

Utilization of E-Learning Opportunities in Curriculum Delivery of Formal and Non-Formal Education in A Security Challenged Society

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Abstract: The study focused on the utilisation of e-learning opportunities in curriculum delivery of formal and non-formal education in security challenged society. A descriptive survey design was adopted which enable the researchers to collect and analyze data from a sample of the entire population without any manipulations. The target population for this study was made up of university lecturers in Oyo State. A sample size of one hundred and forty (140) participants was used for the study, which was selected through purposive and random sampling techniques. Two research questions were generated and one (1) null hypothesis was tested at a 0.05 level of significance. The instrument used for the study was titled "E-learning Opportunities in Curriculum Delivery in Security Challenged Society (EOCDSCS)". The instrument was validated and the reliability was determined using the test-retest method with Pearson Product Moment Correlation (PPMC). The reliability coefficient obtained was 0.85 level of significance. The research questions raised for the study were answered using descriptive statistics of mean and standard deviation while the formulated hypothesis was tested using inferential statistics of t-test at 0.05 level of significance. The findings showed that all the respondents were close to one another in their opinions that they highly needed technological as well as pedagogical competency training for effective e-learning curriculum delivery of formal and non-formal education in security challenged society. It was recommended that there should be an internet immersed curriculum which should be provided by the authority through the help of the curriculum specialists.

Keywords: e-Learning, curriculum delivery, technological competency, pedagogical competency, security challenged.

1. INTRODUCTION

Nigeria is facing an array of security challenges that are affecting our educational system. With Nigeria's diverse security threats, the risks they pose, and the landscapes in which they germinated have an impact on all the country's regions and the educational system is not excluded. Mark (2021) observed that criminal games in North-West Nigeria have been behind a surge of kidnappings for ransom targeting boarding schools. In the last five years, Nigeria has experienced the greatest concentration of kidnapping in schools. Also, Biafran secessionist activities have escalated in recent years, leading to violent clashes between Nigeria's security forces and militia groups resulting in dozens of deaths. Armed Fulani gangs are seriously terrorizing South-Western Nigeria killing innocent people, raping, kidnapping, and setting their houses ablaze. Thousands of lives have been lost and extensive property damage suffered, setting the already slow development of Nigeria even backwards in the area of education.

Nomadic grazers have been exposed to rural banditry and there has been an increase in the violent attack between herdsmen and farmers as a result of encroachment into farmlands (Ibrahim, 2020). The safety and security of school administrators, students, teachers, and the entire community where the schools are located are no longer guaranteed in Nigeria. The traumatic experience of teachers and students in most schools attacked instil fear in them which makes it difficult for them to go to school. As a result of ongoing planning, coordinating curriculum, organizing, financing and evaluating all educational activities on the part of students, school heads and teachers in the schools attacked are hindered. Therefore, it affects the teaching and learning processes because the school environment is unsafe and learning cannot be properly conducted and coordinated in an unsafe school environment (Uzuegbu-Wilson, 2019). [5].

As a result of ongoing security challenges in the country, e-learning is the next option in the curriculum delivery of formal and non-formal education. Formal education corresponds to a

systematic, organized educational model, structured and administered according to a given set of laws and norms, presenting a rather rigid curriculum as regards objectives, content and methodology (Balogun, 2018). It involves the teacher, students and the institution. It is a form of education carried out under the tutelage of the schools, which involves assessments to advance students to the next learning stage. Non-formal education is often used interchangeably with terms such as community education, adult education, lifelong education and second-chance education. It refers to a wide range of educational initiatives in the community, ranging from home-based learning to government schemes and community initiatives. Again, non-formal education characteristics are found when the adopted strategy does not require student attendance, decreasing the contacts between teacher and student and most activities take place outside the institution. It should be noted that non-formal education seems better to meet the individual needs of the students (Richard, 2020). Examples of non-formal education are correspondence learning, distance learning and open systems, which because of their features fall within the scope of non-formal educations.

E-learning comprises all forms of electronically supported teaching and learning which could be in the form of Computer-Based Learning (CBL), Computer Based Training (CBT), Computer-Supported Collaborative Learning (CSCL) or technology-enhanced learning (Johnson, Batista & Newton, 2019). It should be noted that e-learning could be useful in improving the quality of education in Nigerian schools. It could be used to correct the imbalances of the conventional system of delivery and helps in developing new teaching and learning techniques especially in this security challenged society. In his own opinion, Akintunde (2018) stressed that e-learning is an innovative approach for delivery electronically mediated, well-designed, interactive learning and learner-centred approach to anyone, any place and any time by utilizing the internet and digital technologies

Furthermore, e-learning offers convenience to learners by allowing them to choose a suitable time for their studies. With the security challenge in the country, they can stay at any place of their choice for learning activities and progress at their own pace (Jemitope, 2020). Teaching and learning in e-learning occur faster than in normal face to face mode of study. The internet operates at a high speed that enables information to be received within seconds thousands of miles around the world. There has been increasing interest recently in e-learning in teaching and learning in universities. The National Open University of Nigeria (NOUN) is a practical example of an e-learning University. There is a need to seek new methods of teaching and learning in distance educations that uses modern technologies to effectively reach out to groups who have not benefited from the formal school system.

Teachers use a range of strategies to deliver the curriculum depending on the needs of the group and individuals within it. Curriculum delivery is designed to meet the needs of the range of students within each year level as those with disabilities and other particular needs. It provides for a balance of programmes covering all essential learning areas which include attitudes, values, essential skills, products and processes (Badmus, 2019). Again, schools have a coherent, sequenced plan for curriculum delivery that ensures consistent teaching and learning expectations and a clear reference for monitoring learning. A strong alignment has been achieved between the overall curriculum delivery plan, term and unit plan, classroom

teaching and the regular assessment of student progress about curriculum expectations. Therefore, this study sought to examine the utilization of e-learning opportunities in curriculum delivery of formal and non-formal education in security challenged society.

The following research questions guided the study:

1. How do the university lecturers perceive the technological competency training needed for effective utilization of e-learning in curriculum delivery of formal and non-formal education in security challenged society?
2. What are the pedagogical competency training needed by university lecturers for effective utilization of e-learning in curriculum delivery of formal and non-formal education in security challenged society?

2. METHOD

This study adopted a descriptive survey design. The population for the study comprised lecturers in both Federal and State Universities in Oyo State. The study was conducted in three (3) universities in Oyo State. A purposive sampling technique was used to select the three universities in the state that satisfied the condition of being federal and state-owned institutions. The sampled universities are: University of Ibadan, Ibadan, Ladoké Akintola University of Technology, Ogbomoso, and The Technical University, Ibadan, Oyo State. Simple random sampling was used to select sixty lecturers from a pool of lecturers in the University of Ibadan and forty lecturers each from the Ladoké Akintola University, Ogbomoso and The Technical University of Ibadan. An instrument was used for the study and titled "E-learning Opportunities in Curriculum Delivery in Security Challenged Society (EOCDSCS)" on a four-point rating scale of Strongly Agree (SA), Agree (A), Strongly Disagree (SD) and Disagree (D), with corresponding weights of 4, 3, 2, and 1 respectively. Face and content validity was ascertained for the study by giving it to experts in a related study. The instrument was subjected to content reliability using the test-retest method with Pearson Product Moment Correlation (PPMC). The reliability coefficient obtained was 0.85. The copies of EOCDSCS were administered to the lecturers of the sampled universities and data collected were analyzed using mean and standard deviation to answer the two (2) research questions. The only null hypothesis that guided the study was tested at a 0.05 level of significance and t-test statistics was used to determine the significant difference between two different means.

3. RESULTS

Research Question 1

1. How do the university lecturers perceive the technological competency training needed for effective utilization of e-learning in curriculum delivery of formal and non-formal education in security challenged society?

The mean ratings on items 1, 3, 5, 6, 8, 9 and 10 above ranged from 3.45 to 3.93. This implied that technology competency training by university lecturers is highly needed. Item 2, 4 and 7 had their mean ratings 2.66, 3.41 and 3.41 respectively which implied that university lecturers averagely needed technological competency training on each of the items. The standard deviation on each item in the above table ranged between 0.55 and 0.93 while the average standard deviation was 0.74. This

implied that the respondents were close to one another in their opinions that they highly needed technological competency training for effective e-learning curriculum delivery in security challenged society.

Research Question 2

What is the pedagogical competency training needed by university lecturers for effective utilization of e-learning in curriculum delivery of formal and non-formal education in security challenged society?

The mean ratings on all items showed that pedagogical competency training is highly needed by university lecturers. The standard deviation on the items in the table above ranged from 0.53 to 0.98 which indicated that all the respondents were close to one another in their opinions that pedagogical competency training is highly needed by the university lecturers in curriculum delivery in security challenged society.

Hypothesis

There is no significant difference in the responses of university lecturers in the Federal and state universities in Oyo State on the technological and pedagogical competency training needed by

university lecturers for effective utilization of e-learning in curriculum delivery of formal and non-formal education in security challenged society.

The result in table 3 above indicates that the calculated t-value (t-cal) is less than the table value (t-table) at 0.05 level of significant, (i.e. $t\text{-cal} = 1.49 < t\text{-table} = 1.68$, $df = 138$; $p > 0.05$). This indicates that there is no significant difference in the responses of lecturers in the Federal and State Universities in Oyo State on the required technological and pedagogical competency training needed for effective utilization of e-learning in curriculum delivery of formal and non-formal education in security challenged society. This means that there was no significant difference in the mean ratings of the two groups of respondents on the technological and pedagogical competency training needed for effective utilization of e-learning in curriculum delivery of formal and non-formal education in security challenged society. Therefore, the null hypothesis is hereby accepted.

Table 1: Descriptive Statistics of the Responses of Lecturers on the Required Technological Competency Training Needed for Effective e-learning for Curriculum Delivery in a Security Challenged Society

S/N	ITEMS	X	SD	REMARKS
1.	E-mail management skills	3.71	0.55	Highly needed
2.	Word and data processing skills	3.41	0.68	Averagely needed
3.	Electronic presentation skills	3.76	0.93	Highly needed
4.	Computer software installation and downloading skills	2.66	0.91	Averagely needed
5.	Web navigation skills	3.62	0.68	Highly needed
6.	Scanning knowledge	3.93	0.84	Highly needed
7.	Computer-related storage devices knowledge	3.41	0.68	Averagely needed
8.	Video conferencing skills	3.57	0.68	Highly needed
9.	Web communication skills	3.54	0.92	Highly needed
10.	File management and window	3.78	0.56	Highly needed
	Aggregate	3.53	0.74	Highly needed

Table 2: Descriptive Statistics of the Responses of Lecturers on the Required Pedagogical Competency Training Needed for Effective e-learning for Curriculum Delivery in a Security Challenged Society

S/N	ITEMS	X	SD	REMARKS
1.	Create e-learning tasks that can be motivating to students	3.85	0.98	Highly needed
2.	Ability to share insights with colleagues on effective delivery practices	3.66	0.84	Highly needed
3.	Ability to create online communications and forums for effective feedback	3.81	0.53	Highly needed
4.	Justified feedback to the learners on their performance	3.82	0.62	Highly needed
5.	Enhance e-learning instructional strategies	3.61	0.86	Highly needed
6.	Ability to create, distribute and grade assignments	3.74	0.92	Highly needed
7.	Ability to select and organize the required e-learning content and experiences	3.55	0.88	Highly needed
8.	Ability to study e-learning curriculum	3.60	0.89	Highly needed

9.	Ability to select and state the evaluation strategies to be used	3.94	0.63	Highly needed
10.	Ability to provide for individual students' needs and learning styles	3.58	0.78	Highly needed

Table 3: t-test Statistics of Mean Responses of University Lecturers in Federal and State University on the Technological and Pedagogical Competency Training

University Lecturers	N	X	SD	df	t-cal	t-tab	Decision
Federal	60	3.84	0.53	138	1.49	1.68	Accepted
State	80	3.54	0.66				

4. DISCUSSION

The first finding of the study showed that university lecturers needed technological competencies for effective e-learning curriculum delivery in security challenged society. Findings revealed that the respondents were closed to one another in their opinions that they highly needed technological competency training skills on e-mail management, electronic presentation, web navigation, video conferencing, as well as web communication skills for effective e-learning curriculum delivery in security challenged society. This may be as a result of the fact that e-learning skills are required of the university lecturers because e-learning is a new method of teaching and learning which uses modern technologies to effectively reach out to various groups of learners. The influence of e-learning in security challenged society will increase access to educational opportunities. This finding is in line with Ahmed and Abdulahi (2020) that modern-day teaching and learning are student-centred, utilizing the computer, internet facilities and other e-learning resources. The lecturers need to possess the computer, e-resources and technological competency skills to function well. Therefore, e-learning should be anchored in every facet of education in Nigeria and the lecturers should be provided with adequate training to become ICT compliant.

The result of the study also showed that university lecturers needed pedagogical competency training for effective e-learning curriculum delivery in security challenged society. Pedagogy is said to be a science of teaching for the effective learning of learners. It involves the teacher's capability to manage the teaching and learning processes from the planning to the evaluation stages. It showed that university lecturers need training in pedagogical competencies for effective e-learning curriculum delivery of formal and non-formal education in security challenged society. The findings agreed with Olukunle (2018) submission that the pedagogical gains that necessitate the incorporation of e-learning in teaching and learning in the tertiary institutions include greater access to information, effective communication, increased corporation and collaboration, cost-effectiveness as well as pedagogical improvement. Pedagogical sharing of new practices among universities lecturers can lead to the enhancement of qualified education in security challenged societies. Therefore, the lecturer's needs up-date in their pedagogy and also needs service training to acquire effective skills in emerging technologies and teaching methods. The lecturers need to be going for periodic training through conferences, workshops, in-service training and seminars to upgrade their professional skills and competencies.

The study also revealed that there was no significant difference in the responses of lecturers in the Federal and State Universities in Oyo State on the required technological and pedagogical competency training needed for effective utilization of e-learning in curriculum delivery of formal and non-formal education in security challenged society. The finding could be attributed to the need for lecturers to be well trained and informed in the use of strategies required in e-learning delivery. This finding corroborated the result of a study carried out by Thomas, Adeyanju, Popoola and Odewale (2020) on competency training needs of lecturers for effective delivery in teacher education programmes in South-west, Nigeria that lecturers needed training for technology-related competencies and pedagogical knowledge. Also, a study by Gokdas and Torun (2017) showed that Instructional Technology and Material Design (ITMD) courses influenced preservice teachers' acquisition of techno pedagogical education competencies. The following were observed to be critical predictor variables in techno pedagogical education competency acquisition: having received computer training before taking the ITMD courses and the average time one spends using a computer per day.

5. CONCLUSION

Based on the findings of the study, it is concluded that university lecturers highly needed technological and pedagogical competency training for effective utilization of e-learning in curriculum delivery of formal and non-formal in security challenged society. The need for training of university lecturers for the effective operation of information technologies and e-learning opportunities should be overemphasized. Moreover, university lecturers should be adequately trained in Information and Communication Technological (ICT), and pedagogy for effective e-learning curriculum delivery. Also, University lecturers should be sponsored for the acquisition of the necessary skills for the operation of e-learning. Lastly, many strategies should be utilized for the adequate competency training of the university lecturers for effective e-learning in curriculum delivery of formal and non-formal education in security challenged society.

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