

Technological Readiness for E-learning among Undergraduate Students at a Private University in Kenya

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Abstract

The domains of learning and teaching are experiencing great changes as higher-education institutions rapidly adopt the concepts and practices of e-learning. Student readiness is crucial in implementation of E-Learning in institutions of higher learning. E-Learning readiness adds the benefit of encouraging learners to take responsibility for their learning and build self-knowledge and self-confidence. This study sought to assess the technological readiness for e-learning among undergraduate students at a private University in Kenya. The study utilized descriptive research design where 157 undergraduate students were stratified sampled to participate in the study. Data was collected using Readiness Assessment Tool for an E-learning Learning Environment Implementation. The study results indicated that 86% (n=113) of the students did not know how to resolve common hardware or software problems. A similar number (64%, n=84) did not have access to reliable internet in campus or cafes while 69% (n=90) did not know how to log in to the internet, navigate web pages and download files using internet browsers. On the other hand, 69% (n=90) did not know how to resolve common errors e.g. 'page not found' or 'connection timed out' while surfing the internet and 88% (n=115) had not attended any seminars/workshops related to online learning activities. The results from this study point to fact that the University should offer basic training in computers for the undergraduate students in order to enable them use the internet for e-learning.

Keywords: Technological readiness, E-learning, Undergraduate students, Computers

1. Introduction

E-learning is an approach to education which uses internet and devices such as audio and video tapes, satellite broadcast, interactive TV and CD-ROM (Rasmussen, 2014). The rapid pace of technological and economic developments has placed greater demands on education systems. Therefore, the crucial need for students is to focus on the importance of lifelong learning and to take advantage that comes with Information Technology communication (ICT) (UNESCO, 2007).

Worldwide, the domains of learning and teaching are experiencing great changes as higher-education institutions rapidly adopt the concepts and practices of e-learning (Sife, et al 2007). Online courses provide learners with a variety of benefits such as convenience and flexibility (Sife, et al 2007) and opportunities to work collaboratively and closely with teachers and other students worldwide (Chizmar and Walbert, 1999).

Developing countries like Kenya still face a lot of challenges while implementing e-learning which requires heavy investment of resources (Tarus, et al 2015). According to the Global Information Technology (GIT) report 2012, Kenya was reported to be having low levels of ICT readiness due to under development of ICT infrastructure in the country (Dutta & Bilbao-Osorio, 2012). However, she is trying to catch up with other countries in the use of the digital technology to boost learning (Oketch, et al 2014) as demand for eLearning is increasing day by day (Gakuu, 2007). The Kenyan government within the framework of Vision 2030 requires all universities to introduce e-learning. Blended learning is an alternative delivery system to increase accessibility to higher education in Kenya (UNESCO, 2007).

For student to fully benefit from E-Learning, technological readiness is crucial since it helps learners to take responsibility for their learning and build self-knowledge and self-confidence (Aldhafeeri, & Khan, 2015). On

the other hand, non-readiness has been linked with failed adoption of E-learning in many African countries (Basak, et al 2017).

E-learning in Kenyan Universities commenced a few years ago but little is known about learner's readiness for e-learning which is key to the successful take off of the e-learning system (Rosenberg et al, 2001). Therefore, this study sought to investigate undergraduate student technological readiness towards E-learning.

2. Methodology

The study utilized a descriptive study design. It was carried at University of Eastern Africa Baraton (UEAB), Nairobi satellite campus. A sample of 157 undergraduate students were recruited to the study. Data was collected using Readiness Assessment Tool for an E-learning Learning Environment Implementation which was adopted from Cecilia (2008). After data collection exercise the questionnaires were coded, cleaned and entered into computer software SPSS version 21.0 for data analysis. Authority to conduct the study was obtained from UEAB's Ethics and Research Committee. Participants signed informed consent form prior to participating in the study after they were briefed of their rights and the expected benefits of the study. They were not coerced or given any incentives to participate.

3. Results

The results from the study showed that 58% (n=76) were males while 42% (n=55) were females. About 70% (n=92) of the students were aged between 20-30 years, while 23% (n= 30) were aged between 31-40 years, 4.4% (n=6) were aged below 20 years while only 2.6% (n=3) were aged over 50 years. The study found that 33% (n=43) of the respondents indicated that they had heard of E-learning, while the majority (67%, n=88) indicated that they had not heard of E-learning at UEAB.

The finding demonstrated that 63% (n=83) of the respondents indicated that they had knowledge on the basic functions of a computer i.e. CPU and monitor including the other peripherals like mouse and printers. A Majority (72%, n=94) of the students reported to have access to a computer and 64% (n=84) knew how to open/save documents from/to a hard disk and other storage devices.

On the other hand, a majority (86%, n=113) of the students indicated that they did not know how to resolve common hardware or software problems or they could not access technical support in case they had such a problem. In addition to this, 64% (n=84) of the respondents indicated that they did not have access to reliable internet in campus or internet cafes. Another 69% (n=90) indicated that they did not know how to log in to the internet and navigate web pages and download files using internet browsers. The result also showed that 69% (n=90) did not know how to how to resolve common errors e.g. 'page not found' or 'connection timed out' and 88% (n=115) had not attended seminars/workshops related to online learning activities.

4. Discussion

A Majority (86%, n=113) of the respondents indicated that they did not know how to resolve common hardware or software problems or they could access technical support in case they had a problem. Thus, majority of the undergraduate students lacked the requisite technical knowhow to deal with common software/hardware problems and therefore may not have been ready for E-learning. In general, the students showed that they lacked basic computer skills which are considered elementary in order to operate a computer; the main tool used in E-learning. As such they were not ready for E-learning. This is supported by Oliver and Towers (2000), who noted that it could be impossible to implement e-learning without appropriate equipment and easy access. The e-learning users must also have the technical skills to be able to use the system. In Malaysia a study to gauge the readiness of university students in e-learning environment showed that students did not have access to technology that was required for e-learning environment, and were not knowledgeable regarding the basic Internet skills (Nasrudin and Shahida, 2014)

The respondents also indicated that they did not have access to reliable internet in campus or cafes. They as well

did not know how to log in to the internet and navigate web pages and download files using internet browsers and others did not know how to resolve common errors e.g. 'page not found' or 'connection timed out'. This is supported by the findings from a study conducted at the University of Nairobi. Students from this study reported that they did not have access to either a desktop computer or a laptop and that the IT infrastructure at the University was not reliable enough to support the e-learning (Oketch, et al 2012).

5. Conclusion

It is the view of the researchers that majority of the undergraduate students did not have the requisite knowledge and experience to engage in E-learning and were therefore not technologically ready for E-learning. The University could change this by offering basic training in computers for the undergraduate students in order to enable them use the internet for learning.

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