

INFLUENCE OF UNDERGRADUATE STUDENTS' EMOTIONAL STABILITY ON ADOPTION OF E-LEARNING MODE IN NORTH-EAST PUBLIC UNIVERSITIES IN NIGERIA

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Abstract

This study investigated the influence of undergraduate students' emotional stability on adoption of e-learning mode in north-east public universities in Nigeria. Two research questions were raised and one research hypothesis was formulated to guide the study. The study adopted a descriptive survey research design. The population for the study was 188,272 undergraduate students from public universities in north-east, Nigeria, and the sample size comprised of 384 undergraduate students drawn from 14 public universities located in the North-East geopolitical zone of Nigeria, using multistage sampling technique. A structured questionnaire validated by experts, was used for data collection. Reliability coefficients of the instrument were determined using Cronbach alpha values with a coefficient of .74. Data analysis employed descriptive statistic and Mann-Whitney U tests, at a significance level of $p < 0.05$. The study's findings indicated that undergraduate students in north-east public universities in Nigeria exhibit a robust emotional stability in embracing e-Learning Mode (eLM), demonstrating a notably positive disposition towards integrating digital learning tools into their academic pursuit. Amongst others, it was recommended that universities should design gender-sensitive strategies that specifically address the needs of male students, who may need additional support or encouragement in embracing eLM.

Keywords: Emotional stability, e-learning, Adoption and University.

Introduction

The emerging trends in the world's education system require that teaching and learning should be improved through the use of electronic technologies. Universities in Nigeria need not to be relegated from the advent of this educational globalisation approach. Adoption of online teaching and learning becomes better solution to submerge the problems such as inadequate infrastructural facilities, inadequate staff, inadequate library facilities, student overpopulation, insurgencies, poor student-teacher ratio, outdated books, insecurity, poor research materials, improper record keeping, and

many more, which are forging the standards of the universities in the North-Eastern region of the country.

University is a tertiary institution that provides the type of education which is obtained after secondary education. It is the highest level of educational institution that produces graduates of Bachelor's Degrees, Master's Degrees, and Doctoral Degrees. According to (FGN 2014), the objectives of the universities in Nigerian higher education, including professional education have the following aims: the acquisition, development, and inculcation of the proper value orientation for the survival of the individual and society; the development of the intellectual capacities of individuals to understand and appreciate environment; the acquisition of both physical and intellectual skills which will enable individuals to develop into useful members of the community; the acquisition of an overview of the local and external environments. This implies that university education is crucial for sustainability as well as contributing to national development. In this vein, universities award certificates of character and learning.

E-learning, also called electronic learning or online learning, is a mode of learning that takes place electronically, via the Internet. With e-learning, learners can access learning from any location, at any time or place, as long as they have access to a device and a Wi-Fi or data connection. However, the emotional stability of the students towards the e-learning mode need to be considered for better implementation of the system in the North-East Public universities, as they are the prime target on whom this innovation and transformation will have a full effect.

According to National Universities Commission (2023), emerging global trends have necessitated the adoption of e-learning into the process of teaching and learning. The recent revolution in Information and Communications Technology (ICT) has opened tremendous opportunities for improving pedagogies in higher education institutions. In Nigeria, the trends that characterise higher education such as the need

to widen access to university education, the demand for graduates who are globally fit for the technological demands of 21st Century workplace, the need to build resilient education systems against future disruptions like COVID-19, have made e-learning inevitable in higher education. The current global educational landscape has been inundated with a plethora of ICT-enabled educational infrastructure and solutions including Open Educational Resources (OER), Massive Open Online Courses (MOOCs), Learning Management Systems (LMS), Virtual Learning Environments (VLE), Virtual Laboratories, and Collaborative platforms. These resources are expected to increase access to university education and improve the effectiveness and quality of delivery in teaching, learning, and research. In many developing countries, online learning has emerged suddenly and has become a big challenge, especially in having trained teachers who are ready to face all the changes that are headed their way (UNESCO, 2020). In spite the aforementioned advantages of e-learning, several challenges that bedevilled Nigerian universities especially North-Eastern region involved insurgences, overpopulation of students, inadequate infrastructural facilities, poor student-teacher ratio, and many others also make the use of e-learning mode a suitable option for better operation in the North-Eastern Public Universities in the country.

Emotional stability is a fundamental personality trait that has to do with being even-tempered, particularly in the face of challenges and threats (Ellis et al. 2018). Muntean et al. (2022) found that emotional stability dimension exhibits a positive correlation with life satisfaction, meaning that individuals who demonstrate higher levels of emotional stability tend to experience greater overall happiness and fulfilment in life. According to Mohd et al. (2020), emotional stability could be related to the ability to master computer skills to undertake online learning. This stability could be affected by IT phobia (fear of technology) caused by low computer literacy and conservatism. A study conducted by Sandybayev (2020) reported that 70% of the total

respondents of first-year students experienced serious stress in online learning. In recent times, several researches have been carried out to investigate how technologies and online learning influence education.

Gender difference as a moderator variable plays a very crucial role in use of e-learning in institutions. Most institutions comprised of male and female gender basically, and it is important to consider how gender differences affect use of e-learning in universities, as in this study. Studies indicate that female students, particularly in certain cultural contexts, may face more limited access to technology at home compared to male counterparts. These limitations may stem from traditional gender roles that assign women more domestic responsibilities, which could hinder their ability to engage with e-learning platforms effectively (Al-Shammari et al., 2020). This implies that some female students may have less access and time to engage more on the online platforms as they are mostly shouldered with responsibilities of making the home, cooking, taking care of the children and more of domestic activities, especially in African tradition. Similarly, a study by Ruel et al. (2021) highlighted that female student, even when facing challenges in access or digital literacy, often report a higher level of motivation and persistence in completing online courses compared to their male peers. This implies that female students tend to engage more on the online platforms. This disparity may be attributed to differences in lifestyle and time allocation between males and females, with females potentially having more available time to devote to academic pursuits, whereas males are more likely to be engaged in external commitments such as entrepreneurship, sports, agriculture, and other activities that demand significant time and energy.

Statement of the Problem

In the current Nigerian government's dispensation, higher institutions in the country are been faced with numerous challenges which could lead to the use of e-learning mode, to realise improved and effective learning experiences. However, the

conscious understanding, feelings and attitude of the students towards this technological invention in education are indispensable factors in this new trend. Firas Harake & Amal Farhat (2022), are of the view that students' attitudes toward learning may have an impact on the efficacy of an online learning model and their academic achievement in the universities. Students' requirements and preferences about e-learning may be better understood with the help of this research, which could help in improving the quality of teaching and learning. Students' emotional stability is so important to learning and achievement. Online learning developers and providers need to learn more about how students see and react to various aspects of e-learning, as well as how to best employ these approaches to improve learning.

However, there is still a lack of research on factors affecting students' use of e-learning in universities. Students seemed to have had unpleasant experiences during their online learning. How can we find out why they had negative experiences? Does the fault emanate from the learners? Does the program fail to deliver? Did the instructors play the right role? Is online education perceived differently by students depending on their own experiences? Did they receive online education that they are satisfied with or dissatisfied with? What elements have an impact on students' online learning experiences? All of these concerns led to the current study and its analysis into the Emotional Stability of Undergraduate Students in North-East Public Universities in Nigeria, towards adoption of e-Learning Mode.

Purpose of the Study

The main purpose of the study was to investigate Emotional Stability of Undergraduate Students on Adoption of e-Learning Mode (eLM) in North-East Public Universities in Nigeria. Specifically, the study sought to;

1. determine the Emotional Stability of Undergraduate Students on Adoption of e-Learning Mode (eLM) in North-East Public Universities in Nigeria.

2. assess the Emotional Stability of Undergraduate Students on Adoption of e-Learning Mode (eLM) in North-East Public Universities in Nigeria, based on gender.

Research Questions

The study was guided by the following research questions:

1. What is the Emotional Stability of Undergraduate Students on Adoption of e-Learning Mode (eLM) in North-East Public Universities in Nigeria?
2. What is the Emotional Stability of Undergraduate Students on Adoption of e-Learning Mode (eLM) in North-East Public Universities in Nigeria, based on gender?

Hypothesis

The null hypothesis was tested at 0.05 alpha significant levels:

H₀₁: There is no significant difference in the Emotional Stability of Undergraduate Students on Adoption of e-Learning Mode (eLM) in North-East Public Universities in Nigeria, based on gender.

Methods

The study adopted a descriptive survey research design. The design is suitable for the study because it allows collection of data where large population is involved. The population for this study consists of all 188,272 undergraduate students enrolled in public universities across the North-East geopolitical zone of Nigeria. The sample size of this study comprised of 384 undergraduate students from the 14 public universities located in the North-East geopolitical zone of Nigeria, representing the six states: Gombe, Bauchi, Borno, Yobe, Adamawa, and Taraba. In order to achieve the objectives of this study, the researcher developed an instrument titled the E-Learning Mode Perception and Emotional Stability Questionnaire (ELMPESQ) to collect data from the respondents. The questionnaire was a closed-ended one where respondents are restricted to pick one response from opinions proposed from four scale responses.

A total of 384 questionnaires were provided to the respondents as it was the total number of samples for the study. In constructing this instrument, A four scale was used for rating responses to the items on the questionnaire. The scale was ranked 1 for Strongly Disagree (SD), 2 for Disagree (D), 3 for Agree (A), and 4 for Strongly Agree (SA). The instrument used for data collection was validated through expert review. The instrument was placed under face and content validity. Attention was placed to fundamental issues on which the research is embarked. Drafts of the instrument were given to two experts in Educational Management and one from Educational Test Evaluation and Measurement, all from department of Educational Foundations, Faculty of Education, Federal University of Kashere. These experts critically evaluated the instrument for clarity, relevance, alignment with the study objectives, and the appropriateness of the items in capturing students' emotional stability regarding e-learning mode adoption. Their feedback was incorporated to refine the questionnaire, ensuring its validity and suitability for effectively collecting reliable data. The overall reliability coefficient of the instrument was 0.74, which indicated that the items fall between good to excellent reliability. For data analysis, first, descriptive statistics was used to analyse the data collected for the research questions to describe patterns, trends, and central tendencies in students' emotional stability regarding e-learning mode adoption. Secondly, inferential statistical tools, specifically the Mann-Whitney U test was employed to test the hypothesis. The hypothesis was tested at a 0.05 level of significance to ensure a robust and reliable interpretation of the findings. The entire data analysis process was conducted using the Statistical Package for Social Sciences (SPSS), version 23.0.

Results

Research Question 1: What is the emotional stability of Undergraduate Students on adoption of e-Learning Mode (eLM)?

Table 1: Mean and Standard Deviations of Undergraduate Emotional Stability on Adoption of eLM in North-East Public Universities Nigeria.

S/N	Statements	N	\bar{X}	SD	Decision
1	e-learning mode reduces my stress levels.	384	3.19	.885	Strong Emotional Stability
2	I feel anxious when using e-learning platforms.	384	3.29	.782	Strong Emotional Stability
3	e-learning mode increases my self-motivation.	384	3.77	.636	Strong Emotional Stability
4	I feel isolated when using e-learning mode.	384	3.68	.778	Strong Emotional Stability
5	e-learning mode provides me with opportunities for self-paced learning.	384	3.62	.840	Strong Emotional Stability
6	I feel overwhelmed when using e-learning platforms.	384	3.67	.762	Strong Emotional Stability
7	e-learning mode improves my critical thinking skills.	384	3.71	.729	Strong Emotional Stability
8	I am satisfied with the e-learning mode experience.	384	3.71	.713	Strong Emotional Stability
9	I am confident in my ability to use e-learning platforms.	384	3.64	.789	Strong Emotional Stability
10	I am confident navigating through e-learning platforms.	384	3.64	.815	Strong Emotional Stability
Grand Mean		384	3.59	0.77	Strong Emotional Stability

Key: \bar{X} = Mean, SD= Standard Deviations, N=Number in samples, and Decision mean=2.50

Table 1 displayed the mean and standard deviation of respondents' emotional stability regarding the adoption of eLM in North-East Public Universities in Nigeria. The findings revealed that the mean responses for each item ranged from 3.19 to 3.77, consistently surpassing the decision mean of 2.50. The cumulative mean for all ten

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items was 3.59, with the most notable emotional stability of the respondents. Both the individual item means and the cumulative mean exceeding the decision mean indicated a general agreement among respondents with the statements. Moreover, the standard deviation among respondents ranged from 0.64 to 0.89, with a cumulative standard deviation of 0.77, suggesting minimal deviation in respondents' emotional stability from each other and from the group's standard deviation mean. Therefore, Undergraduate Students of North-East Public Universities have strong emotional stability on adoption of eLM in the university education system. To understand the Emotional Stability of Undergraduate Students on adoption of eLM in North-East Public Universities in Nigeria, based on gender, separate items on questionnaire were used and analysed as displayed in Table 2.

Research Question Two: What is the emotional stability of Undergraduate Students on adoption of e-Learning Mode (eLM) based on gender?

Table 2: Mean Rank and Sum of Ranks of the Emotional Stability of Undergraduate Students on Adoption of eLM in North-East Public Universities, based on gender.

Groups	N	Mean Rank	Sum of Ranks	Difference
Males Emotional Stability	188	179.54	33754.00	
Females Emotional Stability	196	204.93	40166.00	25.39

Table 2 presented the mean ranks and sum of ranks to assess the Emotional Stability of Undergraduate Students on e-Learning Mode (eLM) Adoption, based on gender. Female students had a higher mean rank (204.93, SR = 40,166.00) compared to male students (179.54, SR = 33,754.00), indicating that females displayed greater emotional stability on eLM adoption than their male counterparts. The finding showed that emotional stability of Undergraduate Students on e-learning mode adoption differs

based on gender with female students demonstrated higher emotional stability compared to male students. This suggested that females may adapt more positively and consistently to eLM usage in North-East Public Universities in Nigeria.

Research Hypothesis (Ho₁): There is no significant difference in the Emotional Stability of Undergraduate Students on Adoption of eLM in North-East Public Universities in Nigeria, based on gender. To test this formulated hypothesis, Mann-Whitney U test was used to determine the significant difference and the analysis was presented in Table 3.

Table 3: Mann-Whitney U test on the significant difference in the Emotional Stability of Undergraduate Students on Adoption of eLM in North East Public Universities in Nigeria, based on gender.

Variables	N	Mean Rank	Sum of Ranks	Df	χ^2	Asymp. Sig.	Decision
Male	188	179.54	33754.0	2	-3.66	.000*	Rejected
Female	196	204.93	40166.0				

Key: N: Number in samples, df: degree of freedom, χ^2 : Mann-Whitney U test Chi-square

Table 3: Mann-Whitney U test was conducted to determine the significant difference in the Emotional Stability of Undergraduate Students on Adoption of eLM in North-East Public Universities in Nigeria, based on gender. The result showed that there was a statistically significant difference between the emotional stability of male undergraduate students and female undergraduate students, $\chi^2 (2) = -2.33, p = 0.020, p < 0.05$). Therefore, the null hypothesis, which suggested no significant difference in Emotional Stability between the genders is rejected. The finding revealed that there is a statistically significant difference between the Emotional Stability of male Undergraduate Students and that of females on adoption of eLM in North-East Public Universities in Nigeria.

Discussion

The finding from research question one revealed that undergraduate students in North-East Public Universities in Nigeria, exhibit strong emotional stability regarding the adoption of e-learning mode (eLM) in the university education system. This indicated that students are generally confident and resilient in adapting to e-learning platforms, demonstrating a positive attitude toward integrating digital tools into their academic lives. Emotional stability in this context suggested that students are not easily discouraged by the challenges associated with e-learning, such as technical difficulties or a lack of face-to-face interaction, and are instead able to maintain focus and motivation. This strong emotional stability could be a key factor in the successful use of e-learning, as students with a balanced emotional approach are more likely to engage effectively with online learning environments. The finding suggested that universities should continue to promote this emotional resilience by providing support systems, training, and resources that further empower students to navigate the e-learning platforms with confidence.

This finding aligns with Kulal and Nayak (2020), who found that students are generally comfortable with online classes, reflecting their ability to adapt emotionally to the e-learning environment. Similarly, it supported the work of Almarabeh, Majdalawi, and Mohammad (2016), who noted that most students had prior access to the internet before attending university, promoting a positive attitude towards digital tools. Their research highlighted that, students primarily used the internet for social interactions, chatting, and information gathering, which suggests a familiarity and ease with online platforms that likely translates into emotional stability when engaging with e-learning. Both studies reinforced the idea that students who are comfortable with digital technology exhibited strong emotional resilience, which is consistent with the finding that undergraduate students in North-East Public Universities in Nigeria are emotionally stable in adopting e-learning. This emotional readiness is crucial for the

smooth adoption of e-learning into university education, as students with positive attitudes and prior experience with digital platforms are better equipped to handle the challenges of online learning.

The finding from research question two revealed a gender-based difference in emotional stability regarding the adoption of e-Learning Mode (eLM), with female students demonstrating higher emotional stability than their male counterparts. This suggested that female students may be better equipped to manage the challenges and demands associated with e-learning, such as navigating digital platforms, adapting to online learning environments, and maintaining motivation in the absence of face-to-face interactions. The statistically significant difference identified through the null hypothesis test emphasizes that gender plays an important role in shaping how students emotionally engage with e-learning. This could be due to various factors, including differing levels of confidence, resilience, and familiarity with technology. The finding suggested that universities may need to provide additional support and targeted interventions to help male students develop the emotional resilience required to effectively engage with e-learning.

Conclusion

Based on the findings of the study, it was concluded that undergraduate students in the North-East Public universities in Nigeria have exhibited stronger emotional stability on the adoption of eLM. Gender differences, is also identified as key factor that significantly affect the emotional stability of undergraduate students as regards eLM, and should be considered for proper adoption of the eLM in North-East Public universities in Nigeria.

Recommendations

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

1. Since female students demonstrated a higher emotional stability towards eLM adoption, universities should design gender-sensitive strategies that specifically

address the needs of male students, who may need additional support or encouragement in embracing eLM. This can include targeted workshops, mentoring, and resources to boost male students' engagement with eLM platforms.

2. Since emotional stability plays a critical role in the adoption of eLM, universities should offer emotional support initiatives to ensure students feel confident in using e-learning platforms. This can include counselling services, stress management workshops, and peer support groups, particularly for male students and those in lower academic levels, where emotional stability regarding eLM adoption was lower. Training lecturers to recognize signs of emotional distress among students can further support a positive eLM usage experience.
3. ICT providers should come up with online platforms that are easier to be used, user friendly, motivative and encouraging to the undergraduate students, such as gamified e-learning systems, interactive learning tools which can boost student's engagement.

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