COLLABORATION AMONG FINAL YEAR LIBRARY AND INFORMATION SCIENCE STUDENTS FOR ENHANCING AWARENESS AND UTILIZATION OF OPEN EDUCATION RESOURCES IN AWKA STUDY CENTRE, NATIONAL OPEN UNIVERSITY OF NIGERIA

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Abstract

Collaboration is a vital element of knowledge acquisition and academic success, particularly in the digital age where Open Educational Resources (OER) play an increasingly central role in learning and research. This study investigated the extent to which final-year Library and Information Science (LIS) students at the Awka Study Centre of the National Open University of Nigeria collaborate to enhance their awareness and utilization of OER. It assessed students' awareness of OER, collaborative practices in accessing and applying OER, challenges encountered, and the impact of collaboration on academic performance and research capabilities. A mixed-methods approach was adopted, using both quantitative and qualitative techniques. The study employed a descriptive survey design with a population of 348 final-year LIS students. Data were collected through structured questionnaires, focus group discussions, and interviews, and analysed using descriptive statistics (frequency counts and percentages), correlation, and thematic analysis. Findings revealed that students possessed a high level of awareness of OER and made significant use of various resources through collaborative practices. Collaboration was found to positively influence their academic engagement, research productivity, and overall performance. However, several barriers impeded effective use of OER, including inadequate information literacy skills, poor internet access, unreliable electricity, limited institutional support, preference for individual study, and lack of encouragement from lecturers. The study concludes that peer collaboration enhances awareness and utilization of OER, but systemic barriers limit its full potential. It recommends strengthening institutional support, improving ICT infrastructure, and promoting a collaborative learning culture to maximize OER adoption in LIS education.

Keywords: Collaboration, Open Educational Resources (OER), Library and Infor mation Science, Academic Libraries, Awareness, Utilization, National Open University of Nigeria

Introduction

In the digital era, the integration of Open Educational Resources (OER) into academic libraries has significantly transformed knowledge dissemination and access to scholarly materials. OER refers to freely accessible, openly licensed educational materials that can be used for teaching, learning, and research without financial or technical restrictions (UNESCO, 2019). These resources include textbooks, lecture notes, videos, and other instructional materials that enhance educational opportunities.

The primary purpose of the university library is to support the objectives of the university, which revolve around promoting teaching, learning, and research. According to Okonkwo (2022), the strength of a university library lies in its resources and services, which are central to the education process. Yusuf and Iwu (2010) similarly observed that the academic library is the hub around which scholarship revolves. Library professionals select, organize, and disseminate resource both print and electronic to support the university community. In recent years, academic libraries have expanded this role by promoting OER awareness and utilization.

Awareness of OER means being informed about the existence, purpose, and value of these resources, whether accessed through the library or the internet, for the improvement of teaching, learning, and research. However, in many Nigerian universities, the level of OER awareness and utilization remains relatively low (Tuomi, 2013; Bliss & Smith, 2017). Students, including those in Library and Information Science (LIS) programs, often lack sufficient knowledge of OER platforms, as well as the skills needed to evaluate and apply open resources effectively. Limited institutional support, misconceptions about the credibility of open-access content, and inadequate technical training further contribute to underutilization. This situation highlights a pertinent issue: the gap between the potential of OER and its actual adoption among students.

Library and information science students (LIS), as future information professionals, are expected to possess strong competencies in locating, evaluating, and applying OER in both academic and professional contexts. Academic libraries therefore play a central role in organizing awareness campaigns, providing training sessions, and offering digital infrastructure that supports open access learning (Atenas & Havemann, 2014). Librarians further facilitate workshops, create subject-specific repositories, and collaborate with faculty to integrate OER into the curriculum.

Collaboration is the act of working together with others to achieve shared goals through the exchange of ideas, skills, and resources. In the context of Library and Information Science (LIS), collaboration is a key driver in fostering awareness and utilization of Open Educational Resources (OER). According to D'Antoni (2009), collaboration among students, faculty, and librarians enhances the dissemination and adoption of OER within academic institutions. By working collectively, final-year LIS students can develop strategies that improve information literacy, encourage peer engagement, and create an enabling environment for knowledge sharing.

Such collaboration may take the form of peer mentoring, study groups, joint research projects, or digital initiatives that promote wider access to OER. Collaboration also strengthens academic libraries by increasing the quality of teaching, learning, and research, while providing cost advantages through the sharing of resources (Aytac, 2010). It has further been identified as a strategic tool for addressing challenges such as resource scarcity, standardization of practices, and the training of 21st-century librarians. For LIS students, collaboration bridges gaps in OER awareness and utilization by enabling knowledge exchange and skill

development. Peer-led initiatives, such as group discussions, webinars, and digital literacy programs, provide practical means of enhancing students' capacity to use OER effectively. Ultimately, collaboration serves as both a strategy for personal and professional growth and a pathway for championing OER within academic and professional communities (Olaniyi & Olaojo, 2017; UNESCO, 2023).

Utilization of OER is dependent on students' ability to locate, evaluate, and apply open resources in their academic work. Studies indicate that many students underutilize OER due to inadequate technical skills, inadequate institutional support, and misconceptions about the credibility of open-access materials (Bliss & Smith, 2017). Collaboration among LIS students can bridge this gap by encouraging knowledge sharing, skill development, and collective engagement with OER platforms. For instance, group discussions, webinars, and digital literacy programs can enhance students' competency in utilizing OER effectively.

The fact that students step out to take action on collaboration shows the willingness and readiness to mingle, mix-up and bond with others in other fields of research. In the words of Kranich, Lotts Nielsen and Ward (2020) stated, "Our profession is moving from collecting to connectivity". How apt to describe the onus in collaborative activities in the library field. This is because the more services a library offers, the better will and innovations will set in. Change is inevitable which comes when it comes. It is the constant value in life and in all management platforms. Hence, if one does not go with the change, the wind of change will blow him away. This is the reason collaboration is adopted and adapted in all libraries and library organizations for global partnership on join activities.

In conclusion, Academic libraries must continue to provide the necessary support through training, infrastructure, and policy development to maximize the benefits of OER. Further research should explore best practices for enhancing student collaboration in OER initiatives to improve accessibility and utilization rates in higher education institutions.

Statement of the Problem

Open Educational Resources (OER) are intended to provide accessible, flexible, and cost-effective learning opportunities, yet their awareness and utilization among final-year Library and Information Science (LIS) students at the National Open University of Nigeria (NOUN), Awka Study Centre, remain a concern. The challenge is compounded by how collaboration, awareness, and utilization interact within this learning context. The level of awareness of OER among final-year LIS students appears limited.

Many students are either unaware of the existence of OER or lack sufficient knowledge of how to access and integrate them into their academic work. This gap in awareness reduces the likelihood of students engaging with OER effectively and restricts their exposure to innovative learning resources. More so, that the patterns of collaboration among LIS students in relation to OER are weak and largely unstructured. While collaboration has been shown to promote knowledge sharing, digital literacy, and peer mentoring, many students rely on individual study approaches, with minimal emphasis on group discussions, peer-led initiatives, or joint projects centered on OER.

This lack of collaboration undermines the potential benefits of collective learning and resource utilization. This means that the impact of collaborative learning on OER utilization is not well understood in this context. Although studies suggest that peer-to-peer interaction enhances OER engagement, there is little empirical evidence on how collaboration influences the actual use of OER among final-year LIS students in NOUN's Awka Study Centre. This creates a research gap in understanding the role of collaboration in promoting effective

adoption and usage of OER. Finally, several factors hinder collaboration among LIS students in utilizing OER.

These include infrastructural limitations, inadequate digital skills, limited institutional support, and curricular gaps that do not explicitly encourage collaborative learning. Students' preference for traditional resources further reduces their willingness to engage with OER platforms. Hence, the problem this study seeks to address is that limited collaboration constrains the awareness and utilization of OER among final-year LIS students at NOUN, Awka Study Centre.

By examining students' awareness levels, collaboration patterns, the influence of collaborative learning, and the factors hindering collaboration, this study aims to provide evidence-based insights that will strengthen OER adoption and promote academic success in LIS education.

Research Questions:

1. What is the level of awareness of pen education resources among final year Library and Information Science students?
2. How do final year Library and Information Science students collaborate in the utilization of Open Education Resources?
3. Does collaborative learning among final year LIS students positively impact the utilization of Open Education Resources and their academic outcomes?
4. What are the factors that hinder collaboration among students in utilizing OER?

Review of Related Literature

In the early 2000s, the development of open educational resources (OER) became increasingly prevalent, not only as an open source of learning materials but also as a transformative agent for teaching and learning aimed at making education more accessible and equitable (IFLA Section on Education and Training, 2020). OER are generally defined as teaching, learning, and research resources released under an open license, allowing reuse, revision, and redistribution with no or limited restrictions (Li & Wong, 2021). These resources reside in the public domain or creative commons and can be legally and freely copied, adapted, and shared (Okonkwo, 2012; Butcher, 2015).

Popular types of OER in higher education include open courseware, course materials, online tutorials, e-books, e-journals, and open-source learning tools (Cheung et al., 2013; Blomgren, 2018; Wong & Li, 2019). They also encompass full courses, modules, streaming videos, software, technical papers, and other tools that support access to knowledge (Hewlett Foundation, 2016). The potential benefits of OER include reducing costs, improving quality, and expanding access to learning opportunities, particularly in developing countries where access to quality educational materials remains scarce (Daniel, 2011; Plotkin, 2010; Wright & Reju, 2012). In addition, OER fosters a culture of collaboration and knowledge sharing, enabling students and faculty in Library and Information Science (LIS) programs to disseminate research and exchange expertise globally.

Collaboration among LIS students is a crucial factor in OER awareness and utilization. It fosters teamwork, critical thinking, and problem-solving skills, while enhancing digital competencies needed for navigating online OER platforms (Sweeney, 2018; Johnson et al., 2020; Dede, 2019). Collaborative learning models such as group research, peer learning, and information literacy programs encourage deeper engagement with learning materials and enable students to leverage each other's strengths in information retrieval and resource use. Technology tools such as Google Drive, wikis, and academic social networks further facilitate

OER collaboration (Adams, 2020), and integrating OER-based assignments into LIS curricula can strengthen research skills and information literacy (Weller, 2019).

Awareness of OER is essential for effective utilization, yet it varies widely and is influenced by institutional policies, faculty advocacy, and the integration of OER into course curricula (Wiley & Hilton, 2018). Studies show that many LIS students in developing countries have limited OER awareness, with active utilization rates as low as 30% (Afolabi & Olatunji, 2021). Institutional repositories, librarian-led initiatives, and targeted training programs significantly boost awareness and engagement (Czerniewicz et al., 2020).

Academic libraries play a pivotal role in promoting OER adoption by curating resources, integrating them into learning management systems, and leading awareness campaigns (IFLA, 2021). Library-led OER training improves students' confidence in sourcing, evaluating, and using open resources (Mishra & Sharma, 2019). Library consortia also enhance sustainable OER access in resource-limited contexts (McGreal et al., 2020). Collaboration further enhances OER utilization by encouraging peer-to-peer learning and resource sharing; group-based OER use is associated with higher engagement levels than solitary study (Green & Armstrong, 2022).

Benefits of Collaboration

Enhanced Knowledge Sharing: Collaboration among final year library and information science students can foster the exchange of ideas, knowledge, and experiences related to OER. Such collaborative efforts can lead to a deeper understanding of the various aspects of OER, including creation, management, and dissemination.

Advocacy and Awareness: Final year students can play a crucial role in raising awareness about OER within their academic institutions and communities. Collaboration allows them to pool their resources and creativity to develop effective advocacy campaigns, workshops, and informational materials to educate both students and faculty about the benefits of OER.

Collective Problem Solving: Collaboration encourages students to collectively address challenges associated with OER, such as licensing issues, quality control, and accessibility concerns. By working together, students can propose innovative solutions that may not have been apparent when working in isolation.

Building a Supportive Network: Collaborative efforts provide an opportunity to build a network of like-minded individuals who share a passion for OER. This network can extend beyond graduation and become a valuable resource for professional development and collaboration in the field of library and information science.

Challenges of Collaboration

Time Constraints: Final year students often have busy schedules, balancing coursework, assignments and potential job searches. Finding time for collaborative projects can be challenging.

Differing Interests and Specializations: Library and information science students may have diverse interests and career goals. Collaborative efforts must consider these differences to ensure that everyone's needs and goals are addressed.

Technological Barriers: Not all students may have access to the necessary technology or expertise to effectively collaborate on digital platforms, which are commonly used in OER initiatives.

Institutional Support: The level of support for OER initiatives within academic institutions can vary greatly. Collaborating students may face resistance or limited resources from their institutions.

Brief History of NOUN, Awka Study Centre Library

The National Open University of Nigeria library, Abuja is the mother library that gave birth to the libraries in one hundred and nine (109) or there about study centres (outlets) in NOUN. NOUN library formally operates in the Ministry of Education former building at Victoria Island, Lagos of the Ahmadu Bello Way. However, with the completion of its newly Main Library at the permanent site in university village, Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi, Abuja, the university library now operates from its headquarter. Presently, the library has one hundred and fourteen (114) study centers affiliated with libraries spread across the country. The University Library is presently under the leadership of the University Librarian Dr Okpala Angela.

Awka study centre library is one of the daughters of the NOUN giant library (the mother library) situated in Abagana in Anambra state. Abagana is a town in Anambra state of Nigeria. It is the headquarters of Njikoka Local Government Area Anambra State and lies approximately 20 kilometers from Onitsha along the old Enugu-Onitsha Trunk A Road that divides the town into two halves. Abagana town has a landmass of approximately 9.2 square kilometers and is bounded in the north by Abba, Ukpo, and Enugu Agidi towns, in the South by Nimo and Eziowelle towns, in the East by Enugu Ukwu town and in the west by Umunnachi and Ifitedunu towns. The Awka study centre is located in the Southeast of Anambra state. Abagana has Latitude of 6° 11' 25" N and longitude 6° 59' 36" E with a climate type of Tropical savanna, wet. The Awka study centre Library is man by a professional librarian, Dr. Okonkwo, Lucy as the study centre Librarian has put on so much effort to create awareness of the e-resources.

In light of above, the need for Awka study centre library to create awareness and utilize available educational resources for library services delivery to their users is fundamental. It is fundamental because the libraries are regarded as the heart of their parent institutions, and it is also recognized as the medium through which NOUN can achieve their set objectives. Awka study centre (NOUN) library has several stocks of printed and electronic resources, the electronic resources from e-library. The library's collection has little resources compared to the main library in the headquarters (Okonkwo, 2022).

Methodology

The research employed descriptive survey design, with a population of 348 students. A mixed-methods approach, incorporating both quantitative and qualitative research techniques were employed. A structured questionnaire was distributed to final-year LIS students in Awka study centre, while focus group discussions and interviews were provided deeper insights into their collaborative experiences. Data was collected using a questionnaire. Descriptive statistics, including frequency count and simple percentage, were used for data analysis. Data was analyzed using descriptive and inferential statistical techniques, including frequency distribution, correlation, and thematic analysis.

Table 1: Awareness of Open Education Resources (OER) Among Final Year LIS Students

This table presents the level of awareness of OER among the students.

Awareness Level	Frequency (N= 348)	Percentage (%)
Highly Aware	102	29.3%
Moderately Aware	136	39.1%
Slightly Aware	76	21.8%
Not Aware	34	9.8%
Total	**348**	**100%**

Key: HA: Highly Aware; MA: Moderately Aware; SA: Slightly Aware; NA: Not Aware

Table1 revealed that 68.4% of students (highly and moderately aware) have some level of awareness of OER, while 31.6% (slightly aware and not aware) have limited or no awareness. This shows that while awareness is relatively high, a significant portion of students still lack full understanding of OER. This suggests a need for more sensitization and awareness programs to ensure all students benefit from available OER materials.

Table 2: Collaboration Patterns in OER Utilization among Final Year LIS Students

This table shows the frequency and types of collaboration among students

Collaboration Patterns	Frequency (N = 348)	Percentage(%)
Group discussion	132	37.9%
Online study groups	96	27.6%
Peer Mentoring	64	18.4%
No collaboration	56	16.1%
Total	**348**	**100%**

Table 2 revealed that the most common form of collaboration is group discussions (37.9%), followed by online study groups (27.6%), peer mentoring (18.4%), while 16.1% of students do not collaborate at all. This means that the dominance of group discussions and online study groups indicates that students recognize the importance of peer interactions in utilizing OER. However, the 16.1% non-collaboration rate signals a need for strategies to encourage participation, especially among students who prefer studying alone.

Table 3: Impact of Collaboration Learning on OER Utilisation

This table illustrates how collaboration influences students' utilization of OE

Impact Level	Frequency (N=348)	Percentage (%)
Greatly enhances usage	148	**42,5%**
Somewhat enhances usage	116	**33.3%**
Has little impact	**52**	**14.9%**
No impact	**32**	**9.2%**
Total	**348**	**100%**

Table 3 showed that 75.8% of students (greatly enhances + somewhat enhances usage) acknowledge that collaboration improves OER utilization, while only 9.2% believe it has no

impact. This means that collaborative learning plays a significant role in helping students effectively engage with OER. It enhances comprehension, access, and application of resources, making it a valuable strategy for academic success.

Table 4: Factors Hindering Collaboration among Students in OER Utilisation

This table highlights the major obstacle to collaboration in OER usage.

Hindering Factors	Frequency(N=348)	Percentage (%)
Lack of digital skills	104	29.9%
Poor interest access	86	24. 7%
Limited awareness of OER	68	19.5%
Lack of institutional support	56	16.1%
Preference for individual study	34	9.8%
Total	348	100%

Table 4 indicated that the top barriers to collaboration are lack of digital skills (29.9%), poor internet access (24.7%), limited awareness of OER (19.5%), lack of institutional support (16.1%), and preference for individual study (9.8%). This portrays that the challenges are largely infrastructural (internet access, digital skills) and attitudinal (awareness, preference for solo study). Addressing these challenges requires institutional support and capacity-building initiatives.

Discussion and Findings

Awareness of OER (Table 1)

Interviews revealed that while many students had heard of OER, their depth of knowledge differed. Those who were highly aware attributed it to exposure through lecturers and library orientations, while slightly or not aware students noted that OER was rarely discussed in class, leaving them to discover it on their own. Some also struggled to distinguish OER from other free online resources, underscoring the need for formal sensitization.

Collaboration Patterns (Table 2)

Students confirmed that collaboration mostly occurred through informal group discussions, which they valued for immediate feedback and problem-solving. Online study groups, often via WhatsApp and Telegram, were also used, though poor internet access sometimes limited participation. Peer mentoring was acknowledged as helpful but not widely practiced, while some students preferred independent study, citing distractions and unequal group participation.

Impact of Collaboration on OER Utilization (Table 3)

Most students agreed that collaboration enhanced OER utilization by exposing them to new resources and motivating active engagement. Peer sharing of platforms like OER Commons and OpenStax was common in group interactions. However, a few students felt collaboration slowed their learning pace, preferring to study alone.

Factors Hindering Collaboration (Table 4)

Key obstacles included poor internet access, high data costs, and limited digital skills, with many students relying on more tech-savvy peers. Institutional support was described as minimal, as students called for structured training sessions and awareness campaigns. Some

students preferred independent study, prioritizing personal control over pace, though this limited their collaborative benefits.

Overall Findings

The interviews confirmed the survey data, showing moderate to high awareness and collaboration in OER use but also revealing significant challenges. Collaboration is seen as a key driver of OER utilization, yet infrastructural and skill-related barriers limit its full potential. Students strongly emphasized the need for sensitization, digital literacy training, improved infrastructure, and institutional support to enhance effective OER adoption and utilization among LIS students.

Conclusion

The interviews confirmed the survey data, showing moderate to high awareness and collaboration in OER use but also revealing significant challenges. Collaboration is seen as a key driver of OER utilization, yet infrastructural and skill-related barriers limit its full potential. Students strongly emphasized the need for sensitization, digital literacy training, improved infrastructure, and institutional support to enhance effective OER adoption and utilization among LIS students. Collaboration among final year library and information science students in the awareness and utilization of open education resources holds great promise for the future of education and information access. While challenges exist, the benefits of collaborative efforts, such as enhanced knowledge sharing, advocacy, and network building, far outweigh the obstacles. By working together, these students can become advocates for OER, driving positive change in their academic institutions and communities. As the digital age continues to evolve, collaboration among library and information science students becomes not just a beneficial choice but a necessary one in fostering a more open and accessible educational landscape.

Recommendation

Awareness of OER

- Universities should organize workshops and orientation programs to educate students on the availability and benefits of OER.
- Organize sensitization workshops and campaigns; integrate OER into teaching and library activities to close awareness gaps.
- Faculty members should incorporate OER into course curricula to encourage usage.

Collaboration Patterns

- Student peer-learning initiatives should be encouraged through study groups, mentorship programs, and online discussion forums.
- Universities should create digital collaboration platforms where students can share insights and discuss OER materials.
- Encourage peer study clubs and mentoring; support online collaborative platforms; motivate non-collaborating students through structured group tasks.

Impact of Collaboration on OER Utilization

- Adopt collaborative learning strategies like group projects and peer assessments; promote use of digital tools for resource sharing; train students on effective group dynamics.
- Universities should invest in better Wi-Fi and digital learning platforms to facilitate access to OER.

- ❖ Partnerships with telecommunications companies can help subsidize data costs for students.

Hindrances to Collaboration

- ❖ Provide digital literacy training; improve internet and power supply; strengthen institutional support for OER integration; guide independent learners to occasionally collaborate.
- ❖ Institutions should offer basic and advanced digital skills training to improve students' ability to access and utilize OER.
- ❖ Introduction of library-led digital skills sessions can help students navigate OER platforms effectively.

Therefore, a combined approach of awareness-building, collaboration, skill development, and infrastructure support is needed to fully enhance OER adoption and utilization. Interview Findings on OER Awareness, Collaboration, and Utilization

- ❖ Policies should be developed to mandate the inclusion of OER in academic research and learning.

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