



Utilization of library resources and internet resilience: Impact of students' examination performance in Bauchi State tertiary education

Abdullahi Abubakar Dewa

Department of Library Science, School Computer and Informatics, Abubakar Tatari Ali Polytechnic, Bauchi, Bauchi State, Nigeria

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Abstract

The role of library resources in supporting academic achievement has remained central to higher education globally. In tertiary institutions, libraries provide access to textbooks, journals, electronic databases, and learning spaces that support teaching, learning, and research. With the increasing integration of digital technologies into education, students now rely heavily on both physical and electronic information resources to prepare for examinations and complete academic tasks. A research was carried out to determine the impact of utilization of library resources and internet resilience on student's performance in Bauchi higher institutions of learning, Bauchi state. The total of fifty (50) structural questionnaires were allocated to various tertiary institutions within the study area, which were distributed at random using random sampling techniques. The targeted respondents were library staff, students and other academic staff in the study area. The data generated from the respondents revealed that 50% of the respondents recommended that utilization of library resources such as textbooks, journals, news papers etc contribute significantly in improving the performance of students particularly during semester examinations. While, 30% of the respondents believed that sufficient and internet resilience contribute immensely in improving student's academic performance particularly during examinations. However, 20% of the respondents recommended that both utilization of library resources and internet resilience plays a vital role by improving student's performance both during exams and beyond. Therefore, library resources utilization and internet resilience play a key role by improving student's performance during examinations and beyond. It can be recommended that management should give more emphasis regarding library resources utilization such as textbooks, journals, news papers etc and quality, sufficient internet resilience in the campus e-libraries.

Keywords: Library resources, internet resilience, utilization

Introduction

Background to the Study

The role of library resources in supporting academic achievement has remained central to higher education globally. In tertiary institutions, libraries provide access to textbooks, journals, electronic databases, and learning spaces that support teaching, learning, and research. With the increasing integration of digital technologies into education, students now rely heavily on both physical and electronic information resources to prepare for examinations and complete academic tasks. Studies have consistently shown that effective utilisation of library resources positively influences students' academic performance and learning outcomes (Ekpang & Idhalama, 2024; Jaja & Udumukwu, 2023) [6, 7].

In recent years, internet-based learning has expanded rapidly, particularly following disruptions caused by remote and blended learning models. While online access has widened information availability, it has also introduced challenges such as unstable connectivity, information overload, and digital fatigue. These challenges require students to develop internet resilience, defined as the ability to adapt, persist, and remain academically engaged despite digital and connectivity-related constraints (Awais *et al.*, 2023) [3].

In Bauchi State tertiary institutions, disparities in library facilities, digital literacy, and internet reliability continue to affect students' learning experiences. Although libraries are transitioning toward hybrid service models, many students still underutilise available resources due to limited

awareness, skills gaps, or technological barriers (Alex-Nmecha & Ejitagha, 2023; Liman, 2025) [2, 10]. At the same time, students' capacity to cope with online academic demands plays a critical role in sustaining effective study behaviours and examination preparedness. Library resource utilisation refers to the extent to which students access and effectively use available physical and electronic library materials to support learning and assessment preparation. In tertiary education, libraries provide essential academic resources that enhance comprehension, independent learning, and critical thinking. Empirical studies consistently show that effective utilisation of library resources has a positive impact on students' examination performance. Ekpang and Idhalama (2024) [6] reported that students who frequently use library resources demonstrate improved academic outcomes compared to those with limited engagement. Similarly, Jaja and Udumukwu (2023) [7] found a strong relationship between library use and academic achievement among students in Abuja tertiary institutions.

Library utilisation is not limited to access alone but includes students' ability to locate, evaluate, and apply information effectively. Josephine and Joseph (2023) [8] emphasised that structured library use instruction enhances students' research competence and examination preparedness. However, underutilisation of library resources remains a persistent issue in Nigerian tertiary institutions due to inadequate awareness, poor orientation, and infrastructural limitations (Solomon, 2025) [14].

Statement of Problem

Despite significant investments in tertiary education, students' examination performance in many Nigerian institutions remains a persistent concern. In Bauchi State, reports of poor academic outcomes have been linked to inadequate utilisation of library resources, limited access to up-to-date information materials, and inconsistent internet connectivity. Although libraries provide essential academic support services, many students do not fully exploit available physical and electronic resources, reducing their potential impact on examination success (Ngozi, 2024; Salah *et al.*, 2024) ^[11, 13].

In addition, the growing dependence on internet-based learning platforms has exposed students to new academic challenges. Unreliable connectivity, high data costs, and limited digital skills often disrupt study routines and reduce academic efficiency. Without adequate internet resilience, students may experience stress, disengagement, and reduced examination preparedness, negatively affecting performance (Akese *et al.*, 2024) ^[1]. While resilience has been studied in relation to well-being and academic adjustment, its interaction with library resource utilisation and examination performance remains underexplored within Bauchi State.

Objectives of the Study

The specific objectives of the study were to:

1. Examine the extent of library resource utilisation among students in Bauchi State tertiary institutions.
2. Assess the level of internet resilience among students in managing online academic challenges.

Literature Review

Library Resource Utilisation and Students' Examination Performance

Library resource utilisation refers to the extent to which students access and effectively use available physical and electronic library materials to support learning and assessment preparation. In tertiary education, libraries provide essential academic resources that enhance comprehension, independent learning, and critical thinking. Empirical studies consistently show that effective utilisation of library resources has a positive impact on students' examination performance. Ekpong and Idhalama (2024) ^[6] reported that students who frequently use library resources demonstrate improved academic outcomes compared to those with limited engagement. Similarly, Jaja and Udumukwu (2023) ^[7] found a strong relationship between library use and academic achievement among students in Abuja tertiary institutions.

Library utilisation is not limited to access alone but includes students' ability to locate, evaluate, and apply information effectively. Josephine and Joseph (2023) ^[8] emphasised that structured library use instruction enhances students' research competence and examination preparedness. However, underutilisation of library resources remains a persistent issue in Nigerian tertiary institutions due to inadequate awareness, poor orientation, and infrastructural limitations (Solomon, 2025) ^[14]. Economic constraints further limit libraries' ability to acquire up-to-date materials, reducing their effectiveness in supporting examination success.

In Bauchi State tertiary institutions, disparities in library facilities and resource accessibility may significantly affect students' learning experiences and academic outcomes.

When students fail to utilise available resources effectively, their examination preparation becomes dependent on limited materials, resulting in poor performance. This highlights the need to examine library resource utilisation as a critical determinant of students' examination performance within the study context.

Electronic Resources, Information Literacy and Academic Achievement

The increasing adoption of electronic resources has transformed information access in tertiary education. Electronic resources such as e-journals, online databases, and digital repositories provide students with timely and diverse academic content. Studies indicate that effective use of electronic resources significantly enhances students' learning outcomes and examination performance (Liman, 2025; Salah *et al.*, 2024) ^[10, 13]. However, access alone does not guarantee academic success; students must possess adequate information literacy skills to benefit from digital resources.

Information literacy enables students to search, evaluate, and ethically use information for academic purposes. Alex-Nmecha and Ejitagha (2023) ^[2] found that many Nigerian undergraduates lack sufficient digital information literacy skills, limiting their ability to utilise electronic resources effectively. Ngozi (2024) ^[11] further established a significant positive relationship between information literacy competence and academic performance, emphasising that students with higher literacy levels perform better in examinations.

The absence of adequate information literacy leads to information overload, poor source evaluation, and ineffective study practices. This challenge is particularly pronounced in developing regions where digital skills training is limited. In Bauchi State, uneven exposure to digital learning tools may exacerbate disparities in academic performance. Therefore, electronic resource utilisation, supported by strong information literacy skills, plays a crucial role in enhancing students' examination outcomes and overall academic success.

Internet Resilience and Students' Academic Performance

Internet resilience refers to students' ability to adapt, persist, and remain academically engaged despite internet-related challenges such as poor connectivity, high data costs, and digital stress. With the rise of online and blended learning, resilience has become essential for sustaining effective study behaviours. Awais *et al.* (2023) ^[3] demonstrated that resilient students are better able to manage academic demands and exhibit positive learning behaviours even during crises.

Psychological factors such as emotional regulation and self-discipline are closely linked to internet resilience. Beaumont *et al.* (2023) ^[4] found that students who effectively regulate emotions show improved academic well-being and performance. Conversely, Akese *et al.* (2024) ^[1] reported that prolonged exposure to unstable online learning environments contributes to anxiety, social isolation, and reduced academic focus, negatively affecting examination performance.

From an ecological perspective, resilience is shaped by individual, institutional, and technological factors (Duan *et al.*, 2023) ^[5]. In contexts where internet infrastructure is

weak, students' resilience determines their ability to cope with disruptions and maintain consistent study routines. In Bauchi State tertiary institutions, where internet challenges are prevalent, internet resilience may significantly.

Research Methodology

The study was conducted in selected tertiary institutions within Bauchi State, Nigeria. The target population comprises undergraduate students across faculties. A mixed-methods research design will be adopted. Data will be collected using structured questionnaires measuring library utilisation, internet resilience, and academic experiences, alongside examination records. Quantitative data will be analysed using descriptive statistics and regression analysis, while qualitative responses will be analysed thematically.

Study Area

The study will be conducted in Bauchi State, located in the North-East geopolitical zone of Nigeria. Bauchi State hosts several tertiary institutions, including universities, polytechnics, and colleges of education, which cater to a diverse student population. These institutions operate within varying levels of library development and internet infrastructure, making the state a suitable setting for examining the utilization of library resources and internet resilience in relation to students' examination performance. The socio-economic and technological characteristics of the state also present unique challenges related to access to information resources and digital learning environments, which are central to the focus of this study.

Study Population and Subjects

The target population for this study comprises undergraduate students enrolled in selected tertiary institutions in Bauchi State. These students are considered appropriate subjects because they regularly engage with library resources and internet-based academic platforms for learning and examination preparation. A representative sample of students will be drawn from different faculties and levels of study to ensure diversity in academic experience. The sampling technique will involve a combination of stratified and simple random sampling to ensure proportional representation across institutions and academic disciplines.

Research Design

The study will adopt a descriptive survey research design. This design is suitable for collecting data on students' patterns of library resource utilization, levels of internet resilience, and examination performance. The design allows for the examination of relationships among variables without manipulating the study environment.

Data Collection

Primary data were collected using a structured questionnaire designed to measure library resource utilization, internet resilience, and students' academic experiences. The structural questionnaires consist of closed-ended items rated on a Likert scale. Secondary data on students' examination performance were obtained from departmental records, subject to institutional approval.

Results

The results obtained can be presented as follows:

Table 1: shows distribution of respondents based on sex

S/N	Sex	Respondents	Percentage
1	Male	29	58
2	Female	21	42
Total		50	100

The Table 1 above shows that majority of the respondents were male with 58%, followed by female respondents with 42% respectively.

Table 2: shows utilization of library resources among students in tertiary institutions

S/n	Library resources	Respondents	Percentage
1	Textbooks	Fully utilized 30	60
2	Journals	Partially utilized 10	20
3	News Papers	Partially utilized 10	20
Total		50	100

The Table above indicated that majority of the respondents 60% recommended that library textbooks were fully utilized by the institution so as to serve for academic purpose, while 20% of the respondents believed that journals were partially utilized due to the duration issues and lastly 20% also recommended that newspapers were partially utilized because most students doesn't read news papers due to android/smart phone invasion.

Table 3: shows the availability of internet facilities in the study areas

S/n	Internet Facilities	Respondents	Percentage
1	Router for network	22	44
2	Constant subscription	15	30
3	Hardware components	13	26
Total		50	100

TheTable above shows that 44% of the respondents recommended that router networks were made available in most tertiary institutions within the study areas, while 30% of the respondents believed that subscription were partially made by some management of the institutions, and 26% of the respondents recommended that hardware components were partially active and available for used.

Conclusion

It can be concluded that proper utilization and availability of library resources and internet access will assist in promoting student's performance during examinations and beyond.

Recommendations

1. Government should provide more structures in the tertiary institutions, particularly library that will contained all library resources.
2. Library facilities should be adequately supplied such as textbooks, journals, reading chairs and tables etc
3. Internet facilities should be adequately provided eg routers, hardware components, and subscriptions.

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