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Lecturers' Digital Proficiency as Correlate of Implementation of Open and Distance Learning Programme in Public Universities in Rivers State, Nigeria

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Abstract: This study investigated lecturers' digital proficiency as correlate of implementation of open and distance learning programmes in public universities in Rivers State, Nigeria. Three objectives, three research questions and three hypotheses guided the study. The study adopted correlational research design. The population of the study was 6,252 lecturers consisting of 3,321 from University of Port Harcourt, 2,153 from Rivers State University and 778 from Ignatius Ajuru University of Education. The sample size of the study was 583 lecturers which comprised of 245 from University of Port Harcourt, 222 from Rivers State University and 116 from Ignatius Ajuru University of Education derived through multistage sampling technique. The instrument used for data collection was two self-designed questionnaires titled: "Lecturers' Digital Proficiency Questionnaire" and "Implementation of Open and Distance Learning Programme Questionnaire" which was validated by two experts in Measurement and Evaluation and Department of Educational Management. The reliability of the instruments were established using Cronbach Alpha statistics to achieve reliability indexes of 0.87, 0.86, 0.84 and 0.81. The research questions were answered using Pearson Product Moment Correlation statistics while the hypotheses were subjected to ttransformation to establish the significance of the r-value at 0.05 level of significance. The results of the analyzed data revealed that a high, positive and significant relationship exist between lecturers' digital proficiency in online collaboration tools and social media integration and implementation of open and distance learning programme in public universities in Rivers State, while a moderate, positive and significant relationship exist between lecturers' digital proficiency in online assessment and implementation of open and distance learning programme in public universities in Rivers State. Based on the findings, it was recommended among others that Government should develop national guidelines for online assessment and feedback, ensuring validity, reliability and fairness.

Keywords: Lecturers' Digital Proficiency, Open and Distance Learning, Online Collaboration Tools, Online Assessment, Social Media Integration

Introduction

The 21st century education has seen quite a number of innovations in pedagogical methods, instructional materials and class management. The shift to online and blended learning has underscored the importance of implementing open and distance learning method in universities. Open and distance learning has emerged as a significant mode of education worldwide, offering flexible learning opportunities by transcending barriers of time, space and location. Alaezi in Osuji and Umunnakwe (2022), refer to open and distance learning as educational patterns, approaches and strategies that permit people to learn with no barriers in respect of time and space, age, sex, race, tribe and state of origin. According to Osuji and Bakpo (2022), open and distance learning is a learning situation where the learners are geographically separated from the facilitators. In the context of open and distance learning (ODL), where learners are geographically dispersed and rely heavily on technology for interaction and content delivery, facilitators must demonstrate high levels of digital proficiency (Ugwoke, Oteh, &Onyishi, 2023).

Government all over the world have recognized the importance of open and distance learning methodas both a major means of upgrading the quality of education and succour for those who missed access to the conventional schooling. The Federal Republic of Nigeria in her National Policy on Education (FRN, 2014) outlined the goals of Open and Distance Learning which include to: provide more access to quality education and equity in educational opportunities; meet special needs of employers and employees by special courses for employees at the workplace; encourages internationalization especially of tertiary education curricula and ameliorate the effect of internal and external brain drain in tertiary institutions by utilizing Nigerian experts as teachers regardless their locations or places of work. In conjunction with preparing students for the current digital era, lecturers are seen as the key players in using digital technologies in the teaching and learning process. The mood of providing flexible learning opportunities for learners using varieties of media including electronic print, online printing, study guides, course guides, videos, recordings, software and online information have brought the need for lecturers to develop capabilities and proficiencies required to perform well (Osuji, Epelle&Alabere, 2023). For facilitators to be able to keep up with these changes and remain relevant in their field, they must demonstrate high level of digital proficiency to enhance the implementation of open and distance learning programme.

The COVID-19 pandemic accelerated the shift towards online learning method. Institutions in Nigeria had to transition to fully online modes of instruction, revealing gaps in digital competencies among lecturers (Wey-Amaewhule&Okah, 2024). According to Ugwoke, Oteh and Onyishi (2023), many lecturers found it challenging with the integration of digital tools in their instructional practices. As a result, the widespread lack of digital skills among lecturers negatively impacts the successful execution of open and distance learning programmes at universities, resulting in possible inequalities in educational experiences and outcomes for students studying remotely. This deficiency in digital skills often leads to missed chances to utilize educational technologies, develop interactive online learning environments and actively involve distance learners. Hence, improving lecturers' digital proficiency can significantly enhance the effective implementation of open and distance learning programme in universities.

Lecturers' digital proficiency refers to their capability of lecturers to incorporate digital tools to enhance their teaching methods in a digital learning environment. Wordu, Epelle and Anyanwu (2022), referlecturers' digital proficiency as the ability to use digital tools effectively to access, manage, integrate and analyze digital information for learning and collaboration in a digital learning environment. According to Kavalier and Flannigan (2018), lecturers' digital proficiency represents lecturers' ability to perform tasks effectively in a digital environment. This competency encompass the skills to navigate digital platforms, create and curate digital content, engage students in virtual settings, and evaluate learning outcomes with digital tools. Salehudin (2016), stated that lecturers' digital proficiency in online collaboration tools, online assessment and social media integration improve their interactions with technology as they work to prepare students for a digital learning environment.

Online collaboration tools facilitate communication, interaction, teamwork, and knowledge sharing among students and educators in virtual learning environments. Lecturers who are proficient in utilizing a variety of online collaboration tools can enhance the learning experience, promote active participation, foster a sense of community and support effective collaboration in open and distance learning programmes. Lecturers' proficiency in online collaboration tools like Google Docs, Slack, or Trello allow students to work together, share ideas, and collectively contribute to projects irrespective of geographical barriers which in turn enables them to facilitate group work and collaborative projects among students in a virtual environment (Harasim, 2017). This promotes a collaborative learning environment even in open and distance learning, enhancing student engagement, critical thinking and problem-solving skills. Online collaboration tools enable lecturers to provide real-time feedback and guidance to students during collaborative learning activities. By using features such as instant messaging, video conferencing, and screen sharing, lecturers can offer support, clarification and advice to students as they work together on group projects or assignments. Proficient use of these tools enhances communication, reduces misunderstandings and ensures that students receive timely and relevant feedback to improve their learning outcomes.

Online collaboration tools enable lecturers to build a sense of community and connectedness among students in open and distance learning programs. Ruzgar(2015) asserted that by creating virtual teamwork spaces, online discussion groups, and collaborative project channels, lecturers can encourage students to interact, share experiences and support each other in their learning journey. Proficient use of these tools fosters a supportive learning environment, where students can build relationships, network and collaborate with their peers and educators, enhancing their sense of belonging and engagement in the virtual classroom. The proficiency of lecturers in online collaboration tools is essential for the implementation of open and distance learning. By leveraging these tools to facilitate group projects, promote student engagement, provide real-time feedback, enhance inclusivity and accessibility and foster a sense of community among students, lecturers can create a dynamic, interactive and collaborative learning environment in virtual classrooms (Kavalier& Flannigan, 2018).

Lecturers' proficiency in online assessment and feedback involves using various digital tools and platforms to assess student progress, provide constructive feedback and evaluate learning outcomes. Lecturers need to be adept at designing online assessments,

implementing automated grading systems and providing timely feedback to students. Nicol (2020), asserted that lecturers' proficiency inonline assessment and feedback would contribute to the successful implementation of open and distance learning by ensuring timely evaluation, allowing for personalized feedback and supporting continuous improvement in student learning. By leveraging these skills, lecturers can create an enriching and inclusive learning environment conducive to open and distance learning. Proficient lecturers can leverage these tools to offer assessments that cater to diverse schedules and learning paces (Adebayo, 2017). Effective feedback is crucial in guiding students' learning journey. Proficient lecturers have the capability to provide timely and constructive feedback on assignments, quizzes, or exams conducted online.

Online assessment tools offer the flexibility for students to take exams or submit assignments from anywhere, at any time. This flexibility aligns with the fundamental principles of open and distance learning, where students often juggle various commitments alongside their studies. Online assessment tools often come equipped with features that allow for personalized assessments. Proficient lecturers can utilize these tools to tailor assessments based on individual student needs and learning styles. By providing customized assessments, educators can better cater to the diverse student population typical of open and distance learning settings (Harisa, 2020). This personalization enhance student engagement and promotes a deeper understanding of the subject matter. Online assessment platforms generate valuable data regarding student performance, engagement levels, and learning outcomes. Proficient lecturers analyze this data to gain insights into student progress and adjust their teaching strategies accordingly. By leveraging data analytics, educators can identify trends, areas of improvement, and student strengths, leading to a more informed and effective teaching approach within the open and distance learning framework.

Lecturers' proficiency in social media integration refers to their ability to effectively incorporate social media platforms like Facebook, Twitter or LinkedIn into their teaching methodologies. Lecturers'actively engaging with students through familiar social channels can foster collaboration, discussion and community building by creating a sense of virtual classroom interaction and enhancing student engagement which helps effective implementation of open and distance learning in universities (Veletsianos& Navarrete, 2020). According to Tunks (2012), the proficiency of lecturers in social media integration plays a crucial role in the implementation of open and distance learning. Therefore, it is essential for lecturers to be proficient in utilizing social media to enhance the learning experience and engagement of their students. Lecturers who are proficient in social media integration can create a dynamic and interactive online learning environment through platforms such as Facebook, Twitter, Instagram and LinkedIn. By utilizing these platforms, lecturers can communicate with their students in real-time, share resources, facilitate discussions, and provide feedback on assignments which fosters a sense of community among students and encourages active participation in the learning process(Ray, 2020).

Additionally, social media integration allows lecturers to personalize the learning experience for each student. By utilizing analytics tools on social media platforms, lecturers can track students' progress, identify their learning preferences and tailor their teaching methods accordingly. This personalized approach not only enhances the

students' learning outcomes but also promotes a sense of inclusivity and individualized support in open and distance learning programmes. Furthermore, social media integration enables lecturers to foster collaboration and peer-to-peer learning among students. Through the use of online forums, group chats and collaborative projects, students can work together to solve problems, share ideas and learn from each other. This collaborative approach not only enhances the students' understanding of the course material but also promotes teamwork and communication skills that are essential in today's interconnected world. Moreover, social media integration allows lecturers to reach a wider audience and attract more students to their open and distance learning programmes. By creating engaging and interactive content on social media platforms, lecturers can increase their visibility and credibility in the online education space. This, in turn, can attract more prospective students who are looking for flexible and accessible learning options (Ugwulebo, Emeka&Sunday, 2016).

Statement of the Problem

The rapid advancement of technology and the growing demand for flexible education have led to a heightened focus on implementing Open and Distance Learning (ODL) programme in Nigerian universities. Public universities in Rivers State is no exception, as it works to develop and expand ODL initiatives. However, the successful implementation and effectiveness of these programmes heavily depend on the digital proficiency of the lecturers, to be able to provide learning opportunities for learners who try to balance education with work and family commitments.

However, despite the increasing demand for digital competencies, there is a growing concern about the preparedness of lecturers to meet these expectations. Several studies have highlighted the gaps in lecturers' digital proficiency, particularly in developing countries like Nigeria, where access to technology and training opportunities may be limited (Ugwoke, Oteh&Onyishi, 2023).Lack of digital skills among lecturers can lead to ineffective course delivery, lower student engagement, and ultimately diminish the quality of education provided through ODL programme. Many lecturers face challenges adopting and utilizing online collaboration tools, online assessment and social media integration. This challenge became more pronounced during the COVID-19 pandemic, when the shift to fully online learning exposed the limitations of many facilitators' digital skills (García-Peñalvo, Corell, Abella-García& Grande, 2021). This inadequacy hampers the ability of institutions to make informed decisions regarding resource allocation, professional strategic planning development programmes and for the expansion ODLprogramme. Given these challenges, there is urgent need to investigate lecturers' digital proficiency as correlate of implementation of open and distance learning programmes in public universities in Rivers State.

Purpose of the Study

The purpose of the study was to investigatelecturers' digital proficiency as correlate of implementation of open and distance learning programmes in public universities in Rivers State, Nigeria. Specifically, the study sought to:

- 1. examine the relationship between lecturers' proficiency in online collaboration toolsand implementation of open and distance learningprogrammein public universities in Rivers State, Nigeria.
- 2. ascertain the relationship between lecturers' proficiency in online assessmentand implementation of open and distance learning programmein public universities in Rivers State, Nigeria.
- 3. determine the relationship between lecturers' proficiency in social media integration and implementation of open and distance learning programme in public universities in Rivers State, Nigeria.

Research Questions

- 1. What is therelationship between lecturers' proficiency in online collaboration toolsand implementation of open and distance learningprogrammein public universities in Rivers State, Nigeria?
- 2. What is therelationship between lecturers' proficiency in online assessmentand implementation of open and distance learning programmein public universities in Rivers State, Nigeria?
- 3. What is therelationship between lecturers' proficiency in social media integrationand implementation of open and distance learningprogrammein public universities in Rivers State, Nigeria?

Hypotheses

- Ho₁ There is no significant relationship between lecturers' proficiency in online collaboration tools and implementation of open and distance learningprogrammein public universities in Rivers State, Nigeria.
- Ho₂ There is no significant relationship between lecturers' proficiency in online assessmentand implementation of open and distance learning programmein public universities in Rivers State, Nigeria.
- Ho₃ There is no significant relationship between lecturers' proficiency in social media integration and implementation of open and distance learningprogrammein public universities in Rivers State, Nigeria.

Methodology

The study adopted correlational research design. The population of the study was 6,252 lecturers consisting of 3,321 from University of Port Harcourt (UNIPORT), 2,153 from Rivers State University (RSU) and 778 from Ignatius Ajuru University of Education (IAUE). The sample size of the study was 583 lecturers which comprised of 245from University of Port Harcourt, 222 from Rivers State University and 116 from Ignatius Ajuru University of Education derived through multistage sampling technique. At the first stage, the proportionate sampling technique was adopted in selecting 50% of faculties from UNIPORT, RSU and IAUE, while at the second stage the proportionate sampling technique was adopted in selecting 20% of Lecturers in the chosen facultiesfrom

UNIPORT, RSU and IAUEto arrive at the sample size of 583 lecturers. Two self-designed questionnaires titled: "Lecturers' Digital Proficiency Questionnaire (LDPQ)" and "Implementation of Open and Distance LearningProgramme Questionnaire(IODLPQ)" were instruments for data collection. The instruments were divided into two sections: Sections A and B. Section A covered demographic data of respondents while Section B was divided into sub sections based on the research questions. The instruments were face and content validated by experts in Measurement and Evaluation and Department of Educational Management. The response scale was structured on a 4 point rating scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) with values 4, 3, 2 and 1 respectively. The reliability of the instruments were established using Cronbach Alpha statistics to achieve reliability indexes of 0.87, 0.86, 0.84 and 0.81 for the various clusters of the instruments respectively. Pearson Product Moment Correlation statistics was used to answer the research questions based on the value and direction of the correlation coefficient. The relationship value of 0.1 - 0.4 was counted as "low relationship", 0.5 denotes "moderate relationship" while 0.6 and above denote "high relationship". The null hypotheses were subjected to t-transformation to establish the significance of the r-value at 0.05 level of significance with a critical t-value of ±1.96. Analyzed data therefore with calculated t-value above the critical t-value of ±1.96 was rejected and below was accepted.

Results

Research Question 1: What is therelationship between lecturers' proficiency in online collaboration tools and implementation of open and distance learningprogrammein public universities in Rivers State, Nigeria?

Table 1: Summary of Pearson Product Moment Correlation on the Relationship Between Lecturers' Proficiency in Online Collaboration Toolsand Implementation of Open and Distance Learning Programmein Public Universities in Rivers State, Nigeria.

	Correla	tions**		
		Lecturers' proficiency in Online Collaboration Tools	Implementation of Open and Distance Learning programme	Level of Correlation
Lecturers' Proficiency in Online Collaboration	Pearson Correlation	1	r =.654**	
Tools	Sig. (2-tailed)		.000	
	N	583	583	High and
Implementation of Open	Pearson Correlation	r =.654**	1	Positive
and Distance Learning Programme	Sig. (2-tailed) N	.000 583	583	Relationship
**. Correlation is significa	nt at the 0.01 level (2-tailed)			

Table 1 revealed a correlation value of $r = .654^{**}$. This value is high and positive, thus indicating that there is high and positive relationship between lecturers' proficiency in online collaboration tools and implementation of open and distance learning programme in

public universities in Rivers State, Nigeria. This result implies that lecturers' proficiency in online collaboration toolsenhance implementation of open and distance learningprogrammein public universities in Rivers State, Nigeria.

Research Question 2: What is therelationship between lecturers' proficiency in online assessment and implementation of open and distance learning programme in public universities in Rivers State, Nigeria?

Table 2: Summary of Pearson Product Moment Correlation on the Relationship Between Lecturers' Proficiency in Online Assessment and Implementation of Open and Distance Learning Programmein Public Universities in Rivers State. Nigeria.

Otate, Migel				
	Correla	tions**		
		Lecturers' proficiency in Online Assessment	Implementation of Open and Distance Learning programme	Level of Correlation
Lecturers' Proficiency in Online Assessment	Pearson Correlation	1	r =.549**	
•	Sig. (2-tailed)		.000	
	N	583	583	Moderate and
Implementation of Open	Pearson Correlation	r =.549**	1	Positive
and Distance Learning Programme	Sig. (2-tailed) N	.000 583	583	Relationship
**. Correlation is significal	nt at the 0.01 level (2-tailed)			

Table 2revealed a correlation value of r = .549**. This value is moderate and positive, thus indicating that there is moderate and positive relationship between lecturers' proficiency in online assessment and implementation of open and distance learning programme in public universities in Rivers State, Nigeria. This result implies that lecturers' proficiency in online assessmentenhance implementation of open and distance learning programme in public universities in Rivers State, Nigeria.

Research Question 3: What is therelationship between lecturers' proficiency in social media integration and implementation of open and distance learningprogrammein public universities in Rivers State, Nigeria?

Table 3: Summary of Pearson Product Moment Correlation on the Relationship Between Lecturers' Proficiency in Social Media Integration and Implementation of Open and Distance Learning Programmein Public Universities in Rivers State, Nigeria.

Universities	s ili Kivers State, Nige			
	Correla	tions**		
		Lecturers' proficiency in Social Media Integration	Implementation of Open and Distance Learning programme	Level of Correlation
Lecturers' Proficiency in Social Media Integration	Pearson Correlation	1	r =.835**	
v	Sig. (2-tailed)		.000	
	N	583	583	High and
Implementation of Open and Distance Learning	Pearson Correlation	r =.835**	1	Positive
Programme	Sig. (2-tailed) N	.000 583	583	Relationship
**. Correlation is significal	nt at the 0.01 level (2-tailed)			

Table 3revealed a correlation value of r = .835**. This value is high and positive, thus indicating that there is high and positive relationship between lecturers' proficiency in social media integration and implementation of open and distance learningprogrammein public universities in Rivers State, Nigeria. This result implies that lecturers' proficiency in social media integrationenhance implementation of open and distance learningprogrammein public universities in Rivers State, Nigeria.

Hypotheses

Ho₁ There is no significant relationship between lecturers' proficiency in online collaboration tools and implementation of open and distance learningprogrammein public universities in Rivers State, Nigeria.

Table 4: Summary of t-Transformation on the Significant Relationship BetweenLecturers' Proficiency in Online Collaboration Tools and Implementation of Open and Distance Learning Programmein Public Universities in Rivers State, Nigeria.

Variables	N	Df	r-value	t-Trans.	t-crit.	α	Decision
Lecturers' Proficiency in Online Collaboration Tools	583						
		581	.654**	24.11	±1.96	0.05	Ho₁ Rejected Significant Relationship Exists
Implementation of Open and Distance Learning Programme	583						

Table 4 showed a t-Transformation of 24.11 which was greater than the t-critical value of ± 1.96 at 0.05 level of significance with a degree of freedom of 581. Since the t-calculated value of 24.11 is greater than the t-critical value of ± 1.96 , the null hypothesis was rejected and the alternative upheld which states that there is a significant relationship between

lecturers' proficiency in online collaboration tools and implementation of open and distance learningprogrammein public universities in Rivers State, Nigeria.

Ho₂ There is no significant relationship between lecturers' proficiency in online assessment and implementation of open and distance learning programme in public universities in Rivers State, Nigeria.

Table 5: Summary of t-Transformation on the Significant Relationship BetweenLecturers' Proficiency in Online Assessmentand Implementation of Open and Distance Learning Programme in Public Universities in Rivers State. Nigeria.

Variables	N	Df	r-value	t-Trans.	t-crit.	α	Decision
Lecturers' Proficiency in Online Assessment	583						
		581	.543**	24.11	±1.96	0.05	Ho₂Rejected Significant Relationship Exists
Implementation of Open and Distance Learning Programme	583						

Table 5 showed a t-Transformation of 24.11 which was greater than the t-critical value of ± 1.96 at 0.05 level of significance with a degree of freedom of 581. Since the t-calculated value of 24.11is greater than the t-critical value of ± 1.96 , the null hypothesis was rejected and the alternative upheld which states that there is a significant relationship between lecturers' proficiency in online assessment and implementation of open and distance learning programme in public universities in Rivers State, Nigeria.

Ho₃ There is no significant relationship between lecturers' proficiency in social media integration and implementation of open and distance learningprogrammein public universities in Rivers State, Nigeria.

Table 6: Summary of t-Transformation on the Significant Relationship BetweenLecturers' Proficiency in Social Media Integration and Implementation of Open and Distance Learning Programmein Public Universities in Rivers State, Nigeria.

Oniversities in	IVIACIO	Jiaie,	itigeria.				
Variables	N	Df	r-value	t-Trans.	t-crit.	α	Decision
Lecturers' Proficiency in Social Media Integration	583						
				24.10			Ho₃Rejected
		581	.835**		±1.96	0.05	Significant Relationship Exists
Implementation of Open and Distance Learning Programme	583						

Table 6 showed a t-Transformation of 24.10 which was greater than the t-critical value of ± 1.96 at 0.05 level of significance with a degree of freedom of 581. Since the t-calculated value of 24.10 is greater than the t-critical value of ± 1.96 , the null hypothesis was rejected

and the alternative upheld which states that there is a significant relationship between lecturers' proficiency in social media integration and implementation of open and distance learningprogrammein public universities in Rivers State, Nigeria.

Discussion of Findings

The findings obtained on research question 1 on Table 1 indicated that there is a high and positive relationship between lecturers' proficiency in online collaboration tools and implementation of open and distance learningprogrammein public universities in Rivers State, Nigeria with 'r' as .654**. Corresponding hypothesis 1 on Table 4 shows a significant relationship between lecturers' proficiency in online collaboration tools and implementation of open and distance learningprogrammein public universities in Rivers State, Nigeriawith t-Transformation of 24.11 which was greater than the t-critical value of ±1.96. The findings is in line with Harasim(2017) who asserted that, lecturers'proficiency in online collaboration tools like Google Docs, Slack, or Trelloallow students to work together, share ideas, and collectively contribute to projects irrespective of geographical barriers which in turn enables them to facilitate group work and collaborative projects among students in a virtual environment.

The findings obtained on research question 2 on Table 2 indicated that there is a moderate and positive relationship between lecturers' proficiency in online assessment and implementation of open and distance learning programme in public universities in Rivers State, Nigeria with 'r' as .543**. Hypothesis 2 on Table 5 shows a significant relationship between lecturers' proficiency in online assessment and implementation of open and distance learning programme in public universities in Rivers State, Nigeriawith t-Transformation of 24.11 which was greater than the t-critical value of ±1.96. The findings is in tandem withNicol (2020) who asserted that lecturers' proficiency inonline assessment and feedback would contribute to the successful implementation of open and distance learning by ensuring timely evaluation, allowing for personalized feedback, and supporting continuous improvement in student learning.

The findings obtained on research question 3 on Table 3 indicated that there is a high and positive relationship between lecturers' proficiency in social media integration and implementation of open and distance learningprogrammein public universities in Rivers State, Nigeria with 'r' as .835**. Hypothesis 3 on Table 6 shows a significant relationship between lecturers' proficiency in social media integration and implementation of open and distance learningprogrammein public universities in Rivers State, Nigeria with t-Transformation of 24.10 which was greater than the t-critical value of ±1.96. The findings is in agreement with Veletsianos and Navarrete (2020) who stated that lecturers' actively engaging with students through familiar social channels can foster collaboration, discussion and community building by creating a sense of virtual classroom interaction and enhancing student engagement which helps effective implementation of open and distance learning in universities.

Conclusion

Based on the findings of this study, it was concluded that a high, positive and significant relationship exist between lecturers' proficiency in online collaboration tools, online assessment, and social media integration and implementation of open and distance learningprogramme in public universities in Rivers State, Nigeria.

Recommendations

- 1. Government should provide funding for universities to subscribe to cloud-based collaboration tools (Microsoft Teams, Google Workspace) and offer incentives for universities to develop collaborative online learning environment.
- 2. Government should develop national guidelines for online assessment and feedback, ensuring validity, reliability and fairness.
- Government should provide funding for training programmes for lecturers on how to effectively utilize various social media platforms such as Facebook, Twitter and Linkedin for educational purposes.

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