

EVALUATING LECTURERS' PREPAREDNESS FOR E-LEARNING ADOPTION IN TERTIARY INSTITUTIONS IN BAYELSA STATE

Nizoloman Nabhel Odual

Department of Science Education, Faculty of Education
Niger Delta University, Wilberforce Island, Bayelsa State, Nigeria

Abstract - This study investigated the readiness of lecturers to adopt e-learning platforms in tertiary institutions in Bayelsa State, employing a descriptive survey research design. Three research questions were posed and corresponding hypotheses were formulated for the study. A sample of 121 lecturers from tertiary institutions in Bayelsa State participated in the study. The researchers developed and validated a "Lecturers Readiness Level Questionnaire" (LRLQ), which demonstrated a reliability coefficient of 0.79 using the Cronbach Alpha formula. Descriptive statistics (mean and standard deviation) and inferential statistics (t-test) were used to analyze the data. The findings revealed a low level of lecturers' readiness to adopt e-learning platforms, attributed to ignorance, lack of equipment, and resistance to change.

Keywords: Lecturers' Preparedness, E-Learning Adoption, Tertiary Education

Introduction

E-learning is any learning that utilizes electronic communication, encompassing various ICT technology-based applications and processes (Edo, 2016). It involves the use of technological devices, software, and hardware to facilitate learning, and its definitions emphasize the role of electronic technology in enhancing teaching methods and expanding educational opportunities (Hambrecht, 2010). The advent of e-learning has transformed tertiary education, offering limitless convenience, expanded access, and unprecedented opportunities for learners (Weller, 2017). It has become a vital tool in education, offering an alternative to traditional teaching methods and providing access to a wide range of learning resources (Clarke, 2018).

Within universities, the adaptability of e-learning enables educational institutions to innovate and refine their instructional strategies, thereby yielding enhanced results. It has enabled the intersection of knowledge content, pedagogy, and technology, transforming the learning experience (Ezekwe *et al.*, 2014). This study aims to explore the e-learning readiness levels of lecturers in tertiary institutions in Bayelsa State, Nigeria, and identify areas for improvement. In summary, e-learning is a relatively new concept in Nigeria's educational system, marking a significant shift from traditional curriculum implementation. It aims to transform and innovate teaching and learning methods across all educational

levels, including university applications. The integration of e-learning in classroom teaching has challenged both teachers and students to develop new skills in information management, fostering independent learning, expertise, and self-responsibility. Effective utilization of e-learning enables active learning, promotes sharing of academic resources, and enhances the overall learning environment.

Globally, e-learning has sparked significant interest in learning responsibilities, both within and outside the classroom. However, lecturers who lack computer training may struggle to embrace e-learning. To address this, universities often sponsor staff development programs, such as workshops and conferences, to expose lecturers to global challenges and best practices in their fields. According to Cavusa and Kanbulb (2010), e-learning offers several benefits, including immediate feedback on tests and assignments, flexible access to learning materials, and cost-effectiveness. The e-learning process enables broad viability and availability of educational opportunities, making it a revolutionary approach to teaching and learning. This approach breaks down disciplinary boundaries and creates a more dynamic learning environment.

Traditional educational settings often fall short in preparing students for the modern workforce, as they may not provide the necessary skills and adaptability required in today's society. Universities that fail to incorporate new technologies and innovative approaches may not be adequately preparing their students for success in the 21st century. E-learning readiness refers to the level of preparedness among stakeholders or institutions to effectively implement e-learning (Ezekwe *et al*, 2014). This concept encompasses various aspects that should be evaluated before introducing e-learning (Mac-Ikemenjima, 2005). It includes the ability of lecturers to adapt to technological changes, facilitate collaborative learning, and support self-paced learning. Additionally, students' motivation and discipline are crucial for successful e-learning, as they need to take ownership of their learning experience and respond to online instructions (Ezekwe *et al*, 2014). Moreover, lecturers must possess advanced digital skills, including the ability to search, select, analyze, and evaluate information, as well as create, publish, and disseminate their research and materials (Edo, 2016). This requires creativity, efficiency, and effective communication and collaboration.

E-learning is a potent tool with vast potential, but its effectiveness is hindered when lecturers utilize it merely as a means of content delivery. To fully

harness its capabilities, technology must be leveraged beyond mere substitution for traditional teaching methods (Olson et al., 2011). Currently, a significant challenge exists due to the disparity between students' internet usage and lecturers' adoption of technology. Students' superior technological proficiency can intimidate lecturers, making them hesitant to incorporate modern technology in the classroom, thereby perpetuating traditional teaching methods. In other words, e-learning can only reach its full potential if lecturers move beyond using it as a simple replacement for traditional teaching and instead, embrace its transformative capabilities. However, the reality is that many lecturers are not yet comfortable using technology, and this discomfort can limit their willingness to adopt innovative teaching methods. As a result, traditional teaching methods remain prevalent. Educators are hindered by inadequate technology, poor internet connectivity, insufficient professional development, and a scarcity of incentives in addition to high technology costs can hinder lecturers' access to training opportunities, particularly if they lack resources and experience (Goode, 2010; Brenya, 2024). This is reflected in the challenges university academic staff face, who often require ICT competencies to utilize technology effectively. In response, university management has implemented various development programs to bridge the digital divide, including training in modern information technology, manpower development, and provision of ICT facilities.

In a related study, Edo (2016) investigated attitude of lecturers towards e-learning in universities in Rivers State. Employing a descriptive survey methodology, this investigation explored three research questions and corresponding hypotheses via a comprehensive analysis of data provided by a sample of 706 academics from three participating universities. The findings, analyzed through mean, standard deviation, and z-test statistics, revealed a concerning lack of enthusiasm among academic staff towards e-learning. Ezekwe *et al.* (2014) conducted a study on the e-learning readiness levels of students, surveying 960 students. The results showed that students' readiness levels were low, with no significant difference between genders.

In a separate study, Dike (2013) conducted an independent study to assess teachers' attitudes toward e-learning in Tanzanian higher education. The research sampled 258 lecturers from four higher institutions and provided empirical evidence of lecturers' positive perceptions regarding e-learning. Additionally, computer exposure significantly influenced lecturers' attitudes toward e-learning.

Considerable studies have investigated university students' preparedness for e-learning, however, there is a significant gap in research on universities and academic staff's readiness. It is widely acknowledged that without adequate e-learning readiness, staff and universities are unlikely to succeed.

Purpose of the Study

This study aimed to address this gap by assessing lecturers' e-learning readiness levels in Bayelsa state tertiary institutions. Specifically, the study sought to:

- 1 Compare the readiness levels of female and male lecturers.
- 2 Compare the readiness levels of lecturers in state and federal tertiary institutions.

Research Questions

The following research questions guided the study:

- 1 What is the difference in the readiness levels of male and female lecturers in using e-learning platforms?
- 2 What is the difference in the readiness levels of lecturers in state and federal tertiary institutions in using e-learning platforms?

Research Hypotheses

The following null hypotheses are tested at a 0.05 level of significance:

H₀₁: There is no significant difference in the readiness levels of male and female lecturers in using e-learning platforms.

H₀₂: There is no significant difference in the readiness levels of lecturers in state and federal tertiary institutions in using e-learning platforms.

Methods

This study employed a descriptive survey research design, which involves collecting and analyzing data from a representative sample of the population. This design is suitable for this study as it aims to generalize the findings to the entire population of lecturers in tertiary institutions in Bayelsa State. The population comprised lecturers from 2 federal and 7 state tertiary institutions in Bayelsa State. The email addresses of all lecturers were collected, and a monkey survey service was used to send the questionnaire to all emails. A total of 121 lecturers were randomly selected and the lecturers responded, forming the sample for this study. The data collection instrument was a questionnaire developed by the researchers, titled "Lecturers Readiness Level Questionnaire (LRLQ)". The questionnaire consisted of two sections: Section A (demographic variables) and

Section B (12 items measuring readiness level on a 4-point Likert scale). The instrument's content and face validity were reviewed by two experts, and their suggestions were incorporated into the final draft. The instrument was trial-tested with 20 lecturers (not part of the sample) to ensure reliability, yielding a coefficient of 0.75 using the Cronbach Alpha formula. The data were analyzed using mean and standard deviation to answer the research questions, and t-tests at a 0.05 level of significance to test the research hypotheses.

Results

Research Question One: What is the difference in the readiness level of male and female lecturers in using e-learning platforms in tertiary institutions in Bayelsa State?

Table 1: Mean and Standard Deviation of Male and Female Lecturers' Readiness Level

S/N	Item	Male			Female		
		\bar{x}	St.D.	Decision	\bar{x}	St.D.	Decision
1	I have the basic skills to use a computer	3.10	1.13	High	2.85	0.66	High
2.	I can create presentations using PowerPoint, create spreadsheets using Excel, and prepare documents using Word for content delivery	2.32	1.02	Low	2.27	0.89	Low
3.	I know how to communicate using email, and Skype and send text/audio/video files using cloud computing	2.16	0.86	Low	2.34	0.64	Low
4.	I know how to download and install software	2.23	0.87	Low	2.01	1.25	Low
5.	I have the basic skills to search for information by browsing the internet and receiving data	2.40	0.88	Low	2.51	0.77	High
6.	I can troubleshoot most problems associated with using a computer	2.36	0.84	Low	2.12	0.87	Low
7	I have access to a computer in the school	3.60	1.21	High	3.23	1.12	High
8	I have access to relevant hardware and printers/scanners/overhead	2.34	0.64	Low	2.45	0.66	Low

	projectors						
9	I have access to adequate software	2.98	0.79	High	2.76	0.85	High
10	I have access to high-speed internet	2.36	0.82	Low	2.44	0.69	Low
11	I am interested in upgrading my work performance through e-learning	2.41	1.06	Low	2.47	0.71	Low
12	The thought of using e-learning technologies motivates me	2.38	0.63	Low	2.36	0.62	Low
Aggregate Values		2.63	0.98	Low	2.31	1.04	Low

Table 1 presents the mean scores of male and female lecturers' readiness levels regarding in using e-learning platforms in tertiary institutions in Bayelsa State. The mean scores of 2.45 for male lecturers and 2.31 for female lecturers indicate that both groups have a relatively low readiness level in using e-learning platforms. The aggregate scores suggested that there is a need for improvement in lecturers' readiness in order to harness the full potential of e-learning platforms and maximize their pedagogical effectiveness.

Research Question 2: What is the difference in the readiness level of lecturers in state and federal tertiary institutions in using e-learning platforms in Bayelsa State?

Table 2: Mean and Standard Deviation of Lecturers in State and Federal Tertiary Institutions

S/N	Item	Male			Female		
		\bar{x}	St.D.	Decision	\bar{x}	St.D.	Decision
1	I have the basic skills to use a computer	2.65	0.76	High	2.67	0.87	High
2.	I can create presentations using PowerPoint, create spreadsheets using Excel, and prepare documents using Word for content delivery	2.32	0.67	Low	2.26	0.63	Low
3.	I know how to communicate using email and Skype and send text/audio/video files using cloud computing	2.18	0.59	Low	2.21	0.73	Low

4.	I know how to download and install software	2.31	0.61	Low	2.46	0.81	Low
5.	I have the basic skills to search for information by browsing the internet and receive data	2.22	0.65	Low	2.35	0.61	Low
6.	I can troubleshoot most problems associated with using a computer	2.08	0.79	Low	2.01	0.63	Low
7	I have access to a computer in the school	2.10	0.52	Low	2.38	0.68	Low
8	I have access to relevant hardware and printers/scanners/overhead projectors	2.18	0.64	Low	2.29	0.66	Low
9	I have access to adequate software	2.03	0.77	Low	2.05	0.61	Low
10	I have access to high speed internet	2.17	0.87	Low	2.50	0.72	High
11	I am interested to upgrade my work performance through e-learning	2.51	1.12	High	2.63	0.94	High
12	The thought of using e-learning technologies motivates me	2.39	0.66	Low	2.47	0.71	Low
Aggregate Values		2.26	1.04	Low	2.39	0.86	

Table 2 presents the aggregate mean response scores about lecturers' preparedness to integrate e-learning platforms in state and federal tertiary institutions. A comparative analysis reveals mean values of 2.31 and 2.39 for state and federal institutions, respectively, indicating a uniformly low propensity amongst lecturers to utilize e-learning platforms. The convergence of mean scores across institution types underscores a pervasive necessity for enhanced readiness amongst lecturers to optimize e-learning platform efficacy, transcending institutional distinctions.

H₀₁: There is no significant difference on the readiness level between male and female lecturers in using e-learning platform in tertiary institutions in Bayelsa State.

Table 3: t-test Statistics on the Readiness Level of Male and Female Lecturers

Categories	N	\bar{x}	St.D.	d _f	P	t _{cal}	t _{crit}	Decision
Male	67	2.45	0.98	119	0.05	0.66	1.96	Don't Reject Ho ₁
Female	54	2.31	1.04					

Source: Fieldwork (2024)

The statistical analysis presented in Table 3 reveals that the computed t-value (0.66) falls below the critical t-value threshold (1.960), thereby failing to meet the requisite significance criterion. Consequently, the null hypothesis, positing no discernible difference in e-learning platform readiness between male and female lecturers in Bayelsa State tertiary institutions, cannot be rejected. This finding suggests a statistical parity in the readiness levels of male and female lecturers to integrate e-learning platforms, indicating an absence of significant gender-based disparities.

Ho₂: There is no significant difference in the readiness level between lecturers of state and federal tertiary institutions in using e-learning platforms in Bayelsa State.

Table 4: t-test Statistics on the Readiness Level of State and Federal Lecturers

Categories	N	\bar{x}	St.D.	d _f	P	t _{cal}	t _{crit}	Decision
State	52	2.31	1.04	119	0.05	1.46	1.96	Don't Reject Ho ₁
Federal	69	2.39	0.86					

Source: Fieldwork (2024).

The statistical analysis yielded in Table 4 reveals a non-significant difference in e-learning platform readiness between lecturers from state and federal tertiary institutions in Bayelsa State, as evidenced by the t-value (1.46) falling short of the critical threshold (1.960). The failure to reject the null hypothesis suggests that lecturers from both institutional categories demonstrate equivalent levels of preparedness to integrate e-learning platforms into their

instructional practices, thereby indicating no statistically significant distinction in their readiness

Discussion

The investigation's findings regarding Research Question I suggests a convergent trend of inadequate readiness amongst male and female lecturers to leverage e-learning platforms. Furthermore, the analysis of Research Hypothesis 1 reveals a lack of statistically significant gender-based differences in e-learning platform readiness amongst lecturers in Bayelsa State's tertiary institutions. This result aligns with empirical evidence presented by Edo (2016) and Munif (2017), whose studies similarly found that gender does not exert a significant influence on attitudes towards e-learning, underscoring the notion that e-learning readiness transcends gender boundaries.

The findings of Research Question II indicates a pervasive lack of preparedness amongst lecturers in both state and federal tertiary institutions to effectively utilize e-learning platforms. Furthermore, the hypothesis testing revealed a statistically insignificant variation in e-learning readiness levels amongst lecturers across state and federal tertiary institutions in Bayelsa State. This outcome is congruent with the empirical evidence presented by Goode (2010), whose study similarly suggested that institutional type does not significantly influence attitudes towards e-learning, thereby underscoring the notion that e-learning readiness is institutionally invariant.

Conclusion

In light of the empirical evidence presented, it is reasonable to deduce that the readiness of lecturers in tertiary institutions to utilize e-learning platforms is decidedly low. Moreover, the findings suggest that gender and institutional type exert no significant influence on lecturers' readiness levels, implying that the variability in readiness is attributable to other factors. This conclusion resonates with the notion that the adoption of e-learning platforms is a complex phenomenon, influenced by a multitude of factors beyond demographic and institutional characteristics.

Recommendations

To ameliorate the efficacy of e-learning platforms in tertiary institutions, the following recommendations are proffered:

1. Lecturers should be subjected to comprehensive training programs to enhance their proficiency in utilizing e-learning platforms, thereby ensuring a seamless integration of technology into their pedagogical practices.
2. The institutionalization of e-learning platforms as a mandatory component of teaching and learning processes is crucial, as it will precipitate a paradigm shift in lecturers' perception of e-learning, rendering it an indispensable tool in their academic endeavors.
3. The provision of adequate e-learning facilities is essential, as it will enable lecturers to cultivate the requisite mindset to utilize these platforms with alacrity, thereby fostering a culture of innovation and academic excellence.

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