

Assessment of Lecturers' Knowledge and Usage of e-Learning for Academic Purposes in Federal College of Education (Technical), Umunze, Anambra State, Nigeria

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Abstract

This study assessed the lecturers' knowledge and usage of e-learning for academic purposes in Federal College of Education (Technical), Umunze, Anambra State. Descriptive survey research design was adopted. 340 teachers were sampled through proportionate and simple random sampling techniques. Questionnaire on the knowledge and usage of e-learning mode was adapted to elicit information for the study. The two research questions raised were answered using percentage and the two hypotheses formulated were tested using Chi-square. Findings of the study revealed that there was a moderate knowledge and low level of e-learning usage among the lecturers; a positive significant difference existed in the knowledge of e-learning and a negative significant difference existed in the usage of e-learning between the junior and senior lecturers in the college. Based on these findings, it is recommended that workshop should be organized for all the lecturers on e-learning, and the college authority should encourage the use of e-learning by the lecturers in order to enhance effective teaching and learning activities in the college.

Keywords: Assessment, lecturers, knowledge, usage, e-Learning, academic

Introduction

Within the Nigerian educational context, the roles of lecturers, especially in the development of young generation of a nation in the scientific and cultural community engaged in higher education and research, cannot be over-emphasized (Bakare, 2015). Kolawole (2015) noted that lecturers are central to the realization of all the objectives of higher institutions in Nigeria and even globally. This is to the extent that they are employed to teach, carry out research, serve the community, provide leadership to students, set academic standards and ensure that students meet such standards through regular consultations, meetings, briefings, seminars, lectures, examinations and other activities.

The teaching and learning activities in higher institutions in Nigeria are predominantly characterized by traditional methods, where the teacher interacts with students based on face-to-face arrangement. Meanwhile, higher institutions in Nigeria, according to Ojedokun (2007) cited in Issa, Amusan, Olarongbe and Akangbe (2013), are expected to equip students with varieties of technical skills, access to numerous types of accepted knowledge sources, critical thinking capacity, cultural and civic values and beliefs, and certification in scores of different disciplines. He further states that with the accelerated increase in the number of academic institutions in Nigerian educational systems, the sector has greater competition and several measures to take to be among the continental and global best higher institutions. Issa et al (2013) are of the opinion that higher institutions are mostly known for their teaching, learning, research and community developments activities. According to them, if these aims are to be achieved, the institutions need to put all resources together in a coordinated form to meet her objectives. However, with the application of ICT, students can independently proceed in mastering teaching materials, choose the pace of work, repeat the material that is not sufficiently clear, and track their progress. For instance, interactive multimedia content, especially, provides a great advantage of modern learning over traditional learning. Also, with the application of ICT in education, feedback between the teacher and the students is enhanced (Stosic & Stosic, 2015).

E-learning refers to the use of new technologies in the service of learning and/or learner support. It includes the delivery of content via the Internet, intranet, audio and video; satellite broadcast, interactive TV and CD-ROM (Laurillard, 2006). E-learning technologies can be used in three main ways in universities and colleges: technology enhanced classroom teaching; distance education (in a bid to reach more students who cannot gain access to conventional universities); and distributed learning (a mix of deliberately reduced face to face teaching and online learning also called 'the mixed mode' or 'flexible learning' (Neema-Abooki & Kitawi, 2014).

E-learning technologies offer learners control over content, learning sequence, pace of learning, time, and often media, allowing them to tailor their experiences to meet their

personal learning objectives, manage access to e-learning materials, consensus on technical standardization, and methods for peer review of these resources. E-learning presents numerous research opportunities for lecturers, along with continuing challenges for documenting scholarship. Innovations in e-learning technologies point toward a revolution in education, allowing learning to be individualized (adaptive learning), enhancing learners' interactions with others (collaborative learning), and transforming the role of the lecturers. The integration of e-learning into colleges of education can catalyze the shift toward applying adult learning theory, where lecturers will no longer serve mainly as the distributors of content, but will become more involved as facilitators of learning and assessors of competency and learning effectiveness of the students in college of education.

The sphere of e-learning in tertiary institution has engaged the attention of researchers. For instance, Falana (2015), in his presentation on prospects and challenges of e-learning in Nigerian university education, a case study of National Open University of Nigeria (NOUN), Akure study center, reported that the level shows that acquaintance level necessary for the use of e-learning facilities by students were very high and inability to operate computer and internet devices makes e-learning boring to National Open University of Nigeria students. Falana (2015) added that using e-learning does not waste students/staff time but inequality of access to technology is the prior challenge of using e-learning among the students of NOUN. King et al. (2017) investigated student and professor perspectives on exemplary practices in the use of information and communication technologies (ICTs) and e-learning in colleges. Highlights of the student survey indicate that there were no significant differences between professors' gender, the English and French colleges, and those born in and outside of Canada. An overwhelming majority of students liked it when their professors used ICTs in their teaching and were able to detail their views (e.g., wanting access to Power Points online). It was reported that it is preferable for professors to employ simpler and fewer ICTs well than to use many, complicated ones without a pedagogical purpose. Finally, in comparing the two perspectives, the results show that many students wanted to use their own technology in the classroom but that a majority of their professors did not allow.

Stosic and Stosic (2015) observe that there seems to be two categories of teachers in the understanding of the use of e-learning for teaching and learning in Nigeria. Some of them have thorough understanding of modern technical appliances and their operation while others think it is necessary for them to gain additional technical knowledge of the appliances and methods, teaching methods, student-teacher relationship etc. These two groups represent a group of teachers between older and younger teachers. Older teachers during their study did not have the possibility of training with modern technical appliances, did not have the information technology, educational technology, while the younger generation of teachers possess the knowledge required for the use of educational technology.

The teaching quality by lecturers, especially in colleges of education, should be highly standard and be updated with what is obtainable in the developed world due to the fact that the institution is shouldered with the responsibility of producing teachers who teach in the lower basic schools which is the foundation for education. In recognition of the pivotal role of quality teachers in the provision of quality education, improved teacher education shall continue to be emphasized in educational planning and development. Teacher education contributes to the production of highly motivated, conscientious and efficient classroom teachers for all levels of the educational system. Also improved teacher education encourages the spirit of enquiry and creativity in teachers, helps teachers fit into the social life of the community and the society at large, enhances their commitment to national goals, provides them with the intellectual and professional background adequate for their assignment, makes them adaptable to changing situations and enhances their commitment to the teaching profession (Adeyemo, Adesope & Ajayi, 2009).

Unfortunately, most tertiary institutions including colleges of education in Nigeria are hitherto struggling with the incorporation of e-learning in their respective schools (Aduwa-Ogiegbean & Iyamu, 2008). It is on the basis of this background that the researchers decided to carry out an assessment of lecturers' knowledge and usage of e-learning for academic purpose in Federal College of Education (Technical), Umuze, Anambra State, Nigeria.

Purpose of the Study

The main purpose of this study was to assess the lecturers' knowledge and usage of e-learning for academic purposes in Federal College of Education (Technical), Umuze, Anambra state, Nigeria. Specifically the study assessed:

1. Level of lecturers' knowledge of e-learning in Federal College of Education (Technical), Umuze.
2. Level of the lecturers' usage of e-learning for academic purpose in Federal College of Education (Technical), Umuze.

Research Questions

1. What is the level of the lecturers' knowledge of e-learning in Federal College of Education (Technical), Umuze?
2. What is the level of the lecturers' usage of e-learning for academic purpose in Federal College of Education (Technical), Umuze?

Research Hypotheses

Ho1: There is no significant difference in the male and female lecturers' knowledge of e-learning for academic purposes in Federal College of Education (Technical), Umuze.

Ho2: There is no significant difference in the junior and senior lecturers' usage of e-learning for academic purposes in Federal College of Education (Technical), Umuze.

Methodology

A descriptive research design was adopted in the study. The population of the study comprised of all the 444 lecturers in the College. Proportionate and simple random sampling techniques were employed to sample 222 lecturers across the seven schools in the College. Questionnaire on the knowledge and usage of e-learning mode was adapted from the Raymond (2016). 19 out of the 21 items were taken from the questionnaire and all the items were restructured to suit the purpose of this study. The instrument contained two sections: A and B. Section A contained demographic data of the respondents and this includes: gender, age, educational background and religion. While section B consists of nineteen (19) items of the questionnaire. The questionnaire was validated by experts in educational Test and Measurement through face and content validity. Test re-test method of reliability was adopted for reliability; the data was analyzed using Pearson Product Correlation Coefficient statistical tool and the results revealed reliability co-efficient of 0.68. The questionnaire was administered to the respondents by the researchers and with the assistance of two trained research assistants. The data collected from the field were analyzed using SPSS software (Statistical packages for social sciences 21 version). Mean and standard deviation of descriptive statistics were used to answer the research questions, while the research hypotheses were tested using the chi-square inferential statistics at 0.05 significance level.

Presentation of results

Table 1: Population distribution of respondents based on gender and work level

Variable	Frequency	Percentage
Gender		
Male	88	39.6
Female	134	60.4
Total	222	100
Work Level		
Junior Lecturers	74	33.3
Senior Lecturers	148	66.7
Total	222	100

Table 1 indicated that out of the 222 lecturers sampled for the study, 88 (39.6%) were male lecturers, while 134 (60.4%) were female lecturers; more so while the number of the junior lecturers was 74 (33.3%), 148 (66.7%) were senior lecturers.

Research Question One: What is the level of lecturers' knowledge of e-learning in Federal College of Education (Technical), Umuze?

Table 2: Mean and Standard Deviation on the level of lecturers' knowledge of e-learning in Federal College of Education (Technical), Umuze

Lecturers' knowledge of e-learning	N	Mean	SD
High	121	58.16	9.23
Low	101	39.11	8.72

Table 2 revealed that 121 lecturers with mean score of 58.16 and standard deviation of 9.23 were with high knowledge of e-learning, while 101 lecturers with mean score of 39.11 and standard deviation of 8.72 were with low knowledge of e-learning

Research Question Two: What is the level of the lecturers' usage of e-learning for academic purposes in Federal College of Education (Technical), Umuze?

Table 3: Mean and Standard Deviation of the level of the lecturers' usage of e-learning for academic purpose in Federal College of Education (Technical), Umuze

Lecturers' Usage of e-learning	N	Mean	SD
High	83	50.22	6.99
Low	139	69.41	9.62

Table 3 shows that 83 lecturers with mean 50.22 and standard deviation of 6.99 recorded high usage of e-learning, while 139 lecturers with mean 69.41 and standard deviation of 9.62 recorded low usage of e-learning.

Ho1: There is no significant difference in the male and female lecturers' knowledge of e-learning for academic purpose in Federal College of Education (Technical), Umuze.

Table 4: Chi-square (χ^2) analysis showing difference in the male and female lecturers' knowledge of e-learning for academic purposes in Federal College of Education (Technical), Umuze

Gender	High	Low	Total	Df	χ^2-Calc	χ^2-Crit.	Decision
Male	22	66	88				
Female	99	35	134	1	35.55	26.65	Sig.
Total	121	101	222				

Table 4 indicates the calculated χ^2 value of 35.5 and the critical χ^2 value of 26.65 at 0.05 level of significance with 1 as the degree of freedom. Since the calculated χ^2 value is greater than the critical χ^2 value, the hypothesis one is rejected. Hence, there was a significant difference in the male and female lecturers' knowledge of e-learning for

academic purpose. Specifically, female lecturers recorded higher knowledge than the male lecturers who recorded low knowledge of e-learning for academic purpose in Federal College of Education (Technical), Umunze.

Ho2: There is no significant difference in the junior and senior lecturers' usage of e-learning for academic purpose in Federal College of Education (Technical), Umunze.

Table 5: Chi-square (χ^2) analysis showing difference in the senior and junior lecturers' usage of e-learning for academic purpose in Federal College of Education (Technical), Umunze

Level	High	Low	Total	Df	χ^2 -Calc	χ^2 -Crit.	Decision
Senior	61	13	74				
Junior	112	36	148	1	37.44	46.65	Not sig.
Total	173	49	222				

Table 5 revealed the calculated χ^2 value of 37.44 and the critical χ^2 value of 46.65 at 0.05 level of significance with one as the degree of freedom. Since the calculated χ^2 value is less than the critical χ^2 value, the hypothesis 2 is accepted. Hence, there was no significant difference in the junior and senior lecturers' usage of e-learning for academic purposes. Pointedly, both junior and senior lecturers' usage recorded low usage of e-learning for academic purpose in Federal College of Education (Technical), Umunze.

Discussion of Findings

The first finding of this study revealed that the lecturers have moderate knowledge of e-learning in Federal College of Education (Technical), Umunze. This finding is consistent with the finding of King et al. (2017) who found an overwhelming majority of students enjoying learning when their professors used ICTs/e-learning in their teaching and were able to detail their views (e.g., wanting access to Power Points online). Contrariwise, further findings of their study showed that many students wanted to use their own technology in the classroom for learning but majority of their professors did not allow them. This could probably be due to inadequate knowledge of the use of e-learning,

The second finding of this study revealed that the level of the lecturers' usage of e-learning for academic purpose in Federal College of Education (Technical), Umunze was low. This finding was not consistent with the finding of Falana (2015) who found out that acquaintance level necessary for the use of e-learning facilities by students were very high and inability to operate computer and internet devices makes e-learning boring to National Open University of Nigeria students. He added that using e-learning does not waste students/staff time but inequality of access to technology is the prior challenge of using e-learning among the students of NOUN.

The third finding of the study revealed that there was a significant difference in the male

and female lecturers' knowledge of e-learning for academic purpose. Specifically, female lecturers recorded higher knowledge than the male lecturers who recorded low knowledge of e-learning for academic purpose in Federal College of Education (Technical), Umuze. This finding was not in line with the finding of King et al (2017) who found out that there were no significant differences between on exemplary practices in the use of information and communication technologies (ICTs) and e-learning in colleges based on the genders of professors, the English and French colleges, and those born in and outside of Canada.

The fourth finding of the study suggested that there was no significant difference in the junior and senior lecturers' usage of e-learning for academic purposes. Pointedly, both junior and senior lecturers recorded low usage of e-learning for academic purpose in Federal College of Education (Technical), Umuze. This finding disagrees with Stosic and Stosic (2015) assertion that there seems to be two categories of teachers in the understanding of the use of e-learning for teaching and learning in Nigeria. Some of them have thorough understanding of modern technical appliances and their operation while others think it is necessary for them to gain additional technical knowledge of the appliances, teaching methods and student-teacher relationship. These two groups represent a group of teachers between older and younger teachers. Older teachers during their study did not have the possibility of training with modern technical appliances, did not have the information technology, educational technology while the younger generation of teachers possess the knowledge required for the use of educational technology.

Conclusion

Undoubtedly, the effective use of the e-learning materials by the lecturers in Federal College of Education (Technical), Umuze would enhance their teaching productivity and enrich their students' skill to favourably compete with their counterparts worldwide. As it has been revealed in this study, the lecturers' knowledge is high on e-learning but the usage of e-learning is low. This result is preceded by some factors. The fact that the lecturers have the knowledge is not enough; it is important to provide enabling environment and make the e-learning materials available for them to effectively use them in facilitating effective learning acquisition by the students in college. Teachers in training should be well equipped in learning through the aid of technology which is fast gaining ground these days.

Recommendations

Based on the findings of this study the following recommendations were made:

1. The lecture rooms should be well equipped with the e-learning materials.
2. e-learning materials are technological resources which cannot be used without electricity. Hence constant electricity should be made available in the College.

3. The college authority should ensure that all the lecturers in the college use e-learning materials in teaching the students.
4. The college authority should organize workshop for all the lecturers on the use of modern e-learning materials for academic purposes.
5. Experts who can repair any faulty e-learning materials should be made available in the college in case of the need to prevent any disuse of e-learning material by the lecturers.
6. The college authority should ensure immediate replacement of any e-learning-facilitating resources should any one is damaged.

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