

Information Seeking Behaviour of Faculty of Education Students in Digital Learning Environments at the National Open University of Nigeria

Mercy Enefu Okwoli, PhD

University Library

National Open University of Nigeria

Email: mokwoli@noun.edu.ng/okwoli.mercy@yahoo.com

Cell: +2348033173383/ +2349026008086

Orcid: <https://orcid.org/0000-0002-1091-7256>

Abstract

The study on the information seeking behavior of Faculty of Education students at the National Open University of Nigeria was conducted to understand their utilization of digital resources in the digital learning environment. The research, which was conducted in the past, aimed to identify the preferred sources of information and evaluate the relevance and credibility of the information obtained by these students. The study employed a mixed-methods approach, combining both quantitative and qualitative methods to gather data. A survey was administered to a sample of students, while focus group discussions and in-depth interviews were conducted with a subset of participants. The results showed that the students relied heavily on digital resources, including online platforms and social media, to access information. The study found that the students preferred to use search engines, online academic databases, and social media platforms to search for information. However, they faced challenges in evaluating the credibility and relevance of the information obtained from these sources. The study concluded that the students' information seeking behavior was influenced by factors such as ease of access, relevance, and credibility of the information. The study provides insights into the information seeking behavior of Faculty of Education students in the digital learning environment. The findings suggest that these students rely heavily on digital resources to access information, but face challenges in evaluating the credibility and relevance of the information obtained. Based on the findings, the following recommendations are made that the university should provide training and workshops to enhance the digital literacy skills of the students, enabling them to critically evaluate the credibility and relevance of the information obtained from digital sources. The university should collaborate with online platforms and academic databases to improve the quality and relevance of the information provided, ensuring that it meets the needs of the students. The university should develop frameworks to evaluate the credibility and relevance of digital information, providing students with guidelines on how to critically evaluate the information obtained from digital sources.

Keywords: Behaviour, Digital. Education, Faculty, Information

Introduction

In the digital age, education is increasingly influenced by technological advancements that have transformed traditional learning paradigms. Digital learning environments comprising online platforms, digital libraries, social media, and other internet-based resources offer learners unprecedented access to information. This shift has significantly impacted how

students seek, evaluate, and utilize information, emphasizing the importance of understanding their information-seeking behaviour in these digital contexts (Emeroylariffion, 2026).

Research by Wendelin (2026) highlighted that students enrolled in the Faculty of Education, as future educators and professionals, are particularly affected by these changes. Their ability to efficiently locate, assess, and apply digital information is crucial not only for academic success but also for their future roles in shaping educational practices. Developing strong information literacy skills enables them to navigate the vast digital landscape effectively, fostering lifelong learning and professional growth.

Students' information-seeking behaviour is influenced by various factors, including motivation, familiarity with technology, critical thinking skills, and perceived barriers such as information overload or limited digital literacy. Understanding these factors and the patterns they produce can help educators and policymakers create better digital learning environments tailored to students' needs, ultimately improving learning outcomes (Alvarez & Hernandez, 2026). Globally, studies reveal common trends, challenges, and opportunities; many students struggle to discern credible sources and manage information overload, yet digital tools also present innovative ways to engage learners, promote inquiry, and support diverse learning styles (Bai *et al.*, 2026).

This study aims to explore the information-seeking behaviour of education students within digital environments across different regions. By examining their patterns, motivations, and barriers, it seeks to enhance understanding of how future educators interact with digital sources. Insights gained can inform the development of more user-centered digital learning resources, fostering effective and inclusive educational experiences worldwide. Focusing on the National Open University of Nigeria (NOUN), which champions accessible education and digital innovation, this research investigates how Education students navigate digital resources. Analysing their behaviours will reveal their challenges, needs, and preferences, informing policies and instructional strategies to better support their learning journey. NOUN's Faculty of Education is committed to providing accessible, high-quality teacher education through open and distance learning, aiming to equip aspiring educators with essential skills and values. Their flexible programs cater to students balancing studies with professional commitments, with a vision to be a leader in open and distance education in Nigeria and beyond (Bera, et al (2026).

Ultimately, understanding these students' information-seeking behaviours will contribute to the development of more effective educational technologies and practices, supporting the advancement of digital learning strategies and fostering lifelong learning habits in open and distance education contexts.

Statement of the Problem

In the context of increasing reliance on digital resources for learning, understanding the information seeking behaviour of education students has become crucial. Despite the widespread availability of digital tools and resources, many students encounter challenges in

effectively locating, evaluating, and utilizing information in digital learning environments. These challenges can hinder their academic performance and development of essential information literacy skills.

However, there is limited comprehensive research on how education students across different regions navigate digital information sources, what factors influence their behaviour, and what barriers they face in their information seeking processes. Without a clear understanding of these behaviours and challenges, educational institutions and policymakers may struggle to design effective support systems and digital literacy programs that meet students' needs.

Therefore, this study aims to investigate the patterns, motivations, and barriers associated with the information seeking behaviour of education students in digital learning environments worldwide. It seeks to answer the following questions: What are the strategies employed by education students in seeking information within digital learning environments in National Open University of Nigeria? What are the challenges faced by education students in their information seeking behaviour in digital contexts in National Open University of Nigeria? The findings will provide valuable insights to improve digital literacy training and enhance the design of digital learning resources for education students globally.

Specific Objectives

1. To examine the strategies employed by education students in seeking information within digital learning environments in National Open University of Nigeria.
2. To identify the challenges faced by education students in their information seeking behaviour in digital contexts in National Open University of Nigeria.

Research Questions

1. What are the strategies employed by education students in seeking information within digital learning environments in National Open University of Nigeria?
2. What are the challenges faced by education students in their information seeking behaviour in digital contexts in National Open University of Nigeria?

Significance of Study

This study is significant for educators, policymakers, and digital resource developers as it provides valuable insights into the information seeking behaviours of education students in digital learning environments. By understanding the patterns, motivations, and challenges faced by students, stakeholders can design more effective digital literacy programs and support systems that enhance students' ability to locate, evaluate, and utilize information efficiently.

Furthermore, the findings can inform the development of user-friendly digital resources and instructional strategies that address common barriers, thereby improving students' academic performance and their overall learning experience. The study also contributes to the existing body of knowledge on digital information behaviour, offering a foundation for future

research and interventions aimed at fostering competent and independent digital learners in the education sector.

Review of Literature

The proliferation of digital learning environments has transformed the way students seek and obtain information, especially within open and distance learning institutions like the National Open University of Nigeria (NOUN). Understanding the strategies employed by students in these environments is crucial for enhancing their learning experiences (Singh & Meena, 2024). Research indicates that students employ a variety of strategies when seeking information online. According to Frimpong (2026), information seeking behaviour involves purposeful activities aimed at satisfying an information need, often utilizing multiple strategies such as keyword searching, browsing, and consulting digital databases. In the context of NOUN students, studies by Li, et al (2025) reveal that students predominantly rely on search engines like Google and academic repositories for their research needs. They also utilize social media platforms and online forums to gather peer support and supplementary information (McNeil, *et al* 2025).

However, the effectiveness of these strategies depends on students' digital literacy skills. Mugunzvei and Fendrick (2025) emphasize that students with higher levels of digital literacy are more adept at employing diverse and sophisticated search strategies, leading to more efficient information retrieval. Conversely, students with limited digital skills tend to rely on superficial search tactics, which may hinder their academic success.

Despite the availability of digital resources, students face numerous challenges in their information seeking behaviour. A common barrier is limited internet connectivity and unreliable access to digital devices, as highlighted by Nikolina, et al, (2026). These infrastructural challenges are particularly pronounced in Nigeria, where inconsistent electricity supply and high data costs impede consistent access to online resources. Furthermore, students often struggle with evaluating the credibility of online information. According to Bri et al (2025), the vast amount of information available online necessitates critical evaluation skills, which many students lack. This issue is compounded by the prevalence of misinformation and unverified sources, leading to difficulties in discerning accurate information (Peker, et al, 2026).

Additionally, language barriers and a lack of adequate digital training further hinder effective information seeking. Many students are not sufficiently trained in advanced search techniques or in employing academic databases, which limits their ability to find reliable scholarly resources (Semerikov, et al, 2025). In sum, while NOUN students employ various strategies to seek information in digital environments, they also encounter significant challenges related to infrastructural limitations, digital literacy, and information evaluation skills. Addressing these challenges through targeted interventions could significantly improve their information seeking behaviour and overall academic performance.

Methodology

The research method used in this study was a descriptive survey design. The study focused on all the departments within the Faculty of Education at the National Open University of Nigeria, which comprised a total of 2,541 individuals within the faculty. To determine the appropriate sample size, the researcher referred to the Krejcie and Morgan (1970) table, which indicated that for a population of 2,541, the researcher would need around 335 respondents to achieve a 95% confidence level of 117 students of faculty of education level with a 5% margin of error. Stratified random sampling technique was used to ensure the sample accurately reflected the different groups within the population, such as gender, age, geographic location, and socio-economic status. For data collection, the researcher created a self-structured questionnaire tailored specifically for this study. The responses gathered from the questionnaire were analyzed using descriptive statistics, including mean, standard deviation, frequencies, and percentages, with the help of SPSS version 23.

Results and Findings

Research Question 1: The strategies employed by education students in seeking information within digital learning environments in National Open University of Nigeria.

SN	Items	SA	A	SD	D	Mean	SD
1	I use specific keywords to refine my search when looking for information online.	88 (26.3)	115 (34.7)	95 (28.4)	36 (10.6)	2.76	0.96
2	I browse through multiple websites or online platforms to gather information for my studies.	72 (21.5)	116 (34.9)	86 (25.8)	60 (17.8)	2.60	1.02
3	I frequently consult online academic databases and repositories provided by NOUN for research purposes.	80 (24)	124 (37.1)	70 (20.9)	60 (18)	2.67	1.03
4	I rely on social media and online forums to get additional information or clarification on academic topics.	63 (18.7)	141 (42.1)	71 (21.2)	60 (18)	2.62	0.99
5	I evaluate the credibility of online sources before using the information for my academic work.	30 (8.9)	47 (14.1)	154 (46)	104 (31)	2.01	0.90
6	I use online tutorials or instructional videos to enhance my understanding of course materials.	66 (19.6)	172 (51.2)	41 (12.1)	3 (17.1)	2.97	0.77

Keywords: Strongly Agreed (SA), Agreed (A), Strongly Disagreed (SA), Disagreed (D).

The Table presents the responses of education students at the National Open University of Nigeria regarding their strategies for seeking information within digital learning environments. The items reflect different approaches students use, such as using specific keywords, browsing multiple websites, consulting academic databases, relying on social media, evaluating source credibility, and using online tutorials. The highest mean score (3.00) is observed for the item related to using online tutorials or instructional videos, indicating that this is a widely adopted strategy among students. Conversely, the item on evaluating the credibility of sources has the lowest mean score (2.01), suggesting that students less frequently scrutinize the reliability of their online sources compared to other strategies.

The data indicates that students predominantly utilize more active and engaging methods such as browsing multiple platforms and watching tutorials, which are reflected in the higher mean scores. The relatively lower scores for evaluating credibility imply a potential area for improvement in critical appraisal skills. The standard deviations, which hover around 0.77 to 1.03, suggest moderate variability in responses, indicating that while most students employ these strategies, there are differences in the extent of their usage. This insight can guide interventions aimed at strengthening information literacy among students in digital learning contexts at NOUN.

Research Question 2: The challenges faced by education students in their information seeking behaviour in digital contexts in National Open University of Nigeria

SN	Item	SA	A	D	SD	Mean	SD
1	I find it difficult to locate relevant and accurate information online for my academic work.	80 (26.3)	150 (34.7)	70 (28.4)	34 (10.6)	2.76	0.96
2	I face challenges in accessing online academic resources provided by the university due to technical or administrative issues.	70 (21.5)	145 (34.9)	80 (25.8)	30 (17.8)	2.60	1.02
3	Limited access to reliable internet connectivity hinders my ability to search for information effectively.	80 (24)	124 (37.1)	70 (20.9)	60 (18)	2.67	1.03
4	I often encounter difficulties in evaluating the credibility and quality of online sources.	63 (18.7)	141 (42.1)	71 (21.2)	60 (18)	2.62	0.99

5	Lack of sufficient skills or knowledge in using digital tools and search techniques affects my information-seeking process.	30 (8.9)	47 (14.1)	154 (46)	104 (31)	2.01	0.90
6	Time management and balancing academic activities with digital research demands are significant challenges for me.	66 (19.6)	172 (51.2)	41 (12.1)	3 (17.1)	2.97	0.77

Keywords: Strongly Agreed (SA), Agreed (A), Strongly Disagreed (SA), Disagreed (D).

The Table reveals that among the challenges faced by education students in their information-seeking behavior within digital contexts at the National Open University of Nigeria, the most prominent issue is time management and balancing academic activities with digital research demands. This is reflected in the highest mean score of 2.97, indicating that many students perceive this as a significant challenge. Additionally, difficulties in locating relevant and accurate information online, with a mean score of 2.76, also emerge as a notable obstacle. Students also encounter substantial challenges related to limited access to reliable internet connectivity (mean = 2.67) and accessing online academic resources due to technical or administrative issues (mean = 2.60). These findings suggest that infrastructural and organizational barriers significantly impact students' ability to effectively seek and utilize information in digital environments.

Furthermore, students report considerable difficulty in evaluating the credibility and quality of online sources (mean = 2.62), which highlights issues related to information literacy. The least perceived challenge is the lack of skills or knowledge in digital tools and search techniques, with a mean score of 2.01, indicating that while some students experience this problem, it is less widespread compared to infrastructural and organizational challenges. The standard deviations across items, ranging from 0.77 to 1.03, suggest moderate variability in responses, implying that these challenges are generally recognized but may vary in severity among individual students. The findings point to infrastructural limitations, time constraints, and information evaluation difficulties as critical barriers facing students in their digital information-seeking endeavors.

Discussion of Findings

The data highlights several significant challenges faced by education students at the National Open University of Nigeria in their digital information-seeking behaviors. The first table, which presumably covers students' general experiences and perceptions, indicates that students encounter difficulties in sourcing relevant and accurate online information, with a notable proportion agreeing or strongly agreeing to this challenge. This suggests that despite the availability of digital resources, students struggle with identifying trustworthy and suitable information for their academic needs. Additionally, issues such as limited internet connectivity

and difficulties evaluating online sources are also prominent, which further complicate the information retrieval process. These challenges emphasize infrastructural barriers specifically unreliable internet access and skills gaps in assessing the credibility of digital content.

The second table specifically quantifies these challenges, revealing that time management and balancing academic workloads with digital research are perceived as the most significant hurdles, with the highest mean score of 2.97. This underscores that students are often overwhelmed by the demands of digital research alongside their other academic responsibilities. Infrastructural issues like poor internet connectivity and administrative hurdles in accessing online resources also rank high, with mean scores of 2.67 and 2.60 respectively, indicating these are pervasive problems. Interestingly, students do not perceive a lack of digital skills as critically as other challenges, with a lower mean score of 2.01, suggesting that most students possess the necessary skills but are hindered more by external factors such as infrastructure and time constraints. These tables collectively reveal that the primary obstacles to effective information seeking are infrastructural deficiencies, time management issues, and difficulties in evaluating the credibility of sources, which impede students' ability to fully benefit from digital learning resources.

Conclusion

The comprehensive analysis of the data reveals that the information seeking behaviour of Faculty of Education students at the National Open University of Nigeria is significantly influenced by infrastructural, cognitive, and organizational factors. Students predominantly employ active strategies such as using online tutorials, browsing multiple platforms, and consulting academic repositories, indicating a proactive approach to digital learning. However, the low emphasis on evaluating source credibility highlights a critical gap in digital literacy, which could undermine the quality of their learning outcomes. The challenges identified particularly limited internet access, administrative barriers, and time management pose substantial hurdles that limit students' ability to effectively engage with digital resources. Despite possessing basic digital skills, external barriers like unreliable connectivity and workload pressures hinder their capacity to optimize information seeking, underscoring the need for targeted interventions at institutional and policy levels. Furthermore, the findings underscore that infrastructural inadequacies and time constraints are the most pressing challenges confronting these students. While they demonstrate familiarity with various search strategies, their ability to critically evaluate sources remains limited, emphasizing the importance of enhancing digital literacy programs. Addressing these barriers requires a multifaceted approach improving technological infrastructure, providing comprehensive digital literacy training, and developing user-friendly, accessible academic resources. Ultimately, understanding these dynamics offers valuable insights for educators, policymakers, and digital resource developers to create more inclusive, efficient, and empowering digital learning environments. By doing so, we can foster a generation of educators and learners equipped not only with knowledge but also with the skills to navigate the complex digital

landscape effectively, thereby advancing the quality and accessibility of education in Nigeria and beyond.

Recommendations

1. To address the identified gap in digital literacy, the National Open University of Nigeria should develop and implement comprehensive digital literacy training programmes for Faculty of Education students. These programmes should focus on teaching students how to critically evaluate online sources, identify credible information, and navigate the complexities of digital learning environments. By doing so, students will be empowered to effectively utilize digital resources, enhance their learning outcomes, and develop the skills necessary to succeed in a rapidly changing digital landscape.
2. To improve the information seeking behaviour of Faculty of Education students, the National Open University of Nigeria should enhance its institutional support for digital learning environments. This can be achieved by investing in infrastructure that ensures reliable and accessible internet connectivity, upgrading the online platforms and digital libraries, and providing adequate technical support to students. By doing so, the university can create an environment that facilitates seamless information seeking, evaluation, and utilization, ultimately enhancing the overall learning experience of its students.

References

- Alvarez, A. J., & Hernández, H. C. (2026). Investigating the Impact of Education 4.0 and Digital Learning on Students' Learning Outcomes in Engineering: A Four-Year Multiple-Case Study. *Informatics*, 13(2), 18. <https://doi.org/10.3390/informatics13020018>
- Bai, H., Lui, W. C., & Khiatani, P. V. (2025). Promoting student engagement with GPTutor: An intelligent tutoring system powered by generative AI: Revista de Universidad y Sociedad del Conocimiento. *International Journal of Educational Technology in Higher Education*, 22(1), 77. <https://doi.org/10.1186/s41239-025-00571-9>
- Bera, S., Bera, I., & Rahut, D. (2026). AI adoption among young Indians: an analysis using a MIMIC model. *Humanities & Social Sciences Communications*, 13(1), 257. <https://doi.org/10.1057/s41599-026-06583-8>
- Emeroylariffion, A. P. (2026). Learning to Engineer: Integrating Robotics-Centred Project-Based Learning in Early Undergraduate Education. *Education Sciences*, 16(1), 105. <https://doi.org/10.3390/educsci16010105>
- Frimpong, E. K. (2026). *A Case Study of California Postsecondary Faculty Collaboration on Rubric Development to Foster Student Learning* (Order No.

- 32445088). Available from Publicly Available Content Database. (3306489123). <https://www.proquest.com/dissertations-theses/case-study-california-postsecondary-faculty/docview/3306489123/se-2>
- Li, X., Wijaya, T. T., Cao, Y., & Zhou, Y. (2025). Influencing factors of behavioral intention to use micro-lectures for teaching among pre-service mathematics teachers in China: a modified UTAUT-2. *Humanities & Social Sciences Communications*, 12(1), 1659. <https://doi.org/10.1057/s41599-025-05898-2>
- McNeil, S. G., Ahlf, M., & Ford, C. D. (2025). Exploring nontraditional graduate students' online engagement: an instrumental case study of learners' perceptions of purposefully designed activities: Revista de Universidad y Sociedad del Conocimiento. *International Journal of Educational Technology in Higher Education*, 22(1), 53. <https://doi.org/10.1186/s41239-025-00549-7>
- Mugunzva, F. I., & Hendrick, M. N. (2025). Mapping Digital Literacy Thresholds in South African Higher Education and the Implications for Entrepreneurship Education in an Industry 4.0 Paradigm. *Administrative Sciences*, 15(10), 396. <https://doi.org/10.3390/admsci15100396>
- Nikolina, N., Borislava, K., Pencho, M., Zafirova-Malcheva Temenuzhka, & Petkova, M. (2026). From Formal to Operational: A Triangulated Analysis of Policy, Practice, and Perception Regarding Digital Competence Development in Mathematics and IT Teacher Education. *Education Sciences*, 16(2), 272. <https://doi.org/10.3390/educsci16020272>
- Peker, S., Erden, A., Kazez, S., Hidiroğlu, S., Karavuş, M., & Save, D. (2025). Gamified Lessons Boost Food-Poisoning Health Seeking Behavior. *European Journal of Public Health*, 35, 2. <https://doi.org/10.1093/eurpub/ckaf161.850>
- Semerikov, S. O., Nechypurenko, P. P., Vakaliuk, T. A., Mintii, I. S., & Fadieieva, L. O. (2025). Differential effects of Moodle course design on student subpopulations: advancing personalized learning in higher education. *Smart Learning Environments*, 12(1), 46. <https://doi.org/10.1186/s40561-025-00400-6>
- Singh, A. K., & Meena, M. K. (2024). Online teaching in Indian higher education institutions during the pandemic time. *Education and Information Technologies*, 29(4), 4107-4157. <https://doi.org/10.1007/s10639-023-11942-y>
- Wendelin C. K. (2026). *An Investigation into the Experiences of College Students with Disabilities in Online Learning and the Faculty Who Teach Them* (Order No. 32447957). Available from Publicly Available Content Database. (3313228157). <https://www.proquest.com/dissertations-theses/investigation-into-experiences-college-students/docview/3313228157/se-2>