



Influence of Lecturer's Digital Competency on the Adoption of E-Learning in Home Economics at Colleges of Education in North Central, Nigeria

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ABSTRACT

This study examined the influence of lecturer's digital competency on the adoption of e-learning in Home Economics at Colleges of Education in North Central, Nigeria. Three research questions guided the study using a survey research design. The population of the study is 234 home economics lecturers in 16 colleges of education in the North Central, Nigeria using total sampling techniques. A structured questionnaire, validated by experts on a 4-rating scale was used. The validated instrument was pilot tested with 23 lecturers from Federal College of Education Bichi Kano State Nigeria which is outside the study geographical zone and the collected data was analyzed using Cronbach's alpha statistics and it yielded 0.75. Mean and standard deviation were used to answer research question. The findings of the study revealed that lecturers effectively use digital communication tools such as email, learning management systems and professional networks to collaborate to share Home Economics teaching resources, lecturers regularly use computers or laptops to prepare Home Economics lesson notes and materials, lecturers utilize online learning platforms such as Google Classroom, and Moodle in delivering Home Economics content and lecturers are confident in using digital tools like LMS, video conferencing among others. Based on the finding the following recommendations were made: Federal and State government should establish a comprehensive, continuous professional development programmes in Colleges of Education with focus on digital competency enhancement for all Home Economics lecturers, Colleges of Education management should organize a digital training workshops for Home Economics lecturers, , National Commission for Colleges of Education, and other philanthropic organizations should provide the required ICT facilities in Colleges of Education, and lecturers should explore various opportunities provided by government non-governmental organizations such as TETFund sponsorship for further studies, workshops, seminars, and workshops on ICT competency among others.

ARTICLE INFO

Article History

Received: May, 2026

Received in revised form: May, 2026

Accepted: July, 2026

Published online: September, 2026

KEYWORDS

Lecturer's, Digital Competency, E-learning Tools, Home Economics, Colleges of Education

INTRODUCTION

The integration of digital technologies into teaching and learning has transformed educational delivery worldwide especially at colleges of education level. Colleges of Education occupy a unique position in the educational landscape, serving both as higher education

institutions and as training grounds for future teachers. As the Fourth Industrial Revolution continues to reshape educational landscapes globally, the capacity of lecturers to effectively utilize digital tools has emerged as a critical determinant of successful e-learning adoption (Adlawan, 2024). This dual role creates particular

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pressure for effective e-learning adoption, as these institutions must model best practices in digital pedagogy (Insteford & Munthe, 2022). Tondeur *et al.* (2023) emphasizes that teacher educators' digital competency directly influences pre-service confidence and competency in educational technology.

Digital competency refers to a lecturer's ability to confidently and effectively use digital tools to enhance teaching and learning. It includes technical skills, creativity, critical thinking, and the ability to integrate digital resources into pedagogy. A digitally competent lecturer can navigate learning management systems, create digital content, facilitate online discussions, and use data analytics to track student progress (Adebayo & Musa, 2023). Beyond tools, digital competency involves ethical considerations like cybersecurity, digital citizenship, and responsible content sharing. In modern education, digital competency is increasingly recognized as a core professional skill rather than an optional one. Studies show that professional development, peer learning, and institutional support significantly influence lecturers' digital competency (Onyema *et al.*, 2023). Competent lecturers leverage analytics, discussion forums, and automated feedback tools, which increases perceived usefulness among students and administrators, thereby reinforcing institutional commitment to e-learning (Eze & Okafor, 2024).

E-learning, driven by technological advancement, offers a more flexible, student-centered approach that supports diverse learning preferences and improves access to educational content. In Nigerian tertiary institutions, the push toward digital education has gained momentum, especially following the disruptions caused by the COVID-19 pandemic. Lecturers' digital competency, which includes their ability to effectively use, adapt, and innovate with digital tools, plays a vital role in the successful adoption of e-learning (Kareem & Yusuf, 2024). The integration of e-learning into teacher education has transitioned from an emergency response to a strategic imperative for Colleges of Education globally (Bello & Ibrahim, 2025). However, while e-learning offers substantial benefits, such as

flexibility, accessibility, and the potential for personalized learning experiences, it also presents unique challenges in maintaining the quality of teaching and learning interactions, which are central to student success. Without sufficient skills, lecturers may be reluctant to integrate digital technologies into their teaching, limiting the potential benefits of e-learning for students which home economics is inclusive.

E-learning broadly describes the use of electronic media and ICT in teaching and learning. It ranges from simple tools like emails and videos to complex virtual environments and interactive simulations. It promotes flexibility, allowing students to learn anytime and anywhere, making it valuable in diverse educational contexts. In practice-based disciplines like home economics, videos of cooking techniques, textile demonstrations, and virtual labs (Okonkwo & Uche, 2024). The effectiveness of e-learning depends on instructional design, student motivation, and lecturers' readiness to engage with technology. Globally, e-learning has been linked to improved student engagement, retention, and lifelong learning skills.

One of the central concerns in e-learning adoption is its impact on teaching-learning interactions. In traditional educational settings, the interaction between teacher and student is fundamental to the learning process, shaping both cognitive and emotional aspects of education (Cheung *et al.*, 2021). However, in a digital environment, these interactions are often mediated by technology, which can alter the dynamics of communication. Oladeji and Danlami. (2025) carried out a study on Colleges of Education and found out that any institutions with higher levels of faculty digital competency showed more successful and sustainable e-learning adoption across all programmes, including traditionally practical disciplines like Home Economics. Digital competency of lecturers is consistently identified as the most critical predictor for the successful adoption and sustainability of e-learning in Home Economics (Kareem & Yusuf, 2024).

Home Economics is an interdisciplinary field focused on improving the quality of life



through knowledge and skills related to family living, nutrition, clothing, interior decoration, and consumer education. As a practical subject, Home Economics blends cognitive and psychomotor skills, making it vital for equipping students with competencies relevant to daily life and the workforce (Ogundele *et al.*, 2023).

In Nigerian Colleges of Education, Home Economics aims to train teachers who could also impart these skills to secondary school students. However, global trends have expanded Home Economics to include sustainability, digital literacy, and socio-economic empowerment, highlighting its role in addressing contemporary issues. Thus, Home Economics occupies a unique and complex position; as a multidisciplinary field encompassing food and nutrition, clothing and textiles, family resource management, and human development, it requires the simultaneous transmission of theoretical knowledge and psychomotor skills (Bello & Suleiman, 2024). As home economics is a practical and multidisciplinary field, the integration of e-learning offers unique opportunities for interactive, simulation-based, and resource-rich teaching (Ogundele *et al.*, 2023). This study therefore, seeks to explore the influence of lecturers' digital competency on the adoption of e-learning in home economics classes in Colleges of Education in North Central Nigeria.

STATEMENT OF THE RESEARCH PROBLEM

Human capital, technological advancement, and societal cum economic well-being are all influenced by education. However, many nations are improving their educational systems with the help of technologies like artificial intelligence (AI), Nigeria's educational sector is still facing a few problems that make progress slow and prevent certain schools from offering better educational instructions (Awofiranye, 2024). When it comes to improving Nigeria's scientific and technical education, both academics and practitioners have been vocal in their criticisms of the government's policies (Adlawan, 2024). The use of digital technologies in teaching has become essential in modern educational systems, but the successful adoption largely

depends on lecturers' digital competencies (Kareem & Yusuf, 2024).

In home economics, where practical demonstration and student engagement are crucial, e-learning can transform how content is delivered and skills are taught (Onyema & Ekpo, 2023). Unfortunately, research shows that lecturers in Colleges of Education in North Central Nigeria often have limited digital literacy. This limitation restricts the adoption of e-learning tools such as online simulations, virtual kitchens, interactive quizzes, and multimedia resources that could enrich teaching. When lecturers are unable or unwilling to use these technologies, students miss opportunities for deeper learning, collaborative projects, and exposure to modern industry practices.

Efforts by educational authorities to promote e-learning, there is persistent gap between policy and practice, often due to inadequate training and professional development (Ogundele *et al.*, 2023). Lecturers' competency in using digital tools remain inconsistent, affecting teaching quality and students' digital readiness. Based on the above discourse, this study seeks to examine the influence of lecturers' digital competency on the adoption of e-learning in home economics among Colleges of Education in North Central Nigeria.

Aim and Objectives of the Study

The aim of the study was to examine the influence of lecturers' digital competency on the adoption of e-learning in home economics at Colleges of Education in North Central Nigeria. The specific objectives of the study were to:

1. To examine the level of digital competency among home economics lecturers at Colleges of Education in North Central Nigeria.
2. To assess the extent of adoption of e-learning tools in teaching and learning home economics at Colleges of Education in North Central Nigeria.
3. To determine the influence of lecturers' digital competency on the adoption of e-learning in home economics education at

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Colleges of Education in North Central Nigeria

Research Questions

The following research questions were formulated to guide the study

1. What is the level of digital competency among home economics lecturers at Colleges of Education in North Central Nigeria.
2. What is the extent of adoption of e-learning tools in teaching and learning home economics at Colleges of Education in North Central Nigeria.
3. What is the influence of lecturers' digital competency on the adoption of e-learning in home economics education at Colleges of Education in North Central Nigeria

METHODOLOGY

The study utilized a descriptive survey research design and was carried out in Home economics department of States and Federal Colleges of Education in the North Central, Nigeria with the total population of 234 which includes the Home economics lecturers in 16 Colleges of Education in the North Central, Nigeria and a total sampling technique was used for the study. The instrument adopted for data collection was a structured questionnaire titled: Lecturer's Digital Competency and Adoption of E-learning Questionnaire (IDCAELQ) using 4 rating scale with response option as Strongly Agree (SA), Agree (A), Disagree (DA) and Strongly Disagree (SD).

The instrument was validated using face and content validity approach by three home economic experts: One from Department of Home Economics, FCT College of Education, Zuba one from Department of Computer Science Federal University of Technology, Minna and one from, Department of Home Economics, Federal University of Education, Kontagora. The validated instrument was pilot tested with 10 participants from Federal College of Education Bichi Kano State Nigeria which is outside the study geographical zone and the collected data was analyzed using Cronbach's alpha statistics and it yielded 0.75. The research instrument was administered and retrieved with the help of the research assistants. The administrations and retrieval of the instrument were done in two weeks. Mean and standard deviation was used to answer research question. Therefore, the decision rule for all the items is that item with mean score of 3.00 and above was considered Agreed or Very High Extent while below 3.00 was considered Disagreed, or Very Low Extent.

RESULTS

The findings of the study based on analysis of data to the research questions are presented in the tables below

Research Question One:

What is the level of digital competency among home economics lecturers in Colleges of Education in North Central Nigeria.

Table 1: Mean Responses of Lecturers on the Level of Digital Competency among Home Economics Lecturers at Colleges of Education in North Central Nigeria N=104

S/N	Items	$\bar{x}$	SD	Decision
1	As home economics lecturer i effectively use digital communication tools such as email, learning management systems and professional networks to collaborate to share Home Economics teaching resources.	3.24	0.92	Agreed
2	I usually integrate digital tools into lesson plans to facilitate active and collaborative learning in Home Economics	3.92	0.81	Agreed
3	As a Lecturer i mostly instruct students on digital safety and ethical practices when using technology in Home Economics contexts	3.68	0.83	Agreed
4	I constantly use digital tools like online quizzes, electronic grading systems, plagiarism and detection tools for assessment purposes.	3.51	0.82	Agreed

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S/N	Items	$\bar{x}$	SD	Decision
5	As home economics Lecturer i create and modify digital teaching materials like instructional videos for cooking techniques and digital handouts tailored to students' needs	3.73	0.97	Agreed
6	I use digital technologies tools like captioned videos, screen readers and multilingual resources to support differentiated instruction	3.91	0.81	Agreed
7	The use of digital technologies by lecturers has help in ensuring that students with varying skill levels can access Home Economics concepts	3.16	0.56	Agreed
8	As home economics lecturer i stay updated on emerging digital trends and technologies like AI in personalized nutrition and smart home technologies that could transform Home Economics education in their teaching	3.89	0.88	Agreed
9	I actively guide students in using digital tools creatively for their Home Economics projects	3.47	0.59	Agreed
10	As home economics lecturer i teach students how to critically evaluate online information related to Home Economics	3.98	0.82	Agreed
11	I am proficient in using specialized software or applications relevant to Home Economics specializations	3.87	0.83	Agreed
12	As home economics lecturer i incorporate digital simulations or virtual environments to teach practical Home Economics skills when physical resources are limited	3.84	0.79	Agreed
13	As Home Economics lecturer i stay updated on emerging digital trends and technologies such as smart home technologies and sustainable fashion that could transform Home Economics education and integrate them into their teaching	3.73	0.91	Agreed
Grand Mean and SD		3.67	0.81	Agreed

Keys: $\bar{x}$ – Mean, SD – Standard Agreed = A, Disagreed = DA.

Table 1 revealed the mean and standard deviation of respondents posed on the level of digital competency among home economics lecturers at Colleges of Education in North Central Nigeria. The respondents agreed to all the 13 items with mean ranging from 3.16 to 3.98 with a resulting grand mean of 3.67 indicating that the respondents strongly agreed on the level of digital competency among home economics lecturers at Colleges of Education in North Central

Nigeria. The standard deviation of the items ranges from 0.56 - 0.97 with average standard deviation of 0.81 this implies that the respondents were close to one another in their responses.

Research Question Two:

What is the extent of adoption of e-learning tools in teaching and learning home economics at Colleges of Education in North Central Nigeria

Table 2: Mean Responses of Lecturers on The Extent of Adoption of E-Learning Tools in Teaching and Learning Home Economics at Colleges of Education in North Central Nigeria N=104

S/N	Items	$\bar{x}$	SD	Decision
1	As home economics Lecturer i regularly use computer or laptop to prepare Home Economics lesson notes and materials	3.68	0.74	Agreed
2	As home economics Lecturer i utilize online learning platforms such as Google Classroom, and Moodle in delivering Home Economics content.	3.52	0.69	Agreed
3	I mostly communicate with students through digital platforms like email, institutional portals, and messaging applications for academic purposes	3.70	0.44	Agreed

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S/N	Items	$\bar{x}$	SD	Decision
4	As home economics Lecturer i usually incorporate multimedia resources like videos, slides, and animations in teaching Home Economics topics.	3.58	0.74	Agreed
5	The use of digital tools has help me as Home Economics lecturer to prepare and deliver course materials efficiently	3.47	0.69	Agreed
6	I usually assign and assess students' work through digital tools like online quizzes and e-portfolios	3.44	0.61	Agreed
7	As home economics lecturer i use the internet to search for up-to-date Home Economics teaching resources and research	3.59	0.83	Agreed
8	As a Lecturer i engage students in virtual discussions such as teleconferencing for Home Economics lessons.	3.44	0.70	Agreed
9	As a lecturer i usually employ online quizzes, e-portfolios for student projects and rubrics in LMS as digital assessment tools to evaluate students' understanding of Home Economics topics efficiently	3.16	0.56	Agreed
10	I usually use digital projector or smart board to present Home Economics instructional materials	3.48	0.84	Agreed
11	I always encourage students to use educational apps or software for practical Home Economics skills.	3.61	0.58	Agreed
12	As a lecturer i integrate social media or online forums to facilitate Home Economics learning and collaboration	3.39	0.80	Agreed
13	I usually participate in online professional development or webinar to improve their e-learning skills for Home Economics	3.15	0.69	Agreed
14	I use digital tools to record, store, and manage students' Home Economics performance data	3.28	0.65	Agreed
15	As a lecturer I usually face challenges like poor internet and lack of devices that limit their adoption of e-learning tools in Home Economics	3.36	0.75	Agreed
16	As a lecturer, I usually utilize digital resources like e-books, online journals, and educational databases to support their teaching and research activities.	3.58	0.74	Agreed
Grand Mean and SD		3.46	0.69	Agreed

Table 2 revealed the mean and standard deviation of respondents posed on the extent of adoption of e-learning tools in teaching and learning home economics at Colleges of Education in North Central Nigeria. The respondents agreed to all the sixteen items with mean ranging from 3.14 to 3.70 with a resulting grand mean of 3.46 and the standard deviation of the items ranges from 0.44 -0.84 with average standard deviation of 0.69 this implies that the

respondents were close to one another in their responses

Research Question Three:

What is the influence of lecturers' digital competency on the adoption of e-learning in home economics education at Colleges of Education in North Central Nigeria

Table 3: Mean Responses of Lecturers on the Influence of Digital Competency on the Adoption of E-Learning in Home Economics Education at Colleges of Education in North Central Nigeria

S/N	Items	$\bar{x}$	SD	Decision
1	I have confident in using digital tools like LMS, video conferencing, and productivity software in delivering Home Economics lessons.	3.45	0.49	Agreed

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S/N	Items	$\bar{x}$	SD	Decision
2	As home economics lecturer i have the ability to create digital instructional materials such as slides, videos and interactive quizzes influences their use of e-learning platforms	3.15	0.72	Agreed
3	I can effectively troubleshoot basic technical problems that arise during e-learning sessions	3.73	0.91	Agreed
4	My overall digital competency level determines how frequently they use e-learning platforms for teaching Home Economics	3.60	0.63	Agreed
5	As home economics lecturer my competency in using assessment tools like online quizzes, and assignment submission portals encourages them to adopt e-learning	3.51	0.50	Agreed
6	I feel am adequately trained to integrate digital pedagogy such as flipped classroom, and blended learning into Home Economics teaching	3.65	0.70	Agreed
7	I have confident in evaluating the quality and relevance of digital resources for Home Economics instruction	3.75	0.86	Agreed
8	I can design and manage online courses or modules specific to Home Economics topics	3.98	0.82	Agreed
9	As home economics lecturer my digital communication skills like email, discussion forums, and feedback tools enhance student engagement in e-learning	3.68	0.69	Agreed
10	As home economics lecturer my institutional support like training, technical helpdesk, and incentives influences their adoption of e-learning in Home Economics	3.58	0.65	Agreed
Grand Mean and SD		3.55	0.70	Agreed

Table 3 revealed the mean and standard deviation of respondents on the influence of lecturers' digital competency on the adoption of e-learning in home economics education at Colleges of Education in North Central Nigeria. The respondents agreed to all the ten items with mean ranging between 3.15 to 3.98 with grand mean Of 3.55 and the standard deviation of the items ranges from 0.49 - 0.91 with average standard deviation of 0.70 this implies that the respondents were close to one another in their responses

FINDINGS OF THE STUDY

The following findings emerged from the study based on the data collected from the research questions answered.

1. The level of digital competency among home economics lecturers at Colleges of Education in North Central Nigeria reveal that: Lecturers effectively use digital communication tools such as email, learning

management systems and professional networks to collaborate to share Home Economics teaching resources, they integrate digital tools into lesson plans to facilitate active and collaborative learning in Home Economics, home economics lecturers use digital tools like online quizzes and they also use digital technologies tools like the captioned videos, screen readers and multilingual resources to support differentiated instruction among others.

2. The extent of adoption of e-learning tools in teaching and learning home economics in Colleges of Education in North Central Nigeria showed that: Lecturers regularly use computers or laptops to prepare Home Economics lesson notes and materials, Lecturers utilize online learning platforms such as Google Classroom, and Moodle in delivering Home Economics content, Home economics lecturers communicate with students through digital platforms like email,

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- institutional portals, and messaging applications for academic purposes, and they assign and assess students' work through digital tools like online quizzes and e-portfolios among others.
3. The influence of lecturers' digital competency on the adoption of e-learning in home economics education in Colleges of Education in North Central Nigeria indicate that: Lecturers are confident in using digital tools like LMS, video conferencing, and productivity software in delivering Home Economics lessons, they have the ability to create digital instructional materials such as slides, videos and interactive quizzes influences their use of e-learning platforms, they can effectively troubleshoot basic technical problems that arise during e-learning sessions, and blended learning into Home Economics teaching and lecturers access to reliable internet and devices significantly affects my willingness to use e-learning tools among others.

DISCUSSION OF FINDINGS

Table 1 provides answer to research question one on the level of digital competency among home economics lecturers at Colleges of Education in North Central Nigeria. The respondents agreed to all the 12 items, they agreed that Lecturers effectively use digital communication tools such as email, learning management systems and professional networks to collaborate to share Home Economics teaching resources, integrate digital tools into lesson plans to facilitate active and collaborative learning in Home Economics and Lecturers instruct students on digital safety and ethical practices when using technology in Home Economics contexts and among others. In agreement with the respondent Suleiman and Iyabo (2022) noted that Lecturers' digital literacy enhances instructional efficiency, students' engagement, and research dissemination. Suleiman and Iyabo added that the gap in digital competency among Home Economics lecturers represents not just an individual deficiency, but a systemic threat to the

quality of Home Economics lecturer education in the sub-region.

In agreement with Suleiman and Iyabo, Michika and Mbaga (2022) observed that the moderate-to-low digital competency exhibited by Home Economics lecturers in Colleges of Education can have a direct negative consequence on their instructional delivery, student engagement, and academic outcomes. Eze & Okoro (2024) also found out in their study that lecturers' digital competency directly correlated with students' ability to leverage digital marketplaces for home economics products like selling handmade crafts or nutritional plans online and thereby enhancing graduate employability. Inline with above, Danjuma *et al.* (2025) highlighted that lecturers with advanced digital skills were more likely to integrate modules on digital entrepreneurship into their teaching, leading to a higher rate of student-led startups post-graduation

Table 2 provides answer to research question two on the extent of adoption of e-learning tools in teaching and learning home economics at Colleges of Education in North Central Nigeria. The respondents agreed to all the items that Lecturers regularly use computers or laptops to prepare Home Economics lesson notes and materials, Lecturers utilize online learning platforms such as Google Classroom, and Moodle in delivering Home Economics content and Home economics lecturers communicate with students through digital platforms like email, institutional portals, and messaging applications for academic purposes among others. In agreement with respondents, Adewale and Ojo (2024) noted that integrating e-learning tools into Home Economics instruction in North Central Colleges of Education directly correlates with the digital pedagogy readiness of pre-service teachers.

Adewale and Ojo added that when student-teachers learn via an LMS or educational apps, they are better equipped to replicate these methods in their future teaching practicums, thereby modernizing the broader secondary education system. Bello and Ibrahim (2025) also noted that mobile learning and e-resource integration serve as a vital strategy for mitigating



infrastructural deficits in vocational and Home Economics programs. Bello and Ibrahim added that by leveraging smartphones and offline-capable e-learning modules, institutions in resource-constrained areas of North Central Nigeria can provide students with world-class educational materials without the heavy capital expenditure of physical upgrades.

In line with Bello and Ibrahim finding, Okebukola and Tella (2025) highlighted that e-pedagogy in Nigerian Colleges of Education is instrumental in bridging the rural-urban divide. In their study they found that flexible e-learning platforms in Home Economics programs accommodate diverse learning speeds and backgrounds, leading to higher retention rates and improved academic performance among students from marginalized rural demographics in the region. According to Chukwu and Nwagbo (2023), the use of virtual simulations in Food and Nutrition practicals significantly improves the psychomotor skill acquisition of NCE students in North Central Nigeria, as it allows for error-free rehearsal and visual mastery of complex techniques that physical labs may not always support.

Table 3 provides answer to research question three on the influence of lecturers' digital competency on the adoption of e-learning in home economics education at Colleges of Education in North Central Nigeria. The respondents agreed to all the items that Lecturers are confident in using digital tools like LMS, video conferencing, and productivity software in delivering Home Economics lessons, they have the ability to create digital instructional materials such as slides, videos and interactive quizzes influences their use of e-learning platforms and they can effectively troubleshoot basic technical problems that arise during e-learning sessions among others.

In agreement with the respondents, Abdullahi and Mohammed (2025) observed that digital competency acts as the activation key for infrastructure and institutions where lecturers possessed moderate to high digital skills utilized available resources more creatively, such as using projectors for virtual culinary demonstrations even when internet connectivity was poor. Mohammed (2025) reported that digitally competent lecturers

were more likely to design effective blended courses, using online platforms for theoretical modules like nutrition theory and reserving face-to-face time for hands-on practice. Eze and Okoro (2025) also highlighted that lecturers with advanced digital skills were able to curate and create video tutorials, 3D simulations of garment construction, and interactive nutritional databases. In agreements with Eze and Okoro view, Yusuf and Adigun (2022) highlights that in Nigerian Colleges of Education, digital self-efficacy predicts behavioral intention to use e-learning. When lecturers feel competent, they perceive e-learning as useful rather than burdensome. Olawale *et al.* (2023) also suggested that lecturers with higher digital competence can create multimedia-rich content that improves student engagement in theoretical aspects of Home Economics, such as consumer education and family resource management.

CONCLUSION

This study establishes that lecturers' digital competency is a pivotal determinant in the successful adoption and integration of e-learning within Home Economics departments at Colleges of Education (CoEs) in North Central Nigeria. The findings reveal a significant positive correlation between the level of digital literacy possessed by lecturers and their frequency, quality, and confidence in utilizing e-learning platforms. Specifically, lecturers with advanced competencies in digital content creation, Learning Management System (LMS) navigation, and virtual pedagogical strategies demonstrated a higher propensity to overcome infrastructural challenges such as inconsistent power supply and limited internet bandwidth. Furthermore, the study highlights that digital competency transcends mere technical skill; it encompasses digital pedagogical competence with the ability to effectively integrate technology into the practical and theoretical aspects of Home Economics education.

Lecturers who are digitally competent are better equipped to simulate practical demonstrations such as food preservation and textile design through multimedia tools, thereby



enhancing student engagement and learning outcomes. Conversely, low levels of digital competency were identified as a primary barrier to e-learning adoption, leading to resistance, underutilization of available resources, and a reliance on traditional, teacher-centered methods. Therefore, the adoption of e-learning in this region is not solely dependent on institutional infrastructure but is critically driven by the human capital capacity of the lecturers.

RECOMMENDATIONS

Based on the findings of this study the following recommendations were made:

1. Federal and State government should establish a comprehensive, continuous professional development programme at Colleges of Education with focus on digital competency enhancement for all Home Economics lecturers.
2. Government and institutional management should prioritize investment in reliable internet connectivity, functional computer laboratories, mobile learning devices, and discipline-specific software for Home Economics departments
3. The National Commission for Colleges of Education (NCCE) and individual institutions should develop clear policy frameworks guiding e-learning adoption, specifying minimum digital competency standards for lecturers, defining quality benchmarks for online course design, establishing lecturer-student ratios for virtual classes, and providing guidelines for blended learning implementation in practical subjects like Home Economics.
4. The NCCE should revise minimum standards to explicitly require evidence of lecturers' digital competencies and technology integration in Home Economics programs during accreditation exercises.
5. Colleges of Education management should organize a digital training workshops for Home Economics

lecturers, focusing on digital pedagogy and tools for virtual simulations rather than just basic computer literacy.

6. The Ministry of Education, National Commission for Colleges of Education, and other philanthropic organizations should provide the required ICT facilities in Colleges of Education, and lecturers should explore various opportunities provided by government non-governmental organizations such as TETFund sponsorship for further studies, workshops, seminars, and workshops on ICT competency.

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