

ACCESS AND USE OF INFORMATION RESOURCES FOR LEARNING ACTIVITIES BY STUDENTS OF COLLEGES OF EDUCATION IN KANO STATE

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Abstract

This study investigated the access to and use of information resources for learning activities by students of Colleges of Education in Kano State, Nigeria. The research was guided by a positivism paradigm and employed a quantitative approach. A sample of 378 students was drawn from the target population across three institutions: Sa'adatu Rimi College of Education, Kumbotso; College of Education, Science and Remedial Studies, Kano; and Federal College of Education (Technical), Bichi. Data were collected using a structured questionnaire and analyzed using both descriptive and inferential statistics. Findings revealed that access to most information resources—particularly online resources and printed materials such as magazines, journals, dictionaries, and encyclopedias—was severely limited (mean scores below 2.0). Printed textbooks ($\text{Mean} = 2.01$) were the only resource rated as accessible. Regarding utilization, printed textbooks ($\text{Mean} = 3.79$) and online books ($\text{Mean} = 3.00$) were the most frequently used resources, whereas online journals ($\text{Mean} = 1.87$) and encyclopedias ($\text{Mean} = 1.94$) were substantially underutilized. Students primarily accessed information resources for course learning, exam preparation, and completing assignments ($\text{Mean} = 3.33$), but rarely utilized them for broader research ($\text{Mean} = 1.80$). The study concluded that overall resource access is inadequate and usage is largely restricted to a narrow range of materials. Recommendations include expanding e-library infrastructure, conducting comprehensive user orientation workshops, and promoting the use of diverse information resources across academic programs.

Introduction

Academic libraries are integral components of tertiary institutions, established to support teaching, learning, and research activities. A college library is a specialized type of academic library situated within higher education institutions (such as colleges of education) designed to fulfill students' specific educational requirements. To meet these needs, libraries offer various information resources, including traditional print materials (books, scholarly journals, magazines, and newspapers) alongside digital formats (online databases, electronic books, and multimedia resources) (Fraley, 2022).

The diversity of these resources ensures that students can acquire supplementary coursework materials and cultivate independent learning skills. Beyond functioning as material repositories, academic libraries operate as dynamic learning centers by delivering essential services such as circulation (charging and discharging), current awareness services (CAS), selective dissemination of information (SDI), and electronic database access. However, to fully leverage these services, students must be aware of their availability and possess the necessary skills to navigate and retrieve information effectively.

Libraries in Nigerian institutions of higher learning play a pivotal role in promoting academic success, personal development, and professional preparation. By providing equitable access to diverse knowledge sources, libraries empower students to achieve scholarly excellence and contribute meaningfully to society (Donaldson & Pope, 2017). Ensuring seamless access to resources remains a core commitment: physical materials are accessible during operational hours, while digital assets are frequently accessible 24/7 via institutional library portals. Furthermore, modern libraries implement assistive technology

to accommodate users with special needs, aiming to construct an inclusive learning ecosystem for all students (Sah & Sahu, 2020).

Despite these ideals, preliminary observations and exploratory inquiries by the researcher within Kano State Colleges of Education revealed a critical issue: widespread underutilization of library resources among students. This trend was particularly evident at Sa'adatu Rimi College of Education (Kumbotso), College of Education, Science and Remedial Studies (Kano), and Federal College of Education (Technical, Bichi). Potential contributing factors include a lack of awareness, technical access barriers, and insufficient user orientation. Physical library observations and gate/circulation transaction records consistently demonstrated low student interaction with available information resources.

Statement of the Problem

The value of information resources and library services to college students in Nigeria cannot be overemphasized, as it directly impacts academic performance, critical thinking skills, and overall personal growth. Information resources serve as fundamental tools for learning, empirical research, and informed decision-making across all discipline areas (Beyene, 2021).

However, preliminary investigations in the selected Colleges of Education in Kano State indicate that students grossly underutilize available information resources. Widespread lack of resource awareness, technical accessibility hurdles, and inadequate library orientation remain key barriers. Physical checks and statistical log records maintained by institutional libraries affirm this pattern of low engagement. Left unaddressed, this underutilization threatens learning quality and educational outcomes. It

is against this backdrop that this study investigates the patterns of access to and use of information resources for learning activities among students in these colleges, aiming to propose actionable recommendations.

Objectives of the Study

The specific objectives of this study were to:

1. Determine the level of access to information resources for learning activities among students in the study area.
2. Examine the extent to which students utilize available information resources and services for learning activities.

Literature Review

Access to Information Resources for Learning Activities

Accessibility to information resources plays a pivotal role in shaping academic success and quality learning experiences (Edwards, 2019; Etsidem, Obong, & Akpan, 2020). Resource accessibility encompasses the availability, usability, and retrievability of print and digital holdings across physical spaces and electronic network environments. Academic libraries serve as centralized hubs offering physical books and print journals alongside electronic databases, e-books, and digital journals. Furthermore, seamless remote (off-campus) access to digital portals is vital, particularly for modern hybrid and distance learning formats (Edem & Ifukor, 2020; Nagaraju & Ashok, 2022).

Tertiary students draw upon diverse information media to sustain their academic workloads. Studies highlight electronic databases as primary sources of high-quality

scholarly journals and reference books across disciplines (Horiuchi & Yagi, 2017; Fosu & Darko-Ampem, 2021; Yoshida et al., 2021). Prominent scholarly platforms widely utilized in higher education include JSTOR, EBSCOhost, and ProQuest.

Use of Information Resources for Learning Activities

The active utilization of information resources is crucial to student academic growth. Students rely on varied formats to complete course assignments, execute research projects, broaden theoretical comprehension, and elevate educational performance (Edwards, 2019; Etsidem, Obong, & Akpan, 2020). Information resources comprise all raw or structured data sources that meet user information demands across distinct learning contexts.

Information resources commonly used in colleges of education can be categorized by format and function (Horiuchi & Yagi, 2017; Fosu & Darko-Ampem, 2021; Yoshida et al., 2021):

1. **Print Resources:** Physical textbooks, scholarly journals, magazines, newspapers, encyclopedias, dictionaries, and archival volumes.
2. **Electronic Resources:** Online databases, e-books, e-journals, academic websites, blogs, and institutional repositories providing text, images, audio, and video content.
3. **Multimedia Resources:** Audio-visual recordings, educational podcasts, webinars, infographics, and interactive digital simulations.
4. **Data Resources:** Numerical databases, statistical reports, datasets, and structured data tools used for analytical modeling.

As noted by Ibegwam and Unadike (2021) as well as Agboola and Ajuwon (2022), these resources serve several core academic and practical purposes:

- **Research and Education:** Supporting inquiry, expanding domain knowledge, and promoting intellectual engagement.
- **Decision-Making:** Providing empirical evidence to guide strategic choices across diverse contexts.
- **Professional Development:** Keeping individuals current with research advancements, industry standards, and best practices.
- **Personal Growth:** Cultivating lifelong learning, critical thinking skills, and personal enrichment.

Consequently, the utility of information resources depends heavily on attributes such as currency, reliability, accuracy, relevance, and overall accessibility.

METHODOLOGY

The study adopted a descriptive cross-sectional survey design. This design is suitable because it enables the systematic collection of quantitative data from a representative sample at a single point in time without manipulating variables. A cross-sectional survey is well-suited for examining relationships among accessibility levels, usage frequency, and purpose of resource use. Structured questionnaires were deployed to facilitate descriptive and inferential statistical analyses, enabling generalizations across the targeted Colleges of Education in Kano State.

Results and Findings

Level of Access to Information Resources

Table 1 presents the mean scores and standard deviations for student access to various information resources. Mean scores were benchmarked against a decision threshold where values of 2.00 or above indicate accessibility, while values below 2.00 indicate non-accessibility.

Table 1: Access to Information Resources by Students in the Study Area

Information Resource	NA (F/\%)	MA (F/\%)	A (F/\%)	HA (F/\%)	Mean ($\bar{X}$)	STD (SD)
Printed Textbooks	100 (33.2%)	120 (39.9%)	60 (19.9%)	21 (7.0%)	2.01	.90
Printed Magazines	220 (73.1%)	75 (24.9%)	6 (2.0%)	0 (0.0%)	1.28	.47
Printed Journals	180 (59.8%)	80 (26.6%)	21 (7.0%)	20 (6.6%)	1.60	.88
Printed Newspapers	220 (73.1%)	60 (19.9%)	21 (7.0%)	0 (0.0%)	1.34	.60
Printed Dictionaries	260 (86.4%)	20 (6.6%)	21 (7.0%)	0 (0.0%)	1.21	.55
Printed Encyclopedias	240 (79.7%)	40 (13.3%)	21 (7.0%)	0 (0.0%)	1.27	.58
Printed Almanacs	240 (79.7%)	40 (13.3%)	21 (7.0%)	0 (0.0%)	1.27	.58
Printed Yearbooks	260 (86.4%)	20 (6.6%)	21 (7.0%)	0 (0.0%)	1.21	.55
Information Resource	NA (F/\%)	MA (F/\%)	A (F/\%)	HA (F/\%)	Mean ($\bar{X}$)	STD (SD)
Printed Maps	262 (87.2%)	20 (6.6%)	19 (6.3%)	0 (0.0%)	1.21	.55

Printed Projects	220 (73.1%)	60 (19.9%)	21 (7.0%)	0 (0.0%)	1.34	.60
Printed Past Questions	233 (77.4%)	42 (14.0%)	21 (7.0%)	5 (1.7%)	1.33	.68
Online Books	196 (65.1%)	80 (26.6%)	21 (7.0%)	4 (1.3%)	1.63	.66
Online Magazines	262 (87.2%)	20 (6.6%)	19 (6.3%)	0 (0.0%)	1.21	.55
Online Journals	216 (71.8%)	60 (19.6%)	23 (7.6%)	2 (0.7%)	1.37	.65
Online Projects	221 (73.4%)	59 (19.9%)	21 (7.0%)	0 (0.0%)	1.34	.60
Online Databases (AGORA, JSTOR, HINARI, EBSCO)	231 (76.7%)	40 (13.3%)	24 (8.0%)	6 (2.0%)	1.35	.71
CD-ROMs / DVDs	262 (87.2%)	20 (6.6%)	19 (6.3%)	0 (0.0%)	1.21	.55
Online Past Questions	220 (73.1%)	60 (19.9%)	21 (7.0%)	0 (0.0%)	1.34	.60
Online Reference Materials	236 (78.4%)	40 (13.3%)	23 (7.6%)	2 (0.7%)	1.31	.64

**Key: NA = Not Accessible; MA = Moderately Accessible; A = Accessible; HA = Highly Accessible. Decision Mean Threshold: Accessible ≥ 2.00 .*

The data in Table 1 reveal that printed textbooks ($\text{Mean} = 2.01$) were the only resource to cross the accessibility threshold. All other print and online holdings yielded mean scores well below 2.00, indicating widespread non-accessibility. Notably low accessibility was reported for printed dictionaries ($\text{Mean} = 1.21$), online magazines ($\text{Mean} = 1.21$), CD-ROMs/DVDs ($\text{Mean} = 1.21$), online databases ($\text{Mean} = 1.35$), and online journals ($\text{Mean} = 1.37$).

Access Channels and Frequency of Access

Modes of access reported by respondents included: standalone digital workstations (n = 91, 30.2\%), direct assistance from library staff (n = 94, 31.2\%), library orientation sessions (n = 45, 15.0\%), and other informal means (n = 71, 23.6\%).

Regarding access frequency, a majority of respondents accessed library resources only occasionally (n = 142, 47.2\%). Conversely, 16.9\% (n = 51) reported never accessing holdings, 16.3\% (n = 49) accessed resources twice weekly, 14.0\% (n = 42) accessed resources once weekly, and only 5.6\% (n = 17) accessed library materials daily. These figures highlight low access rates among students across Kano State Colleges of Education. Heavy reliance on staff intervention and formal orientations points to limited self-sufficiency among students navigating resource systems independently.

Types and Extent of Information Resources Used

Table 2 outlines the frequency with which students utilize specific types of information resources. Mean scores above 3.00 reflect frequent usage, while scores below 3.00 indicate infrequent usage.

Table 2: Types of Information Resources Used by Students

Information Resource	Never (F/\%)	Rarely (F/\%)	Sometimes (F/\%)	Often (F/\%)	Always (F/\%)	Mean ($\bar{X}$)	STD (SD)
Printed Textbooks	6 (2.0%)	20 (6.6%)	55 (18.3%)	180 (59.8%)	40 (13.3%)	3.79	.77
Printed Magazines	101 (33.6%)	100 (33.2%)	80 (26.6%)	20 (6.6%)	0 (0.0%)	2.07	.93

Printed Journals	42 (14.0%)	118 (39.2%)	140 (46.5%)	1 (0.3%)	0 (0.0%)	2.07	.94
Printed Newspapers	40 (13.3%)	120 (39.9%)	80 (26.6%)	41 (13.6%)	20 (6.6%)	2.60	1.09
Printed Dictionaries	60 (19.9%)	40 (13.3%)	160 (53.2%)	40 (13.3%)	1 (0.3%)	2.67	.88
Printed Encyclopedias	40 (13.3%)	240 (79.7%)	20 (6.6%)	1 (0.3%)	0 (0.0%)	1.94	.46
Printed Almanacs	120 (39.9%)	121 (40.2%)	40 (13.3%)	20 (6.6%)	0 (0.0%)	2.26	.58
Printed Yearbooks	80 (26.6%)	180 (59.8%)	40 (13.3%)	1 (0.3%)	0 (0.0%)	1.87	.63
Printed Maps	20 (6.6%)	220 (73.1%)	60 (19.9%)	1 (0.3%)	0 (0.0%)	2.14	.51
Printed Projects	19 (6.3%)	81 (26.9%)	80 (26.6%)	121 (40.2%)	0 (0.0%)	3.00	.97
Printed Past Questions	40 (13.3%)	120 (39.9%)	80 (26.6%)	41 (13.6%)	20 (6.6%)	2.60	1.09
Online Books	20 (6.6%)	80 (26.6%)	80 (26.6%)	117 (38.9%)	4 (1.3%)	3.00	.97
Online Magazines	60 (19.9%)	200 (66.4%)	39 (13.0%)	2 (0.7%)	0 (0.0%)	1.94	.59
Online Journals	98 (32.6%)	140 (46.5%)	60 (19.9%)	1 (0.3%)	2 (0.7%)	1.87	.73
Online Newspapers	40 (13.3%)	200 (66.4%)	20 (6.6%)	41 (13.6%)	0 (0.0%)	2.21	.84
Online	25 (8.3%)	234	34 (11.3%)	6 (2.0%)	2 (0.7%)	2.07	.46
Information Resource	Never (F/\%)	Rarely (F/\%)	Sometimes (F/\%)	Often (F/\%)	Always (F/\%)	Mean (\bar{X})	STD (SD)
Projects		(77.7%)					

Online Databases	40 (13.3%)	180 (59.8%)	40 (13.3%)	41 (13.6%)	0 (0.0%)	2.27	.86
CD-ROMs / DVDs	25 (8.3%)	240 (79.7%)	34 (11.3%)	2 (0.7%)	0 (0.0%)	2.07	.46
Online Past Questions	60 (19.9%)	180 (59.8%)	40 (13.3%)	21 (7.0%)	0 (0.0%)	2.07	.87
Online Reference Materials	20 (6.6%)	220 (73.1%)	57 (18.4%)	4 (1.3%)	0 (0.0%)	2.14	.51

**Decision Mean Threshold: Frequent Usage > 3.00.*

As displayed in Table 2, printed textbooks ($\text{Mean} = 3.79$), online books ($\text{Mean} = 3.00$), and printed project reports ($\text{Mean} = 3.00$) were the primary resources utilized by students. In contrast, vital academic resources such as printed yearbooks ($\text{Mean} = 1.87$), online journals ($\text{Mean} = 1.87$), printed encyclopedias ($\text{Mean} = 1.94$), and online magazines ($\text{Mean} = 1.94$) recorded notably low usage.

Purpose of Using Information Resources

Table 3 highlights the primary academic purposes driving students' use of library resources.

Table 3: Purpose of Information Resource Utilization

Purpose	SD (F/\%)	D (F/\%)	UD (F/\%)	A (F/\%)	SA (F/\%)	Mean ($\bar{X}$)	STD (SD)
Conducting Research Activities	100 (33.2%)	135 (44.9%)	41 (13.6%)	20 (6.6%)	5 (1.7%)	1.80	.66
Course Learning & Examination Preparation	60 (19.9%)	40 (13.3%)	1 (0.3%)	140 (46.5%)	60 (19.9%)	3.33	1.45

Completing Class Assignments	60 (19.9%)	40 (13.3%)	1 (0.3%)	140 (46.5%)	60 (19.9%)	3.33	1.45
Lecture Note Updating	60 (19.9%)	40 (13.3%)	1 (0.3%)	140 (46.5%)	60 (19.9%)	3.33	1.45
Seeking General Information	140 (46.5%)	100 (33.2%)	21 (7.0%)	40 (13.3%)	0 (0.0%)	1.87	1.03

*Key: *SD* = Strongly Disagree; *D* = Disagree; *UD* = Undecided; *A* = Agree; *SA* = Strongly Agree.

The results in Table 3 demonstrate that student resource utilization is concentrated on routine course tasks: learning/exam preparation ($\text{Mean} = 3.33$), assignments ($\text{Mean} = 3.33$), and note updates ($\text{Mean} = 3.33$). Conversely, using resources for research ($\text{Mean} = 1.80$) and seeking general information ($\text{Mean} = 1.87$) scored low, indicating minimal engagement in independent research or broader knowledge acquisition beyond prescribed course requirements.

DISCUSSION OF FINDINGS

Access to Information Resources

The empirical findings in Table 1 reveal that printed textbooks were the sole resource achieving basic accessibility ($\text{Mean} = 2.01$), while all other print and digital holdings fell below acceptable thresholds. Specifically, printed magazines ($\text{Mean} = 1.28$), dictionaries ($\text{Mean} = 1.21$), CD-ROMs ($\text{Mean} = 1.21$), online databases ($\text{Mean} = 1.35$), and online journals ($\text{Mean} = 1.37$) suffered from poor accessibility.

These findings contrast with the theoretical principles outlined by Edem and Ifukor (2020) as well as Nagaraju and Ashok (2022), who stressed that modern academic libraries must deliver accessible physical and remote digital collections. Furthermore, the limited access to subscription databases contrasts with global trends described by Horiuchi and Yagi (2017) and Fosu and Darko-Ampem (2021), where platforms like JSTOR, EBSCOhost, and ProQuest are core resources for college students. The institutional context in Kano State falls short of these accessibility standards.

The observation that students rely heavily on library staff assistance (31.2\%) and standalone computers (30.2\%), with only 5.6\% accessing holdings daily, aligns with concerns raised by Edwards (2019) and Etsidem et al. (2020). True accessibility involves self-directed retrieval and operational usability, whereas high staff dependency indicates underlying gaps in information literacy.

Use of Information Resources

Usage trends (Table 2) show that printed textbooks ($\text{Mean} = 3.79$) and online books ($\text{Mean} = 3.00$) serve as the primary sources of academic information. This relies on patterns identified by Ibegwam and Unadike (2021) and Agboola and Ajuwon (2022), who observed that students prioritize prescribed textbooks for immediate coursework demands. However, the underutilization of scholarly journals ($\text{Mean} = 1.87$) and reference materials like encyclopedias ($\text{Mean} = 1.94$) points to narrow information-seeking behavior. As argued by Yoshida et al. (2021) and Fosu and Darko-Ampem (2021), regular engagement with varied reference collections and current serials is

essential for broadening knowledge and fostering critical thinking. Over-reliance on basic course textbooks limits exposure to comprehensive scholarly discourse.

Purpose of Information Resource Utilization

Table 3 indicates that students utilize resources primarily for exam preparation, completing assignments, and note updates ($\text{Mean} = 3.33$ across all three items). Research activities ($\text{Mean} = 1.80$) and general knowledge seeking ($\text{Mean} = 1.87$) were secondary.

While these findings align with studies by Edwards (2019) and Etsidem et al. (2020)—which showed that students often prioritize immediate curriculum demands—they diverge from broader educational models (Ibegwam & Unadike, 2021; Agboola & Ajuwon, 2022). Academic libraries are designed to nurture scholarly research and personal development (Donaldson & Pope, 2017). The low engagement in research activities observed here directly supports the preliminary problem statement regarding resource underutilization.

Recommendations

Based on the empirical findings, the study recommends the following actions:

1. **Integrating Supplementary Holdings into Curricula:** Institutional faculties and library teams should collaborate to integrate secondary resources (e.g., online journals, encyclopedias, and digital databases) into course assignments and research projects. Subject-specific resource guides should be created to help students discover diverse literature.

2. **Promoting Information Literacy and Research Workshops:** Libraries should organize mandatory information literacy workshops, digital retrieval training sessions, and research seminars. These programs should focus on developing independent search skills and promoting online database usage beyond basic classroom requirements.
3. **Upgrading Infrastructure and Support Services:** Institutional management must invest in robust digital infrastructure, high-speed campus internet access, functional e-library units, and uninterrupted power supply systems. Dedicated library IT support staff should also be deployed to provide technical assistance and maintain digital services.

Conclusion

This study concludes that access to information resources across Colleges of Education in Kano State is poor, particularly regarding online databases and reference materials. Resource utilization is largely confined to prescribed printed textbooks and electronic books used for basic coursework, exam preparation, and assignment completion, with minimal engagement in research. Addressing these structural barriers is essential to improve academic achievement and support effective learning.

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