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University Lecturers' Attitudes Towards e-Teaching and e-Learning During the COVID-19 Pandemic

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Abstract
The objective of this research is to assess the perspectives of instructors regarding electronic teaching and learning amid the Covid-19 pandemic, within three privately-owned universities situated in Nigeria. These universities encompass one in Delta and two in Ogun State. The study was conducted with the guidance of four research inquiries and three hypotheses. The target population comprised 615 instructors across the three universities. From this population, a sample of 89 instructors from 8 Schools, 4 colleges, and 3 Faculties was selected using incidental random sampling. Data collection was facilitated through the utilization of a questionnaire titled "Lecturers' Attitudes towards e-Teaching during the COVID-19 Pandemic Questionnaire" (LATETDCPQ). This instrument underwent validation by experts in both ICT and Measurement and Evaluation fields, demonstrating a reliability coefficient of 0.76 as determined by the Cronbach alpha technique. Analysis of the gathered data involved Mean (x), standard deviation, t-test, and One-Way ANOVA. Results from the analysis revealed a positive inclination among instructors towards both e-teaching and e-learning. Furthermore, discernible differences in instructors' attitudes towards e-teaching were noted concerning gender, area of specialization, and rank.

Keywords: Attitude, E-teaching, E-learning, Lecturers and Students

Introduction

The integration of e-teaching and e-learning has been a growing trend in Nigeria for nearly two decades, notably with the inception of the National Open University in 2002. Pioneering as the first institution of its kind in the West African sub-region, it operates on a Federal Open and Distance Learning (ODL) model and stands as Nigeria's largest tertiary institution in terms of student enrollment. The outbreak of the COVID-19 pandemic presented unprecedented challenges to the global education sector, compelling institutions to swiftly transition from traditional classroom settings to online platforms. This sudden shift spurred research into various facets of e-teaching and e-learning, including the attitudes of university educators towards these methodologies. To prevent the complete disruption of the academic calendar, e-teaching and e-learning emerged as viable solutions, enabling lecturers and students to engage in teaching and learning remotely, thereby facilitating physical distancing and mitigating the spread of the virus. Through this approach, lecturers could disseminate course materials via mediums such as videotapes and email, allowing students to access them at their convenience. Consequently, several Nigerian universities, predominantly private institutions, embraced e-teaching and e-learning to sustain academic activities and avert the loss of academic sessions due to the pandemic. These institutions explored various e-teaching platforms such as Zoom, Microsoft Teams, Google Hangouts, Skype, and others to facilitate remote learning (Obododike & Okekeokosisi, 2020).

In some cases, students were required to procure and utilize laptops, while administrations provided Wi-Fi networks. This period of adaptation amidst the Covid-19 crisis catalyzed a more effective utilization of digital technologies, online resources, and e-learning practices across Nigerian universities (Basilaia & Kvavadze, 2020; Demuyakor, 2020; Lounis, 2020; Mulenga & Marban, 2020; Murphy et al., 2020; Mutua & Ong'ong'a, 2020; Al-Balas et al 2020; Gismalla, et al 2021). Prior research underscores the importance of integrating technology into education (Dahlstrom et al., 2013). The Covid-19 pandemic accelerated the adoption of online teaching and learning (Hodges et al., 2020). However, concerns persist regarding the effectiveness and sustainability of these practices (Bozkurt et

al., 2020), emphasizing the need to understand educators' attitudes toward them to improve the quality of online education. The advantages of e-teaching and e-learning, such as flexibility, efficiency, time savings, and cost reduction through technology and internet usage, make the learning environment appealing to students (Naveed et al., 2017), particularly in situations where traditional classroom learning is not feasible. Nevertheless, despite the benefits associated with e-teaching and e-learning, their abrupt introduction into Nigerian education systems during the COVID-19 outbreak was met with novelty and uncertainty among many lecturers. The extent to which this new approach is embraced remains unclear, highlighting the importance of assessing lecturers' attitudes toward e-teaching and e-learning. Hence, researchers embarked on this study to explore lecturers' perspectives on these modalities.

Aim and Objectives of the Study

The research is focused on investigating lecturers' perspectives on e-teaching and e-learning during the COVID-19 pandemic. Its primary objectives include:

1. Examining lecturers' attitudes towards e-teaching with respect to gender.
2. Assessing lecturers' attitudes towards e-teaching based on their area of specialization.
3. Investigating lecturers' attitudes towards e-teaching relative to their rank within academia.

Research Questions

1. How do lecturers perceive e-teaching in relation to gender?
2. How do lecturers' attitudes towards e-teaching vary across different areas of specialization?
3. How does the rank of lecturers influence their attitudes towards e-teaching?

Hypotheses

1. Gender does not yield a substantial variance in lecturers' disposition towards e-teaching.
2. The specialization field does not generate a notable contrast in lecturers' inclination towards e-teaching.
3. Rank does not produce a significant disparity in lecturers' attitudes towards e-teaching.

Methodology

The primary objective of this study is to assess the perspectives of educators towards electronic teaching (e-teaching) and electronic learning (e-learning) amid the COVID-19 pandemic within three privately owned universities in Nigeria. Employing an ex post facto research design, the study was framed by four research inquiries and three hypotheses. The study's target population comprised 615 lecturers across the three universities. However, the sample size consisted of 89 lecturers selected from eight schools, four colleges, and three faculties using incidental random sampling techniques. Data collection utilized two distinct instruments, specifically the "Lecturers Attitudes towards e-Teaching during Covid-19 Pandemic Questionnaire" (LATETDCPQ). This questionnaire comprised 15 items structured on a modified four-point Likert scale, encompassing response choices ranging from "Strongly Agree" to "Strongly Disagree," weighted as 4, 3, 2, and 1, respectively. Decision-making regarding the questionnaire utilized a calculated mean score of 32.5. The validity of LATETDCPQ was confirmed by experts in Information and Communication Technology (ICT) and Measurement and Evaluation, while its reliability coefficient was established at 0.76 using Cronbach's alpha technique. Administration of the questionnaire was facilitated through Google Docs forms. Data analysis encompassed techniques such as Mean, standard deviation, t-test, and One-Way Analysis of Variance (ANOVA).

Results

The outcomes derived from the analysis of data are depicted in the subsequent tables. The process of data analysis was conducted about the research inquiries and hypotheses.

Research Question 1. How do lecturers perceive e-teaching in relation to gender?

Table 1: Illustrates the attitudes of male and female lecturers regarding e-teaching.

Lecturers	N	Mean	SD
Male	**52**	**42.21**	**7.0079**
Female	**37**	**36.76**	**5.5234**

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According to Table 1, male lecturers exhibited a mean score (x) of 42.21, whereas female lecturers showed a mean score (x) of 36.76. These findings suggest that male lecturers had a higher mean score compared to their female counterparts, indicating superior performance in e-teaching among male lecturers.

Hypothesis 1: Gender does not yield a substantial variance in lecturers' disposition towards e-teaching.

Table 2: The mean (x), standard deviation, and t-test examination of educators' attitudes toward e-teaching categorized by gender.

Lecturers	N	Mean	SD	Df	Cal.t	Crit. t	Remark
Male	52	42.21	7.0079				
Female	37	36.76	5.8234	87	3.88	1.96	S

According to the data presented in Table 2, male lecturers demonstrated a mean (x) attitude score of 42.21 towards e-teaching, whereas their female counterparts exhibited a mean (x) attitude score of 36.76. These findings suggest that both male and female lecturers generally hold positive attitudes towards e-teaching, with male lecturers showing a stronger inclination. Furthermore, the calculated t-value of 3.88, observed at a significance level of 0.05 with degrees of freedom (df) of 87, surpasses the critical t-value of 1.96. Consequently, the null hypothesis (Hypothesis 1) is rejected. This rejection indicates a substantial dissimilarity in the attitudes of lecturers towards e-teaching based on gender, favouring male lecturers.

Research Question 2: How do lecturers' attitudes towards e-teaching vary across different areas of specialization?

Table 3: Average (x) and Standard Deviation of instructors' perspectives categorized by Field of Expertise

Areas of Specialization	N	Mean	SD
Science and Technology and Computing	23	48.13	3.8294
School of Management and Social Sciences	24	37.95	6.6429
School of Humanities and Education	22	35.82	3.2017
School of Law and Security Studies	6	32.83	6.9402
School of Medical Sciences	14	39.43	4.4500

Table 3 illustrates that lecturers specializing in Science and Technology exhibited the most favourable attitude towards e-teaching, with a mean (x) score of 48.13. Following closely were lecturers from the School of Medical Sciences, recording a mean (x) score of 39.43. Additionally, lecturers in Management and Social Science, the School of Humanities and Education, and the School of Law and Security Studies demonstrated mean (x) scores of 37.95, and 35.83 respectively. Conversely, lecturers in the School of Law and Security Studies displayed the lowest mean (x) score of 32.83. Overall, the findings suggest that lecturers across all areas of specialization harboured a positive attitude towards e-teaching.

Hypothesis 2: The specialization field does not generate a notable contrast in lecturers' inclination towards e-teaching.

Table 4: One-Way Analysis of Variance (ANOVA) examining the variance in lecturers' attitudes towards e-teaching across different areas of specialization.

Source of Variation	Sum of Squares (SS)	Df	Mean Square (MS)	F-ratio	F- critical	Result
Between Groups	2317.617	4	579.404			
Within Groups	2051.102	84	22.386	23.73	1.38	S
Total	4368.719	88				

In Table 4, the computed F-value of 23.73 surpasses the critical F-value of 1.38 at a significance level of 0.05, with degrees of freedom of 4 and 84. Consequently, the null hypothesis two was rejected. This indicates a noteworthy difference in the average rating of lecturers' attitudes towards e-teaching attributable to their areas of specialization, particularly favouring lecturers in the School of Science and Technology and Computing.

Research Question 3: How does the rank of lecturers influence their attitudes towards e-teaching?

Table 5: Attitudes of lecturers categorized as L1 and below, and SL and above, regarding e-teaching.

Lecturers	N	Mean	SD
LI and below	**68**	**41.13**	**7.0079**
SL and above	**21**	**36.10**	**5.5128**

Table 5 illustrates that L1 and below lecturers attained a mean score (x) of 41.13, whereas SL and above lecturers achieved a mean score (x) of 36.10. This indicates that L1 and below lecturers had a higher mean score than their SL and above counterparts, suggesting that L1 and below lecturers outperformed SL and above lecturers in e-teaching.

Hypothesis 3: Rank does not produce a significant disparity in lecturers' attitudes towards e-teaching.

Table 6: Average, Standard Deviation (SD), and t-test Evaluation Regarding Lecturers' Attitudes Toward E-Teaching by Rank.

Lecturers	N	Mean	SD	Df	Cal.t	Crit. t	Remark
L1 and below	68	41.13	7.0079				
SL and above	21	36.10	5.5128	87	2.99	1.96	S

The data presented in Table 5 indicates that lecturers ranked as I and below demonstrated a mean (x) score of 41.13, while senior lecturers and those above them exhibited a mean (x) score of 36.10. This suggests a positive attitude toward e-teaching, particularly among lecturers ranked I and below. Moreover, the calculated t-value from Table 5, which stands at 2.99 with a significance level of 0.05 and degrees of freedom (df) of 87, surpasses the critical t-value of 1.96. As a result, the null hypothesis three was rejected, indicating a significant discrepancy in attitudes toward e-teaching based on rank, favouring those ranked as I and below.

Discussion

This research investigated the perspectives of university lecturers regarding e-teaching and e-learning, particularly in the context of the Covid-19 pandemic. The study highlights the nuanced nature of these attitudes, emphasizing the need to address concerns and provide robust support systems to facilitate a smooth transition to online education. Additionally, it underscores the importance of cultivating a culture of continuous professional development and innovation to optimize the effectiveness of e-teaching and e-learning practices. The findings revealed a generally positive attitude among lecturers towards e-teaching and e-learning, with male lecturers exhibiting a particularly favourable stance. The mean score for attitudes towards e-teaching and e-learning was 39.94, surpassing the criterion mean score of 32.50. These results align with previous research by Akcil and Bastas (2021), Gismalla et al. (2021), Al-Balas (2020), Uzorka and Makeri (2020), and Obeidat et al. (2020), which similarly found positive attitudes among lecturers towards online teaching and learning. Moreover, the study found significant variations in attitudes based on gender, with male lecturers exhibiting more positive attitudes compared to their female counterparts, possibly due to differences in exposure to technology. Additionally, across various areas of specialization, lecturers in Science and Technology and Computing demonstrated the highest positive attitude towards e-teaching, with a mean rating of 48.79, followed by those in the School of Medical Sciences (mean score of 39.43). This finding is consistent with research by Ekeh and Agbakuru (2013), who observed greater ICT usage among lecturers in Engineering and Science compared to those in Management Sciences.

Conversely, lecturers in the School of Law Security Studies displayed the least positive attitude (mean score of 32.83), potentially attributed to the nature of their discipline and lesser familiarity with digital technologies. The variance in mean scores across different specializations indicates a significant difference in attitudes towards e-teaching based on the area of specialization. Furthermore, the study identified a divergence in attitudes towards e-teaching based on rank, with junior lecturers exhibiting a more positive stance compared to senior lecturers. This finding is consistent with the notion that younger lecturers are often more technologically adept and receptive to ICT, as suggested by Ekeh and Agbakuru (2013). This research sheds light on the multifaceted attitudes of university lecturers towards e-teaching and e-learning, emphasizing the importance of gender, specialization, and rank in shaping these perspectives. Addressing these factors is crucial for the successful implementation and optimization of online education initiatives.

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Conclusion

This research sheds light on the multifaceted attitudes of university lecturers towards e-teaching and e-learning, emphasizing the importance of gender, specialization, and rank in shaping these perspectives. Addressing these factors is crucial for the successful implementation and optimization of online education initiatives.

Recommendations

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

1. The government should enact policies that will support e-teaching and learning in all universities in the country.
2. Universities managements should invest in Information Technology and Communication to enable them to provide internet services 24/7 for effective e-teaching and e-learning.
3. An alternative form of electricity supply should be provided to supplement the regular power supply.
4. There should be room for blended teaching and learning for courses that need practical skills and concepts that require face-to-face teaching and learning.
5. National Universities Commission should come up with a document on e-teaching and e-learning and quality assurance policy to ensure effectiveness.
6. Internet service providers should be made to reduce the cost of their services to enable the universities to sustain 24/7 services within the university community.

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