Promoting Attitudes of Undergraduates Towards Remote Learning in the Post-COVID-19 Era in University of Ilorin Nigeria

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Abstract

Several higher educational institutions in third world nations want to see their students exhibit a favorable disposition towards distant learning. This became imperative in the aftermath of the COVID-19 pandemic in Nigerian higher institutions of learning. Therefore, it is necessary to evaluate the attitudes of the students to determine their experience. The study used a descriptive research design using a survey methodology. The study's population included all undergraduate students enrolled in the Department of Social Sciences Education. The target market included undergraduate students studying Economics as well as Social Studies at the 300 and 400 levels. A random sample of 300 undergraduate students were chosen from both study programmes. Data from students were collected using a self-constructed questionnaire that focused on the Remote Learning platform as well as the attitudes of undergraduates towards remote learning. The instrument has a reliability coefficient of 0.82. The acquired data were subjected to analysis using statistical techniques such as percentage, mean, along with t-test, with a significance threshold of 0.05. The survey demonstrated that WhatsApp, Zoom, and Google Classroom were the predominant remote learning tools used. Additionally, it was shown that the views of undergraduate students towards remote learning were favourable. The research found that undergraduate students, who mostly used WhatsApp, Zoom, as well as Google Classroom, had the capacity to adopt other remote learning platforms, as long as the obstacles are minimised to enhance their favourable attitudes. Undergraduates should be encouraged to explore alternative remote learning channels to align with global norms..

Keywords: - *Learning platforms, Positive attitude, Post-COVID-19 era, Remote learning, Undergraduate attitudes,*

Introduction

The attitudes of students, shaped by their COVID-19 lockdown experience, are a crucial requirement for the effective acceptance and implementation of remote learning in underdeveloped countries like Nigeria. The worldwide epidemic of COVID-19 has a profound impact on many facets of human endeavours. The historical educational system saw significant impact, as it underwent global changes in response to the enrolment of about 1.6 billion students across over 190 nations (United Nations; Education Committee, 2021). The system of education in Nigeria is significantly impacted at all levels. Human factors have a significant impact on university education. In addition to the extensive devastation caused by the epidemic, the Nigerian university education

system saw an interruption in academic operations as a result of disharmony between the Nigerian federal government as well as the federally funded university unions. In March 2020, campus gatherings, workshops, and face-to-face instruction were halted in order to implement social distancing measures. Nevertheless, higher education institutions must promptly respond and adjust to an unforeseen circumstance, compelling them to shift from a conventional classroom environment to remote learning instruction. Remote learning is used when instructors, lecturers, and academics need to integrate technology into their teaching methods. Content knowledge involves possessing a deep understanding of the subject matter, which is crucial for effectively delivering lectures and ensuring the continuous progress of academic activities. This helps prevent a complete halt in the learning process. These are the experiences that have occurred during the COVID-19 lockdown. Several unique circumstances have arisen in the context of University education, one of which is the professor-student ratio. In this particular instance, the number of students per lecturer surpassed the standard set by the Nigeria University Commission (NUC). The sole event alone provides sufficient justification to adopt and maintain remote learning beyond the lockdown encounter.

Remote learning constitutes an educational pursuit where teachers and students participate in learning activities using technology. By embracing this approach, the limitations of time and geography are eliminated, enabling learners to acquire information and skills from any location with the internet serving as a mediator. A further key aspect of remote learning is the concept of "virtual". The word "virtual" is widely misconstrued by laypersons as referring to activities conducted online. As a result, digital gadgets have become indispensable in the realm of electronic education. These references are used to delineate actions occurring in non-physical settings (Bernacki et al., 2020; Ali & Anwar, 2021; Eze et al., 2020). Additional options consist of online or digital platforms or tools used for disseminating instructional information, such as Moodles, forums for discussion, as well as various multimedia resources. This signifies that, in the aftermath of the COVID-19 pandemic, education has undergone a dramatic transformation, with the Internet becoming an essential component. It is now imperative to integrate conventional teaching approaches with online ones, often known as remote learning. As a result of this significant change, distant education during a pandemic might be characterised as urgent remote instruction and instruction. However, post-pandemic, universities are compelled to continue it due to technical developments that enable handling big courses.

Moreover, data suggests that the worldwide pandemic has had a significant impact on education in Nigeria, necessitating an abrupt shift from in-person lectures to online classroom instruction. In this research, remote learning refers specifically to the educational approach used during the lockdown period, distinct from the pre-existing distant education system where students internationally seek their degrees via online learning. The remote learning in the present research refers to the implementation of temporary measures to prevent the interruption of academic teaching in universities that are public as well as private during the pandemic. Additionally, it aims to ensure the continued use of blended learning or just hybrid approaches even after the pandemic, taking into account various human factors. Therefore, it is important to distinguish remote learning in this

research from traditional distant learning, which is why the focus of this study will be on analysing online platforms and tools for learning (Bozkurt & Sharma, 2020).

Remote learning comprises educational tools which offer electronic or technological aid for instruction and learning. E-learning encompasses all internet-based digital platforms that provide learning assets and a range of online activities, including courses, live webinars, audio as well as video lectures, and associated materials. Novel technology has been employed to construct artificial environments of learning for students (Nkrumah & Asamoah, 2023; Ouyang et al., 2022; Wu et al., 2020). These environments often utilise online delivery methods using a learning management system, which is a system together with diverse educational resources and platforms (Budur, 2020). Put simply, remote learning delivers instructional information in a format that is digital, which improves the accessibility of multimodal learning experiences. These educational management methods are distinct and exclusive to higher education institutions. In a study conducted by Li et al. (2014), it was shown that online education may enhance student performance by up to 20-30% in comparison to traditional educational environments. This demonstrates the immense value of online education in enhancing students' learning outcomes.

Because of its capacity for offering students educational resources and facilitate the use of multimedia for open-learning instructional delivery. The study conducted by Munoz-Nayar et al (2021) revealed that all low-income nations choose to implement remote learning by using a mix of at least three remote learning methodologies. Their

study also suggested that significant and reciprocal interactions should be encouraged to support the use of suitable technology in local settings, especially in areas that have restricted connectivity. Therefore, they recommend the use of low-tech techniques and equipment that enable students to engage with one another and with their teachers. This approach is likely to be beneficial in guaranteeing that remote learning can fulfil its potential.

Regarding the attitudes of students towards distant learning. Learning attitude encompasses the cognitive, motivational, and behavioural aspects shown by students during the process of instruction and learning. It is a holistic mental phenomenon that is characterised by a continuous perspective (Wang et al, 2021). Multiple studies have examined students' perspectives on distant learning, especially during the Covid-19 epidemic, when there is a focus on maintaining education at higher institutions. The essential criteria for sustaining a motivating influence in E-learning contexts were determined to be personal accountability and self-discipline. Lawn et al. (2017) highlighted that the challenges encountered in the global implementation of E-learning include insufficient study habits, students' preference for studying alone, instructional tasks for learning, and technical obstacles. As to Akpan and Tralagba (2019), students are inclined to be receptive to using mobile technologies for learning since undergraduates have shown their readiness to acquire mobile phones and tablets if e-learning is implemented. The study conducted by Dhoot & Thakare (2020) revealed that Indian students had mostly favourable opinions towards remote learning and regarded internet platforms as very accessible.

Virtič et al (2023) did research on the valuable

lessons learned from the COVID-19 experience in remote learning education. The study included 281 potential instructors who mostly used fixed connections with PCs and mobile networks with smartphones. The integration of mobile networks with computers has augmented the significance of smartphones as auxiliary devices. Students are inclined to use cell phones as hotspots using wireless networks when the stationary link is deficient or absent. Their research also shown that the vast majority of potential instructors had typical study circumstances. Most individuals own a functional computer, mobile device, and a dedicated study area. In their research, Prathamesh et al. (2021) investigated the use of online learning in Indian and Turkish institutions of higher learning amidst the COVID-19 epidemic. Their investigation found that there is no discernible impact on learning when comparing online instruction to traditional classroom-based training. Furthermore, there is no discernible disparity in terms of gender and nation when it comes to online learning. In their research, Wang et al. (2021) investigated the efficacy of E-learning and its underlying factors among college students during the COVID-19 pandemic. Their research found that E-learning has a large and beneficial impact on e-learning efficiency, with E-learning techniques acting as a mediator between them.

Prathamesh et al (2021) identified several factors that contribute to promoting students' positive attitudes towards operational remote learning. These elements include designing technology that is easy to use interfaces, motivating learners to engage in learning, and incorporating brief and straightforward tasks during online sessions. This necessitates making efforts to capture the attention of undergraduate students and cultivate a positive disposition towards remote learning. By doing so, they will develop a like for and embrace remote learning as a novel means of acquiring information, skills, and principles to a certain degree at the higher education level. Thus, by consistently advocating for the implementation of remote learning in public universities, including the faculties along with their administration, these endeavours can effectively enhance the undergraduates' acceptance and engagement in remote learning.

Consequently, the recurring issue of lecture suspensions in Nigerian public higher education institutions would be eliminated, regardless of the pretext. The Faculty of Education at the University of Ilorin has consistently promoted the implementation of a blended learning approach. This initiative has been supported by organising training sessions and conferences for faculty members, focusing on virtual learning environments and the utilisation of tools to enhance the educational experience within the faculty. The training and retraining are periodically reviewed to ensure the long-term viability of the blended learning strategy. Hence, it became imperative to investigate the perspectives of undergraduate students on remote learning in a Nigerian university during the post-COVID period. The study assessed the perspective of undergraduate students by using specific research questions as well as a hypothesis:

1. Which E-learning platforms were used for remote learning in the POST-COVID-19 era at the University of Ilorin?

2. What are the major challenges faced by undergraduate students in adapting to remote learning in the POST-COVID-19 era?

3. What are the attitudes of undergraduate students towards the use of E-learning platforms

and remote learning in the POST-COVID-19 era at the University of Ilorin?

H01: There is no significant difference in the undergraduate students' attitude towards remote learning in the POST-COVID-19 era based on gender.

Methodology

The study used a survey-based descriptive research approach. The data were gathered by means of surveying undergraduate students in order to address the study questions and evaluate the only hypothesis. The study population consisted of all undergraduate students in the Faculty of Education at the University of Ilorin, Nigeria, who were pursuing a degree in Social Sciences Education. The research sample included 300 undergraduate students who were specifically chosen from the Social Studies as well as Economic education courses within the Department. A straightforward random sample technique was used to pick a total of 179 students studying Social Studies and 121 students studying Economics at the 300 and 400 levels. Data collection involved the use of a questionnaire designed by the researchers. The questionnaire comprised three sections: demographic information of the participants, details about the platforms utilised for remote learning, challenges encountered during remote learning, and the mindsets of undergraduate students towards remote learning. The Likert Scale was used, with a choice of either 2 points or 4 points, depending on the specific aspect being assessed in each study topic. The components of the instrument were verified by specialists in Educational Technology and Test and Measurement. The verified questionnaire was sent to a group of 40 undergraduate students studying Social Studies and Economic education at the 200

level. The Cronbach Alpha coefficient was used to assess the internal consistency of the questionnaire. The obtained reliability score of 0.81 indicates that the measure is appropriate for the targeted groups of respondents. The statistical analysis of the acquired data included the use of percentage terms, mean, as well as t-test statistics.

Results

The research included the analysis of comprehensive data obtained from the respondents using a questionnaire. This encompasses several aspects related to E-learning platforms, such as the content available on these platforms, the difficulties encountered while using them, and the attitudes of undergraduate students towards their usage. Additionally, the influence of gender is considered as a factor that may affect these attitudes and outcomes in remote learning.

Research Question 1: Which E-learning platforms were used for remote learning in the POST-COVID-19 era at the University of Ilorin?

Descriptive Mean statistics was used to analyse the data collected on research question one, the result is presented in Table 1:

Table 1: Mean value of E-Platforms Used for Remote Learning in the Post-Covid-19

Which Of These Platform Do You use and Consider Usable for Remote Learning as an Undergraduate Student	Mean	Decision
Google Classroom	2.50	Used
Telegram	2.34	Not used
Moodle	2.11	Not used
Zoom	2.53	Used
Coursera	1.61	Not used
WhatsApp	2.62	Used
Udemy	1.37	Not used
Open Online	1.41	Not used
A1 Tutor	1.75	Not used
Skype	1.49	Not used
Google Meet	1.79	Not used
Teach me. Ng	1.49	Not used
Mobile Classroom	2.01	Not used
Benchmark	2.50	

Table 1 displays the feedback provided by participants on the electronic platforms used for distance learning at the University of Ilorin during the period after the COVID-19 pandemic. Based on a benchmark of 2.50 (see fig.1 below), the data shows that WhatsApp, with a mean score of 2.62, is the most favoured remote learning platform at the University of Ilorin during the POST-COVID-19 timeframe. It is followed by Zoom, which has a mean score of 2.53, and Google Classroom, which has a mean score of 2.50. None of the other platforms on the list were implemented during the COVID-19 pandemic at the University of Ilorin. However, Google Classroom and Telegram were widely employed. The University of Ilorin employed WhatsApp, Google Classroom, and Zoom as the primary electronic tools for remote learning during the post-COVID-19 period.
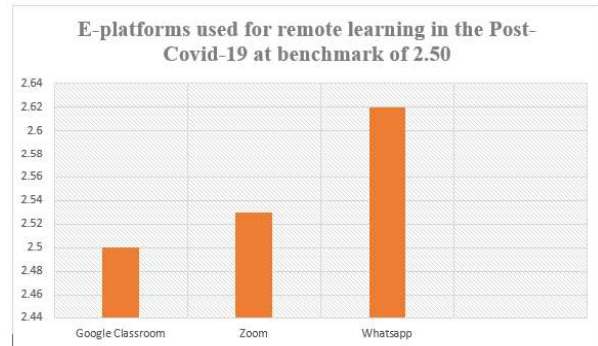

Fig. 1: E-platforms used for remote learning in the post-Covid-19 at benchmark of 2.50

Research Question 2: What are the major challenges faced by undergraduate students in adapting to remote learning in the POST-COVID-19 era?

Table 2: Percentage Analysis of Undergraduate Students' Response to Challenges of Adapting to Remote Learning in the POST-COVID-19 Era

Item	Agree	Disagree
Lack of interaction made students feel isolated and disconnected from their peers and instructors	260(86.7)	40 (13.3)
Unequal access to resources such as reliable internet, computers, and other gadgets hurts students' overall learning experiences and outcomes.	276(92.0)	24 (8.0)
Students struggled with time management due to the absence of a fixed schedule and the temptation to engage in non-academic activities while studying from home.	280(93.3)	20 (6.7)

Students having to contend with household chores, social media engagement, and family members, learning becomes highly distracting	270(90.0)	30 (10.0)
Increased dependency among students to access remote learning	218(72.7)	82 (27.3)
No consideration for students with special needs	266(88.7)	34 (11.3)
General accessibility trouble	256(85.3)	44 (14.7)

Table 2 presents the data collected from respondents about the main difficulties encountered by undergraduate students in adjusting to remote learning during the POST-COVID-19 period. The table includes a percentage as well as a frequency analysis of the issues. The participants' replies to the items did not show any significant differences. Hence, the obstacles faced by undergraduate students in adjusting to remote learning during the POST-COVID-19 period encompass issues such as time management, which is hindered by the allure of non-academic distractions, disparities in resource availability, the need to balance household responsibilities, involvement with social media as well as close relatives, lack of awareness regarding learners who have special needs, limited attention span, difficulties in accessing learning materials, and an amplified reliance on remote learning platforms.

Research Question 3: What are the attitudes of undergraduate students towards the use of E-learning platforms and remote learning in the POST-COVID-19 era at the University of Ilorin?

Table 3: Percentage Analysis of Undergraduate Students Attitude towards E-learning Platform and Remote Learning in the POST-COVID-19 Era

How Do You Feel When Using Remote Learning Platform	Agree	Disagree
I believe the E-learning platform was beneficial	252(84.0)	48 (16.0)
I find it difficult to attend classes using the remote learning platform	136(54.7) 220(73.3) 210(54)	164(45.4) 80 (26.0) 90(30.0)
I was passionate about using these platforms for assignment	204(68.0)	96 (32.0)
I make efforts to find solutions to bad networks while attending remote learning classes		
The introduction of remote learning raised my interest in learning better		
The online orientation session before remote learning motivated me	142(54.0)	138(46.0)
Communication skills significantly affected me during remote learning	206(68.7)	94(31.3)
Remote learning helped me as a student to develop adequate time management skills	216(72.0)	84(28.0)
Remote learning was considered to be convenient and user-friendly to students?	210(70)	90(30.0)

My interest was raised when my faculty introduced Moodle as part of the platform for remote learning	162(54.0)	138(46.0)

Table 3 displays the frequency and percentage distribution of responses based on their degree of agreement with the attitude of undergraduate students towards online educational systems and remote learning in the post-COVID-19 era. 84.0% of the participants expressed agreement with the perceived benefits of remote learning. The study revealed that 45.4% of undergraduates expressed disagreement with the statement "I find it difficult to attend classes using the remote learning platform." This suggests that a majority of undergraduates found it easy to participate in remote learning classes, indicating an upbeat disposition among them. The favourable views of the students are additionally shown by the percentage analysis of additional items, as seen in the table.

Hypothesis Testing

H01 There is no significant difference in the undergraduate students' attitude towards remote learning in the POST-COVID-19 era on the basis of gender.

Table 4: t-test Analysis on the attitude of undergraduates towards Remote Learning in the Post-Covid-19 Era on the basis of gender

Gender	N	Mean	SD	df	t	Sig.	Remark
Male	112	13.20	2.789	298			
Female	188	13.73	3.054		1.086	0.28	Not Sig.

Table 2 showed the result of t-test analysis on the difference in the undergraduate students' attitude towards remote learning during COVID-19 era on the basis of gender. It showed a calculated t-value of 1.086 and a p-value of 0.279 testing at an alpha level of 0.05. There was no significant difference in the observation for Female (Mean = 13.73, SD = 3.054) and Male (Mean = 13.20, SD = 2.789; t (298) = 1.086, p = .279, (two-tailed). Since the P-value is greater than the alpha level (p > 0.05), it means that there is no significant difference between male and female undergraduate students' attitude towards remote learning in the POST-COVID-19 era. Consequently, the null hypothesis which stated that, there is no significant difference in the undergraduate students' attitude towards remote learning in the POST- COVID-19 era on the basis of gender is hereby retained.

Findings

1. The remote learning platform used by the undergraduate in the POST-COVID-19 era were mostly WhatsApp, Zoom and Google Classroom.

2. The attitude of undergraduates towards remote learning platform used and remote learning in University of Ilorin in the POST-COVID-19 era is positive.

3. WhatsApp was an adapted remote learning platform and the most used by the undergraduates in the POST-COVID-19 era as it revealed 2.62 which is the highest mean.

4. The challenges of undergraduates in adapting to remote learning in the POST-COVID-19 era include; time management due to the temptation to engage in non-academic activities while studying; unequal access to resources; contending with household chores, social media engagement; none consideration of students with special needs; accessibility trouble, increased dependency among students to ac-

cess remote learning.

5. There is no significant difference in the undergraduate students' attitude towards remote learning in the POST-COVID-19 era on the basis of gender.

Discussions of Findings

The survey found that students in the post-COVID-19 period used WhatsApp, Zoom, and Google Classroom as their remote learning platforms. WhatsApp emerged as the remote learning platform with the greatest average value, despite being modified by instructors and undergraduate students. This elevated WhatsApp to a prominent position as a distant learning platform, well-suited for facilitating learning within the local environment (Munoz-Nayar et al., 2021). This research further supports the discovery made by Virtič et al (2023), who found that most of the aspiring instructors in their study used mobile networks via cell phones. The undergraduate students in the present research are also aspiring teachers, which suggests that their teacher training may have played a role in their positive adaption to using WhatsApp on cell phones.

The survey also revealed a favourable disposition of students towards the remote learning platform used throughout the COVID-19 timeframe. The pupils harboured no negative sentiment towards remote learning tools. They exhibited a favourable response towards the use and difficulties associated with implementing remote learning in the post-COVID-19 period. This conclusion aligns with the findings of Akpan and Tralagba (2019), who discovered that students expressed a motivation to acquire their own mobile technology devices as soon as they were exposed to remote learning. In their study, Dhoot and Thakare (2020) discovered

that Indian students had mostly favourable views towards remote learning and regarded online platforms as very accessible. In a study conducted by Egbo (2011), the focus was on examining the gender perspective and attitude towards e-learning among business students at the University of Nigeria. The findings revealed that the students' view of the different elements of e-learning was moderate. The discrepancy in the findings between the Egbo (2011) research and the current study on student attitudes may be attributed to the time difference between the two studies.

The research revealed that undergraduate students had difficulties in adjusting to remote learning during the post-COVID-19 period. Lawn et al. (2017) observed global challenges in the implementation of E-learning due to technical issues. Nevertheless, the obstacles were conquerable since the undergraduate students had optimistic dispositions towards distant learning. Furthermore, the survey revealed that there is no substantial disparity in the perception of undergraduate students towards remote learning in the post-COVID-19 period based on gender. This suggests that there is no significant difference between the male students who replied to the questionnaire and the female students who participated. This data aligns with the findings of Prathamesh et al (2021), which noted that there was no notable disparity in the gender distribution among Indian as well as Turkish higher education students in their inclination for online learning.

Conclusion

According to the descriptive study on e-learning as well as remote learning, the most common platforms used by undergraduates for remote learning were WhatsApp, Zoom, along

with Google Classroom. This could be seen from the average value for each structure, they were also acquainted with others, although WhatsApp, Zoom, and Google Classroom were much more prevalent. Additionally, the study found that WhatsApp, which wasn't initially intended for e-learning, was transformed into a platform for distant learning in the post-Covid age. Despite difficulties in adjusting to remote learning, undergraduates had a generally favourable outlook on using e-learning platforms and remote learning. Additionally, students of both sexes showed a favourable attitude towards distance education and online learning platforms. The research did find that undergraduates, who had the greatest experience with e-learning platforms, could benefit from any kind of remote learning platform—so long as universities and other education stakeholders made it easier for them to do so.

Recommendation

From the conclusion drawn from this study, the following recommendation were made:

Given that undergraduate students have embraced remote learning as a necessary means to maintain educational activities in universities, it is important for learners as well as educators to not solely rely on e-learning. Instead, they should also remain knowledgeable about traditional methods of learning, as it offers distinct advantages by accommodating unique characteristics. Therefore, a blended approach to learning should be maintained. Additionally, both instructors and undergraduate students should be receptive to using alternative learning platforms and information and communication technology (ICT) tools in order to enhance the teaching-learning process and align with global benchmarks.

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