

**INFLUENCE OF INNOVATIVE SUPPORT ON LEARNERS' SUCCESS IN OPEN
AND DISTANCE LEARNING AT UNIVERSITIES IN NIGERIA**

¹AINA, Josephine Shola, PhD, ²TANIMOLA, Julianah Taiwo

^{1&2}Department of Educational Foundations, Faculty of Education, National Open University of Nigeria

¹jaina@noun.edu.ng, ²tanimola@noun.edu.ng

¹08036093532, ²08142465288

Abstract

This study examined the impact of innovative support on learners' success in open and distance learning at universities in Nigeria. The study employed descriptive survey research design for the study. Three research questions guided the study and two null hypotheses were tested. Sample size of the study was ODL students of Lagos State University study centre. Questionnaire was used as the instrument to guide the conduct of the study. Descriptive statistics were adopted to analyse the demographic data while Pearson Product Moment Correlations was used to test the null hypotheses at .05 level of significance. The study revealed that innovative support is very much required in learners' academic success in Nigerian ODL universities. There is technological impact on learner's success and technology does have significant improvement on the integrity of online testing. The study concluded that innovative supports are very much required for learners' academic success. Therefore, the study recommends that to provide students with the skills needed in the current ODL environment, universities lecturers should adopt innovative approaches of instruction delivery, and testing, institutions should closely oversee and guarantee complete adherence to the application of innovative support for instructional deliveries and government funding should be made available for the acquisition and sufficient provision of the facilities and equipment required for cutting-edge instruction.

Keywords: *Innovative support, Learners' success, Distance Learning*

Introduction

Students' ability to succeed academically is significantly influenced by the teaching and learning setting in which they are placed. In this contemporary society, technology is an important component. As a gamer, it has helped almost every action. It holds true for schooling as well. Both teaching and learning have progressed to new levels thanks to technology in education. Open and distant learning (ODL) involves innovative teaching and learning strategies that have been altered by the introduction of technology into the classroom (Selvaras, 2020).

A better ODL infrastructure is provided on campus and in regional centers, and study centers, regional centers, and universities all have equipment to assist learners. It seeks to incorporate Information Communication Technology (ICT), soft abilities, linguistic and ODL into the curriculum, provide undergraduates with required ICT soft abilities, linguistic likewise ODL preparation, and provides teaching personnel with training services to advance ODL likewise ICT skills domestically and universally (Selvaras, 2020).

The rapid technological advancements of the preceding thirty years ago, mostly the explosion in information and communication technologies (ICTs) similar to the Internet, have contributed to the seismic pedagogical changes that have swept through education in the twenty-first century (Musaka, 2015; Yunusa et al., 2019). These changes remain the result of using online as well as additional technological resources to boost human education. In reality, technology-enhanced learning (TEL) methods are now pervasive in the advanced learning sector (Schweighofer et al., 2019), and their use has increased further from the time when the discovery of COVID-19. The desire to address real issues in teaching, learning, and performance has accelerated the expansion and implementing various TEL methods, especially electronic learning e-learning, via numerous organizations, together with tertiary institutions.

Although there are more than one hundred and seventy universities, one hundred and forty-nine colleges of education likewise more than three hundred polytechnics, colleges, and specialized institutes in Nigeria (NBTE, 2019; NCCE, 2019; NUC, 2019), the country still tussles to meet the voluminous demand for educational institutions applications. Overall applications received through Joint Admissions and Matriculations Board was 1,653,127 in 2018 and 1,722,269 in 2017, referencing a current estimate from the Nigerian Bureau of Statistics (NBS) (NBS, 2019).

A similar study noted that simply 549,763 and 566,719, respectively, of those thousands of candidates, were accepted for admission to schools in 2017 and 2018. Over a million additional applicants for admittance are needed. According to Ekundayo and Ekundayo (2009), this has been the pattern for the past two centuries, and there is no sign of an end in sight.

Real problems in teaching, learning, and success are driving the current surge of e-learning advances and implementations by many schools. Many education specialists have urged the implementation of e-learning because educational attainment in developing nations like Nigeria still trails far behind that of established economies (Olowonisi, 2016). As a consequence, the National Open University of Nigeria (NOUN) likewise several Nigerian institutions have embraced e-learning.

Research objectives

To help with study conduct, the following list of objectives is provided:

1. To ascertain the level of innovative support for learners' success with the learning environment at ODL Universities in Nigeria.
2. To examine the extent to which is technology required in impacting learners' success in an ODL University.
3. To explore the extent to which technology has improved the integrity of online testing in an ODL University.

Research questions

1. What is the level of innovative support for learners' success with the learning environment at ODL Universities in Nigeria?
2. To what extent is technology required in impacting learners' success in an ODL learning University?
3. To what extent has technology improved the integrity of online testing in an ODL University?

Research hypothesis

H₀₁: Technology does not have any significant impact on learners' success in an ODL University.

H₀₂: Technology does not have any significant improvement on the integrity of online testing in an ODL University.

Literature review

The topic of why some learners lose interest in a lesson has recently taken center stage in debate. It is crucial to track and share real results of the use of such technologies because there is a risk of introducing a quality deficiency when implementing these new technologies in remote learning programs. This research examines the satisfaction levels of pupils with these results of technologies applications in remote education.

E-learning

When e-learning is used, it seems like there are corresponding obstacles come after the advantages. For instance, there is a genuine digital gap among nations, organizations, and students in developing nations like Nigeria. The majority of the emerging world, including Nigeria, does not have a uniform distribution of high-speed Internet bandwidth. Additionally, because ICTs rely significantly on electricity, Nigeria's defunct power scenario presents a significant obstacle to the effective employment of e-learning systems. Despite the widespread use of ICTs today, many people still struggle to pay for a part of the high-quality educational media needed for contemporary internet learning encounters. Different variations in terms of e-readiness are also common because many people still do not have the fundamental computer abilities necessary for e-learning study methods.

According to Ali (2017), in order to understand the reason for e-learning systems are used, it was essential to identify the obstacles that might prevent their effective implementation. Studies suggest online education in the setting of higher education institutions (HEIs) has almost become a necessity, but not without difficulties. Technology issues, topic issues, individual issues, and

context issues were all grouped together by Ali (2017) into a four-dimensional conceptual structure that includes the obstacles to computerized learning systems. The majority of these issues are covered below. In addition, Lawn et al. (2017) found that the personal accountability and self-control needed to maintain drive in online learning settings also served as barriers to ongoing learning.

Students' poor work practices and loneliness, an absence of peers' learning as well as engagement, a lack of prompt reaction from lecturers by the time problems arise, especially in delayed settings, and uniform teaching materials that could be detrimental to students' capability of reworking or improvising are among the issues listed by Lawn et al. (2017). Borotis et al. (2008) recognized several issues as potentially demotivating to learners and impeding their acceptance of e-learning in previous research: learners' feeling of solitude; trouble traversing across and inside online classes; struggling to comprehend instructional tasks; insignificant educational resources; and technical issues. In the same way, scholars such as Mao (2014) identified limited regulations for school networks, a dearth of hardware, and the difficulty of effectively incorporating technology as barriers to the effective implementation of e-learning initiatives in classrooms. Lawn et al. mention poor writing, computer, and verbal abilities (2017).

Additionally, difficulties with bandwidth, restricted Internet access, and a lack of teachers at conversation sites are some of the issues that developing nations like Tanzania have with integrating e-learning there (Malale et al., 2018). The writers emphasized that obstacles to e-learning incorporation at the University of South Africa included an ineffective electronic teaching system, an absence of computer proficiency, a personnel deficit, and a dearth of commitment on the part of instructors and pupils.

Some researchers claim that the following factors make it difficult to implement electronic education in Nigerian universities, including NOUN: the inability of educators to support students' capacity development; a lack of funding; erratic power supplies; a shortage of coached personnel; a shortage of educational technologies; an unfulfilling student-computer ratio; and a lack of adequate online education. High execution costs, poor community literacy, fear of technology, and systemic failure are additional problems (Aboderin, 2015; Aminu & Rahaman, 2014; Eze et al., 2018; Olowonisi, 2016).

Additional difficulties identified in the literature involve: students with visual impairment being excluded due to a deficiency of appropriate materials and distribution structures to assist their disability; a lack of encouragement for the blind that cannot easily interact via email or digital platforms requiring vision, as well as a shortage of advocating for equality in modern educational methods; and a lack of study devoted to design and execution challenges, especially for those with visual impairments (Obuekwe & Eze, 2017).

Methodology

Sileyew (2019) defines research designs as the structuring of inquiry targeted at finding factors and their relationships to one another. The descriptive survey research method with questionnaire administration was used for the investigation.

The research was carried out in Nigeria, Lagos State. Lagos is the largest metropolis in Nigeria, and the second-fastest rate of population growth in Africa, and is ranked seventh in the globe. In regards to the Lagos State Administration, there are 17.5 million people living in the Lagos metropolitan region. However, the Nigerian Government disputes this figure, and the National Population Commission of Nigeria has deemed it unreliable. According to estimates from 2014, the urban area of Lagos was the most populous territory in Nigeria with a population of 21 million.

The study's participants are undergraduates at Lagos State University in Lagos. According to Times Higher Education (2023), 35,000 students registered for both full- and part-time courses at the university.

The simple random sampling technique was employed to select 200 students from the total community from different faculties at the institution.

The study tools used in this inquiry are questionnaires and interviews. The questionnaire consists of two sections, A and B. While Section B includes a research statement proposed in accordance with the research question and theory in chapter one, Section A deals with the respondents' personal information.

After the data have been obtained through the use of a questionnaire, they were analyzed in light of the research question and hypothesis. The basic principles percentage method was adopted as a statistical instrument for the study, alongside a sample size of 200. Pearson Product Moment

correlation was also used to evaluate the hypothesis and determine the expected connection between two variables. This is employed to draw inferences by collecting data gathered from questionnaire answers, assessing the degree of freedom, along with deciding on the hypothesis' critical figure.

Discussions

Bio-Data of Respondents

Table 1: Gender of respondents

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	120	60.0	60.0	60.0
Female	80	40.0	40.0	100.0
Total	200	100.0	100.0	

Source: Author's report, 2023

Table1 above displays the gender distribution of the respondents. 120 respondents resulting in 60% of the populace were male, and 80 respondents resulting in 40% of the populace were female. This shows that male respondents are in the majority.

Table 2: Age rank of respondents

Age	Frequency	Percent
17-22 years	100	70.0
23-28years	60	20.0
29-34years	40	10.0
Total	200	100.0

Source: Author's report, 2023

Table 2 above displays the age rank of the respondents used for this study. Respondents in between the age 17-22 participated more in the study.

100 respondents resulting in 70% of the populace are between 17-22 years.

23 respondents resulting in 20% of the populace are between 23-28years.

29 respondents resulting in 10% of the populace are between 29-34years.

Table 3:Faculties of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Arts	20	10.0	10.0	10.0
Agriculture	15	7.5	7.5	17.5
Physical sciences	30	15.0	15.0	32.5
Veterinary sciences	20	10.0	10.0	42.5
Biological sciences	30	15.0	15.0	57.5
Pharmaceutical sciences	30	15.0	15.0	72.5
Medical sciences	25	12.5	12.5	85.0
Education	30	15.0	15.0	100.0
Total	200	100.0	100.0	

Source: Author's report, 2023

Table 3 above displays the faculties of the respondents used for this study.

20 respondents resulting in 10% are from the faculty of arts.

15 respondents resulting in 7.5% are from the faculty of agriculture.

30 respondents resulting in 15% are from the faculty of physical sciences.

20 respondents resulting in 10% are from the faculty of veterinary sciences.

30 respondents resulting in 15% are from the faculty of biological sciences.

30 respondents resulting in 15% are from the faculty of pharmaceutical sciences.

25 respondents resulting in 12.5% are from the faculty of medical sciences.

30 respondents resulting in 15% are from the faculty of education.

Table 4: Respondents' Marital Status

	Frequency	Percent	Valid Percent	Cumulative Percent
Single	120	60.0	60.0	60.0
Married	60	30.0	30.0	90.0
Divorced	15	7.5	7.5	97.5
Widowed	5	2.5	2.5	100.0
Total	200	100.0	100.0	

Source: Author's report, 2023

Table 4 from above displays the marital status of respondents used for the survey

120 respondents resulting in 60% of the populace being single.

60 respondents resulting in 30% of the populace are married.

15 respondents resulting in 7.5% of the populace are divorced.

5 respondents resulting in 2.5% of the populace are widowed.

Hypotheses Testing

H₀₁: Technology does not have any significant impact on learners' success in an ODL University.

H₀₂: Technology does not have any significant improvement on the integrity of online testing in an ODL University.

At significance level of 0.05

Table 5: Correlations

		The use of Zoom has improved my academic performances	Technology does not have any significant impact on learners' success in an ODL University
The use of Zoom has improved my academic performances	Pearson Correlation	1	.581**
	Sig. (2-tailed)		.000
	N	200	200
Technology does not have any significant impact on learners' success in an ODL University	Pearson Correlation	.581**	1
	Sig. (2-tailed)	.000	
	N	200	200

** . At the 0.05 level, correlation is significant (2-tailed).

Decision rule-based conclusions

Since the r calculated (0.000) is less than the level of significance or r tabulated (0.05) the null hypothesis was rejected and conclude that from our survey, that Technology does not have any significant influence on learners' success in an ODL University.

The value of the Pearson correlation coefficient of 0.581 depicts that the value of technological impact on learner’s success is relatively high. Noticeably, the findings are more closely linked to student achievement in online classes than in mixed courses. Furthermore, students' happiness levels are highly weighted by content design and learning technologies, indicating that students have high standards for lesson and technology in online classes. Our findings are unswerving with the findings of Bao (2020), who found a strong link between excellent online course design and student learning results. It is also worth noting that personal accountability and self-discipline, which are needed to maintain inspiration in online learning environments (Lawn et al., 2017), were discovered to be barriers to ongoing learning in e-learning environments.

H₀₂: Technology does not have any significant improvement on the integrity of online testing in an ODL University.

At significance level of 0.05

Table 6: Correlations

		I have more confidence in online testing	Technology does not have any significant improvement on the integrity of online testing in an ODL University
I have more confidence in online testing	Pearson Correlation	1	.572**
	Sig. (2-tailed)		.000
	N	200	200
Technology does not have any significant improvement on the integrity of online testing in an ODL University	Pearson Correlation	.572**	1
	Sig. (2-tailed)	.000	
	N	200	200

** . At the 0.05 level, correlation is significant (2-tailed).

Decision rule-based conclusions

Since the r calculated (0.000) is less than the level of significance or r tabulated (0.05), the null hypothesis was rejected and conclude that from our survey, that technology does not have any significant improvement on the integrity of online testing in an ODL University.

The value of the Pearson correlation coefficient of 0.572 depicts that the value of technology does have significant improvement on the integrity of online testing which is relatively high. Along with the Increased confidence in the reliability and validity of electronic exams is a result of the clever integration of censoring equipment with technology and lesson dissemination (Andrade et al., 2020). Whereas our students recognize the importance of maintaining values to guarantee assessment-related scholastic credibility, they voice reservations about online testing tools. Students' perspectives on the reliability of different testing methods are presented.

Prior research (Bao, 2020; Dhawan, 2020) suggests that tracking students' performance may be more important in online classes due to increased interruptions and a dearth of focused learners (Bao, 2020; Dhawan, 2020). Conversely, players in the online learning group caution counter to jumping to conclusions regarding malpractice that could amounting to prejudiced negative to learners' view. A closer look at student remarks explains their aversion to online proctoring technologies.

Conclusion

The effective operation of ODL's educational mode has grown to depend heavily on innovative support provided by e-learning or other technological approaches to education. In a similar vein, these creative supports improve students' capacity to persevere and successfully finish their coursework in ODL schools. Therefore, it is essential that we research the impact of innovative support on learners' success in open and distance learning at universities in Nigeria because this helps: increase learners' success in open and distance learning and improve the learning results for pupils in distance learning schools like the National Open University of Nigeria. As a result, this investigation was intended at determining the influence of innovative support on learners' success of the Lagos State Open and Distance learning centre, Lagos State University (LASU). It precisely investigated to ascertain the level of innovative support for learners' success with the learning environment, to examine the extent to which is technology required in influencing learners' success in an ODL university and to explore the extent to which technology has improved the integrity of online testing in an open and distance learning University.

Three research questions and two associated null hypotheses that were developed and presented during the study and discussion of the findings served as the foundation for the statistical analysis results in this dissertation. The Pearson Product Moment Correlation was used to analyze the two study topics.

The overall figure of respondents in the research was 200 across all faculties of LASU study centre. Statistical analyses are considered reliable at a 95% level, confirmed significant differences were observed in technological impact on learner's success and that technology does have significant improvement on the integrity of online testing which were highly significant. It

implies that innovative support is essential for the academic success of ODL learners across Nigerian universities

Research implications

The study's conclusions suggest that innovative support will further improve learners' success through technological facilities offered to ease the delivery of instruction and testing in environments rich in technology, similar to the ones in the LASU ODL, whose education method is integrated, which is fundamentally present in other ODL institutions. The management and administrators of the LASU ODL and other ODL centers across Nigeria's tertiary institutions, as well as legislators and regulatory bodies, will all benefit from the study's pertinent information, which will be used to create, put into operation, and implement e-learning approaches.

Recommendations

Therefore, it is important to spend money on the infrastructure required for creating and providing classes to students. In order to support the growth of workplace training possibilities, particularly in those areas where academic qualification is required, institutions should also forge strong international alliances with both employers and each other. There is a need to integrate remote learning into every aspect of our educational system because doing so will dispel the myth that distance learning is less valuable than traditional classroom instruction and change some people's unfavorable perceptions of it.

References

- Aboderin, O. S. (2015). Challenges and Prospects of E-learning at the National Open University of Nigeria. *Journal of Education and Learning*, 9(3), 207-216.
- Ali, S. (2017). E-learning Implementation barriers: impact of student's individual cultural orientation on e-learning device acceptance". Ph.D thesis, University of Reading.
Retrieved 11th Jan 2023 from http://centaur.reading.ac.uk/76007/1/22832043_Ali_thesis.pdf

- Aminu, H., & Rahaman, S. (2014). Barriers thrusting e-learning to the backseat: Nigeria a case study. In *2014 IEEE Canada International Humanitarian Technology Conference-(IHTC)* (pp. 1-4). IEEE.
- Andrade, M. S., Miller, R. M., Kunz, M. B., & Ratliff, J. M. (2020). Online learning in schools of business: The impact of quality assurance measures. *Journal of Education for Business*, 95(1), 37-44.
- Bao, W. (2020). COVID-19 and online teaching in higher education: A case study of Peking University. *Human behaviour and emerging technologies*, 2(2), 113-115.
- Borotis, S., Zaharias, P., & Poulymenakou, A. (2008). Critical success factors for e-learning adoption. In *Handbook of Research on Instructional Systems and Technology* (pp. 498-513). IGI Global.
- Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of educational technology systems*, 49(1), 5-22.
- Ditimi, A., & Ayanda, D. (2013). A comparative analysis of e-readiness assessment in Nigerian private universities and its impact on educational development. In *Information and Knowledge Management*, 3(11), 30-37
- Ekundayo, M. S., & Ekundayo, J. M. (2009). Capacity constraints in developing countries: A need for more e-learning space? The case of Nigeria. *Proceeding ascilite Auckland*.
- Eze, S. C., Chinedu-Eze, V. C., & Bello, A. O. (2018). The utilization of e-learning facilities in the educational delivery system of Nigeria: a study of M-University. *International Journal of Educational Technology in Higher Education*, 15(1), 1-20.
- Lawn, S., Zhi, X., & Morello, A. (2017). An integrative review of e-learning in the delivery of self-management support training for health professionals. *BMC medical education*, 17(1), 1-16.
- Malale, M., Gomba, G. & Dichaba, M. (2018), "Constraints to optimal adoption of e-learning resources by UNISA students: an open distance learning context". In U. Ogbonnaya, & S. Simelane-Mnisi (Ed.), *Proceedings of the South Africa International Conference on*

- Educational Technologies 2018 (pp. 182-192). Pretoria: African Academic Research Forum.
- Mao, J. (2014). Social media for learning: A mixed methods study on high school students' technology affordances and perspectives. *Computers in Human Behavior*, 33, 213–223. <https://doi.org/10.1016/j.chb.2014.01.002>
- Musaka, M. (2015). The effect of technology self-efficacy and personal engagement on students' and teachers' attitudes toward technology use in education. An unpublished PhD Dissertation, Reich College of Education, Boone.
- National Board for Technical Education (2019). Retrieved 11th Jan 2022 from <https://net.nbte.gov.ng/accredited%20institutions>
- National Commission for Colleges of Education (2019). Retrieved 11th February 2023 from <http://www.ncceonline.edu.ng/colleges.php>
- NBS (2019). JAMB applications and admitted candidates by state and gender within faculty (2017 - 2018), Nigerian Bureau of Statistics, Abuja.
- Nigerian Universities Commission (2019). Retrieved 18th May 2022 from <https://nuc.edu.ng/>.
- Obuekwe, G. I., &Eze, R. A. I. (2017). Promoting Best Practices in Teaching and Learning in Nigerian Universities through Effective E-Learning: Prospects and Challenges. International Association for Development of the Information Society.
- Olowonisi, V. O. (2016). Harnessing the opportunities of e-learning and education in promoting literacy in Nigeria. *International Journal of Educational and Pedagogical Sciences*, 10(9), 3205-3208.
- Schweighofer, P., Weitlaner, D., Ebner, M., &Rothe, H. (2019). Influential factors for technology-enhanced learning: professionals' views. *Journal of Research in Innovative Teaching & Learning*, 12(3), 268-294.
- Selvaras, J. (2020). Technology usage for teaching and learning law in open and distance learning: a Sri Lankan perspective. *Asian Association of Open Universities Journal*, 15(1), 69-81.

Sileyew, K. J. (2019). *Research design and methodology* (pp. 1-12). Rijeka: Intech Open.

Times Higher Education (2023). World university rankings. Lagos state university. Retrieved 13th January, 2023 from <https://www.timeshighereducation.com/world-university-rankings/lagos-state-university>

Yunusa, A. A., Bin Umar, I. N., & Bervell, B. (2019). Octennial review (2010-2018) of literature on M-learning for promoting distributed-based medical education in sub-Saharan Africa. *International Review of Research in Open and Distributed Learning*, 20(2).