

# Towards achieving millennium development goals in Nigeria: development and validation of an instrument for assessing e-learning acquisition in a learner

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## Abstract

**Introduction:** This paper focused on the development and validation of an instrument for assessing extent of e-learning acquisition by learners in tertiary institutions in Nigeria. Two designs were employed namely: documentary and instrumentation research design. Documentary design was employed because many Information and Communication Technology (ICT) documents were consulted for the content validity of the instrument. Instrumentation is also justified because the paper is tailored on development and validation of an instrument for assessing extent of acquisition of the ICT facilities e-learning skills in learners. Area of the study is principally university of Nigeria, Nsukka. Sample and sampling techniques were not carried out since the entire academic staff of the university who are currently battling with the acquisition of e-learning skills was used in the study. Items of the instrument were framed based on Information and Communication Technology (ICT) plat form. The assessment instrument was content and non-referenced validated by three experts: two computer and one measurement and evaluation experts in this university. Its reliability coefficient was found to be 0.71 using the rates of three (3) expert judges that rated the adequacy of the assessment instrument out of fifty (50) items presented while fifty (50) approved as appropriate as shown in the final drafting of the assessment instrument.

**Keywords:** Nigeria, e-learning.

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## INTRODUCTION

Information and communication technology (ICT) has turned the whole world into a small village. It has also opened up a world of incredible possibilities in many sectors, especially in education. Today, Nigerian universities, and many other sections of the nation's economy are facing many challenges that are indeed significant. Some of these challenges include: the rapidly

growing population, low and uneven educational participation, poor quality of education, increasing demand for higher education, quest for technological, economical and academic developments vis-à-vis vision 20. 2020 to mention but a few. The issue is e-learning have been found to be veritable tools for addressing these significant national challenges. When coupled with the increasing adoption of the ICT facilitated e-learning in developed and developing countries of the world, the tools for e-learning have become very imperative and indispensable for meaningful technological, educational and economical breakthrough of any nation. These are the goals of the millennium development goals which Nigeria also accounted to in their actualization. The development of some practice marking activities that will help in the beginner in the identification of some key factors that will lead to successful e-learning programmes and objectives in universities in developing countries have become very necessary at this stage in this country especially at tertiary

levels where ICT facilitated e-learning programme packages are currently in vogue. The process of monitoring and evaluation of such programmes can be achieved best with the use of assessment instrument. This paper therefore presents an objective type of instrument for assessing the extent of learners' acquisition of Information, Communication and Technology (ICT) facilitated e-learning programme package that can be used for teaching and learning in universities in this country.

## STATEMENT OF THE PROBLEM OF THE STUDY

Information, Communication and Technology (ICT) facilitated e-learning programme package has been recognized globally as an indispensable tool for facilitating teaching and learning both in colleges of education and universities in Nigeria. For instance, the Open University system which has become functional in this has been based principally on the ICT facilitated e-learning principles and sustainability practices. The strong desire by universities in this country, especially the University of Nigeria, Nsukka is to use ICT facilitated e-learning platforms in all her academic and administrative operations have become operative to some extent. Today, most UNN staff and students have bought lap-tops computers in readiness for the ICT facilitated e-learning programme of the university. This is made imperative for an e-learning based objective type instrument to be of high utility value presently. The problem of this study therefore, put in a question form is: Are the academic and non-academic staff and students grouped in the ICT facilitated e-learning programme in the current frame of mind for the full successful take off of the package in the university to meet with the developing nations. Do such learners have a way of recalling the knowledge and information needed for the practical acquisition of the ICT facilitated e-learning. Are those interested in information, communication and technology facilitates e-learning teaching and learning especially those of the academic staff category in tertiary levels of education in the enterprise programme. Have a way of recalling the basic information, knowledge and needed in the acquisition of the e-learning programmes, goals and objectives. How can one ensure through a kind of objective test assessment instrument that this basic e-learning basic knowledge is made readily available to learners to facilities recall?

## PURPOSE OF THE STUDY

The main purpose of this study is to develop and validate an ICT facilitated e-learning assessment instrument for use in assessing the extent of acquisition of the e-learning

programme package by learners. The instrument is meant for those interested in acquiring the ICT facilitated e-learning programme goals and objectives in developing countries like Nigeria. Specifically, the study seeks to do the following:

1. Develop an ICT facilitated e-learning objective test instrument for easy acquisition and recall of basic ICT e-learning programme package.
2. Factorially validate the instrument for effectiveness.
3. Provide tools for effective lesson delivery.
4. State the benefits of e-learning to the learner.
5. State the disadvantages of the e-learning to the learner.

## Research questions

1. What are the items of the ICT facilitated e-learning assessment instrument develop?
2. What are the indicators that the instrument is factorially valid and reliable?
3. What are the tools for effective lesson delivery?
4. What are the benefits of e-learning to the learner?
5. What are the disadvantages of the e-learning to education/ learner?

## Significance of the study

This study is considered significant because of the following reasons:

1. The instrument when developed will serve as a ready tool for assessing and evaluating students/learners engaged in acquiring the ICT facilitated e-learning programme package.
2. The instrument will also be of benefit to institutions in developing countries that are interested in the area of ICT e-learning programme package in the teaching and learning enterprise.
3. The study will also be of benefit to institutions, developing countries in the aspect of dissemination of information in the area of assessment of the e-learning programme package now in vogue world wide to the citizenry.

## Scope of the study

The study is limited to the assessment of the e-learning readiness of colleges of education and universities on the areas of administrative, academic (teaching and learning) and technological readiness of faculties and departments of tertiary institutions as well as readiness of individuals. The study is limited to the acquisition of basic knowledge in the cognitive and psychomotor levels of the ICT facilitated e-learning programme package.

## Assumptions made in the study

It is assumed that the ICT facilitated e-learning programme packages for the beginner ICT compliant

person can be applied to all levels of the tertiary education in Nigeria.

#### **Limitations of the study**

The study is limited to the extent that the items of the instrument were adapted from Geo Sink International (2009) instruments used in assessing ICT e-learning readiness for the beginner ICT compliant person in developed countries.

**The items of the ICT facilitated e-learning objective test assessment instrument developed**

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