

**AWARENESS AND USE OF ELECTRONIC DATABASES BY POSTGRADUATE
STUDENTS OF FACULTY OF EDUCATION AND EXTENSION SERVICES, USMANU
DANFODIYO UNIVERSITY, SOKOTO**

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Abstract

This study explores the awareness and utilization of electronic databases by postgraduate students of the Faculty of Education and Extension Services, Usmanu Dan fodiyo University, Sokoto. Given the importance of digital resources in academic work, understanding database usage patterns and barriers faced by students is essential. Findings reveal that while 69.8% of respondents were aware of Elsevier/Science Direct; awareness of other academic databases was considerably lower, with only 2.3% recognizing EBSCO host. Similarly, the main access points used by the respondents for accessing these databases included the university library (58.1%) and their personal networks (51.2%). The major motivator for using electronic databases by the respondents is ease of access, as noted by 55.8% of participants. Despite nearly half of the students (48.8%) accessing electronic databases on daily basis, usage was limited by significant obstacles, such as poor internet connectivity (79.1%) and restricted digital literacy, particularly in advanced search techniques. The study recommends regular training programs, improved infrastructure for internet and power supply, and increased user support to enhance awareness, accessibility, and proficiency in database usage, thereby maximizing the university's investment and supporting academic productivity.

Introduction

Information retrieval and dissemination have improved drastically with the help of Information and, Communication Technology (ICT). Hence, users don't necessarily need to come physically to the library because they can have access to the library resources (e.g. books, journals, magazine, etc) and services (reference, circulation, current awareness, etc) remotely using their digital devices such as laptops, pads, smart phones and e-readers. These advances in ICT has culminated to e-publishing which give birth to academic databases such as Emerald insight, Ebscohost, TEEAL, Science direct , OARE, HINARI, Law Pavillion, Lexis Nexis, Academic Search, Online Public Access Catalogue (OPAC), etc providing access to collection of millions of e-journals and e-books on various subject areas. These databases have tremendously

helped users by providing alternative way of overcoming the traditional barriers of accessibility, time and space (Prangya & Rabindra, 2013; Sharma, 2009).

Consequently, this study investigated the awareness and usage patterns of electronic databases among postgraduate students of Faculty of Education and Extension Services at UsmanuDanfodiyo University, Sokoto with the aim of identifying the frequency of use, primary motivations, challenges, and proficiency levels in accessing and utilizing these digital resources, along with suggestions for improvements to support academic research and learning in the University.

Statement of the problem

Despite the availability and accessibility of electronic databases at Usmanu Danfodiyo University, Sokoto, low usage levels persist among the University community particularly the postgraduate students. Although the university invests significantly in providing access to a range of databases, these resources remain underutilized. Preliminary observations suggest that this underuse may result from challenges such as limited digital literacy, insufficient user support, and connectivity issues. Understanding these factors is crucial for promoting effective use of electronic databases, as inadequate utilization hinders research, teaching quality, and knowledge advancement. This study therefore seeks to identify specific barriers and recommend strategies for improving database usage to maximize the university's investment and enhance academic productivity.

Objectives of the Study

The main objective of the study is to ascertain the level of awareness and use of electronic databases by postgraduate students of Faculty of Education and Extension Services, Usmanu Danfodiyo University, Sokoto. Specifically, the study was conducted to:

1. Ascertain the level of awareness of postgraduate students of Faculty of Education and Extension Services, UsmanuDanfodiyo University, Sokotoon electronic databases in the university;
2. Determine the level of use of electronic databases by postgraduate students of Faculty of Education and Extension Services, UsmanuDanfodiyo University, Sokoto;
3. Investigate the skills possessed by the postgraduate students in the use of electronic databases;
- 4.. Identify the challenges faced by the postgraduate while using the electronic databases.

Literature Review

Multiple studies conducted by various researchers show high levels of awareness of electronic databases among students, though access limitations and preferences for simpler search tools impacted level of utilization of such databases. For example, students at the University of Ghana demonstrated high awareness of available databases but preferred using simple search engines, such as Google, when conducting research due to ease of use (Norch & Adzakpa, 2022; Okyere, 2020). Similarly, in Nigerian universities, awareness of electronic databases was substantial. However, infrastructural challenges, such as low bandwidth and frequent power outages, limited actual accessibility and hampered student engagement with these resources were recorded in researches conducted separately by Emmasiegbu & Anaehob (2021); Dada &Eghworo (2021) and Obiamalu, Ogungbeni & Obuezie (2021). Also another research

conducted by Lawal and Yahaya in 2020 on the Perception, access and use of electronic databases among undergraduate students-users of Umaru Musa Yar'adua University Library highlighted the impact of connectivity and infrastructure issues, which, despite efforts to increase awareness, continue to negatively impact on accessibility of the databases.

In another research conducted by Mawia and Gyashree (2022) and Okyere (2020), it was found that the purpose of usage of electronic databases by students was primarily academic, focusing on assignments, research projects, and thesis work, yet actual usage frequency remained low with students sporadically accessing the electronic databases for their academic activities while heavily relying on traditional information sources. Halim and Rahman (2024) studied the Patterns in Online Database Usage at Universiti Teknologi MARA (UiTM) and discovered that recreational or general information needs rarely prompted database usage, as seen from their respondents who accessed databases more consistently for coursework while the overall engagement was reported to be below optimal levels.

On digital literacy, studies showed that even though students exhibited basic digital literacy there is need for further training in order to maximize the utility of electronic databases. For example, at Michael Okpara University of Agriculture, students possessed foundational digital skills but lacked advanced searching capabilities specific to database environments, which limited the effectiveness of their research (Obiamalu, Ogungbeni & Obuezie, 2021). This trend was echoed across other institutions where basic skills allowed for general navigation but fell short for in-depth research tasks. Studies such as those conducted by Okyere (2020); Mawia and Gyashree (2022); and Boro, Laltlanzova & Chanchinmawia (2024) emphasized the need for

more comprehensive digital literacy training that could prepare students for both academic and professional research settings.

However, it was discovered that students frequently encountered obstacles that reduced the usability of electronic databases the major ones reported include inadequate training on database-specific search skills, unreliable internet connectivity, and infrastructural issues such as inconsistent power supply (Norch & Adzakpa, 2022; Okyere, 2020). Other problems included limited technical support, and frequent connectivity interruptions (Emmasiegbe & Anaehob, 2021; Dada & Eghworo, 2021 and Obiamalu, Ogungbeni & Obuezie, 2021). These issues, combined with limited digital literacy initiatives, meant that although awareness was high, usage levels did not align, ultimately impacting academic productivity of the university students.

In conclusion, the above reviews collectively indicate that while awareness of electronic databases is high, actual use is constrained by infrastructural challenges, insufficient digital literacy, and a lack of advanced training on database navigation. Addressing these gaps through targeted training programs, improving internet and power infrastructure, and enhancing technical support could significantly elevate database usage rates, leading to enriched academic research and educational outcomes.

Methodology

Data was collected via a questionnaire administered to postgraduate students of Faculty of Education and Extension Services, Usmanu Danfodiyo University Sokoto. The questionnaire

encompasses demographic information, database awareness, usage frequency, motivational factors, skill levels, challenges, and possible solutions to the identified challenges. A random sample of 50 postgraduate students of Faculty of Education and Extension Services was selected to represent the faculty population. Data collected were analysed using frequency and percentage.

Data analysis and Interpretation

Table 1: Demographic Information

Category	Options	Responses	Percentage
Gender	Male	28	65.1%
	Female	15	34.9%
Program Level	PGD	1	2.3%
	Master's	39	90.7%
	Ph.D.	3	7.0%

Table 1 showed that majority of the respondents are male 28 (65.1%) Master's students 39 (90.7%) while PGD and Master's students represent only a small portion of the respondents.

Table 2: Awareness of Academic Databases

Database	Responses	Percentage
Elsevier/ScienceDirect	30	69.8%
Telegram	4	9.3%
EBSCOhost	1	2.3%
LinkedIn	9	20.9%
Agora	7	16.3%
Teal	3	7.0%
WhatsApp	11	25.6%
Hinari	5	11.6%
Facebook	13	30.2%

Result from Table 2 above shows that while Elsevier/Science Direct was recognized by a majority (69.8%) of respondents, other academic databases such as EBSCOhost (2.3%) showed low awareness. The high presence of social platforms like Facebook (30.2%) suggests that some of the respondents cannot differentiate academic databases from social media platforms.

Table 3: Database Access Points

Access Point	Responses	Percentage
University Library	25	58.1%
Personal Network	22	51.2%
Off-Campus Cafés	7	16.3%
No Access	2	4.7%

Table 3 indicated that the library (58.1%) and personal networks (51.2%) are the main access points of the respondents to electronic databases, indicating that improvements in library facilities and remote access could be beneficial to the users.

Table 4: Uses of Electronic Databases

Use Case	Responses	Percentage
Checking Material Availability	35	81.4%
Accessing Full-Text Materials	25	58.1%
Author Verification	16	37.2%
Bibliographic Data Verification	16	37.2%

From the data presented in Table 4, the postgraduate students used electronic databases majorly for checking the availability of materials (81.4%), followed by accessing full text materials from the databases (58.1%) while only 37.2% uses the databases for author verification and bibliographic data verification. The above suggests that the respondents rely heavily on these databases for initial research material searches.

Table 5: Preferred Databases

Database	Responses	Percentage
Elsevier/ScienceDirect	25	58.1%
Agora	4	9.3%
Teal	1	2.3%
Hinari	3	7.0%
None	10	23.3%

The research from data presneted in Table 5 above showed that Elsevier/ScienceDirect (58.1%) is the preferred database, with a notable portion of responses showing that users prefared using alternative platforms or none at all (23.3%).

Table 6: Frequency of Database Usage

Frequency	Responses	Percentage
Daily	21	48.8%
Once a Month	2	4.7%
2-3 Times a Month	4	9.3%
3-5 Times a Month	14	32.6%
Never	2	4.7%

It was found out from Table 6 above that nearly half of the respondents (48.8%) access the electronic databases daily, showing a consistent usage pattern. However, another subtential part (32.6%) of the respondents acesses the databases only 3 to 5 times in a month.

Table 7: Motivations for Database Use

Motivation	Responses	Percentage
Ease of Access	24	55.8%
Time-Saving	20	46.5%
Avoid Frequent Library Visits	11	25.6%
Limited Physical Resources	14	32.6%
Availability of Search Tools	15	34.9%

Ease of access (55.8%) has been shown to be the primary motivator for using electronic databases, with other factors indicating the practical benefits of the electronic databases.

Table 8: Searching Skills

Skill	Responses	Percentage
Formulate Good Search Queries	10	23.3%
Use of Boolean Operators	2	4.7%
Use Advanced Searching Options	14	32.6%
General Internet Searching	28	65.1%
Database Searching Skills	21	48.8%
Downloading from Database	28	65.1%

Table 8 showed that the most prevalent searching skills possessed by the postgraduate students of faculty of education and extension services, Usmanu Danfodiyo University Sokoto are; downloading from databases (65.1%), general internet searching (65.1%) and databases searching skills (48.8%) which formed the basic internet skills, while advanced searching options such as use of Boolean operators (4.7%), formulation of good search queries (23.3%) and use of advanced searching options (32.6%) are limited, highlighting a need for proper training of the library users.

Table 9: Challenges in Using Databases

Challenge	Responses	Percentage
Poor Internet Connectivity	34	79.1%
Inability to Use Computers	2	4.7%
Insufficient Library Computers	10	23.3%
Lack of Adequate Skills	7	16.3%
Unfriendly User Interface	3	7.0%
Lack of Remote Access	4	9.3%
Download Restrictions	10	23.3%
Erratic Power Supply	12	27.9%
Database Display Issues	4	9.3%

However, on the issue of constraints in using electronic databases in the library, connectivity issues (79.1%) was prominent among the challenges, followed by power supply issues (27.9%) and equipment shortages (23.3%).

Table 10 Solutions to Challenges

Suggested Solution	Responses	Percentage
Increased Bandwidth	23	53.5%
Provision of More Computers	12	27.9%
Stable Power Supply	19	44.2%
User Training	19	44.2%

Finally, the respondents indicated increased bandwidth (53.5%) and training (44.2%) as the top possible solutions to the identified challenges. This align with connectivity and skill challenges noted earlier by the respondents.

In summary, the above findings indicated a positive trend in database usage, particularly for tasks like material availability checks and full-text access. Despite the fact that challenges such as poor internet connectivity, limited computer availability, and skill gaps in advanced search techniques significantly affect usage of the electronic databases by the postgraduate students of Faculty of Education and Extension Services, Usmanu Danfodiyo University Sokoto.

Conclusion

Postgraduate students of the Faculty of Education and Extension Services at Usmanu Danfodiyo University Sokoto value electronic databases but faced infrastructural and skill-based barriers coupled with limited awareness of certain academic databases this necessitate the need for enhanced training, orientation and provision of adequate ICT infrastructure.

Recommendations

1. Training Programs: Establish regular workshops and training sessions focused on database navigation, advanced search techniques, and digital literacy to improve user competence.
2. Improving Infrastructure: Enhance internet connectivity across the campus and ensure consistent access to power, especially in study areas and research centers.

3. Raising Awareness: Increase promotional efforts, such as library orientation sessions, informational materials, and resource guides, to inform users about available databases and their benefits.
4. User Support Services: Implement dedicated support for users, including an online help desk or chat services, to address challenges promptly and facilitate easier access.

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