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AWARENESS AND PERCEPTION OF UNDERGRADUATES ON UTILISATION OF E-LEARNING PLATFORMS FOR LEARNING IN UNIVERSITY OF ILORIN

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Abstract

e-learning is the electronic process that enhances the delivery and administration of learning opportunities and support via computer networking and web-based technologies to help learners' performance and development. This study investigated the Awareness and Perception of Undergraduates on Utilization of e-learning Platforms for Learning in University of Ilorin. Cross-sectional descriptive research design was adopted for the study. Questionnaire was utilized to obtain data from 120 respondents from three departments in the faculty of education, University of Ilorin, Ilorin. The findings revealed that majority of the undergraduates were not aware of e-learning platforms for learning though they perceived that the e-learning platforms are useful for learning purposes. The study concluded that undergraduates had very low awareness about e-learning platforms, and they are likely to utilize the tools if they are adequately sensitized on its availability. It was recommended that e-learning platform should be redefined and incorporated into the university's learning environment to increase students' awareness.

Introduction

In this age of Information and Communication Technology (ICT), there is growing concern for the use of ICT resources such as the computer, scanner, printer, Intranet, Internet, e-mail, videophone systems, teleconferencing devices, wireless application protocols (WAP), radio and microwaves, television and satellites, multimedia computer and multimedia projector, among others in instructional delivery method (Nwana, 2012). ICT is continually emphasized at driving and empowering world economy and social life. Its impact has been felt in every aspect of human life, from Agriculture, finance, communication, transportation, and a host of others but most importantly, education. Advancements in ICT has significantly increased learners' access to quality education. Information can be

thought of as a knowledge and skill base, and with advances in technology, access to this knowledge is increasing daily (Hegedus & Moreno-Armella, 2020).

The integration of ICT in education has offered detailed reassessment of current research in technology-supported education with focus on the development and design of successful education programmes to improve student success factors and create solutions to educational problems. ICT integration in education has made it possible for teachers, learners and leaning content to effectively interact to achieve set objectives. The introduction of e-learning platforms has reduced a lot of hardship associated to teaching in various institutions. Teachers find it very easy to share and distribute learning materials to students (Abubakar et al 2017) and likewise students find it easier to access learning materials through e-learning.

Technology has radically and positively impacted on education and training globally by transforming teaching and learning. The whole process of education, particularly the way teachers and learners gain access to knowledge and information in this 21st century, has been greatly affected by technology; especially ICT (Yakob et al 2012). The integration of ICT into the teaching and learning process has introduced a new system of learning which is globally referred to as e-learning. This new system of learning is accessed and delivered electronically with multimedia products. Institutions are now witnessing a paradigm shift from teacher-centered to learner-centered learning with the development of e-learning technology.

Fundamentally, it can be deduced that e-learning relies on merging information and communications technology into the learning process to share and deliver specific curriculum material in all kinds of formats (e.g. videos, slideshows, documents, etc.) synchronously or asynchronously (Epignosis, 2014). With e-learning, there is a shift from the traditional approach of teacher-directed didactic to modern methods where computer technology plays a significant role, thereby improving the quality, efficiency and effectiveness of teaching, learning, research and educational management. e-learning as a sub-system within ICT in Education, is the electronic process which enhances the delivery and administration of learning opportunities and support via computer, networked and web-based technology to help individual performance and development. Electronic learning also known as e-learning is the use of ICT facilities such as computers and other digital devices to deliver, facilitate and administer learning, teaching training and education (Lawless 2018; Eteng & Ntui, 2009).

e-learning is a form of instructional authoring that can be delivered through a CD-ROM, over the Local Area Network (LAN), or on the Internet, including Computer-Based Training (CBT), Electronic Performance Support Systems (EPSS) and Web-Based Training (WBT), as well as distance learning. Therefore, e-learning is not limiting students to just collecting and gathering information especially in learning with the help of learning management systems. e-learning is changing the way universities teach and the way in which students learn with a view to improving flexibility and quality of learning. Further, e-learning provides access to a range of resources and materials which may not otherwise be available or accessible, handing over control to students as to when and where they study.

The basic principle of e-learning is connectivity, which is the process by which computers are networked to share information that connect people through an e-learning landscape or architecture, which refers to the hardware, software and connectivity components required to facilitate learning. Educational institutions are getting much more interested in improving their programmes with ICT tools and applications to introduce flexibility in the teaching and learning process and accommodate the growing number of youths that need to be educated. Institutions around the world now utilize e-learning technologies as a complement for teacher-led on-campus teaching and tutorials. They also observed that institutions in Nigeria have recognized the use of e-learning technologies as one of the essential alternative instructional delivery methods for education.

Ncube, Dube and Ngulube (2014) opined that the 21st century is characterized by the technological imperative that has resulted in the universal deployment of e-learning in higher education. McPherson (2005) clarified that e-learning has become a widely accepted and regularly used mode of learning in higher education. The emergence of e-learning is influenced by the evolving learning environment and the demand for education that is not located on a college campus (Oye & Saleh 2012). Similarly, changes in the demography of students have also increased pressure to utilize information and communications technology (ICT) for university instruction. Nwana, Egbe and Ugwuda (2017) stated that the increasing number of student registration would overwhelm institutions if they do not embrace the utilisation of e-learning platforms for instruction.

Electronic learning technologies are becoming increasingly popular in tertiary institutions as they are used for tutoring, managing courses, providing simulations, enriching existing courses, programming and problem solving. With the rapid advancements in the internet, e-learning technologies are available and functional and would require the

creativity of the teachers to access and use them in instructional delivery. The rapid growth in e-learning is also largely influenced by the ability to integrate elements such as images, videos, audio and graphics which have proved to be a more reliable way of keeping learners engaged when compared to traditional learning (Puri & Sharma 2020). Likewise, e-learning technology gained popularity amongst learners and teachers because of its cost-effectiveness, flexibility of access, elimination of distance barriers for globally distributed learners, the need for just-in-time training, allowance for individual differences and permission for alternative pedagogies like simulation, experiential, interactivity, and self-paced learning.

Teaching in an e-learning environment can contribute to the ability to teach, the ability to learn and most important to bridge between two main components in the classroom, the teacher, and the learner. e-learning provides different environments for learners with dynamic, interactive, nonlinear access to a wide range of information such as texts, graphics, and animations as well as to self-directed learning in online communication (e-mail and forums). e-learning seems to be on the verge of becoming the new learning paradigm. Tibana-Herera et al (2018) reported that there was an annual 20% increase of e-learning users, and this is primarily because of the robust Learning managements systems (LMS) that are embedded in e-learning. Institutions and organisations have found a way to wrap their trainings and instructions to embed e-learning partly or fully through different strategies and methods such as blended learning and flipped learning.

e-learning allows the integration of a wide range of resources, from chats and forums to online booklets, a variety of questions, collections of problems and exercises, lecture notes; including any kind of text-based or html formatted documents, multimedia resources such as graphics, video or audio (such as MP3 files), PowerPoint, or Flash-based applications and Java applets (Goodwin-Jones, 2003). Moodle focuses on giving educators the best tools to manage and promote learning and allows teachers to organize, manage and deliver course materials. Consequently, these activities increase the interest of the students in their studies. Teachers can provide students with a large amount of resources that they cannot usually show in the classroom due to time constraints. Lesson tasks within LMS can be linked to any resources that are uploaded to institutions server or that are available on the Internet. The students' exploration of any of the content-based resources can be easily assessed by using any of the LMS based evaluation and feedback tools. Most LMS are quite powerful in content creation due to built-in HTML editor that does not require any special expertise other than degree of expertise required for any word processor.

However, the benefits of such systems cannot be realized if users are not aware of the resources or its capabilities. While the term “e-learning” has been thrown around quite a lot in recent years, many are still unaware of what it actually means and how it can help them achieve success in both their professional and personal lives (Epignosis, 2014). Stakeholders (Teachers and Learners) that have been used to on-site classroom instruction would need to adapt to online teaching and learning which they need proper guidance on how to go about it. The use of e-learning technologies in education and training has been a key priority in most European countries for decades, but progress has been as anticipated because the technique and mode of e-learning is not clearly instituted in most learning institutions. Students in Europe accept e-learning as an alternative to the gold-standard face-to-face instruction that they have practiced for so long (Gordon et al 2019). Students in Africa on the other hand still prefers the face-to-face instruction as they do not have ample access to internet which is a major facility needed for e-learning (Nkongolo, 2019). There are considerable differences of ‘e-maturity’ within and between countries, and between schools within countries because some learning institutions have no e-library for access with other virtual libraries around the globe (Eurydice, 2004).

Educational systems in most universities around the world are under increasing pressure to use the new ICTs to teach students the knowledge and skills they need in the modern technological world. However, it was found out that some schools still lack adequate ICT infrastructure for effective e-learning. It was also found that increasing numbers of educators are convinced of e-learning’s technology potential despite lack of precise ability to demonstrate clear gains from it (Saltsman 2013). Students must be aware of the different e-learning platforms available and also have enough trust in the platform in the form of perception in order to guarantee usage of such e-learning platform for learning. Student perception is an important determinant of utilisation and acceptance of technology (Daniels, Sarte & Cruz, 2019).

Students’ perceptions of e-learning in university education may be influenced by specific individual variables such as gender (Mawere & Sai 2018) and students’ course of study (Barteit et al 2019) Women typically display lower computer aptitude and higher level of computer anxiety. Research has indicated that men ’s technology-usage decisions are more strongly influenced by perceptions of usefulness (Evarest & Laura 2011). A students’ course of

study could determine previous exposure to digital devices or technological gadgets which could raise the level of self-efficacy in a student (Popovici & Mironov, 2014).

Purpose of the Study

The main purpose of this study was to examine awareness and perception of undergraduates on utilization of e-learning platforms for learning in University of Ilorin. Specifically, the study:

1. determined undergraduates' awareness of e-learning platforms.
2. examined the perception of undergraduates on the utilization of e-learning platforms for learning.
3. examined the influence of gender on undergraduate awareness of e-learning platforms.
4. determined the influence of course of study on undergraduates' awareness of e-learning platforms for learning.
5. examined the influence of gender on undergraduates' perception on e-learning platforms for learning; and
6. found out the influence of course of study on undergraduates' perception on e-learning platforms for learning.

Research Questions

The study provided answers to the following research questions:

1. What is the level of awareness of e-learning platform among undergraduates?
2. What is the perception of undergraduates on the utilization of e-learning platforms for learning?
3. What is the influence of gender on undergraduates' awareness of e-learning platforms?
4. How do course of study influence undergraduates' awareness of e-learning platforms for learning?
5. What is the influence of gender on undergraduates' perception on utilisation of e-learning platforms for learning?
6. What is the influence of course of study on undergraduates' perception on utilisation of e-learning platforms for learning?

Research Hypotheses

The following hypotheses were tested at 0.05 level of significance:

Ho_1: There is no significant difference between male and female undergraduates' awareness for learning on e-learning platforms.

Ho_2: there is no significant difference between male and female undergraduate on their perception of e-learning platforms for learning.

Ho_3: there is no significant difference among undergraduates in faculty of education in their awareness of e-learning platforms based on course of study.

Ho_4: there is no significant difference among undergraduates in faculty of education on their perception on use e-learning platforms for learning based on their course of study.

Methodology

The study was a descriptive type of the survey method. A researcher-designed questionnaire was used to gather data from 120 students randomly selected across three disciplines in the faculty of Education, University of Ilorin. This study focused on the undergraduates' awareness and perception on utilization of e-learning platforms for learning in University of Ilorin. Descriptive statistics of frequency counts, percentage and mean were used to analyze the demographic characteristics of the respondents while frequency counts and percentage as well as total average weighted response was used to analyze the research questions while t-test and Analysis of Variance (ANOVA) statistical tools were used to test the hypotheses.

Results

The demographic information in which data were collected and analyzed includes gender and course of study, which are presented on tables as follows:

Table 1:
Distribution of Undergraduates by Gender

Gender	Frequency	Percentage (%)
Male	78	65
Female	42	35
Total	**120**	**100**
Course of Study	**Frequency**	**Percentage (%)**
Science Education	63	52.5
Social Science Education	39	32.5
Art Education	18	15.0
Total	**120**	**100**

To achieve the aim of this study, the researcher distributed 125 copies of questionnaire across the sample but 120 were returned as valid, 5 rendered invalid at the point of analysis. Table 1 reveals the distribution of undergraduates by gender and course of study. Majority of the undergraduates were male 78(65%) against female respondents amounting to 42 (35%). While, male dominated the gender distribution, Science Education undergraduates dominated 63 (52.5) formed larger percentage of the respondents due to presence of various programmes housed by the department: Social Science education (32.5%) and Art education (15.0%). Summarily, Male and Science Education students formed larger percentage of the respondents in this study.

Research Questions

Research Question One: What is the level of awareness of e-learning platform among undergraduates?

Table 2:
Frequency and Percentage of Level Awareness of e-learning Platforms among Undergraduates

S/N	e-learning Platforms	Aware Freq (%)	Not Aware Freq (%)
1.	Edmodo	78 (65.0)	42 (35.0)
2.	Google Classroom	111 (92.5)	9 (7.5)
3.	Schoology	21 (17.5)	99 (82.5)
4.	Canvas	39 (32.5)	81 (67.5)
5.	Moodle	42 (35.0)	78 (65.0)
6.	Showbie	33 (27.5)	87 (72.5)
7.	Easy generator	27(22.5)	93 (77.5)
8.	Mauthor	12 (10.0)	108 (90.0)
9.	Evolve	36 (30.0)	84 (70.0)
10.	Raptivity	18 (15.0)	102 (85.0)
Total		**417 (34.8)**	**783 (65.2)**

Table 2 shows the frequency and percentage of e-learning platforms that undergraduates were aware of. Majorly, e-learning platforms such as Google classroom (92.5%), and Edmodo (65.0%) are the e-learning platforms that undergraduates were aware of. However, the undergraduates responded to have to awareness in other platforms such as Mauthor (10%), Raptivity (15%), Schoology (17.5%), Easy generator (22.5), Showbie (27.5%), Evolve (30%), Canvas (32.5%), and Moodle (35%).

Cumulatively, the summation of level of awareness 417 (34.8%) against the level of unaware 783 (65.2%) implies that undergraduates are not aware of many e-learning platforms that they could take advantage of.

Research Question Two: What is the perception of undergraduates on the utilization of e-learning platform for learning?

Table 3:
Undergraduates' Perception towards e-learning Platform

S/N	Items	Mean	Rank Order
1.	The use of e-learning platforms for learning will afford me control over my learning	3.33	1st
2.	The use of e-learning platform for learning will enable me to accomplish course content within time frame	3.20	4th
3.	e-learning platform makes it easier for me to keep up with current issue that are of interest to me	3.23	3rd
4.	Using e-learning platform makes learning clearer and understandable	3.10	10th
5.	The flexibility of e-learning platform ensure easy assimilation of knowledge and information	3.03	11th
6.	The application of e-learning platform for learning is relatively easy for me	3.25	2nd
7.	The use of e-learning platform will improve learners relationship through improved interaction	3.18	6th
8.	Using e-learning platform gives access to a lot of current and accurate information in my area of specialisation	3.18	6th
9.	e-learning platform is easier to use because it is internet enabled	3.15	8th
10.	Using e-learning platform for learning will enable me to accomplish tasks quickly	3.13	9th
11.	Utilization of e-learning platform for learning makes it easy to complete the curriculum	3.10	10th
12.	Assessment and other model of evaluation are made easier with e-learning platform	3.20	4th
	Grand Mean	**3.17**	

Source: Field Survey, (2019) *Mean >2.5 = Agreed, Mean< 2.5 = Disagreed

Table 3 shows the mean and rank order of undergraduates' perception towards e-learning platforms. Based on a benchmark of 2.5 of a 4-point Likert scale, all the items were agreed upon. Significantly, undergraduates agreed that: the use of e-learning platforms for learning will afford them control over their learning (3.33); the application of e-learning platform for learning is relatively easy for them (3.25); e-learning platform makes it easier for them to keep up with current issue that are of interest to them (3.23); the use of e-learning platform for learning will enable them to accomplish course content within time frame (3.20); assessment and other model of evaluation are made easier with e-learning platform (3.20); the use of e-learning platform will improve learners relationship through improved interaction (3.18); using e-learning platform gives access to a lot of current and accurate information in my area of specialization (3.18);

The students responded that: e-learning platform is easier to use because it is internet enabled (3.15); using e-learning platform for learning will enable them to accomplish tasks quickly (3.13); utilization of e-learning platform for learning makes it easy to complete the curriculum (3.10); using e-learning platform makes learning clearer and understandable (3.10); and the flexibility of e-learning platform ensure easy assimilation of knowledge and information (3.03). Summarily, the grand mean of 3.17 implies that the undergraduates have positive perception towards e-learning platforms.

Hypotheses Testing

The results of hypotheses tested in this study are presented in subsequent tables. All hypotheses were tested at significant level of 0.05.

H_{01}: There is no significant difference between male and female undergraduates' awareness of e-learning platforms for learning.

Table 4:
Male and Female Undergraduates' Awareness of e-learning Platforms

Gender	N	X	SD	df	*t*	Sig. (2-tailed)	Remark
Male	78	1.65	.21				
				118	-.26	.80	Accepted
Female	42	1.66	.18				

From Table 4, it can be deduced that there was no significant difference between male and female undergraduates' awareness of e-learning platforms for learning. This is reflected in the findings of the hypotheses tested df (118), t= -.26, p>0.05. Thus, the hypothesis which states that "there is no significant difference between male and female undergraduates' awareness of e-learning platforms for learning" is accepted.

H_{02}: There is no significant difference between male and female undergraduates' perception of e-learning platforms for learning.

Table 5:
Male and Female Undergraduates' Perception of e-learning Platforms

Gender	N	X	SD	Df	*t*	Sig. (2-tailed)	Remark
Male	78	3.07	.61				
				118	-1.63	.11	Accepted
Female	42	3.36	.27				

From Table 5, it can be deduced that there was no significant difference between male and female undergraduates' perception of e-learning platforms for learning. This is reflected in the findings of the hypotheses tested df (118), t= -1.63, p>0.05. Thus, the hypothesis which states that "there is no significant difference between male and female undergraduates' perception of e-learning platforms for learning" is accepted.

Ho_3: there is no significant difference among undergraduates in faculty of education in their awareness of e-learning platforms based on course of study.

Table 6:
Difference in Awareness of e-learning Platforms Based on Course of Study

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.004	2	.002	.037	.963
Within Groups	1.78	117	.015		
Total	1.784	119			

Table 6 revealed the ANOVA analysis of difference in awareness among the course of study of undergraduates. The result revealed that "there was no significant difference among Undergraduates from Social-Sciences Education, Sciences Education and Arts Education in their awareness of e-learning platforms" ($F_{(2, 119)}$ = .037, p>0.05). The null hypothesis is therefore accepted.

Ho_4: there is no significant difference among undergraduates in faculty of education on their perception on use e-learning platforms for learning based on their course of study.

Table 7:
Undergraduates' Perception on Utilisation of e-learning Platform Based for learning

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.74	2	.869	3.41	.04
Within Groups	9.44	117	.081		
Total	11.17	119			

Table 8:
Scheffe Post-hoc Analysis of Difference in Perception towards e-learning Platform Based on Course of Study

I (Course of Study)	J (Course of Study)	Mean Difference (I-J)	Sig.
Science Education	Social Science Education	-.39	.011
	Art Education	.17	.077
Social Science Education	Science Education	.39	.011
	Art Education	.56	.010
Art Education	Science Education	-.17	.077
	Social Science Education	-.56	.010

Tables 7 and 8 revealed the ANOVA and Scheffe Post-hoc analysis of difference in perception towards e-learning among the course of study of undergraduates. The result revealed that "there was significant difference among science education, social science education and Art Education in their perception of e-learning platforms" ($F_{(2, 119)} = 3.41$ $p<0.05$). The null hypothesis is therefore rejected.

To locate the sources of the significant difference among the groups, Scheffe Post-hoc analysis was carried out at 0.05 level of significance. Larger values are statistically significant at our chosen alpha level (in this case, 0.05). The result shows that undergraduates in Science Education have positive perception towards e-learning platforms than undergraduates in social science and Arts education.

Discussion

Finding number one of this study revealed that undergraduates are not aware of many e-learning platforms available to them save the likes of google classroom and Edmodo. This could be because many lecturers in University of Ilorin promotes the use of Google classroom because of institutional Memorandum of Understanding (MOU) that the university has with Google Inc. However, this finding contradicts the finding of Yakob et al (2012) that was carried to ascertain awareness of undergraduates in Malaysia about e-resources. Yakob et al (2012) revealed that the students show significant awareness towards various e-learning resources presented to them. A similar study among undergraduates in National Open University of Nigeria Nwana, Egbe and Ugwuda (2017) also revealed significant awareness level among undergraduates on various e-learning resources available unlike Undergraduates in University of Ilorin. Stereotyping lecturers and students to a resource by enforcing the usage without allowing the stakeholders to browse for a perfect option could be the cause of the gross obliviousness expressed by samples in this study towards most of the e-learning platforms .

Though the students expressed gross unawareness of many of the e-learning resources presented in the questionnaire, they have a positive perception about the utilisation of the resources. This study supports the studies of Yakob et al (2012) and Nwana et al (2017), where both studies showed that undergraduates generally show positive perception towards the use of e-learning resource in their study. However, the finding disagrees with that of Mawere and Sai (2018) that was conducted among undergraduates in Zimbabwe. Mawere and Sai (2018) revealed that even though many Zimbabwean academic institutions have e-resources utilisation top agenda in their strategic plans, the adoption rate among students is still very limited because of student's poor perception of the new technology. Haque (2018) revealed divided opinions about student's perception on e-resources utilisation for learning with over 47.7% of the undergraduates having bad perception about the use of e-learning platforms.

This study also revealed that there was no significant difference between male and female undergraduates' awareness and perception on the utilisation of e-learning platforms for learning in university if Ilorin. This would be mainly attributed to the fact that the institution has mandated the use of certain e-learning platform and students have no choice but to be conversant with its usage. This finding supports the finding of Evarest and Laura (2011) that showed that male and female undergraduates in Federal University of Technology, Minna displayed and expressed similar perceptions regarding electronic learning in the institution.

There was a significant difference in the perception of undergraduates on the utilisation of e-learning based on their course of study. Science based undergraduates showed more significant good perception when compared to their colleagues in social science and Art related fields. This study is in support of Barteit et al (2019) that showed that medical lecturers in Zambia that are in a science and technology related field shows greater acceptance at information system more than their colleagues at the social science faculties.

Conclusion

This study concluded that even though Undergraduates in University of Ilorin considered e-learning resources as useful based on their perceptions, they are oblivious of the different e-learning platforms that could benefit them. Also, the study concluded that undergraduates with science background have a more positive perception towards use of e-learning than colleagues from arts and social sciences.

Recommendation

The study hereby recommended that students should be exposed to the use of e-learning platforms for learning through orientations sponsored by parent institution or the government irrespective of their course of study.

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