

Qualitative Study on Information Retrieval Support for Postgraduate Students at Ahmadu Bello University Zaria: Challenges and Strategic Interventions

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Abstract

The digital transformation of academic libraries has fundamentally restructured information access, shifting scholarly discovery from physical card catalogues to sophisticated online databases and institutional repositories. At Ahmadu Bello University (ABU), Zaria, postgraduate students navigate this evolving landscape while simultaneously managing information overload and intense academic pressures. The strategies these students employ for information retrieval significantly influence their research efficiency and overall academic success. Synthesizing evidence from existing literature, this paper reveals that ABU postgraduate students utilize a hybrid repertoire of retrieval mechanisms including OPAC, institutional repositories, and Google Scholar yet consistently encounter formidable obstacles: erratic internet connectivity, prohibitive bandwidth costs, and inadequate search competencies. Critically, the majority of students lack formal training in Boolean logic and advanced search techniques, resulting in information overload and what scholars term "library anxiety." These barriers are not merely technological but are deeply embedded in pedagogical approaches and institutional support structures. This paper proposes a multi-pronged strategic intervention framework: mandating a credit bearing information literacy course, enhancing off campus access infrastructure, establishing peer led research support clinics, and investing in continuous professional development for librarians. With targeted training and robust support systems, postgraduate students can more effectively navigate the digital information ecosystem, thereby enhancing research output and scholarly productivity.

Keywords: Information Literacy and retrieval; postgraduate students; Ahmadu Bello University; Nigeria; digital libraries

Introduction

Ahmadu Bello University (ABU), Zaria, stands as one of Nigeria's premier institutions of higher learning, hosting thousands of postgraduate students across diverse faculties—from Agriculture to Social Sciences. For these scholars, the capacity to retrieve relevant, accurate, and timely information constitutes the bedrock of successful thesis and dissertation writing (Bashorun, Isah, & Ademola, 2019). The Kashim Ibrahim Library (KIL), ABU's central library, maintains institutional subscriptions to prestigious databases including JSTOR, Scopus, and EBSCOhost. Yet, a persistent and troubling dichotomy persists: the availability of these resources does not translate into their effective utilization. This paper argues that a significant skills access gap undermines postgraduate research at ABU. Empirical evidence consistently demonstrates that many Nigerian postgraduate students lack the requisite information literacy competencies to navigate digital libraries effectively (Ojedokun & Owolabi, 2020; Ifijeh & Iwhiwhu, 2014). Students find themselves trapped between the promise of boundless digital information and the reality of ineffective search strategies, psychological barriers, and infrastructural constraints. Rather than presenting new empirical data, this article offers a critical, evidence informed synthesis of existing Nigerian and international literature. We pose three interlocking questions: How do ABU postgraduate students currently retrieve information? What barriers impede their effective retrieval? And what strategic interventions



Qualitative Study on Information Retrieval Support for ... Saidu, I., Et. al., (2026)

could transform information retrieval from a research bottleneck into a catalyst for scholarly productivity? The novelty of this paper lies in its integrated analytical framework—weaving together cognitive (skills deficits), psychological (library anxiety), and infrastructural barriers within a single institutional analysis—an approach rarely applied to Nigerian federal universities. By examining the intersections of these dimensions, we illuminate the complexity of the challenge and propose holistic solutions that address not only technological infrastructure but also human capacity and institutional culture.

Information Retrieval Mechanisms Employed by Students

Postgraduate students at ABU navigate their information landscape through a hybrid model of retrieval mechanisms, blending traditional methods with contemporary digital tools. This eclecticism reflects both the opportunities and constraints of the Nigerian academic environment.

1. Kashim Ibrahim Library Online Public Access Catalogue (OPAC)

The OPAC represents the primary sanctioned mechanism for locating physical books, past theses, and journals within the Kashim Ibrahim Library's extensive collection. Despite its centrality, OPAC usage among Nigerian university postgraduates remains disconcertingly low often below 40% due to poor search skills and frequent system downtime (Okon & Bello, 2018; Saidu, 2023). This underutilization is particularly concerning given that the OPAC serves as the gateway to the library's physical holdings, which remain essential for humanities and social science research.

2. Ahmadu Bello University Institutional Repository (ABU IDR)

ABU maintains a digital repository of alumni researches, dissertations, and theses a crucial resource for reviewing previous methodologies, identifying research gaps, and avoiding duplication of effort. Effective users of institutional repositories tend to complete literature reviews significantly faster than those relying solely on general search engines (Saidu et al., 2023). However, awareness of the IDR among newly enrolled postgraduate students is estimated at less than 30% (Ugwu & Eze, 2021), representing a substantial missed opportunity for research efficiency.

3. Open Access and Subscribed Databases

Through the Nigerian Universities Commission (NUC) virtual library and ABU's institutional subscriptions, students theoretically possess access to high impact scholarly databases. Yet Nwagwu (2017) found that fewer than 30% of postgraduate students in federal universities actually utilize these databases, citing authentication barriers, complex user interfaces, and inadequate training as primary deterrents. The gap between subscription access and actual usage represents a significant underinvestment in research capacity building.

4. Informal Mechanisms (Google Scholar and ResearchGate)

Confronted with the perceived complexity of formal databases, the majority of ABU postgraduate students default to Google Scholar as their primary retrieval tool. While undeniably accessible and familiar, this mechanism frequently returns non peer reviewed preprints or paywalled content, potentially compromising the quality of literature reviews (Adetimirin, 2019). ResearchGate is employed primarily for networking and requesting full texts directly from authors, though its efficacy depends entirely on author responsiveness and willingness to share.

5. Critical Challenges Hampering Effective Retrieval

Synthesizing empirical evidence from 2015–2025, five interconnected barriers emerge as consistently impeding effective information retrieval at ABU.

6. Poor Internet Infrastructure and Bandwidth Costs

The most frequently cited challenge is erratic internet connectivity. Across Nigerian federal universities, 78% of postgraduate students identified slow internet speed as the primary barrier to effective information retrieval (Saidu, 2023). ABU's campus wide Wi Fi suffers from bandwidth throttling, while the prohibitive cost of mobile data forces many students to retrieve only abstracts rather than full texts (Idowu & Adeleke, 2018). This infrastructural constraint disproportionately affects students from lower socioeconomic backgrounds, exacerbating existing inequities in research capacity.

7. Institutional Repository Downtime

The frequent IDR downtime in the digital library of Ahmadu Bello University, Zaria, has a severely detrimental impact on postgraduate students. The system's unreliability has transformed a vital academic resource into a source of frustration and academic hindrance. The regression model showed that downtime explains 66.4% of the variance in reduced productivity, demonstrating a causal link. The high dependency of students on the database for critical research, coupled with the pervasive and disruptive nature of the downtime, creates a significant barrier to academic excellence. The challenges faced ranging from wasted time and frustration to delayed research progress and compromised output are direct consequences of



Qualitative Study on Information Retrieval Support for ... Saidu, I., Et. al., (2026)

an unstable digital library infrastructure. Therefore, addressing this issue is not a mere technicality but an urgent necessity for supporting postgraduate education and research at the university (Saidu et, al 2026)

8. Inefficient Search Query Formulation

A significant skills deficit exists in Boolean logic (AND, OR, NOT), truncation, proximity searching, and field specific searching. Over 60% of Nigerian postgraduate students have never received formal training on advanced search techniques (Oduwale & Akpati, 2019). Consequently, many type complete sentences into library databases, yielding zero or irrelevant results. Saidu et al. (2023) found that the seven most frequently used online searching techniques Boolean searching, phrase searching, proximity searching, field searching, truncation, parenthesis, and synonyms remain underutilized or poorly understood by the majority of postgraduate students. This lack of search sophistication represents a critical bottleneck in the research process, prolonging literature review completion and compromising the comprehensiveness of scholarly work.

9. Information Overload and Relevance Discrimination

When students successfully navigate databases, they are often confronted with thousands of search results far beyond their capacity to process effectively. Bawden and Robinson (2020) describe this phenomenon as "information overload," wherein users struggle to distinguish seminal works from marginal commentaries, recent contributions from outdated perspectives, and high impact publications from predatory or low quality journals. Chukwuma and Okafor (2021) found this directly correlates with low quality literature reviews among Nigerian postgraduates, as students either indiscriminately cite the first available sources or become paralyzed by the volume of available information.

10. Psychological Barriers (Library Anxiety)

Mellon (1986) first conceptualized "library anxiety" as feelings of inadequacy, confusion, and fear experienced by students navigating library environments. Kwashie and Eze (2019) confirmed its presence among Nigerian postgraduates, particularly those returning after a prolonged academic break or those from non-library intensive undergraduate programs. Fear of asking "stupid questions" prevents students from seeking help from reference librarians, perpetuating a cycle of ineffective searching and mounting frustration (Jagboro & Akande, 2020). This psychological dimension of the retrieval challenge is frequently overlooked in favor of technological solutions.

11. Inadequate Training and Awareness

While ABU offers orientation sessions at the start of the academic year, these are often too generic, insufficiently hands on, and noncompulsory. Okonkwo and Nwosu (2020) argue that the absence of a mandatory credit bearing course on information literacy in Nigerian postgraduate curricula represents a major systemic failure. Students therefore learn through trial and error, wasting months and in some cases, years on inefficient searches that could be dramatically improved with targeted training. The persistent underinvestment in formal information literacy education reflects a broader undervaluation of research skills in Nigerian postgraduate education.

12. Comparative Insight: Faculty of Science versus Faculty of Social Sciences

Empirical studies reveal significant disciplinary variance in information retrieval practices and challenges. Science students are more likely to use specialized databases (PubMed, IEEE Xplore, Web of Science) and demonstrate greater comfort with syntax based searching and Boolean operators (Ifijeh & Iwhiwhu, 2014). Their primary challenge is paywall access rather than search strategy. Conversely, Social Science students rely heavily on qualitative text retrieval but struggle severely with search strategy formulation and keyword selection, often missing critical theoretical frameworks that would strengthen their research (Ojedokun & Owolabi, 2020). This disciplinary divergence suggests that one size fits all training is ineffective. Humanities and social science students require more intensive support in search strategy development and theoretical concept identification, while science students may benefit more from access oriented solutions and citation management training. Disciplinary tailoring of information literacy instruction is therefore essential for maximizing research efficiency across the university.

Recommendations for Strategic Interventions

To transform information retrieval from a bottleneck into a catalyst for research productivity, ABU should implement the following evidence informed interventions.

1. **Mandatory Credit Bearing Course;** The Postgraduate College should introduce a compulsory course, titled "Information Literacy and Advanced Research Methods," to be facilitated by the Kashim Ibrahim Library, as recommended by the NUC's Benchmark for Library and Information Science (NUC, 2019). This course should cover Boolean logic, database selection strategies, citation management (Zotero, Mendeley), critical evaluation of sources, and ethical considerations



Qualitative Study on Information Retrieval Support for ... Saïdu, I., Et. al., (2026)

- in information use. Embedding this course within the postgraduate curriculum would ensure that all students acquire foundational retrieval competencies early in their programs, rather than learning through trial and error.
2. Optimize Off Campus Access; The ICT Directorate must configure a reliable EZproxy server to enable seamless off campus access to subscribed databases (Ugwu & Eze, 2021). This would significantly reduce mobile data costs, bypass campus bandwidth congestion, and enable students to conduct research during evenings and weekends from the comfort of their residences. Improved off campus access would also benefit students engaged in fieldwork or those residing at distant campuses.
 3. Peer to Peer Retrieval Clinics: Instead of generic, one time lectures, the Kashim Ibrahim Library should host weekly "Literature Search Clinics" where experienced doctoral students assist struggling master's candidates in navigating databases, formulating search strategies, and managing references. Peer assisted learning has been shown to reduce library anxiety, improve skill retention, and foster a supportive research community (Adetimirin, 2019). This approach leverages existing expertise within the postgraduate cohort and reduces the burden on already overstretched librarians.
 4. Decentralized 24 Hour Research Hubs: Given erratic power supply and limited computer availability, the university should establish dedicated, Solar powered "24 Hour Research Hubs" in each faculty, equipped with computers, printers, and a small reference collection (Olaleke & Ogunmodede, 2020). These hubs would provide a reliable, quiet workspace for postgraduate students, particularly those without personal computers or stable electricity at their residences. The 24 hour availability would accommodate students with varying schedules and research workflows.
 5. Continuous Professional Development for Librarians: Library staff require retraining in current information retrieval tools, including discovery layers, federated search systems, and emerging artificial intelligence applications. Without this, even the best infrastructure remains underutilized. ABU should invest in regular professional development workshops, conference attendance, and collaborative partnerships with other research libraries to ensure that librarians remain at the forefront of developments in information science.

Conclusion

Rethinking information retrieval support for postgraduate students at Ahmadu Bello University reveals what we term a "digital divide within the digital library." While hardware infrastructure computers, basic internet, and subscribed databases is largely present, the cognitive software (search strategy, critical filtering, evaluation skills) and psychological readiness are underdeveloped. The primary challenges are not merely infrastructural but pedagogical and psychological in nature. Until ABU prioritizes advanced, continuous information literacy training alongside network upgrades and anxiety reducing support structures, postgraduate research output will remain suboptimal relative to the university's historical standing as Nigeria's premier institution of higher learning. We call on the Postgraduate School, Kashim Ibrahim Library, and ICT Directorate to co design and implement the recommended interventions within the next two academic sessions. This collaborative approach bridging library, academic, and administrative units is essential for creating a coherent, institution wide strategy for information literacy development.

Limitations of The Study

As a viewpoint synthesis, this paper does not present primary empirical data. The reported percentages and statistics rely on prior studies whose methodologies, sample sizes, and contexts may vary. Future research should conduct a large scale, mixed methods survey of ABU postgraduate students to quantify each barrier locally, identify discipline specific needs, and test the proposed interventions experimentally. Additionally, longitudinal studies tracking the impact of information literacy training on research productivity would provide valuable evidence for institutional decision making.

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Qualitative Study on Information Retrieval Support for ... Saidu, I., Et. al., (2026)

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