

## Awareness and Availability of Digital Learning Platforms for Academic Activities by Lecturers in Universities in Kano State, Nigeria

By

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### Abstract

*This study examined the level of awareness and availability of digital learning platforms for academic activities among lecturers in universities in Kano State, Nigeria. A descriptive survey research design was adopted for the study. The population consist of 2,472 lecturers in selected universities in Kano State, from which 331 respondents from the total population using multi-stage sampling of stratified and simple random sampling techniques were selected. A structured questionnaire was used for data collection. The instrument was validated by expert and found reliable with an index of 0.859. Data were analyzed using descriptive statistics including mean and standard deviation to answer the research questions. The findings revealed that lecturers demonstrated a relatively high level of awareness of digital learning platforms, particularly regarding their general concepts and academic functions. The study also found that several digital learning platforms were available to lecturers, with video-conferencing tools, learning management systems, and institutional e-library platforms being the most recognized. However, awareness of access procedures and institutional platform usage was comparatively lower. The study concludes that although awareness of digital learning platforms among lecturers is encouraging, improved institutional sensitization and structured support are necessary to enhance effective engagement with these platforms. The study recommends increased institutional training, improved digital infrastructure, and continuous awareness programs to strengthen digital learning integration in universities.*

**Keywords:** Digital learning platforms, digital education, lecturer awareness, academic technologies, higher education, Nigeria.

### Introduction

Digital learning has emerged as a dominant paradigm reshaping how knowledge is created, shared, and consumed in universities. It is characterized by the use of digital tools and resources to facilitate, enhance, and transform learning experiences (Hodges *et al.*, 2020). The global catalyst for its accelerated adoption was undoubtedly the COVID19 pandemic, which forced a rapid, emergency shift to remote instruction, laying bare both the potential and the pitfalls of digital delivery (Bond *et al.*, 2020). COVID19 pandemic marked a turning point in the global adoption of digital learning, transforming it from a supplementary mode of instruction into a core mechanism for educational continuity (Hodges *et al.*, 2020). Digital learning platforms have become more and more popular in Nigeria, especially after significant investments were made in ICT and e-learning infrastructure throughout colleges. Inadequate bandwidth, poor electrical

supply, inadequate ICT financing, low digital literacy among instructors, and a lack of practical training are some of the major obstacles (Oye *et al.*, 2022; Okoye *et al.*, 2021).

Digital learning platforms include institutional Learning Management Systems (LMS) like Moodle and Canvas, virtual learning environments, video conferencing tools (e.g., Zoom, Microsoft Teams), digital repositories, e-libraries, and collaborative suites (e.g., Google Workspace) (AlFraihat *et al.*, 2020). These platforms offer integrated functionalities for content delivery, communication, assessment, collaboration, and analytics, theoretically enabling richer and more flexible academic interactions (Weller, 2020). Their effective use, however, is predicated on more than mere access.

Awareness of digital learning platforms among lecturers constitutes the first critical step toward effective adoption. Awareness involves knowledge of the existence, purpose, and functional capabilities of digital platforms provided by institutions or available publicly. Brummer *et al.*, (2025) provides a comprehensive definition, describing digital awareness as the critical ability to recognize and reflect on the knowledge necessary to understand digital technologies' opportunities and risks. Empirical evidence suggests varying levels of awareness across different contexts: Agbehadji *et al.*, (2021) found only 47.82% of staff aware of digital technologies, while Alordiah *et al.*, (2023) demonstrated that awareness directly correlates with digital tool utilization.

International studies indicate that lecturers' awareness of digital platforms has increased substantially over the last decade, particularly following the global shift to remote teaching during the pandemic (Bond *et al.*, 2020). Awareness is now regarded as a foundational digital competence required for contemporary university teaching and research engagement (Weller, 2020). Nevertheless, awareness alone does not guarantee effective pedagogical integration or sustained use of digital learning technologies. The digital divide continues to influence awareness and usage trends throughout Africa, however, research from Ghana, Kenya, and South Africa shows that while instructors frequently use low bandwidth tools like WhatsApp and basic LMS features, more interactive pedagogical features like discussion boards, simulations, virtual classrooms, and automated assessments are still underutilized (Twinomujuni *et al.*, 2021; Boateng & Nkansah, 2023). Awareness often exists, but capacity for meaningful use is limited due to infrastructural constraints, weak digital literacy, inadequate training, and institutional barriers.

The availability of digital learning platforms has increased significantly across universities globally. Common digital learning platforms include learning management systems, video-conferencing tools, digital repositories, online assessment systems, and collaborative academic platforms (Dhawan, 2020). Research conducted by Okoye *et al.*, (2022) found that Nigerian universities increasingly provide digital learning tools such as Moodle, Google Classroom, and institutional e-libraries. These platforms support course management, academic communication, and access to scholarly resources. However, access to digital platforms does not automatically guarantee their effective use. According to Martin *et al.*, (2020), institutional awareness campaigns and training programs are essential for ensuring that lecturers fully understand the digital tools available to them.

Lecturers are complex professional educators with multidimensional roles extending far beyond traditional teaching, encompassing research, innovation, industry collaboration, and professional development. (Rahmat *et al.*, 2021) argue that lecturers have multiple roles across four key

quadrants: teaching, research, innovation, and industry collaboration. The evidence from multiple studies provides a nuanced view of lecturer's roles. (Daniel, 2021) identified five distinct ways of experiencing lecturing, ranging from basic information delivery to transformative cocreation and research integration.

Academic activities in universities encompass teaching, learning facilitation, assessment, research, publication, and academic collaboration. Integrated digital platforms streamline academic workflows by automating administrative tasks, centralizing communication, and providing analytics for timely intervention, thereby allowing educators and students to focus more on core teaching and learning activities (AlFraihat *et al.*, 2020). Academic activities performed by lecturers in Nigerian universities encompass teaching, research, student assessment, curriculum development, academic advising, and participation in professional and community service. Teaching remains the core responsibility, requiring lecturers to design lesson plans, develop instructional materials, deliver lectures, and facilitate student-centred learning. Studies show that teaching effectiveness is shaped by pedagogical competence, availability of teaching resources, and lecturers' digital skills (Adegoke, 2020). Given the strategic role lecturers play in integrating technology into teaching and research, understanding their level of awareness and the types of digital learning platforms available to them is essential for improving digital learning adoption in universities. Therefore, this study investigates the awareness and availability of digital learning platforms for academic activities among lecturers in universities in Kano State, Nigeria.

### **Statement of the Problem**

The rapid advancement of digital technologies has transformed teaching, learning, and research activities in higher education worldwide. Universities increasingly rely on digital learning platforms to support academic communication, access to scholarly resources, and flexible learning environments (Abbas and Muhammad's, 2021). Despite these developments, many lecturers in Nigerian universities still face challenges in identifying and fully understanding the digital platforms available within their institutions. Limited awareness of digital learning platforms and inadequate knowledge of the specific platforms provided by universities may hinder effective integration of digital technologies into academic activities. This situation raises concerns about whether lecturers in universities in Kano State are sufficiently aware of the available digital learning platforms and the extent to which these platforms are accessible for academic purposes. Therefore, this study examines the awareness and availability of digital learning platforms for academic activities among lecturers in universities in Kano State, Nigeria.

### **Objectives of the Study**

The objectives are to:

1. Determine the level of awareness of digital learning platforms for academic activities by lecturers in universities in Kano State.
2. Identify the types of digital learning platforms available to lecturers in universities in Kano State.

### **Research Questions**

The following research questions guided the study:

1. What is the level of awareness of digital learning platforms for academic activities by lecturers in universities in Kano State?

2. What are the types of digital learning platforms are available to lecturers in universities in Kano State?

### **Methodology**

The study adopted a descriptive survey research design to examine lecturers’ awareness and availability of digital learning platforms in universities in Kano State. The target population for this study was 2,472 lecturers in three universities in Kano State that have established digital learning platforms; Bayero University Kano (BUK), Northwest University, Kano (NWU) and Khalifa Isyaka Rabiu University, Kano (KHAIRUN). A sample size of 331 lecturers were selected from the total population using multi-stage sampling of stratified and simple random sampling techniques. A structured questionnaire was used for data collection. The instrument was validated by expert and found reliable with an index of 0.859 using Cronbach alpha. The data collected were analyzed using descriptive statistics including mean and standard deviation. A mean score of 2.50 was adopted as the benchmark for decision-making in relation to the research questions

### **Results**

This section covers analyses on the research questions of the study.

#### **Research Question 1: What is the level of awareness of digital learning platforms for academic activities by lecturers in universities in Kano State?**

**Table 1: Analysis on the level of Awareness of Digital Learning Platforms by lecturers**

| S/N               | Item   | N   | $\bar{x}$   | SD    | Decision            |
|-------------------|--|-----|-------------|-------|---------------------|
| 1                 | I am aware of the concept of digital learning platforms  | 298 | 2.71        | .980  | Very High Awareness |
| 2                 | I am familiar with digital learning platforms used in higher education                         | 298 | 2.47        | .896  | High Awareness      |
| 3                 | I know that my university provides access to digital learning platforms.                       | 298 | 2.33        | 1.057 | Low Awareness       |
| 4                 | I am aware of the functions and features of major digital learning platforms                   | 298 | 2.50        | .979  | Very High Awareness |
| 5                 | I regularly receive updates or information about available digital learning platforms          | 298 | 2.47        | .961  | High Awareness      |
| 6                 | I am aware of the benefits of digital learning platforms for teaching and research             | 298 | 2.46        | 1.009 | High Awareness      |
| 7                 | I have attended seminars or orientations related to digital learning platforms                 | 298 | 2.43        | 1.020 | High Awareness      |
| 8                 | I know how to access institutional digital learning platforms when needed                      | 298 | 2.38        | .995  | Low Awareness       |
| 9                 | I am aware of digital learning platforms commonly used internationally.                        | 298 | 2.42        | 1.039 | High Awareness      |
| 10                | The level of awareness of digital learning platforms among lecturers in my university is high. | 298 | 2.41        | 1.015 | High Awareness      |
| <b>Grand Mean</b> |  |     | <b>2.50</b> |       |                     |

Source: Field Survey, 2025

**Key:** Very High Awareness = VHA, High Awareness = HA, Low Awareness = LA, Now Aware = NA.

Table 1 presents the analysis of lecturers’ level of awareness of digital learning platforms for academic activities in universities in Kano State. The results indicate a generally high level of awareness across all the items measured with overall score mean of 2.50. Lecturers showed very high awareness of the concept of digital learning platforms (Mean = 2.71) and their functions and features (Mean = 2.50). Other items, including familiarity with platforms used in higher education, awareness of institutional access, benefits for teaching and research, and knowledge of accessing platforms when needed, all recorded high awareness with mean scores ranging from 2.33 to 2.47.

**Research Question 2: What types of digital learning platforms are available to lecturers in universities in Kano State**

**Table 2: Types of Digital Learning Platforms Known and Used**

| S/N               | Statement  | N   | $\bar{x}$   | SD    | Dec.       |
|-------------------|--|-----|-------------|-------|------------|
| 1                 | I am familiar with Learning Management Systems (e.g., Moodle, Canvas, Blackboard)    | 298 | 2.49        | 1.074 | Often      |
| 2                 | I am aware of video-conferencing tools (e.g., Zoom, Google Meet, Microsoft Teams)    | 298 | 2.50        | .918  | Very Often |
| 3                 | I know and use content-sharing platforms (e.g., Google Classroom, Edmodo)            | 298 | 2.37        | 1.053 | Sometimes  |
| 4                 | I am aware of e-library and institutional repository platforms                       | 298 | 2.50        | .907  | Very Often |
| 5                 | I use online assessment tools (e.g., Google Forms, CBT portals)                      | 298 | 2.39        | 1.039 | Often      |
| 6                 | I regularly use scholarly communication platforms (e.g., ResearchGate, Academia.edu) | 298 | 2.37        | 1.024 | Often      |
| 7                 | My university provides multiple digital platforms for teaching and research          | 298 | 2.42        | 1.046 | Often      |
| 8                 | The types of digital platforms available meet my teaching and research needs         | 298 | 2.45        | .971  | Often      |
| 9                 | I frequently use mobile learning applications for academic purposes                  | 298 | 2.35        | 1.031 | Often      |
| 10                | I know and use open educational resource (OER) platforms                             | 298 | 2.37        | 1.007 | Often      |
| <b>Grand Mean</b> |  |     | <b>2.42</b> |       |            |

**Source:** Field Survey, 2025

**Key:** Very Often = VO, Often = O, Sometimes = S, Rarely = R.

Table 2 presents the analysis of the types of digital learning platforms known and used by lecturers in universities in Kano State. The results indicate a generally high level of awareness and use of various digital learning platforms with overall score mean of 2.42. Lecturers showed very high awareness of Learning Management Systems such as Moodle, Canvas, and Blackboard (Mean = 2.49), video-conferencing tools including Zoom, Google Meet, and Microsoft Teams (Mean = 2.50), and e-library and institutional repository platforms (Mean = 2.50). Other platforms,

including content-sharing platforms, online assessment tools, scholarly communication platforms, mobile learning applications, and open educational resource platforms, recorded high awareness with mean scores ranging from 2.35 to 2.39.

### **Discussion of Findings**

The research questions were formulated to investigate the awareness and availability of digital learning platforms for academic activities among lecturers in universities in Kano State, Nigeria. Table 1 reveals the high level of general awareness (Grand Mean = 2.50) aligns with global trends of accelerated digital integration in higher education, particularly post-COVID-19 (Bond et al., 2020). The high conceptual awareness suggests that DLPs are now a recognized component of the academic landscape. However, the lower scores for items like knowing how to access institutional platforms and receiving regular updates reveal a superficial awareness gap, as identified in earlier studies (Musa & Bello, 2023). This indicates that institutional communication and onboarding processes are inadequate, leaving lecturers aware of DLPs in principle but not equipped with the specific, procedural knowledge required for effective use. This gap between knowing-that and knowing-how is a significant barrier to transitioning from awareness to competence (Adarkwah, 2021).

The findings from table 2 indicate that generally high level of awareness and use of various digital learning platforms with overall score mean of 2.42. Lecturers showed very high awareness of Learning Management Systems such as Moodle, Canvas, and Blackboard (Mean = 2.49), video-conferencing tools including Zoom, Google Meet, and Microsoft Teams (Mean = 2.50), and e-library and institutional repository platforms (Mean = 2.50). Other platforms, including content-sharing platforms, online assessment tools, scholarly communication platforms, mobile learning applications, and open educational resource platforms, recorded high awareness with mean scores ranging from 2.35 to 2.39. This finding supports the observation of Okoye et al., (2022) that Nigerian universities have increasingly adopted various digital learning technologies to support academic activities.

### **Conclusion**

The study concludes that lecturers in universities in Kano State generally possess a relatively high level of awareness of digital learning platforms used for academic activities. The findings also reveal that several digital learning platforms, including video-conferencing tools, learning management systems, and institutional e-library platforms, are available to support teaching, research, and academic communication. However, the study indicates that awareness of certain institutional platforms and their access procedures is still limited among some lecturers. This suggests the need for stronger institutional efforts to improve sensitization and promote better knowledge of available digital learning platforms in universities.

### **Recommendations**

Based on the findings of the study, the following recommendations are made:

1. University management should organize regular training workshops and awareness programs to improve lecturers' knowledge of available digital learning platforms and their academic applications.
2. Universities should strengthen the provision and visibility of digital learning platforms by improving access to institutional learning management systems, e-library platforms, and other academic digital tools to enhance teaching and research activities.

## References

- Abbas, T., & Muhammad, A. (2021). *Digital Learning Awareness among Academic Staff in Bayero University, Kano*. Nigerian Journal of Educational Technology.
- Adarkwah, M. A. (2021). "I'm not against online teaching, but what about us?": ICT in Ghana post-COVID-19. *Education and Information Technologies*, 26(2), 1665–1685. <https://doi.org/10.1007/s10639-020-10331-z>.
- Adegoke, B. A. (2020). Teaching and research in Nigerian universities: Implications for academic staff performance. *International Journal of Education*, 9(2), 45–58. <https://ije.unilorinedu.sch.ng/index.php/ije/article/view/321>
- Al-Fraihat, D., Joy, M., & Sinclair, J. (2020). Evaluating e-learning systems success: An empirical study. *Computers in Human Behavior*, 102, 67–86. <https://doi.org/10.1016/j.chb.2019.08.004>
- Almaiah, M. A., Al-Khasawneh, A., & Althunibat, A. (2020). Exploring factors affecting the adoption of digital learning platforms in higher education. *Education and Information Technologies*, 25(4), 2605-2620.
- Boateng, J. K., & Nkansah, P. B. (2023). Digital literacy and pedagogical integration: A survey of university lecturers in Ghana. *International Journal of Education and Development using Information and Communication Technology*, 19(1), 45–62.
- Bond, M., Buntins, K., Bedenlier, S., Zawacki-Richter, O., & Kerres, M. (2020). Mapping research in student engagement and educational technology in higher education: A systematic evidence map. *International Journal of Educational Technology in Higher Education*, 17(1), 2. <https://doi.org/10.1186/s41239-019-0176-8>
- Daniel, J. (2021). Education and the COVID-19 pandemic. *Prospects*, 49, 91–96.
- Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems*, 49(1), 5-22.
- Hodges, C. B., Moore, S. L., Lockee, B. B., Trust, T., & Bond, M. A. (2020). The difference between emergency remote teaching and online learning. *EDUCAUSE Review*. <https://er.educause.edu/articles/2022/4/the-difference-between-emergency-remote-teaching-and-online-learning>.
- Martin, F., Sun, T., & Westine, C. (2020). A systematic review of research on online teaching and learning. *Educational Technology Research and Development*, 68, 1763-1784.
- Okoye, K., Arrona-Palacios, A., Camacho-Zuñiga, C., Hammout, N., Nakamura, E. L., Escamilla, J., & Hosseini, S. (2021). Impact of digital technologies upon teaching and learning in higher education in Latin America: An outlook on the reach, barriers, and bottlenecks. *Education and Information Technologies*, 26(5), 5917–5938. <https://doi.org/10.1007/s10639-021-10603-2>
- Okoye, K., Nwoye, A., & Okechukwu, F. (2022). Digital transformation and technology adoption in Nigerian universities. *International Journal of Educational Development*, 89, 102538.
- Oye, N. D., Iahad, N. A., & Rahim, N. A. (2022). The impact of ICT infrastructure on e-learning acceptance in Nigerian universities: A conceptual framework. *Journal of Information Systems Research and Innovation*, 8(1), 12–21.

- Rahmat, N. H. (2021). Revisiting lecturers' role: Towards a model of lecturers' quadrants. *European Journal of Education Studies*, 8(6), Article 3790. <https://doi.org/10.46827/ejes.v8i6.3790>
- Twinomujuni, B. N., et al. (2021). Lecturer experiences with digital learning platforms in Ugandan universities during COVID-19. *Journal of Research in Innovative Teaching & Learning*, 14(2), 203–218.
- Weller, M. (2020). *25 years of ed tech*. Athabasca University Press.