

PERCEIVED EFFECT OF E-LIBRARY RESOURCES ON ACADEMIC PERFORMANCE OF STUDENTS IN TERTIARY INSTITUTIONS

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Abstract:

The integration of electronic libraries into academic institutions has really changed the game when it comes students accessing electronic information resources. Students have an impressive range of digital resources at their fingertips to support their academic activities. This study examines perceived effect of e-library on academic performance of students in tertiary institutions using Federal College of Education Abeokuta as a case study. Data was gathered using well-structured questionnaire which were distributed by the researcher and retrieved through the same process and analyzed using descriptive statistics, focusing on frequency distributions and percentage. The findings of this study revealed that reveals that e-library resources has positive perceived influenced on students' academic performance as majority of the respondents agreed that there is perceived influence on academic performance, majority of the students agreed that e-library resources offer a wide range of materials that cater for their academic need and also affirms that majority of Students who predominantly utilize e-library resources achieve higher academic success and also go a long way improving students' academic performance. The study concluded that the use of e-library obviously improves students' evaluations which shows significant utilization of electronic resources for academic success and also emphasizes the potential of e-library resources has in fostering a more effective and efficient learning environment for students and faculties and recommended that there is a need to continuously invest in e-library facilities and resources to maintain up-to-date software in providing adequate e-resources towards students' academic achievement.

Keywords: E-library, E-library resources, Academic performance

Introduction:

Libraries play a pivotal role in the academic environment by providing physical space, equipment, and storage media; they possess a well-organized intellectual collection of policies that govern resource access; and they are staffed by proficient information professionals who manage both physical and intellectual components while assisting users in resolving information-related issues (Ida, 2016). Nonetheless, the conventional library environment presents certain drawbacks, including the constraints on users' access to available information resources and the limitation imposed by the duration users can engage with a resource, as each must be returned to the library within a specified timeframe. The idea of a virtual library has arisen as a result of technological advancements, offering numerous benefits over a typical library setting. A virtual library is, by definition, a digital location that stores and arranges virtual books and the documentation that go with them. The use of information technology (IT) in library services is known as virtual libraries. Since most undergraduate students today are computer literate, the integration of information and communication technology (ICT) into library services has significantly improved undergraduate students' academic performance (Baro, Onyenania, and Oni, 2010; Ogunsola, 2011). It has been shown that a large number of students use virtual libraries to attend to their academic workload, which

includes research, tests, and assignments (Ossai, 2011). The importance of an electronic library is multifaceted; it makes a vast range of content available, offers the most recent and updated materials, enables readers to access materials whenever they want, helps readers locate resources quickly, has no set opening or closing hours, etc. Despite the importance of electronic libraries, there are a number of issues that could limit their services. These include inadequate government funding, inadequate ICT infrastructural development, a lack of policies guiding the selection of electronic resources, a lack of ICT skills among librarians, intermittent power supplies, limited access to internet services, inadequate bandwidth, copyright laws, and difficulties selecting resources due to the increased number of resources (Grantham, 2017).

The intensive use of electronic library in higher institutions has come to stay since the era of the new normal. E-library provides different resources in meeting the different learning needs of students as e-library provides students with the convenience of learning at their own comfort via Electronic devices to boost their academic activities (Di-Carlo, 2015). Libraries acquires electronic resources to augment physical resources for fast and effective services. Librarians sees the need to support student academic actives by ensuring that information needs of students are met. Student achievement in a variety of academic topics is measured by academic performance. It gauges the degree to which learning has led to achievement in undergraduate students' educational outcomes. It gauges how well students use learning resources to meet their academic objectives. It is typically assessed through exams or tests, and it can be found by comparing a student's performance in a standardized or school test to the average performance of other students at the same level (Denen, Uganneya, and Akor, 2020). Organized collections of digital information are called electronic libraries. They are created collections that are arranged for a certain user community and are intended to meet that community's information demands (Saracevic, 2014).

Electronic libraries resources are available in different formats which include CD, audio, video etc.

To let the user access the collection, the objects in these virtual collections share a common interface rather than having to live on the same server. According to Promise and Goodluck (2015), the services provided by academic libraries are essential and crucial to the parent institution's successful learning process. Their electronic resources facilitate the delivery of information services quickly and efficiently through the use of the Online Public Access Catalogue (OPAC), which also helps students find any information they require through interlibrary sharing or collaboration with the electronic library.

The integration of electronic libraries into academic institutions has really changed the game when it comes students accessing information. Students have an impressive range of digital resources at their fingertips to support their studies. However, there seems to be a gap in understanding how students in tertiary institutions actually perceive the impact of these e-library resources and services on their academic performance. Therefore, this study sets out to explore students' views on how the e-library resources influences their academic success using Federal College of Education Abeokuta as a case study.

Objectives of the Study

The study sought to:

- i. examine the perceived effects of e-library resources influencing students' academic performance
- ii. examine the wide range of e- resource materials offer by E-library to cater for the academic needs of students
- iii. Examine student's perception on the usability, accessibility, and effectiveness of e-library resources?

1.4 Research Questions

- i. How does e-library resources perception influence students' academic performance?
- ii. To what extent is the wide range of electronic resource materials in e-library cater for academic needs of students?
- iii. How do students perceive the usability, accessibility, and effectiveness of e-library resources?

Literature Review

Concept of E-library and its resources

The library has long recognized the value of making material available in electronic format in addition to print sources. Since then, the library has been compelled to combine resources, facilities, technology, and tools in order to fulfill that goal. Users' ability to easily obtain information regardless of their location is improving dramatically as a result of just one effort. Libraries have been developing and implementing various technologies since the 1990s in an effort to provide electronic access to information (Arms, 2012). Electronic libraries, or e-libraries, have grown more active and now give people access to information regardless of where they live.

According to LISBDNET (2016), an e-library is a physical location or website that offers users, both inside and outside the e-library building, 24-hour online access to digitized audio, video, and written content, including free copies of books, journals, and periodicals. According to IGI Global (2022), a contemporary e-library is a collection of materials made accessible electronically through the use of digital technologies that enable document retrieval, archiving, preservation, and distribution. Likewise, an electronic library need to be flexible and adaptable, facilitating communication across disparate, dispersed systems.

The E-library breaks the barrier of a single user 'access to information in the library as it allows multiple access to information simultaneously to diverse library clientele or users. E-library consists of advanced technologies assisting users to access electronic resources for teaching, learning and resources purposes. (Nahak & Patra, 2014)

To Trivedi and Kembhavi (2013), e-library is seen as a library in which collections are stored in digital formats (as opposed to print, microform, or other media) and accessible by computers. The e-library provides opportunity for all types of learners, teachers and researchers irrespective of social status, economic, academic level and position, to interact with research works from any part of the world through the Internet. E-library enhances communication and collaboration among people including students, staff and researchers by providing a platform for teaching, learning and research activities in any tertiary institution of learning. In Nigeria, e-library is a core division of tertiary education library that collects different electronic information resources such as: e-book, e- journal, e-database, e-newspaper, CD-ROM, thesis/dissertation and digitized materials among

others. The e-library also creates access point to digital collections of a tertiary institution of learning through institutional repository (IR) via local area network (LAN) connecting to offices, laboratories, workshops and classroom for the purpose of making research accessible to students, staff and researchers. It is evident in some studies that an e-library in a tertiary institution of learning is very important and its development is sometimes surrounded with several challenges (Omeluzor & Oyovwe-Tinuoye, 2017 and Fowowe, 2017).

Academic Performance

Academic performance basically connotes a student's attainment in a learning situation. Every student desire to excel in one way or the other and this could be directed towards academic, occupation and social achievement. The academic performance of a student may be high, average, good, poor or low. According to Akpojivi (2008), academic performance means the

level of degree of statement; a student may perform poorly or excellently according to his ability, potential and interest. Academic performance is the outcome of education, the extent to which a student, teacher, or institution has achieved their educational goals. Castellanos (2000) considered academic performance as the situation in which the subject/student does or does not attain the expected achievement according to his or her ability resulting in an altered personality which affect all other aspect of life. In view of Santrock (2006), academic achievement refers to what the student have learned or what skills the student has learned and is usually measured through assessments like standardized tests, performance assessments and portfolio assessments. The term academic performance has been described as the scholastic standing of a student at a given moment. It refers to how a student is able to demonstrate his/her intellectual abilities (Daniels and Schouten, 2001, Owoyemi, 2004). Simkins (2003) commented on the academic standing of students and argued that performance is a measure of output and that the main outputs in education are expressed in terms of learning, that is, changes in knowledge, skills and attitudes of individuals as a result of their experiences within the school system. Thus, in determining academic performance, Daniels and Schouten, (2001) emphasized the use of grades in examinations and reported that grades could serve as prediction measures and as criterion measures. Academic performance therefore is largely identified by a range of statistical indictors. Stan (2004), supported this argument and reported that performance is the level of attainment of a person in an examination, that is, how an individual is able to demonstrate his/her intellects in navigating resources and abilities in an examination. Performance has been regarded as a measure of educational output.

Effects of Electronic Library on academic performance of Students

E-library has positive effects on students' academic performance as most studies dwelled on the positive effects of E-library. Ivwighrehweta and Igere, (2014) work on the effects of internet on the academic performance of students in some selected tertiary institutions in Nigeria, and found out that majority of the students used the internet in order to retrieve relevant academic materials. It was also asserted that the use of internet enhanced the academic performance of the students. The study of Ivwighrehweta and Igere, (2014) and the present study focused on the effects of e-libraries on the academic performance of students, however, the present study places more emphasize on electronic library and its perceived effects on the academic performance of students.

A study conducted by Denen, Uganneya and Akor (2020) on an assessment of library internet services on students' academic performance in universities in Benue State, Nigeria, revealed that effective use of library internet services helps the students to successfully carry out their academic exercises with ease, and it enhances good academic grades. Alabdulwahhab, Kazmi, Sami, Almujeel, Alanazi, Alanazi, et al. (2021) noted that students who use electronic library stand the chance to attain very good GPA scores, and are sure to graduate in record time. Sadaf, Siddique and Shahzad (2022) noted that students highly depend on electronic library for their assignments and preparation for medical examinations because it provides latest and up-to-date information resources suitable for the dynamic nature of the medical profession so also other professions. However, Electronic library can negatively affects the students' performance if they are not subjected to monitoring while using or access the resources they might come across online adverts and video poop ups which if not curtailed could lead to addiction to online movies a potential leading cause of distractions, culminating into negative consequence effects on their academic performance.

Advantages of Accessing E-library Resources

According to Desmond (2015) electronic libraries, also known as digital libraries or online libraries, offer several advantages compared to traditional brick-and-mortar libraries which involve the following:

1. **Access to a wide range of resources:** Electronic libraries provide access to an

- extensive collection of digital resources, including e-books, academic papers, articles, multimedia content, and more. Users can access materials from various disciplines and sources, often without physical constraints.
2. **24/7 Accessibility:** Electronic libraries are accessible anytime and anywhere as long as users have an internet connection. This convenience is particularly valuable for students, researchers, and enthusiasts who may need to access resources outside of regular library hours.
 3. **Global Reach:** Users can access electronic libraries from around the world, breaking down geographical barriers. This global reach allows researchers and students to tap into resources that might not be available in their local physical libraries.
 4. **Search Efficiency:** Electronic libraries usually offer powerful search functionalities that allow users to quickly and effectively find relevant resources. Advanced search filters, keywords, and metadata tags help users locate specific information more easily.
 5. **Reduced Physical Space Requirements:** Traditional libraries require physical space to house books and materials. Electronic libraries eliminate the need for large physical storage spaces, which can lead to cost savings and efficient use of resources.
 6. **Environmental Impact:** By reducing the need for printing and storing physical materials, electronic libraries can contribute to a reduction in paper consumption and environmental impact.
 7. **Instant Access and Download:** Users can instantly access and download resources, making the research and learning process more efficient. This is especially useful when time is of the essence.
 8. **Multimedia Content:** Electronic libraries can host a wide range of multimedia content, such as videos, audio recordings, and interactive simulations, enhancing the learning experience and accommodating different learning styles.
 9. **Annotations and Collaboration:** Many electronic library platforms allow users to highlight, annotate, and share notes directly within digital resources. This facilitates collaboration and discussion among users, even if they are geographically distant.
 10. **Cost Savings:** In some cases, electronic resources might be more cost-effective for institutions than acquiring and maintaining physical copies of books and journals. This can potentially lead to reduced costs for students and researchers.
 11. **Accessibility Features:** Electronic libraries can be designed to accommodate individuals with disabilities by offering features like text-to-speech, enlarged font options, and other accessibility tools.
 12. **Preservation and Conservation:** Digital copies of resources can help preserve and conserve rare or fragile materials that might be prone to deterioration in a physical library environment.
 13. **Regular Updates:** Electronic libraries can be updated more quickly than physical libraries, ensuring that users have access to the latest information and research.

Challenges Associated with the Use of Electronic Library Resources by Students

According to a number of studies conducted thus far, electronic libraries are incredibly useful and have a big impact on students' academic achievement. But there are several obstacles which prevent some students from making the most of the resources offered by electronic libraries, but the most significant obstacles documented in literature include ignorance, inadequate knowledge and digital literacy, students' unfavorable attitudes toward using the library, inadequate internet connectivity, inadequate ICT infrastructures, information overload, internet license restrictions, and the high cost of starting an electronic library.

Most academic libraries find it almost difficult to make payment for monthly subscriptions for internet. And the available of internet electronic library resources cannot be accessible by students. Operation of electronic library requires a lot of skills and training before one can access them. Therefore, if undergraduates students don't have the require skills they cannot access nor

use these electronic libraries and their resources. Also, most students find it difficult to use electronic library due to non-availability of ICT facilities and internet networks (Ivwithreghweta and Igere, 2014).

In addition to this, E-library does not guarantee the preservation of published works, such as online journals, articles, books, and resource materials, since it has no control over intellectual property infringement or the replication of another person's study (Ayele, 2022). This is due to the ease of access to electronic libraries and the ability to print or scan their contents from a computer. Without a steady supply of electricity, electronic libraries cannot function efficiently. Because of these issues, students of postsecondary institutions are unable to fully utilize the resources and services offered by electronic libraries. To allow students to use electronic libraries materials for their academic work, the above obstacles had to be overcome.

Methodology

This study adopted the descriptive survey research design. The simple random sample technique was adopted to select 50 students across 100 level, 200 level and 300 level in Federal College of Education, Abeokuta to allow each of the population have an equal and independent chance of being represented. The total sample used for this study consisted 150 of students. The research instrument used for this study is a self-designed questionnaire which diligently seeks the responses of the respondents. The questionnaire was divided into two sections namely A and B. Section A contains personal information of student such as group type, Gender, Religion, and Age, while section B contained the items measured in the study all patterned alongside the 4-point Likert scale model response (Strongly Agree, Agree, Disagree, Strongly Disagree) to obtain data on the subject matter. The questionnaire was personally distributed by the researcher and retrieved through the same process and frequency counts and simple percentage were used to analyze the data collected

ANALYSIS OF RESULTS AND DISCUSSION OF FINDINGS

Table 1

S/N	ITEMS								
RQ 1	How do you perceive the influence of e-library resources on students' academic performance	SA	%	A	%	D	%	SD	%
1.	E-library resources have positively influence on students' academic Performance	120	80%	20	13.33%	7	4.67%	3	2.00%
2.	E-library resources offer a wide range of materials that cater to my academic needs	100	66.7%	25	16.7%	15	10.0%	10	6.6%
4.	E-library resources improve my information - seeking behaviour towards my academic	90	60%	30	20%	17	11.33	13	8.67
5	E-library resources have enhanced my learning strategies.	80	53.33%	48	32%	10	6.67%	12	8.00%

RQ 2	The wide range of e resource materials offer by E-library cater for the academic needs of Students	SA		A		D		SD	
6	The available materials by e-library align with students' coursework and research requirements.	100	66.66 %	40	26.67 %	10	6.67 %	0	0
8.	Are the e-library's electronic resources up-to-date and reflective of current academic content	85	56.67 %	35	23.33 %	17	11.33 %	13	8.67 %
9.	E-library's platform user - friendly in terms of searching and accessing electronic resources	62	41.33 %	48	32.00 %	33	22.00 %	7	4.60 %
	E-library's effectiveness support students' academic endeavors.								
RQ 3	To what extent do usability, accessibility, and effectiveness of e-library resources affect overall academic success of students	SA		A		D		SD	
13.	E-library platforms provide easy access to a wide range of academic resources	100	66.7 %	25	16.7 %	10	6.60 %	15	10.00
14	E-library resources are easy to navigate.	80	53.33 %	40	26.67 %	16	10.67 %	14	9.33 %
15	E-library platforms are effective tools for finding and utilizing academic resources.	130	86.7 %	15	10.00 %	5	3.300 %	0	0
16	Frequency and duration of e-library usage can led to increase in students' grade	110	73.33 %	30	20.0 %	10	6.67 %	0	0

Table 1 above data presented in the table reveals that significant majority (80%) of respondents affirm that e-library resources have positively influenced their academic performance which affirms the critical role digital platforms play in modern education. The table also reveals the relevance of e-library materials as 66.67% of the respondents agree that e-library resources effectively cater to their academic needs. Similarly, 66.67% of the respondents believe that the available materials align with their coursework and research requirements. This further supports the already held notions, indicating that increased usage of digital resources correlates with improved academic outcomes. Furthermore, 86.67% of the respondents consider e-library platforms effective tools for finding and utilizing academic resources and 73.33% of the respondents believe that frequent and prolonged use of these platforms can lead to improved

grades. These perceptions underscore the integral role of e-libraries in academic success.

Discussion of findings

The findings reveals that e-library resources has positive perceived influenced on students' academic performance as majority of the respondents agreed that there is perceived influence on academic performance, majority of the respondents agreed that e-library resources offer a wide range of materials that cater for their academic needs and e-library resources improves the information- seeking behaviour towards the academic activities of the students. This finding aligns with the study by Ogunwede, Zakari, and Afolayan (2024), which emphasizes the importance of e- libraries in supporting research, learning, and teaching in tertiary institutions. With this, it is obvious that resources in e-libraries positively meet the various information needs of the students as they obtain a number of benefits from electronic resources as to having acces to a larger range of information electronically for educational support and self-reliance, (Razaq and Amidu, 2018)

The table also affirms that majority of the students who predominantly utilize e-library resources achieve higher academic success and it also go a long way in improving students' academic performance as the accessibility and effective use of e-library resources increase academic performance of students as a result of access to high-quality information. These perceptions are consistent with findings from Ogunbodede and Oribhabor (2022), who reported that students utilize various digital resources, including e-books and online databases, to enhance their academic performance. User-friendliness of e-library resources is also a notable factor because students find it easy to navigate and this aspect is vital, as ease of access and navigation can significantly influence the frequency and effectiveness of resource utilization. The study by Ogunbodede and Oribhabor (2022) further supports this, indicating that increased usage of digital resources correlates with improved academic outcomes

These results suggest a high level of acceptance and appreciation for the role of e-library resources in enhancing various aspects of students' academic engagement, it also indicates a significant proportion of students attributing higher academic success to easy access, and effective use of e-library resources. The overall findings indicate a positive perception of students as regards impact of the e-library resources towards their academic activities. While there is a consensus on the positive influence of e-library resources on students learning, and academic achievement, it is essential to note the differing opinions and doubt expressed by a few notable percentage of respondents. Further exploration and targeted interventions may be necessary to bridge the gaps in understanding and harness the full potential of e-library resources in supporting students' academic endeavors.

Conclusions

This study strongly supports the notion that the integration of e-library resources has a substantial and positive effect on the academic performance of students. The use of e-library obviously improves students' evaluations which shows significant utilization of electronic resources for academic success and also emphasizes the potential e-library resources has in fostering a more effective and efficient learning environment for students and tertiary educational institutions. However, there is emphases in the literature for the need for more interventions, educational campaigns, and improvements in e-library infrastructure and resources to address existing challenges. As technology continues to evolve, and educational institutions strive to incorporate digital resources seamlessly into the learning process, ongoing research and responsive strategies will be crucial to optimizing the benefits of e-libraries and ensuring their positive impact on students' academic achievements.

Recommendations

- I. There is need to continuously invest in e-library facilities and resources to maintain up-to-date software in providing adequate e-resources towards students' academic achievement

- ii. There is need for conducting regular training sessions and orientations for students on how to effectively use e-library resources towards their academic achievement because some students may not be fully aware of the diverse range of materials available or may lack the necessary digital literacy skills to navigate these resources optimally. Training programs can empower students to harness the full potential of e-library resources, improving their study habits and research skills.
- iii. There is need to foster collaboration between the library and academic departments to tailor e-library resources to specific courses and disciplines. This targeted approach can align digital materials with the curriculum, ensuring that students have access to relevant and up-to-date resources that directly support their academic programme. Regular feedback mechanisms can be established to assess the efficacy of these collaborations.
- iv. It is of importance to recognize the prevalence of mobile devices necessary to ensure that e-library resources are optimized for mobile access or a responsive website which can facilitate on-the-go access to academic materials, accommodating the diverse learning preferences and lifestyles of students.

References

- Akpojivi, N. D. (2008). A study of academic performance in relation to intelligence, vocational interests, achievement, sex, and socio-economic status (Ph.D. thesis, University of Delhi).
- Alabdulwahhab, K. M., Kazmi, S. Y., Sami, W., Almujeel, K. N., Alanazi, M. H., Alanazi, K. F., Moyana, A. M., Ahmad, M. S., Alasbali, T. A., & Alwadani, F. A. (2021). Use of online resources by undergraduate medical students at College of Medicine, Majmaah University, Kingdom of Saudi Arabia. *PLoS ONE*, 16(8), e0255635.
- Arms, W. Y. (2012). The 1990s: The formative years of digital libraries. *Library Hi Tech*, 30(4), 1–15.
- Ayele, D. S. (2022). Implementation of virtual library in Nigeria: Issues and way forward. *Library Philosophy and Practice* (e-journal), Article 7200. <https://digitalcommons.unl.edu/libphilprac/7200>
- Baro, E. E., Onyenania, G. O., & Oni, O. (2010). Information seeking behaviour of undergraduate students in the humanities in three universities in Nigeria. *South African Journal of Libraries and Information Science*, 76(2), 109–117.
- Castellanos, Y. O. (2015). A survey of research in education. Baroda: Society for Educational Research and Development.
- Denen, I., Uganneya, S. A., & Akor, P. U. (2020). Assessment of library internet services and students' academic performance in universities in Benue, Nigeria. *Education Review Letters*, 5(5), 1–11.
- Desmond, A. O. (2015). Library usage and students' academic performance in Nigeria tertiary institution: A case study of University of Maiduguri. *Academic Research*, 2(3), 1–10.
- Di-Carlo. (2015). In research, what does a "significant effect" mean? <https://www.shankerinstitute.org/blog/research-what-does-significant-effect-mean>
- Fowowe, S. O. (2017). Funding academic libraries in Nigeria: A survey of some Nigerian university libraries. <https://www.researchgate.net/publication/237775531>
- Grantham, C. (2017). Virtual library: Essential. *ACCESS*, 21(3).
- Ida, L. (2016). Influence of library services on students' academic performance in an ordinary certificate of secondary education examination in Mtwara Mikindani Municipality, Tanzania (Master's dissertation, Open University of Tanzania).
- IGI Global. (2022). What is electronic library. <https://www.igiglobal.com/dictionary/electronic-library/9444>
- Ivewighrehweta, O., & Igere, M. A. (2014). Impact of the internet on academic performance of students in tertiary institutions in Nigeria. *Journal of Information and Knowledge Management*, 5(2), 47–56.

- LISBDNET. (2016). Brief information about e-library. <https://www.lisedunetwork.com/brief-information-e-library/>
- Nahak, B., & Patra, P. S. (2014). Planning, designing and developing of digital libraries and digital preservation. In 9th Convention PLANNER-2014, Dibrugarh University, Assam. <https://ir.inflibnet.ac.in/bitstream/1944/1791/1/41.pdf>
- Nwosu, J. C., & Obiano, D. C. (2021). Challenges of virtual library services in academic libraries of federal universities in South-Eastern Nigeria. *Research Journal of Library and Information Science*, 5(1), 13–21.
- Obi, R. C., & Zakari, M. (2005). Employee training and development: The tool for self-reliance and sustainable development. *International Journal of Social and Policy*, 3, 203–211.
- Ogunbodede, K. F., & Oribhabor, C. B. (2022). Digital resources usage and academic performance of undergraduate students in Nigeria: A case study. *European Journal of Interactive Multimedia and Education*, 3(2), e02213. <https://doi.org/10.30935/ejimed/12491>
- Ogunsola, L. A. (2011). The next step in librarianship: Is the traditional library dead? *Library Philosophy and Practice* (e-journal).
- Ogunwede, O. A., Zakari, Y. H., & Afolayan, S. O. (2024). Impact of e-library on academic performance of students across disciplines in selected tertiary institutions in Kaduna State, Nigeria. *International Journal of Intellectual Discourse*, 7(2), 152–164. <https://ijidjournal.org/index.php/ijid/article/view/556>
- Omeluzor, S. U., Oyovwe-Tinuoye, G. O., & Emeka-Ukwu, U. (2017). An assessment of rural libraries and information services for rural development: A study of Delta State, Nigeria. *The Electronic Library*, 35(3), 445–471. <https://doi.org/10.1108/EL-08-2015-0145>
- Ossai, N. B. (2011). How law students utilize information resources: A case study of the University of Benin City. *International Journal of Library and Information Science*, 3(1).
- Panezi, A. (2014). Legal challenges for online digital libraries. <https://www.raco.cat/index.php/IDP/article/download/n19-panezi/395439/>
- Promise, O., & Goodluck, P. (2015). Impact of the internet on final year students: A case study of Covenant University, Ota, Nigeria. *Library Philosophy and Practice* (e-journal), Article 403.
- Sadaf, S., Siddique, R., & Shahzad, K. (2022). Use of digital resources by medical students. *Library Philosophy and Practice* (e-journal), Article 6861. <https://digitalcommons.unl.edu/libphilprac/6861>
- Santrock, B. T. (2016). The concept of academic performance of students in Tarka Local Government Area of Benue State (Unpublished PGDE project). Benue State University, Makurdi.
- Saracevic, T. (2014). Digital library evaluation: Toward an evolution of concepts. *Library Trends*, 49, 350–370.
- Simkins, D. F. (2013). Students achievement success. <http://www.ascd.org/publications/books/1999cambell/intro.html>
- Trivedi, O., & Kembhavi, E. (2013). Use of internet-based e-resources at Manipur University. *Annals of Library and Information Studies*, 15(56), 52–57.

