

# The Level of Utilization of E-Learning Tools among Tertiary Institutions Students in Ondo State: A Case Study of Adeyemi College of Education Ondo

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## Abstract

The study examined the level of utilization of e-learning tools among the undergraduate students of Adeyemi College of Education, Ondo. The total number of 148 students were drawn from four schools offering degree courses in the College; namely, school of science, languages, Art and Social Sciences and Vocational and Technical Education. The researcher used assessment of e-learning tools question (AEITQ) for the study which was validated by group of experts in the Educational Technology and Computer Departments of the College. Two research hypotheses were generated and tested at 0.05 level of significance. The data collected were analysed using t-test. The result of the study show that (i) there is no significance difference between male and female undergraduate students of Adeyemi College of Education, Ondo in the level of utilization of e-learning tools. The t-calculated (0.20) was lesser than t-critical (1.96). (ii) The finding of the study also shown that there was a significant difference between science and non-science undergraduate students of Adeyemi College of Education in the level of e-learning tools utilization. The t-calculated (1.39) was greater than t-critical (0.60). The study also recommended that government should provide enabling environments in all the tertiary institutions in the country to ensure effective utilization of e-learning tools. The study also recommended that government should subsidize the prices of computer and other electronic gadgets/equipment to make them affordable to all students in tertiary institutions in the country.

## INTRODUCTION

The entire universe has been transformed to a global village through Information and Communication Technology (ICT). Countries all over the world are at different stages of integrating ICT into everyday practices including teaching and learning. According to Abimbade, Aremu and Adedoja (2003) the impact of technology world wide has led to the globalization of information and education. The effect of technology can be experienced at all levels and forms of education. Iyekowa and Obuech (2005) described ICT as the handling and processing of information as in instructions, graphs, texts and images for use by means of electronic and communication devices such as computer and telephone.

Electronic learning (e-learning) as a sub-set of ICT is described differently by different experts. Azeez (2010) refers to e-learning as the use of electronic applications and processes to learn. Turban (2001) also described e-learning as the on line delivery through computer networks of information for purposes of education, training, knowledge management or performance management. Turban (2001) further stresses that it is a web-enabled system that make knowledge accessible to those who need it, when they need it, anytime they need it and anywhere they need it.

Azeez (2010) claims that e-learning applications and tools include.

- Web Based Learning (EBL)
- Computer Based Learning (CBL)
- Virtual Classroom (VC)
- Digital Collaboration (DC)
- Internet
- Extranet
- Satellite T.V
- CD-rom with multimedia.

E-learning could be seen as individual based instruction delivered over public internet or private intranet computer networks. It is also well know as online learning, web based learning and Virtual classroom. Lovelee (1999) classified e-learning into types as asynchronous where specific codes will be used as a guide and instructor led but the degree of interactivity, sophistication and expenses is different in each type.

There are several inherent advantages in the use of e-learning tools among the researchers, lecturers and students especially tertiary institution students in the following ways:

- Information is consistent or need customized, depending on need. Everyone gets the same content, presented in the same way and such programmes can also be customized for different learning needs of the different group of people.
- Content is more timely and dependable. It is well enabled. E-learning can be updated instantaneously

- making the information more accurate and useful for a longer period of time. The ability to upgrade e-learning content easily and quickly, and then immediately distributed the information to users is extremely time efficiency.
- E-learning afford the highest levels of flexibility and conveniences for learners because the virtual classroom is open 24 hours a day, seven days a week. There are no waiting lists to contend with, no need to postpone learning until the class is offered, and no time gap between when learners are highly motivated to learn and when learning takes place. Students can access e-learning anywhere at any time of the day.
  - Universality- e-learning is web based enabled and takes advantages of universal internet protocols and browsers. Concern over difference in platforms and operating system is rapidly fading. Everyone on web can receive virtually the same materials in virtually the same time
  - Scalability- e-learning solutions are highly scalable. Programmed can be used to move 10 learners/participants to 100 or even more learners/participants with little efforts or incremental cost (as long as the infrastructure is in place).
  - Builds communities- the web enable students to build enduring communities of practice where they can come together to share knowledge and insight. These can be a tremendous motivator for learning.
  - E-learning lower cost:- Despite outward appearances e-learning is often the most cost effective way to deliver instruction or information. It cuts travel expenses. It can also reduce teaching time and significantly reduces the need for a classroom teacher infrastructure.

### **Statement of the Problem.**

This study sought to determine the levels of utilization of e-learning tools among students of Adeyemi College of Education, Ondo.

### **Hypothesis of the Study.**

Two hypothesis were generated and tested at 0.05 level of significance.

#### **Hypothesis 1**

There is no significant difference between male and female undergraduate students of Adeyemi College of Education, Ondo in the level of utilization of electronic learning tools

#### **Hypothesis 2**

There is no significant difference between science and non-science students of Adeyemi College of Education, Ondo in the level of utilization of electronic learning tools.

### **Methodology**

#### **Research Design**

Ex-post facto research design was used for the study. This is because the researchers do not anyway control or manipulate the independents variables. Since the situation for the study already exists.

#### **Population of the Study**

The population for the study consists of all the undergraduate of Adeyemi College of Education, Ondo.

#### **Sampling Technique.**

A total number of one hundred and forty eight (148) undergraduate students of Adeyemi College of Education were randomly selected for the study. 37 students were selected from each of the four schools currently running degree programmes in various subject areas. The affected schools are School of Languages, School of Vocational and Technical Education, School of Earth and Social Sciences also consisted of 72 female and 76 male.

#### **Instruments**

The instrument used for the study was a self constructed questionnaire on the level of utilization of e-learning tools among tertiary institution students (LUET). The instrument was divided into two sections (section A and B). Section A consisted of items on personal data of the respondents, such as sex, school, subject areas of specialization etc while section B contains twenty item statements on the level of utilization of e-learning tools. The response was based on adopted Likert scale of four points: Strongly Agree (4), Agree (3), Disagree(2) and Strongly Disagree(1).

The, validity of the instruments was determined by expert review, as experts in the field of educational technology and computer science assessed and made necessary modification to the instrument. To determine the

internal consistency of the instrument, a split half reliability coefficient 0.75 was obtained by the researcher.

### Data Collection and Analysis

The instrument was administered by the researcher and also making use of research assistants. Data generated from the study were analysed using t-test.

### Results

**Hypothesis 1:** There is no significant difference in the level of utilization of e-learning tools between male and female student of Adeyemi College of Education, Ondo.

Table 1: Showing t-test comparing the sex of the respondents.

Variable	N	X	S2	DF	T-cal.	T-crit.	P
Male	76	9.23	18.36	146	0.20	1.96	0.5
Female	72	9.09	18.22				

From the above table, it was revealed that there was no significant difference between male and female students of Adeyemi College of Education, Ondo in the level of utilization of electronic learning tools. The t-calculated (0.20) is less than t-critical (1.19). Therefore hypothesis one is not rejected. Although mean score of male (9.23) slightly exceeds that of female (9.09). The difference is not statistically significant. It can be concluded that both male and female students utilize e-learning tools at the same level.

**Hypothesis 2:** There is no significant difference between the science and non-science students of Adeyemi College of Education, Ondo in the level of utilization of electronic learning tools.

Table 2 t-test comparing the science and non-science students

Group	X	S	SD	t-cal.	t-crit.	DF	P
Science Students	68	8.88	15.24	1.39	0.60	146	.05
Non-science students	60	9.32	21.72				

Table 2 above reveals that there was a significant difference between science and non-science students of Adeyemi College of Education, Ondo in the level of utilization of e-learning tools. The t-calculated (1.39) is greater than t-critical (.60). Therefore hypothesis two is rejected. The difference that can be drawn from the finding is that science students level of utilization of e-learning tools is higher than non science students and this can be attributed to the facts that most of the science students have been exposed to the use of computers and other related materials in the course of their training and this made them to be proficiency in the use of e-learning tools better than their non-science counterparts.

### Discussion

This study has revealed that there is no significant difference between male and female students' level of utilization of e-learning tools. This finding is contrary to the findings of Abimbade and Egunjobi (2003) that stressed that gender differences affect students in the use of technology. The result further indicates that there is a significant difference between science and non-science students in the level of utilization of e-learning tools. This finding is in support of Aremu (2002) and Okeke (2001) this emphasized that science students have greater potential for the manipulation and use of educational media such as computer, projector etc successfully than non-science students.

### Conclusion

The main conclusion from the study is that electronic learning tools have been identified as important and indispensable sources of information and for effective teaching and learning to be enhanced, the technological innovative ways of accessing information should be adopted i.e the use of e-learning tools should be embraced.

### Recommendation

The following recommendations were made in the study:

- Government in conjunction with other stakeholders in education sector should provide appropriate infrastructural facilities that will support effective use of e-learning tools in tertiary institutions in Nigeria
- In addition, computer education should be introduced into the school curriculum right from primary level of education to tertiary level. This will give the student the opportunity to interact with computer at early stage, since the basic knowledge of computer is essential in the use of e-learning tools.
- Most more importantly, the government should ensure adequate supply of electronic materials/ gadgets

such as laptop, palm top, projector, CD RUM etc. to our tertiary institutions in the country. This will avail tertiary institution students the opportunities to effectively use e-learning tools in the course of teaching and learning.

- Government should also subsidize the prices of electronic gadgets necessary for effective teaching and learning, since this will make them avoidable for all the tertiary institution students.

## REFERENCES

- Abidoye, J. A. (2010). The Roles of Electronic Learning in Distance Education in Nigeria Journal of Teacher Perspective. Vol. 4 No 2. Pp. 297-304.
- Abimbade, A, Aremu, A and Adedoja, G. O. (2003). Providing Information Technology (ICT) Environment for Teaching and Learning. Education in this Millennium Innovation in Theory and Practice (ed) Bamisaye, O. A et al Ibadan; Macmillian, P. 192.
- Aremu, A (2002). Female Participation in Science, Mathematics and Technology Education. A Paper Presented as the Monthly Lecture of WORDOC University of Ibadan.
- Azeez, A. N. (2010). Creating e-learning Environment for Effective Implementation of Teacher Education Programmes in Nigeria. Nigerian Journal of Teacher Education and Teaching. Vol 8 No 2. Pp 54-61.
- E zeasomba,, I. N. (2010). Facilitating Educational Reforms through the Development of e-learning Infrastructure. Nigerian Journal of Teacher Education and Teaching. Vol 8 No 1. Pp. 122-129.
- Folorunsho, O. Longe and Ijere, U. L. (2003). E-learning Ecosystem. Prospect for Distance Learners in Nigeria. Nigerian Computer Society Conference Proceeding. 14, 261-269.
- Lovelee, P. (1999). CUNA Explore web Based Learning Credit Union Magazine 65(2), 29-36.
- Maura, H and Sapper M. (2001). “ E-learning has to be seen as part of General Knowledge Management”. In proceeding of ED-Media (2001). Media Conference of Educational Multimedia. Hypermedia and Telecommunications. Pp. 1249-1253.

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