and challenges as it is harnessed to meet human needs. This paper therefore is conceived to discuss the opportunities therein in ICT to enhance and advance language teaching in Nigeria.

1.2 **ICT and language**

Everything that is achieved in ICT would not have been achieved without a language as language is an indispensable tool of communication. It is the desire to see that ICT functions optimally that studies in computational linguistics emerged to synergize ICT and language. Researchers like Victor Yngve, Bar-Hillel, John Goldsmith, Martin Kay, Gerald Gazder, and Slofan Cribes are pioneer researchers whose works are major contributions in the study of computer and language. Yngve created the first program to produce random but well formed output sentence, given a text (a children's book called Engineer small and the little brain). He also showed in computer processing terms why the human brain can only process sentences of a certain kind of complexities.

Bar-Hillel pioneered works in machine translation and formal linguistics. Also, John Goldsmith designed a body of software which attempts to automatically analyze the morphology of a language as well as extending computational linguistics algorithm to bioinformatics. Programs that implement Goldsmith

research include ‘ sweet talker’, a rule based intonation system , ‘babylon’, a trainable language identification system and ‘WinAuto-morphology, an automatic analyzer.

1.3 **ICT and teaching**

ICT and teaching are intertwined as the underlying precept of the functionality of ICT is knowledge acquisition and transfer as the knowledge of its functionality is the basis of its application in any work place. Therefore individuals and organizations desirous of harnessing the resources of ICT for improvement in competence and service delivery must acquire the necessary skills for operating and manipulating ICT facilities for desired goods. In recognition of this factor, organizations and institutions have invested in ICT training for employees. For instance, the UK Government in a programme tagged: New Opportunities Fund spent £230 million in ICT training for teachers in all the four countries of the UK. Such actions are geared towards improving the job competence of teachers. Also, recognizing the importance of ICT in education, section 5(3) of the Federal Government of Nigeria policy on education provides as follows:

> Government shall provide necessary infrastructure and training for the integration of ICT in the school system in recognition of role of ICT in advancing knowledge and skill in the modern world.

It is clear from the above that the government of Nigeria, like other countries, recognizes the importance of ICT in education, however, the difference is commitment and follow-up as could be seen from the above, the UK government has taken action, but Nigeria as of today is still at policy level. Teaching/ training as it affects ICT in the knowledge acquisition drive is of two-fold: teaching the teachers and teachers teaching the students/pupils. The former involves equipping the teachers with necessary ICT skills to function in ICT classroom, while the latter involves the teacher using skills acquired to improve his teaching method thereby achieving better services delivery to learners. Such skills acquired equip the recipients with the intellectual know how to deploy ICT facilities to maximum use by assessing the enormous educational resources therein, and competences to be competitive in the global arena. In aligning with the above, Uwaje in an article published in The Guardian, citing Chijioke observes:

> The challenges of education, learning and its methodology principles of the new technologies are fundamental to national development, advancement and global competiveness.

For those of us in Nigeria, acquiring skills and the competence in ICT functionality is a veritable task that must be pursued assiduously to remain educationally relevant in new world order. According to Tieman and Markle (2009), ICT in education and learning has its origin in the Teaching Machine Technology

designed by an American psychologist, Sidney Leavit Pressey in the 1920's. He used mechanical devices to present systematically programmed sequence of instructions to a student. These include immediate feedback for errors, enabling students to practice best items, until their answers were correct.

Over time, the capacity of the Teaching Machine Technology had been improved upon, and still improving. A notable personality who recorded success in improving the effectiveness of the Teaching Machine is B.F. Skinner. He introduced programmed sequence that provides step by step progress towards carefully defined instructional objectives with each step depending on the mastery of prerequisite steps. According to Tieman and Markle (2009), this makes efficient use of principle of active responding by providing students with immediate feedback on success and failure.

No doubt, Pressey and Skinner's effort in Teaching Machine provided the fertile ground for the purposeful integration of ICT into the teaching and learning experience. However, ICT had a mega boost on teaching and education with the invention of computers. According to Tieman and Markle (2009), "The potential of the computer as a teaching machine promises interesting design sophistication''. Computers can be programmed to judge students' inputs and to tailor lesson to individual's level of mastery. In addition to the above, Tieman and Markle (2009) posit that computers can provide instructional inputs and require mastery of each level in ways that were not possible in the early machines. No doubt computers has revolutionalised teaching and learning as

innovative applications and products are developed to enhance and make teaching a pleasurable experience for the teachers and learners as colourful graphics and images are used to bring abstract concept to real life experience. The use of computers in teaching has been described differently by different people. Sometimes it is referred to as computer based teaching (CBT) and other times as computer aided teaching (CIA). Irrespective of the term used to refer to this, the baseline remains the application of technology in the learning process.

Agbata (2012) believes that ICT has changed the way people learn and assess information. The trend is that a lot of people now earn degrees or whatever certification they desire from the comfort of their living rooms or offices and from any corner of the globe .The beauty of ICT facilitated learning is that it does not devalue the certificate in any way. It does not show you were never within the four walls of the classroom. An increasing number of Nigerians are already on the online schooling train powered by the fast moving Information Communication Technology. Of the ten global trends in ICT and education mentioned by Robert Hawkins in the World Bank blog, five are relevant to this study. These are:

1) Mobile learning: New advances in hardware and software are making mobile smart posts indispensable tools. Just as cell phones have leapfrogged fixed line technology in the telecommunications industry, it is likely that mobile devices with internet access and computing capabilities will

soon overtake personal computers as the information appliance of choice in the classroom.

2) Ubiquitous learning: With the emergence of increasingly robust connectivity infrastructure and cheaper computers, school systems around the world are developing the ability to provide learning opportunities to students anytime, anywhere. This trend requires a rethink of the traditional 40 minutes lesson. In addition to hardware and internet access, it requires the availability of virtual mentors or teachers, and/or opportunities for peer to peer and self- paced deeper learning.
3) Personalised learning : Education systems are increasingly investigating the use of technology to better understand a student's knowledge base from prior learning and to tailor teaching to both address learning gaps as well as learning styles. This focus adjusts a classroom from one that teaches to one that adjusts content and pedagogy based on individual student's needs.
4) Redefinition of learning spaces: The ordered classroom of 30 desks in rows of five may quickly become a relic of the industrial age as schools around the world are rethinking the most appropriate learning environments to foster collaborative, cross disciplinary, student-centered learning. Concepts such as greater use of light colours, circular tables, individual space for project based learning are increasingly emphasized.

5) Teacher managers/mentors: The role of teacher in the classroom is being transformed from that of the fount of knowledge to an instructional manager, helping to guide students through individualized learning pathways, identifying relevant learning resources, creating collaborative learning opportunities and providing insight and support during formal class time and outside of the designated 40 minute instruction period.

2.0 ICT and language teaching and learning

The integration of technology into language classroom represent a paradigm shift to acknowledge the importance of the emerging technology learning styles which is increasingly becoming the fourth learning modality for students of the 'click' and 'go' generation. Using ICT facilities such as; DVD, radio cassette, mobile phone and video player is one of such new styles. For instance, the phonetics teacher could record the correct pronunciation of sounds/words and disseminate to the students mobile phones. They will play repeatedly at their leisure time until they gain mastery of the correct pronunciation. Also, playing sounds in a DVD or radio cassette to pupils during lecture call for maximum attention, rather than the traditional method of teacher repeating the sounds and making the class somewhat rowdy.

Teachers maximize the impact of ICT in the classroom by tapping into diverse learning styles and dominant youth culture. For instance, an interactive site such as the visual tour of the globe theater site, allows the teacher to bring Shakespeare's world to life.

This vivid presentation of knowledge to the students will stay on in their minds as they will continue to relive and replay the learning experience. For students to be global citizens of the 21st century, we must successfully integrate the ICT into language curriculum, taking into cognizance that the new media is not a panacea for teaching/learning problem: nor are they replacements for present models of language learning, but are to complement the present proven and successful teaching styles for maximum advantage.

3.0 The benefits of ICT in language teaching

Education today is ICT centred, therefore the knowledge of ICT is a prerequisite to participates actively. Today, world over, many institutions, be it primary, secondary or tertiary institution offer ICT based services for pupils and students In this regard, admission into academic institution, students registration, assignment and examination are conducted online, hence the need for prospective and continuing students to be educated in ICT applications as word processing, database software and other such ICT skills. So the acquisition of relevant ICT skills will make an individual to participate fully in the new educational system that is global and ICT driven for teaching as teachers deploy the ICT resources to further enhance the quality of teaching.

It is important to observe that the driving wheel of ICT is language, therefore the study of ICT applications is the study of language, a very good example of this is the word processing software which ICT appropriates English language rules to perform tasks in the information highway, so using the ICT to

complement language teaching has become attractive. In this regard, ICT applications have been developed. ICT meets the need of the individual student/learner by providing opportunities to direct their learning, pursues information, complete task and make them competent users of language. The new technology also enables students to extend their information sources, to use search strategies to locate and read significant parts of text quickly and accurately, and to use the internet CD-ROMs and web quests to help with research during an investigation. Presentation software such as power point provides the useful fluid environment for communicating a message and elevates a speech to a more filmic medium (Mcknights 2002). Also, word processing software such as dictionaries allows students to access tools that enable them edit their writing and come out with error free works. The role of ICT in supporting teaching and learning has been extensively evaluated by both international and national organizations. In a discourse bordering on ICT and attainment review in England, Cox et al (2003) found positive effects in almost all subjects, but particularly with specific uses such as word processing in English, modelling in Mathematics or using simulation in science. The authors note:

> Researchers have often measured the 'wrong' things, looking for improvements in traditional processes and knowledge instead of new reasoning and new knowledge which might emerge from the ICT use.

4.0 The challenges of ICT in language teaching in Nigeria

Every country and domain has its ICT challenges in the time continuum. But the interesting thing is that challenges are not static, if addressed. ICT development in any nation is measured by ICT development index published by the United Nations Information Telecommunications Union (UNITU). In its website (www.itu.org), it identifies the following as key indicators:

1. ICT readiness indicator- these include infrastructure and access indicators that embraces the following; fixed telephony, mobile telephony and international bandwidth.
2. Users indicators- household with computers and internet, internet users, fixed and wired broadband and mobile broadband.
3. Skills- adult literacy gross secondary and tertiary enrollment.

For any country to be adjudged to be facing ICT challenges, it must be assessed based on the indicators above. In its own assessment the UN organisation assessed countries recently placing south Korea in the lead, while other European countries and America followed suit. The only African country in the ranking is South Africa. Nigeria was not mentioned. This simply means that Nigeria has enormous ICT challenges.

To understand the place of Nigeria in the ICT map, the existing socio economic conditions should be put in proper perspective to appreciate its impact in ICT development in the country. According to 2010 World Bank report, Nigeria has a

poverty rate of 54.7% and Gross National Income per capita of $1,200. This is complemented by adult literacy level of 60%. It is also common knowledge that Nigeria has less than one million fixed land lines. No doubt, the above information gives a clear understanding of the factors responsible for the present ICT rating of the country by UNITU.

From the information, it is obvious that greater number of the people are incapacitated as the demographical information shows a poverty level as high as 54.7% and income per capita at $1,200, it shows that close to half of the population cannot afford the luxury of computer. Also, even when some others can afford computers and other ICT applications, they may not have the literacy capacity to operate them because of the poor literacy rating of the country. It is important at this juncture to point out that parents constitute the bulk of the population who do not earn enough to meet their basic needs, it therefore follows that household computer ownership is very low. For teachers, who are poorly remunerated, owning a computer is a herculean task. On the part of government, not much is done to address the problem of ICT availability in schools as majority of public schools as of today do not have ICT facilities.

There is also dearth of ICT skills among the teachers as no serious effort has been made to equip teachers in Nigeria with requisite ICT skills like that of UK Government New Opportunity Fund Programme. This is also the case of the learners as non availability of ICT equipment makes it difficult for learners to acquire necessary skills.

So the language teachers in Nigeria, face a challenging circumstance in their desire to integrate ICT into their teaching. Though there is awareness and availability of language teaching based ICT programmes and products in the Nigerian environment, access has continued to be a problem. However, gradual progress is being made as teachers and learners patronize paid internet shops to access online information for self improvement. It is also worthy to note that most tertiary institution in Nigeria have online presence which are efforts in deepening ICT activities in Nigeria education system.

5.0 Recommendation

ICT infrastructure and other enabling components, especially power supply as noted earlier are in different states to make Nigeria and Nigerians to truly harness the opportunities offered by ICT. It is worthy of note that government recognizes the importance of ICT as it is indicated in National Policy on Education section 5(30f) indicates:

> Government shall provide necessary infrastructure and training in the Integration of ICT in the school system

However, it is obvious that the government has not done enough. In this regard this paper put forward the following recommendation:

The government should do more in terms of investment and developing strategic policies to support the development and

availability of ICT facilities. The government at all levels should increase budgeting allocation to the educational sector. Through this, managers of the Nigeria education service could be able to purchase and install relevant ICT facilities for use by staff and students in secondary schools. The recent introduction of IPO imo (Osun Tablet of Knowledge) in Osun State is a good example. It was recognized as one of the best 4 e-learning devices across the world (www.opon-imo.com).

Government should invest more in the electricity sector to guarantee efficient and affordable electricity supply for use by the people.ICT appliances wholly depend on electricity for their use; therefore, the availability of a fairly stable electricity supply is a necessity for full deployment and use of ICT facilities. The current privatization of Power Holding Company of Nigeria (PHCN) is a right step in this direction. ICT use and application is knowledge driven. This invariably means that for citizens of a country to harness the opportunities available in ICT facilities, they must be knowledgeable in their operations and applications. This requires training and retraining to equip teachers with the requisite skills to adequately use and apply ICT facilities in language teaching and learning, Therefore, government and employers of teachers should as a matter of necessity invest in ICT training workshops for both teachers and students.

Finally, the government and her citizenry need to do more to remain globally relevant in the current age of Information and Communication Technology. The government should be able to

monitor the execution of programmes funded. Also, citizens should invest in self development to remain relevant.

6.0 Conclusion

ICT is the driver of the new millennium and beyond. Its significance has continued to grow as it seeks to dominate virtually all the spheres of human activities. It holds the key for unlocking latent human potentials, Therefore, its integration into language teaching and learning in this part of the world is a way of keeping pace with the rest of the world and equipping the new generation of Nigerians with the requisite skills to compete in the ever changing world characterized by limited opportunities and defined by comparative advantage.

The introduction of ICT into the teaching profession has profoundly altered the perception, experience and result of teaching as it affects teachers and learners. ICT has made teaching beneficial and innovative; attractive to the old and young. It has brought life through fast moving to abstract concepts of theorisms and hypothesis.

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Appendixes

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