

THE POTENTIALS OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) IN IMPLEMENTING CONTINUOUS ASSESSMENT IN NIGERIA SCHOOLS

Stanley I. Ikoro, (Ph.D)

Abstract

The Federal Republic of Nigeria (1985) introduced the use of periodic evaluation, known as continuous assessment, for assessing the learning outcomes of pupils or students in Nigerian schools. The policy provisions are laudable but the problem is its implementation. Therefore, this theoretical paper examines the potentials of information and communication technology (ICT) in the implementation of continuous assessment. It explores the concepts of information and communication technology (ICT), the commencement of ICT, the integration of ICT in Nigeria education system, the continuous assessment, the advantages of continuous assessment and the potential of ICT in the implementation of continuous assessment. The paper made some recommendations and concludes on the need to explore systematically, the potentials of ICT in the implementation of continuous assessment in Nigerian schools, which will in turn improve quality education.

The potentials of information and communication technology (ICT) in implementing Continuous Assessment cannot be overemphasized. Information and communication technology (ICT) is an integration of information and communication technology. Curtin in Mudasiru and Hamdallat (2009) defined ICT as, a set of activities that are facilitated by electronic means; the capturing, storage, processing, transmission, and display of information. On the other hand, Butcher (2003) opined that ICT is electronic technologies for collecting, storing, processing and communication information. He further stressed that ICT can be separated into two

main categories, such as: (1) those which process information, such as computer system and (2) those, which disseminate information such as telecommunications system. According to Chinwe (2005) ICT has shrunked the world to a global village, thus repositioning the social, economic, political and academic outlook of man. In his own view Ayo (2001) asserted that ICT is the most potent force which is shaping the 21st Century. Whereas, the United Nations Scientific, Educational and Cultural Organization (UNICEF, 2005) defined ICT as the combination of the computer, telecommunication, and media technologies. It then implies that, ICT is the combination of the potentials of computer, telecommunication and electronic media using the digital technology (Mudasiru and Hamdallat, 2009).

The Commencement of Information and Communication Technology (ICT) in Nigeria

The information and communication technology implementation in Nigeria commenced in April 2001, after the Federal Executive Council approved it by establishing the National Information Technology Development Agency (NITDA) as the implementing body. Later in February 2007, the Federal Republic of Nigeria, through the Ministry of Education created its ICT department (Osei, 2007). Since then several government agencies and other stake holders in the private sector have initiated ICT-driven projects and programmes to impact all levels of the educational sector.

The information and communication technology has actually impacted positively on

every facets of human development, thereby creating great innovations in how to live, convey information, process information, conduct businesses and education.

According to Trucano (2005) ICT has the potential for not only introducing new teaching and learning practices, but also for acting as a catalyst to revolutions the education system. It can also empower the teachers' skills in assessing the student using continuous assessment.

Information and communication technology has actually brought the whole world to a global village. Carnoy (1999) asserted that Globalization has affected education system directly and indirectly, and has led to changes in both the labour market and the education systems due to the increasing demand for skilled labour, increase in cross-national measurement of education system, and adoption of information and communication technology for increased access to education and also for quality in education among other things.

The Integration of Information and Communication Technology (ICT) in Nigerian Education System

The Federal Republic of Nigeria (2004) emphasized the need for the integration of ICT in the Nigerian education system. It stated that, the fourth edition of the National policy on Education was necessitated by some policy innovations and changes, such as the need for introduction of information and communication technology (ICT) into the school system. It further re-emphasized that, government shall provide facilities and necessary infrastructure for the promotion of information and communication technology (ICT) at all levels of education. Equally, that there shall be training for the integration of (ICT) in the school system, in recognition of the role of ICT

in advancing knowledge and skill in the modern world.

Also according to Yusuf (2005) the Nigerian national policy for information technology recognized the need for ICT to be used for education. Three major objectives among several objectives emphasized the need to; empower youths with ICT skills to prepare them for competitiveness in a global environment, integrate ICT into the mainstream of education and training, and

establishment of multifaceted ICT institutions as centres of excellence on ICT. The document specifically noted according to FRN in Yusuf (2005:317) :

The need for restructuring the education system at all levels to respond effectively to the challenges and imagined impact of the information age and in particular, the allocation of a special information technology fund for education at all levels.

To achieve these objectives some strategies were outlined to include; making the use of ICT compulsory at all educational institutions, developing of ICT curricular for all levels of education, using ICT in distance education and ICT companies investment in education among other things.

One basic question that may be asked in the context of this paper is; what role can ICT play in ensuring that Continuous Assessment is effectively carried out in schools?

This question can be answered by addressing some basic issues on; the concept of continuous assessment, advantages of continuous assessment; and the potentials of Information and Communication Technology (ICT) in the implementation of Continuous Assessment.

The Concept of Continuous Assessment (CA)

Continuous assessment is a central issue in monitoring quality of instruction and learning. According to the Federal Republic of Nigeria (2010), Continuous Assessment is a process of periodic collection of information throughout a course or programme of study with the purpose of determining the progress towards goal attainment. Continuous assessment requires the use of tests, observations, interviews and so on, to get the general impression of who the child is and what can be done to assist him or her in areas of difficulty.

Continuous assessment has the following characteristics; it is:-

- i. Comprehensive
- ii. Systematic
- iii. Cumulative, and
- iv. Guidance – oriented

The comprehensive nature of continuous assessment is its focus on all areas of learning outcomes, which are cognitive, affective and psychomotor outcomes. On the other hand, continuous assessment has systematic property. This entails proper planning and specifying objectives that are of interest, information to be collected, the tools to be used and report presentation. Equally, all assessment information available are cumulatively used in making valued judgment about the pupils or students.

On the guidance-oriented nature of continuous assessment, the information collected about the children is used to guide their further development.

The Advantages of Continuous Assessment

The advantages of continuous assessment cannot be overemphasized. If it is properly executed, it will be beneficial in the following ways:

- v. The teachers will be encouraged and feel sense of belonging, because they form part of the final assessment of their pupils/ students.
- vi. It ensures the reliability of final results that students obtain, because all the performances of the students throughout the period of schooling are used.
- vii. The fear of students' failure would be reduced and the examination malpractice would be completely reduced.
- viii. Equally, it can be used to assess the performance of the teachers and the school using the feedback mechanism.
- ix. It would enhance the study habits of students or pupils, as they constantly prepare to be assessed.
- x. It would as well encourage the total development of the students or pupils, since all the aspects of their development are assessed.
- xi. On the other hand it will enhance the test development skills of the teachers, as they would be constantly involved in teacher-made-test exercises.

Potentials of Information and Communication Technology in the Implementation of Continuous Assessment

The potentials of information and communication technology to improve the quality of instruction, transform the school, improve school management, increases access to education and improve in teacher education, among other things, have been observed in several studies. Information and communication technology has the potentials for enhancing the tools and environment for learning as it: allows materials to be presented in multiple media, motivates and engages students in the learning process, foster inquiry and exploration, and provide access to world wide information resources among others (Haddad in Mudasiru etal, 2009).

The introduction of continuous assessment (CA) in 1985 (FRN, 1985) clearly highlighted the need to; improve the quality of instruction and enriched learning environment in Nigerian schools, through periodic diagnoses of learning difficulties in individuals and strengths and weaknesses in group performance for the purpose of improving instruction and productivity etc. It must be underscored that information and communication technology will assist in ensuring the achievement of these goals of continuous assessment.

It should be specifically noted that, teachers that are competent and constantly given developmental training will be required for the success of continuous assessment in our schools. Therefore, ICT can provide the needed teachers competencies in this direction. As one of the tools for teachers' professional development, it will guide them to sources of knowledge. According to Gallimore and Stigler, (2003), teachers in contemporary knowledge society, require large rich, and easily accessible knowledge base which can be provided through ICT technologies that support teacher professional development. The World Bank (2003) stated that teachers need to be life-long learners to keep abreast of new knowledge, pedagogical ideas, and technology relevant to the successful implementation of Nigerian educational reforms. The present researcher believes that the potentials of ICT in the implementation of continuous assessment is one of such reforms.

Through the use of multimedia, digital libraries and other internet resources, teachers can easily have access to relevant and current resources in the area of continuous assessment. Thus, they must be competent in the use of ICT in preparation and construction of teacher-made-test, in the following areas:-

xii. Setting of questions to reflect the taxonomies of educational objectives.

xiii. Developing teacher-made-test using test blue print

xiv. Setting of question to cover all the three domains.

xv. Using varieties of assessment techniques such as assignment, project, observation, checklist, rating scale, socio-metrics etc.

xvi. Analyzing test scores using percentage, mean and standard deviation, and converting same to measures of relative standing, and

xvii. Keeping formative and cumulative records (report) on pupils' cognitive, affective and psychomotor domains.

In addition to the above, the quality of students' learning will be enhanced by the developed, packaged softwares on instruction of assessment delivery, in addition to their having access to the needed ICT facilities such as internet. This will engender collaborative learning.

On the other hand information and communication technology (ICT) will provide new frontiers on accessing other types of learning assessments, such as:

xviii. Baseline assessment; this is checking whether everyone can do the task from the start, and quickly move on to the next lesson.

xix. Performance enhances feedback: Here the teacher gives feedback on the stage, allowing some learners to progress if they are competent, while others try it again.

xx. Flexible learning programme based: The teacher goes back and demonstrates that learning stage again, if he or she finds all the learners struggling with a particular matter.

xxi. Diagnostic assessment: This is seeing whether anyone has particular trouble with any area, and need special attention.

xxii. Formative assessment: This is where the teachers set and assess small tasks that

will lead up to the bigger task, so that learner may learn from doing, while the teacher monitors progress.

- xxiii. Summative assessment: Here the teacher sets the final assessment to see whether they have all the skills to complete the task at the end of the course of learning (FRN, 2011:30-31).

Conclusion

In as much as continuous assessment is very important in the teaching and learning processes, likewise is information and communication technology a veritable tool for ensuring the success of the implementation of continuous assessment in the school system. The worth of ICT is internationally recognized, and Nigeria cannot be left behind. Both the government and individuals need to address the technology gap in our school system and other works of life, with other developed nations. The potentials for information and communication technologies should be exploited to ensure the standard of continuous assessment and improved quality education in the school system.

Recommendations

The evaluation of continuous assessment implementation in school will stem from the evaluation of teachers competencies on various learning assessment techniques. There is no doubt that information and communication technology can assist in evaluating various levels of competencies.

However, one of the basic problems of implementing continuous assessment is that of comparability of standards (Nworgu, 2003). Through ICT the results of continuous assessment of various school at all levels can be collected, centralized and disseminated for specific and national application or use. In addition, ICT has the potentials of promoting

inter-class, and institutional linkages and collaboration between various schools.

On its own, the ICT can do nothing with continuous assessment implementation. The potentials of ICT in the implementation of continuous assessment are only possible through adequate planning and proper integration. This could be done by the provision of infrastructure, such as cyber café centres, adequate classroom buildings and offices, power generating plant, others should include internet, e-learning and digital libraries, computer ownership scheme for teachers, students and even non-academic staff. Very importantly, ICT software with local contents on various types of continuous assessment should be developed and domesticated within the Nigerian school system. Just as (Federal Republic of Nigeria, 2004) recommended for the inclusion of computer education in the Nigerian education programme.

Finally as part of the recommendations, the Federal Government should set aside certain percentage of the national budget for the promotion of ICT at all the levels of the educational system, especially at basic education level.

References

- Ayo, J.A. (2001). *Information and communication technologies, and the information professionals in the information age*. A paper presented at the 39th National annual conference at Owerri, Nigeria.
- Butcher, N. (2003). *Technological infrastructure and use of information and communication technology in education in Africa: An overview*. Paris: ADEA Publishers.
- Carnoy, M. (1999). *Globalization and educational reform: What planners need to know*. Paris: United Nations

Stanley I. Ikoru, (Ph.D)

- Educational, Scientific and Cultural Organization.
- Chinwe, V.N. (2005). *Application of information and communication technology in serial function in university libraries of southern Nigeria*. Unpublished Ph.D Thesis. University of Nigeria, Nsukka
- Federal Republic of Nigeria (1985). *A handbook on continuous assessment*. Lagos: Federal Ministry of Information.
- Federal Republic of Nigeria (2004). *National Policy on Education*. Abuja: Nigeria Educational Research and development Council (NERDC)
- Federal Republic of Nigeria (2010). *Manual for the retraining of basic education teachers and basic education managers*. Abulja: Universal Basic Education Commission.
- Federal Republic of Nigeria (2011). *Millennium development goals retraining workshops for Junior Secondary School teachers: guide for resource persons*. Kaduna: National Teachers Institute.
- Gallimore, R. & Stigler, J. (2003). *Evolving teaching into a profession*. Retrieved on 08/05/2005 from <http://www.techknowlogia.org>
- Mudasiru, O.Y and Hamadallat, T.Y. (2009). Educational reforms in Nigeria: the potentials of information and communication technology (ICT). *Journal of Educational Research and Review*. 4(5) 225-230.
- Nworgu, B.G. (2003). *Educational measurement and evaluation: theory and practice*. Nsukka: University Press.
- Osei, T.A. (2007). *Survey of information and communication technology and education in Africa: Nigeria Country report*. Retrieve on 08/05/2012 from www.infodev.org.
- Trucano, M. (2005). *Knowledge Maps. Information and communication technology in education*, Washington DC; retrieved on 08/05/12 from <http://www.infodev.org>.
- United Nations Scientific, Educational and Cultural Organization (UNESCO, 2005). *Information and communication technology in schools. a handbook for teachers*. London: Paris Press.
- World Bank (2003). *Life long learning in the global knowledge economy: Challenges for developing Countries*. Retrieved on 08/05/12 from <http://www.techknowlogia.org>.
- Yusuf, M.O. (2005). Information and communication technology (ICT) and education: Analyzing the Nigerian national policy for information technology. *International Educational Journal* 6 (3) 316-321.

Stanley I. Ikoru, (Ph.D)
Department of Educational Foundations,
Ebonyi State College of Education,
P.M.B. 02,
Ikwo.