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Cell-phone Instruction and Academic Achievements of Undergraduates During Covid-19 Pandemic in Delta and Rivers States, Nigeria

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Abstract

Rationale of Study – This research investigated the link between cell phone instruction platforms and the academic achievements of undergraduates in LIS during the Covid-19 pandemic in Delta, and Rivers states, Nigeria.

Methodology – The researchers reviewed relevant empirical literature and equally elicited responses from the respondents to establish the platforms used for cell phone instruction during Covid-19 Pandemic in Delta, and Rivers states, Nigeria.

Findings – The report showed that the clampdown during the Covid-19 pandemic led to the introduction of various cell phone instruction platforms like WhatsApp, Delsu Management Learning Software, and email in Delta and Rivers states in Nigeria as a buffering upshot in the educational field. The employment of various cell phone instruction platforms hurts students' academic achievement. Furthermore, it was found that employing mobile phone instruction platforms presented several difficulties for undergraduates, including poor internet connectivity and high subscription costs. These difficulties also contributed to the low satisfaction level felt by the students.

Implications – The study's findings can be used by university management in Delta, and Rivers states to develop a blueprint for adopting or enforcing cell phone instruction platforms alongside the face-to-face arrangement.

Originality – This study fills a gap in recent research on the effects of the shared repertoire and voluntary action of a community of practice on knowledge sharing.

Keywords

Cell-phone instruction platforms, academic success, undergraduates, Covid-19 pandemic, Delta State, Rivers State

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1 Introduction

For the teeming civilisation that operates in several industries to satisfy humanity, higher education institutions typically develop human resources spanning diverse disciplines. One of these fields, LIS, is provided in a higher education setting to produce specialists who will help experts in other fields fulfil their information demands and perform their tasks more successfully. Before being certified as a graduate of LIS, a candidate is projected to have fulfilled the prerequisites for awarding such a degree. The class of degree conferred is determined by the candidate's academic achievement. The academic output, plus the degree to which a student has met the educational objectives, can all be viewed as components of academic achievement.

More often, academic achievement is tested by exams or continuous evaluations. However, there is no unanimity on the optimal test design or which constituent's knowledge, like competencies or deductive information, as truths are most crucial (Bhagat, 2013). Nevertheless, Rogel (2012) affirmed that several variables might impact undergraduates' academic achievement, including socioeconomic factors, family influences, collaborative factors, school-related health history, welfare, and health arrangement programmes set up to prevent illness.

The Covid-19 pandemic has so far affected economic, social, political, and educational programmes on a global scale, as per McIntosh (2020); UNESCO (2020), there is no way to emphasise the pandemic's terrible impacts on human life, health, education, society, and the economy of all countries worldwide. For instance, on the continents of Europe, Africa, Asia, North America, South America, and Australia/Oceania, the coronavirus has affected more than 180 nations.

Because of the Covid-19 pandemic, the government of Nigeria abruptly shut higher education facilities, and students/staff were ordered to leave campuses as countermeasures to prevent new infections. This influence severely warped the continuous face-to-face class programmes at various educational institutions. Without a shadow of a doubt, the shutdown of these institutions would significantly affect the number of students and the quality of graduates available in the labour market, which will, in turn, affect the nation's economic growth (Tamrat & Teferra, 2020). Thus, university closures have impacted every aspect of staff and student-led instruction, engagement, and research. In particular, it has caused the teaching-learning process to be disrupted, students' graduation to be postponed, the academic year to be lengthened, and

students to be redundant, resulting in an increased indulgence in criminal acts. Education systems of learning introduced institutional learning platforms like the Delsu Management Learning System (DMLS) after developing cell phone instruction platforms using Zoom, Google Meet, Facebook, Messaging apps, and other social networks to reduce how the Covid-19 pandemic may impair instruction, knowledge acquisition, and research of staff/students due to the disruption of face-to-face interaction between lecturers and students.

2 Statement of Research Problem

Students' school achievement is the main criterion for grading and conferring degrees after an established academic cycle. Scholarly performance is determined by students' degree of achievement on tasks they do for continuous assessment and exams after undergoing a variety of academic tasks by their teachers in person or online. The academic achievement of undergraduates in a higher institution is still more crucial because it directs all of the activities that take place there and, to a huge measure, determines where graduates are placed in society when they graduate.

The academic achievement of undergraduates in Nigeria was affected, notably during the Covid-19 pandemic when all academic programmes were suspended, and instruction and learning were conducted via online platforms, according to preliminary research by the researchers from literature consulted and discussions with undergraduates (Hashemi, 2021; Sakpere et al., 2021). Consequently, this study will look into cellular instruction platforms and how they correlate with the academic achievement of LIS undergraduates in Delta and Rivers states of Nigeria during the Covid-19 pandemic.

The study's direction was determined by the following precise goals which are to determine the platforms used for cell phone instruction by LIS undergraduates during Covid-19 Pandemic in Delta and Rivers states, Nigeria; establish the extent to which LIS undergraduates are satisfied with the cell phone instruction platforms; ascertain the extent toward which the cell-phone instruction platforms influence the academic achievements of LIS undergraduates; and establish the challenges encountered by LIS undergraduates with the deployment of cell-phone instruction platforms.

3 Review of Related Literature

The researchers reviewed related, current, and relevant literature that bothers on cell phone instructions and the academic success of undergraduates during the Covid-19

pandemic in Delta and Rivers states Nigeria. The review of related literature specifically addressed the: information system success model, platforms used for cell phone instruction by LIS undergraduates, the extent to which LIS undergraduates are satisfied with the cell phone instruction platforms, the extent toward which the cell phone instruction platforms influence the academic achievements of LIS undergraduates, and the challenges encountered by LIS undergraduates with the deployment of cell-phone instruction platforms.

The researchers adopted the Information System Success Model designed by DeLone and McLean (1992), a comprehensive theoretical framework that studies information systems success to measure IS evaluation in the IS field. The model consists of six interrelated dimensions of information system success: System Quality, Information Quality, Use, User Satisfaction, Individual Impact, and Organizational Impact. Thus, the academic achievements of LIS undergraduates are directly proportionate to the effective teaching and learning platforms adopted in the university environment, which in this case is the use of cell phone instruction platforms.

DeLone and McLean (1992, p. 83–87) further emphasised that "Systems Quality and Information Quality singularly and jointly affect both users and user satisfaction. Additionally, the amount of use can affect the degree of user satisfaction – positively or negatively- and the reverse is true. Use and user satisfaction are direct antecedents of individual impact; and lastly, this impact on individual academic achievements should eventually have some organisational impact". From the analogy of the information system success model, the amount of success recorded in the use of cell phone instruction platforms such as WhatsApp, Zoom, Google Meet, Telegram, and Facebook, during the Covid-19 pandemic is a product of the system quality, information quality, use, user satisfaction, individual impact and organisational impact.

LIS education aims to create specialists who can process knowledge assets and provide information services that meet users' information requirements while advancing the goals and objectives of their parent institutions. The origins of library and information education in Nigeria can be attributed to a UNESCO symposium in Ibadan in 1953. The main outcome of the UNESCO symposium was the creation of professional training programmes in Nigeria; as a result, the first library school, the Institute of Librarianship, was established at the former University College, Ibadan. In 1960, the initial group of students was permitted to enrol in the Postgraduate Diploma (PGD) and Master of

Library Science (MLS) programmes. Interestingly, students accepted to study LIS are required to take courses relevant to the field as judged by specialists, and degrees are given based on how well each student performs in these courses (Abubakar, 2021). In light of the goals and purpose of courses in LIS, students are therefore expected to do well. Performance gauges a behaviour component that is observable at a particular time. Academic achievement is measured by students' results in a semester and term exams (Veena & Shastri, 2016).

In Nigeria, the administrators of universities issued a "stay-at-home" instruction in March 2020 via a special broadcast per the Federal government's pledge to stop the spread of Covid-19 in the nation. According to Ogunode et al. (2020), the effects of such a mandate to control Covid-19 results in the interruption of the academic calendar, an interruption of the course syllabus, the disruption of local and international meetings, the creation of instruction and learning gaps, a loss of staff in educational institutions, and a sharp decline in the budget for higher learning. Yunusa and Umar (2021) classify varied e-learning-related variables into four groups: connectivity mechanics (such as interaction and information quality), e-learning environment factors (for instance, course structure and content), workplace setting (for instance, technological support and service quality), and personal traits and contextual variables (autonomy, self-efficacy, motivation). However, Hettiarachchi et al. (2021) said that e-learning obstacles, learner motivation, and engagement affect students' satisfaction with online teaching and learning platforms.

Research exists on Covid-19's implications on undergraduates' academic achievements from various scholars from all over the world. For illustration, Gonzalez et al. (2020) examined how the Covid-19 restriction influenced students' effectiveness in autonomous learning in higher education, specifically at the Universidad Autónoma de Madrid. These authors conducted a field experiment with 458 students separated into the control and experiment groups to conduct the analysis. Due to their confinement, the experiment group's participants were students who had completed online courses. The results showed that this confinement drastically enhanced students' success and helped turn their learning tactics into a more ingrained habit, increasing their productivity.

Parallel to this, Adnan and Anwar (2020) investigated how Pakistani college students' opinions of distance courses during the Covid-19 pandemic. These writers polled undergraduate and graduate students to perform their studies. According to undergraduates' opinions, online learning cannot result in the expected academic success

in underdeveloped nations like Pakistan because most students need access to the Internet. These authors also found that other issues students face during the Covid-19 epidemic include reaction time, a thrashing of traditional classroom sociability, and an absence of in-person interactions with the teacher.

Given the travel restrictions and social segregation put into action to combat the Covid-19 pandemic, it is noticeable that instructors are using numerous web mediums to offer their lessons. According to Arumuru (2021), the degree of academic success attained by undergraduates is contingent on the degree to which they access the requisite educationally connected knowledge. Undergraduates' information requests are a deliberate desire to access information or recorded knowledge to close a knowledge gap intended to accomplish an educational or personal goal (s). Consequently, Dinesiriy et al. (2022) argued that to meet the learning needs of undergraduates, various online media using m-learning, such as WhatsApp, Zoom, Google Meet, and Telegram—all of which are free for educators/students with educational accounts—were deployed to support instruction and training during the total lockdown. The researchers asserted that information and situation-dependent knowledge are immediately accessible via m-learning. Remarkably, cell phone instruction marked a scholastic shift from the conventional technique to the progressive teaching approach, moving from the auditorium to Zoom, WhatsApp, Google Meet, and Facebook from the private to the public and seminars-webinars. Previously, non-formal education was frequently referred to as including correspondence, distance learning, and e-learning. However, if recent trends persist, non-formal education will eventually displace traditional education (Lokanath et al., 2020).

4 Methodology

This research investigated the link between cell phone instruction platforms and the academic achievements of undergraduates in LIS during the Covid-19 pandemic in Delta, and Rivers states, Nigeria, by gathering responses from LIS undergraduates at Delta State University, Abraka, and the Ignatius Ajuru University of Education Rumuoluemni, Port Harcourt. This study explained the connection between academic achievement and cell phone instruction platforms during the Covid-19 pandemic. A descriptive research design was employed in the study's methodology. A population of 279 respondents was drawn from 300 and 400-level undergraduates whose grades were affected by the lockout because these students were in 100 and 200 levels, respectively, during the Covid-19

lockdown. In contrast, others who were in the 300 and 400 levels had already graduated in 2022 when this study was conducted. A comprehensive sample of 162 respondents, or 58% of the complete populace, was chosen from the 279 survey participants that made up the study's target group using a simple random sampling procedure. The sample size was set following Krejcie and Morgan's (1970) samples taken recommendations for research activity.

The study's sole research tool was a questionnaire with 24 open-ended items on each issue. The research instrument was titled "Cell-phone Instruction Platforms and Academic Achievements Questionnaire" (CIPAAQ). The questionnaire was personally given to the responders in each lecture hall to guarantee a high return rate. The gathered data from the questionnaire distributed was analysed by deploying descriptive statistics, such as mean, frequency counts, and simple percentages. The analysis was accomplished with the aid of SPSS version 22.

5 Findings of the Study

The data in Figure 1 shows that the majority of participants concur that email (98, 60%), WhatsApp (118, 69%), and Delsu management learning software (118, 73%), respectively, are the cell-phone instruction platforms deployed by lecturers for classroom instruction during the Covid-19 pandemic.

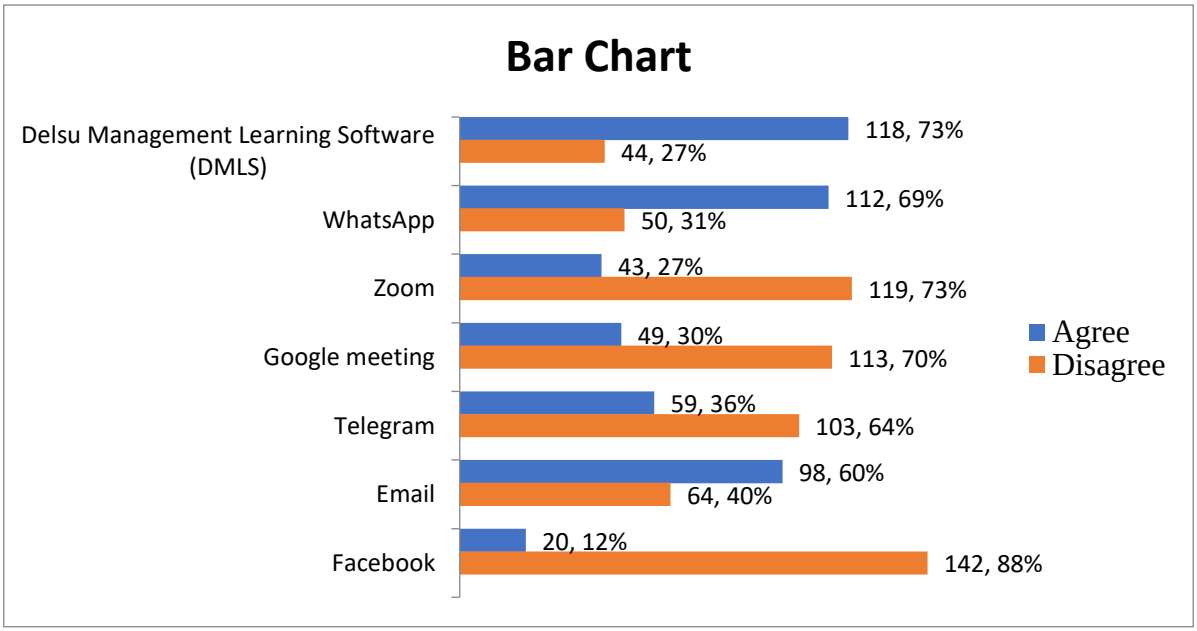

Figure 1: Platforms used for Cell-phone Instruction during Covid-19 Pandemic in Delta and Rivers state, Nigeria

Table 1: Extent to which Undergraduates are satisfied with Cell-phone Instruction Platforms

Statements	**VHE**	**HE**	**ME**	**NE**	$\bar{x}$
I have unrestricted access to cell phone instruction channels	85	33	26	18	3.14
Online resources let me study at my speed	25	74	35	28	2.59
Cell phone instructions are devoid of technical problems	22	43	49	48	2.24
I receive technical assistance when utilizing cell phone instructions	21	33	52	56	2.12
I am motivated when using cell phone instruction channels	32	41	36	53	2.32
The standard of the services is acceptable	25	41	58	38	2.32
The distributed course materials are sufficient	23	31	40	68	2.06
Aggregate Mean = 2.40 Criterion Mean = 2.50					

The aggregate mean of 2.40 in Table 1 is lower than the criterion mean of 2.50, indicating that most participants were not content with using cell phone instruction platforms. This shows that most undergraduates are dissatisfied with the implementation of m-learning platforms by their university administration during the Covid-19 outbreak.

Table 2: The extent to which Cell-phone Instruction platforms affect the Academic Success of Undergraduates

Academic Success	**VHA**	**HA**	**MA**	**NA**	$\bar{x}$
Assignment	72	31	25	34	2.87
Seminar	47	54	32	29	2.73
Test	42	51	51	18	2.72
Examination	68	38	27	29	2.90
Group work	37	57	29	39	2.57
Aggregate Mean = 2.76 Criterion Mean = 2.50					

The cumulative mean of 2.76 in Table 2's data is above the criterion mean of 2.50, suggesting that cell phone instruction platforms negatively impact LIS undergraduates' academic achievement.

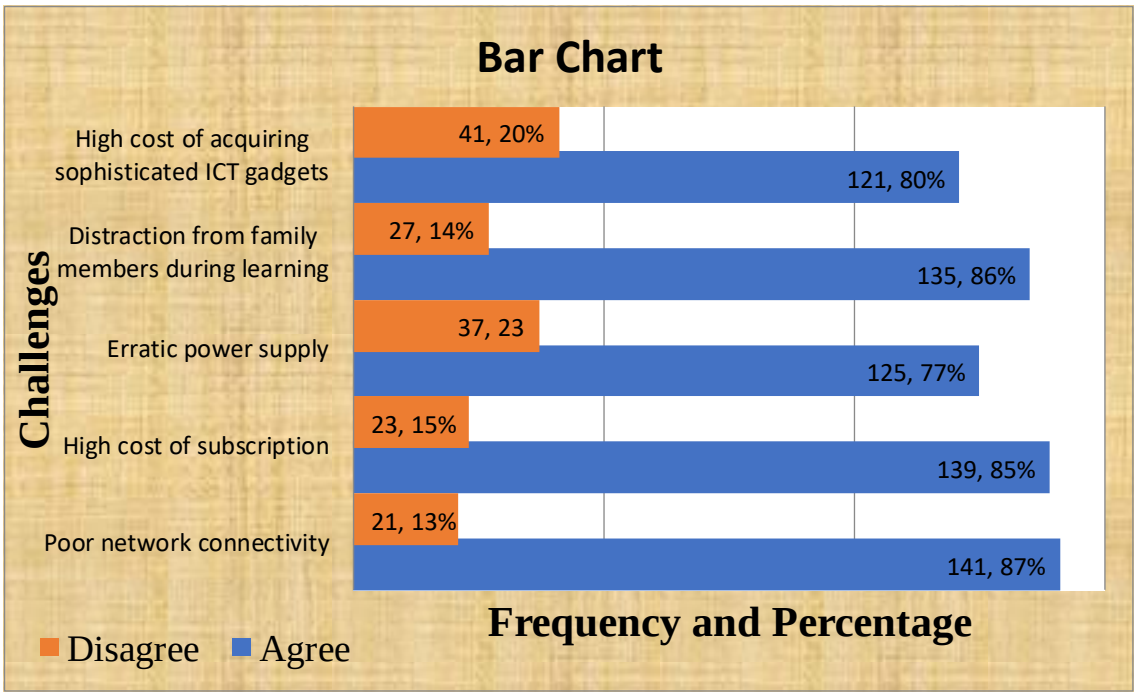

Figure 2: Challenges Encountered by Undergraduates with the Use of Cell-phone Instruction Platforms

Figure 2 outlines the difficulties that undergraduates face while using m-learning platforms. According to the Figure, the majority of respondents agreed that the difficulties faced by undergraduates using m-learning platforms during the Covid-19 pandemic include poor internet connectivity (141, 87%), high subscription costs (139, 85%), family members disruption of learning (135, 86%), intermittent power supplies (125, 77%), and elevated cost of obtaining sophisticated ICT gizmos (121, 80%).

6 Discussion of the Findings

Based on the data analysed and portrayed in Figure 1, lecturers used WhatsApp, Delsu management learning software, and email as their m-teaching/learning platforms during the Covid-19 pandemic. The research backs up Dinesiriy et al. (2022) supposition that different online media, including m-learning platforms like WhatsApp, Zoom, Google Meet, and Telegram, which are independent for teachers/students with instructional accounts, were used to assist learners during the lockdown to satisfy the demands of undergraduates. The results likewise reinforce Lokanath, Tushar, and Abha's (2020) assumption that m-learning represents a pedagogical change from conventional methods to more contemporary ones, similar to those deployed in Zoom, Facebook, Google Meet, and other social media outlets, together with seminars/webinars.

As per data from Table 1, just a small percentage of LIS undergraduates in the states of Delta and Rivers are satisfied with m-teaching/learning systems. The study proved Yunusa et al. observation that undergraduates' satisfaction with cell phone instruction platforms reflects e-learning-related variables like communication dynamics (interaction, informational quality), e-learning-environmental variables (course structure, content), organizational characteristics (technological support, service quality), and personality or situational factors (autonomy).

The results in Table 2 demonstrate that m-teaching/learning systems have an important effect on undergraduates studying LIS concerning achievements on assignments, seminars, tests, and exams, along with their participation in collaborative learning. The study's results concur with those of Abigeal and Lydia (2020), who recognized some of the major Covid-19 pandemic's impacts as the perturbation of academic activities at higher institutions, a decline of study abroad, interruption of the course syllabus, erasure of local/international conferences, unrest of instruction/learning activities, loss of workforce in the academic system, and a sharp decline in the budget for higher learning.

Per the dataset obtained from Figure 2, poor web access, high subscription fees, goof-ups from relatives while learning, intermittent power supplies and the high cost of acquiring advanced ICT devices are the major impediments undergraduates face when using m-teaching/learning channels. The findings reinforce Adnan and Anwar's (2020) inference that the use of online education systems in emerging regions such as Pakistan, Nigeria, and others cannot result in the preferred school success because the bulk of undergraduates lacks access to Internet, refresh rate, normal school socialization, and face-to-face interactions with the teacher.

9 Conclusion

The researcher concluded that the lockdown during the Covid-19 pandemic led to the entry of various m-teaching/learning platforms such as WhatsApp, Delsu Management Learning Software, and email in Delta and Rivers states in Nigeria as a soothing effect in the academic sector. However, using cell phone instruction platforms hurts undergraduates' academic achievement regarding homework, tests, exams, seminars, and cooperative learning. This is largely due to the issues undergraduates face when using cell phone instruction platforms, which also contribute to the low satisfaction levels they admit to having.

10 Recommendations

This study recommends that:

i) To cultivate in students/instructors the competence to use contemporary technology for teaching/learning activities, school admin should launch a policy that will compel the deployment of cell phone instructions alongside the face-to-face teaching/learning arrangement.

ii) The institution's administrators should schedule a workshop to instruct faculty and students on how to use contemporary technology for teaching/earning. A supportive environment should be created to allow for the successful use of online learning systems.

11 Implications

Based on the findings, lecturers used WhatsApp, Delsu management learning software, and email as their m-teaching/learning platforms during the Covid-19 pandemic. It implies that the management of universities should introduce a blended learning system where teaching/learning is performed utilising the conventional and modern approach to guide against interruption of academic activities because of unforeseen eventualities.

The results of the data presented in Table 1, revealing that LIS trainees in the states of Delta and Rivers are not satisfied with the use of m-teaching/learning platforms, implies that university students were not prepared for the application of modern technologies for educational activities, hence, their incapacity to tolerate its implementation.

The results in Table 2 show that the application of m-teaching/learning systems has a significant off-putting impact on undergraduates studying LIS concerning achievements on assignments, seminars, tests, and exams, along with their participation in collaborative learning. This indicates that the platforms employed for teaching/learning activities largely determine the degree to which learning objectives will be achieved.

Findings from the dataset obtained from Figure 2 reveal that poor web access, high subscription fees, goof-ups from relatives while learning, intermittent power supplies, and the steep cost of acquiring advanced ICT devices are the major impediments undergraduates face when deploying m-teaching/learning channels. This indicates that university management is not ready to deploy mobile instruction channels in Nigeria because the government and university management have never created an enabling environment.

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