



EVALUATING THE EFFECTIVENESS OF INFORMATION LITERACY PROGRAMS IN ACADEMIC LIBRARIES: A CASE OF ISA KAITA LIBRARY KADUNA POLYTECHNIC

Garba Shambo Mohammed

University Library Services,

Federal University of Technology Minna, Niger State, Nigeria

garba.mohd@futminna.edu.ng;

Muhammed Shehu Kokami

Kashim Ibrahim Library, Ahmadu Bello University, Zaria

kokami2007@yahoo.com

Abstract

Information literacy (IL) is a critical skill for students in higher education, enabling them to locate, evaluate, and use information effectively. Academic libraries play a central role in developing these competencies through structured IL programs that support academic success and lifelong learning. This study evaluated the effectiveness of IL programs at the Federal Polytechnic Isa Kaita library, Nigeria, using a descriptive survey design involving 592 respondents, including students, faculty, and librarians. Data were collected via structured questionnaires and analyzed using descriptive statistics. Findings indicate that students demonstrated high competence in evaluating and applying information resources (Composite Mean = 3.07), though training on plagiarism and citation was moderate (Mean = 2.81). Faculty recognized the importance of IL for research and teaching (Composite Mean = 3.05) but showed limited collaboration with librarians, while librarians exhibited strong commitment to IL instruction (Composite Mean = 3.05), emphasizing workshops, orientations, and technology-based interventions. The study concludes that IL programs are valued across the academic community but require improvements in plagiarism education, faculty-librarian collaboration, and curriculum integration. Recommendations include enhancing structured training for students, promoting collaborative teaching, institutionalizing IL in curricula, and providing continuous professional development for librarians to strengthen program effectiveness and support academic success.

Keywords: Information literacy, Academic libraries, Student skills, Faculty-librarian collaboration, Federal Polytechnic Isa Kaita

Introduction

Information literacy (IL) has emerged as a critical skill for students in higher education, enabling them to identify, evaluate, and use information effectively. Academic libraries play a vital role in

fostering these competencies through structured IL programs designed to support students' academic success and lifelong learning (Okike, 2020). The digital age has made information more abundant but also more complex to navigate. With the rise of misinformation, fake news, and predatory journals, IL programs in academic libraries have become essential in training students to critically assess information sources before use (Adebayo & Omeluzor, 2021).

Information literacy programs are not limited to traditional classroom instruction; they often employ blended learning approaches, online tutorials, and workshops that align with students' evolving learning needs. Such innovative methods have been shown to significantly enhance engagement and knowledge retention among learners (Tella & Olaniyan, 2024). Universities that integrate IL into their curriculum experience higher levels of student academic achievement. Research has demonstrated a strong correlation between IL training and improved research productivity, writing skills, and critical thinking among students in academic institutions (Sani & Yusuf, 2023).

Academic libraries in developing countries, such as Nigeria, face unique challenges in implementing effective IL programs, including inadequate funding, shortage of trained librarians, and poor infrastructure. Despite these constraints, many libraries continue to innovate by adopting affordable and localized strategies for delivering IL (Akinola & Adigun, 2022). IL programs are also instrumental in preparing students for employability and workforce readiness. Employers increasingly demand graduates who can not only acquire knowledge but also analyze, synthesize, and apply it in problem-solving contexts (Osei & Boateng, 2021).

The assessment of IL programs is crucial to determine their effectiveness. Evaluative studies often measure students' competencies before and after training, highlighting significant improvements in their ability to retrieve and ethically use information (Ezeani & Igwe, 2022). Collaboration

between librarians and faculty members has been recognized as a best practice in delivering impactful IL programs. When IL is embedded within courses and supported by faculty, students perceive it as more relevant and useful to their academic work (Alabi, 2021).

Technology has further transformed IL programs, with artificial intelligence tools, online repositories, and digital literacy workshops reshaping the ways in which academic libraries deliver instruction. These innovations provide students with flexible and personalized learning opportunities (Ibrahim & Mohammed, 2023). Ultimately, the effectiveness of IL programs in academic libraries should be evaluated not only in terms of skill acquisition but also in how they contribute to student success, lifelong learning, and the broader mission of higher education. Continued research in this area is vital for libraries to adapt, remain relevant, and meet the dynamic needs of 21st-century learners (Nnadozie & Nwosu, 2020). Therefore, this study evaluating the effectiveness of information literacy programs in academic libraries in Federal Polytechnic Isa, Kaita

Statement of the problem

Academic libraries are expected to serve as central hubs for equipping students with the skills to locate, evaluate, and use information effectively, thereby supporting quality research, academic success, and lifelong learning. However, in many universities, information literacy programs are hindered by inadequate funding, insufficient technological resources, lack of professional development for librarians, and weak integration of such programs into the academic curriculum, leaving students ill-prepared to navigate the complexities of the digital information environment. The difference between what academic libraries are positioned to achieve and what is currently obtainable highlights the need for a systematic evaluation of existing information literacy initiatives, with the aim of identifying their strengths, weaknesses, and areas for improvement. By

carrying out such an evaluation, this study seeks to provide evidence-based recommendations that will enhance the design, delivery, and impact of information literacy programs, thereby ensuring that academic libraries fulfill their mandate of empowering students with the competencies required for academic excellence and professional success.

Objectives of the Study

To evaluate the effectiveness of information literacy programs in academic libraries with a view to enhancing their contribution to student academic success and lifelong learning

1. To assess the extent to which information literacy programs improve students' academic skills in Isa Kaita Library Kaduna Polytechnic
2. To identify the challenges academic libraries face in the implementation of Information literacy programs in Isa Kaita Library Kaduna Polytechnic
3. To propose strategies for improving the effectiveness of information Literacy programs in academic libraries in Isa Kaita Library Kaduna Polytechnic

Literature Review

Information literacy (IL) has evolved from a library-based instructional activity to a core academic competency that underpins higher education goals. Recent studies confirm that IL instruction contributes significantly to developing critical thinking and independent learning skills among undergraduates (Agboola, 2020). Globally, academic libraries have shifted towards embedding IL programs into university curricula rather than offering them as optional workshops. This integration ensures that students see IL as part of their learning experience rather than an external requirement (Foster & Lloyd, 2021). The rapid digitization of scholarly resources has amplified the role of IL in combating misinformation and predatory publishing practices. Academic

librarians now emphasize teaching students how to critically evaluate digital information sources (Yadav & Singh, 2022).

IL programs have been linked to higher levels of student academic performance, with research demonstrating that students who participate in IL sessions produce better research papers and dissertations (Onuoha & Okoro, 2021). Online delivery of IL programs, especially during and after the COVID-19 pandemic, has become a dominant practice. Studies highlight that students appreciate the flexibility of online IL tutorials, although engagement remains a challenge (Hoffman, 2020). Collaboration between academic librarians and faculty has been shown to strengthen IL outcomes. Faculty buy-in ensures that IL instruction is integrated into assignments and assessments, making it more relevant to students (Agyemang, 2023).

The use of assessment tools, such as pre- and post-tests, has been instrumental in measuring IL effectiveness. Evidence shows that students demonstrate significant improvement in information-seeking behavior after participating in structured IL training (Edewor, 2020). IL programs also contribute to ethical use of information, including proper citation, avoidance of plagiarism, and responsible engagement with digital platforms. This ethical dimension is critical for academic integrity (Nguyen, 2021). In Africa, IL has become central to bridging the knowledge divide, especially in resource-constrained environments. Libraries employ creative approaches, such as peer-to-peer learning, to maximize impact despite funding limitations (Mutshewa, 2022).

Evaluations of IL programs suggest that hands-on approaches, such as guided database searching, are more effective than lecture-based models. Practical sessions improve students' confidence in retrieving and using information (Yakubu, 2020). Graduate students particularly benefit from IL programs because of their increased research demands. Studies show that IL skills positively influence the quality of postgraduate theses and publications (Adeola & Salawu, 2021). Emerging

technologies such as artificial intelligence (AI) and virtual reality are being adopted to enhance IL instruction. These tools allow for interactive learning environments that appeal to today's tech-savvy learners (Chang & Park, 2023).

IL is increasingly viewed as part of digital literacy. Academic libraries are broadening their scope to teach students not only how to search for information but also how to manage, share, and protect digital content (Kamba, 2020). The inclusion of IL in distance learning programs has improved access for non-traditional learners. Libraries offering remote IL sessions report higher engagement from part-time and working students (Mensah, 2021). A major barrier to IL effectiveness is the lack of professional training among some librarians. Studies reveal that continuous professional development is essential for librarians to deliver modern IL instruction (Nkanu, 2022).

Evaluation of IL programs also highlights issues of student motivation. While some students recognize IL as beneficial, others perceive it as additional workload, suggesting the need for more engaging delivery methods (Smith, 2021). IL programs have been credited with reducing academic dishonesty. Students exposed to IL training exhibit lower instances of plagiarism because they better understand proper citation and referencing practices (Okoroafor, 2023). In developing nations, IL programs are strongly tied to national education goals. Governments encourage libraries to promote IL to improve research output and national competitiveness in knowledge economies (Adeyemi & Bello, 2020).

IL effectiveness is also influenced by access to library resources. Studies indicate that where students have access to electronic databases, IL programs are more impactful compared to libraries with limited collections (Obi, 2022). Overall, the literature suggests that IL programs are indispensable for academic success and lifelong learning. Continuous evaluation, faculty

collaboration, and innovative technologies will shape the future of IL instruction in academic libraries (Martins & Silva, 2024).

Methodology

This study adopted a descriptive survey design to evaluate the effectiveness of information literacy programs in Academic Library of Federal polytechnic Isa Kaita. It employed stratified random sampling to ensure representation from the three respondent groups: students, librarians, and faculty members. The total population comprises 600 students, 36 librarians, and 1500 faculty members; sample sizes were calculated using Yamane's formula at a 95% confidence level. Applying the formula yields 240 student respondents and 316 faculty respondents; because the librarian population is small, all 36 librarians will be included, giving a total sample of 592 respondents. The researcher developed one instrument for the study. The instrument was "titled" evaluation of information literacy programs in academic libraries with a view to enhancing their contribution to student academic success and lifelong learning (EILPAL) and contains 18 items statements. The responses were used to answer the research questions. Data collected with a structured questionnaire designed on a four-point Likert scale, and analysis will employ descriptive statistics such as frequencies, percentages, and means to summarize the findings. All analyses conducted using standard statistical software, and results guide evidence-based recommendations for strengthening information literacy programs.

Data Presentation, Analysis and Discussion

Table 1: Distribution of Respondents and Sample Size

Respondent	Population Size (N)	Sample Size (n)
Students	600	240
Faculty Members	1500	316
Librarians	36	36
Total	2136	592

Table 1 presents the distribution of respondents and sample sizes for the study on the effectiveness of information literacy programs at Federal Polytechnic Isa Kaita. The study population consisted of 2,136 individuals, including 600 students, 1,500 faculty members, and 36 librarians, from which a sample of 592 respondents (approximately 27.7% of the total population) was drawn. Students accounted for 40.5% of the sample, faculty members 53.4%, and librarians 6.1%, reflecting the relative proportions of each group within the institution. This distribution ensures that both the primary beneficiaries of the library services (students and faculty) and the key implementers of information literacy programs (librarians) were adequately represented, thereby enhancing the reliability and validity of the findings. The higher proportion of faculty members shows their role in supporting and supervising students' engagement with library resources, while the smaller number of librarians reflects the actual staffing structure, which may influence program delivery and effectiveness. The sample distribution is appropriate for evaluating information literacy programs, providing a comprehensive understanding of how different groups perceive, access, and utilize library resources.

Table 2: Mean and standard Deviation of Respond to the extent to which information literacy programs improve students' research, Critical thinking, and academic skills.

S/N	Item Statements	SA	A	D	SD	N	Mean	STD	Decision
1	Identify reliable sources	100	90	30	20	240	3.12	0.93	High
2	Evaluate credibility online	110	95	25	10	240	3.27	0.81	High
3	Differentiate primary/secondary	95	85	40	20	240	3.06	0.94	High
4	Use library catalogue	90	80	45	25	240	2.98	0.99	High
5	Training on plagiarism/citation	70	85	55	30	240	2.81	0.99	Moderate
6	Confident applying IL skills	105	90	30	15	240	3.19	0.88	High
	Grand Mean						3.07	0.92	

Key: SA, Strongly Agree: A, Agree: Disagree: Strongly Disagree:

The findings from Table 2 show that students generally demonstrated a high level of information literacy skills, with a composite mean of 3.07 (High). Items such as awareness of evaluating online resources (Mean = 3.27) and confidence in applying information literacy skills (Mean = 3.19) were particularly strong. However, a moderate response was observed regarding plagiarism and citation training (Mean = 2.81), suggesting a gap in formal instruction on ethical information use. These findings align with Okiki (2022), who emphasized that Nigerian university students exhibit growing competence in resource discovery but often lack sufficient training in citation and plagiarism avoidance. Similarly, Idowu and Olorunsola (2021) argued that without structured library-led workshops, students may underperform in academic integrity practices. Therefore, the results confirm that while students are increasingly confident in searching and evaluating resources, more targeted information literacy programs especially on citation and plagiarism are necessary.

Table 3: Mean and standard Deviation of Respond to the challenges academic libraries face in the design and implementation of Information literacy programs.

S/N	Item Statements	SA	A	D	SD	N	Mean	STD	Decision
1	Include IL in teaching	120	110	55	31	316	3.01	0.97	High
2	Guide students to evaluate resources	135	120	40	21	316	3.17	0.89	High
3	Collaborate with librarians	100	115	60	41	316	2.87	1.00	Moderate
4	Encourage databases for assignments	140	110	45	21	316	3.17	0.91	High
5	IL is critical for research skills	155	100	40	21	316	3.23	0.91	High
6	Participate in IL training/workshops	95	120	60	41	316	2.85	0.99	High
Grand Mean							3.05		
									0.95

Key: AS, Strongly Agree: A, Agree: Dis Agree: Strongly Disagree:

The results in Table 3 indicate that faculty members also reported a generally high level of engagement with information literacy (Composite Mean = 3.05, High). Faculty strongly agreed on the importance of IL for research skills (Mean = 3.23) and their role in guiding students to evaluate resources (Mean = 3.17). However, moderate means were noted in collaboration with librarians (2.87) and participation in IL training/workshops (2.85). This suggests that while faculty members recognize IL's importance conceptually, their active participation in IL programs and collaboration remains limited. This outcome supports Akande (2023), who observed that Nigerian academics often acknowledge the value of IL but do not consistently integrate it into teaching due to workload and curriculum rigidity. Similarly, Eze and Nwosu (2020) stressed that lack of collaboration between faculty and librarians is a persistent barrier to fully embedding IL in higher education. Thus, while faculty attitudes are positive, actual engagement and partnership with librarians need reinforcement.

Table 3: Mean and standard Deviation of Respond to propose strategies for improving the design, delivery, and effectiveness of information Literacy programs in academic libraries.

S/N	Item Statements	SA	A	D	SD	N	Mean	STD	Decision
1	Include IL in teaching	15	12	6	3	36	3.08	0.95	High
2	Guide students to evaluate resources	14	13	6	3	36	3.06	0.94	High
3	Collaborate with librarians	12	14	7	3	36	2.97	0.93	High
4	Encourage databases for assignments	16	12	5	3	36	3.14	0.95	High
5	IL is critical for research skills	13	13	7	3	36	3.00	0.94	High
6	Participate in IL training/workshops	15	11	7	3	36	3.06	0.97	High
Grand Mean							3.05	0.95	

Key: AS, Strongly Agree: A, Agree: Dis Agree: Strongly Disagree:

The findings for librarians Table 3 revealed a consistently high rating across all items, with a composite mean of 3.05 (High). Librarians strongly agreed that they provide orientation, organize

workshops, and use technology to promote IL, with means ranging between 2.97 and 3.14. This consistency suggests that librarians are committed to delivering IL services and see themselves as key facilitators in academic success. These findings are in line with Owolabi (2021), who found that academic librarians in Nigeria actively implement user education and information literacy training, even with limited resources. Similarly, Onuoha and Omeluzor (2022) confirmed that librarians increasingly integrate digital resources and technologies in IL instruction to meet students' evolving needs. However, the results also show that librarians' effectiveness depends heavily on faculty collaboration, echoing Anunobi (2023), who noted that librarians' efforts are sometimes underutilized when faculty do not fully support joint IL integration.

Summary of Findings

The study revealed that students, faculty, and librarians generally demonstrated high levels of awareness and engagement with information literacy programs in academic libraries. Among students, a composite mean of 3.07 (High) indicated strong competence in identifying and evaluating information sources as well as applying information literacy skills in coursework. However, weaknesses were observed in training on plagiarism and citation, which received only a moderate rating, suggesting that more structured interventions are required in this area.

For faculty members, the composite mean of 3.05 (High) showed that they recognize the importance of information literacy for academic work, particularly in guiding students and emphasizing its role in research skills. Nevertheless, collaboration with librarians and active participation in training or workshops were rated moderately, reflecting a gap between positive perceptions and practical engagement.

Librarians reported a composite mean of 3.05 (High), with consistently high ratings across all items, demonstrating strong commitment to providing orientations, workshops, guidance, and

technological support for information literacy. Their responses confirm that librarians remain central facilitators of information literacy, although their efforts are sometimes limited by the low level of faculty collaboration. The findings show that information literacy programs are valued and utilized by students, faculty, and librarians, but challenges remain in the areas of academic integrity training, faculty-librarian collaboration, and sustainable program integration into curricula.

Discussion

The findings of this study revealed that students possess a relatively high level of information literacy skills, with a composite mean of 3.07. They showed strong confidence in evaluating online resources and applying information literacy skills in their coursework, which aligns with Okiki (2022), who reported that undergraduates in Nigerian universities are becoming increasingly adept at identifying and using digital information resources. However, the moderate mean score for training in plagiarism and citation indicates a gap in structured academic integrity instruction. This observation is consistent with Idowu and Olorunsola (2021), who noted that students often lack adequate guidance on referencing and plagiarism avoidance, despite being competent in searching for information. Therefore, while students demonstrate considerable ability to locate and evaluate resources, greater emphasis must be placed on equipping them with ethical usage skills.

For faculty members, the results similarly indicated a high composite mean of 3.05, reflecting their recognition of information literacy as an essential component of teaching and research. They strongly agreed on its importance for developing research competence and in guiding students, confirming Eze and Nwosu's (2020) findings that faculty members in Nigerian universities appreciate the role of information literacy in enhancing academic quality. However, the moderate ratings for collaboration with librarians and participation in information literacy training echo the

concerns raised by Akande (2023), who observed that faculty engagement in IL instruction often remains superficial due to heavy workloads and insufficient institutional incentives. The implication is that while faculty attitudes are positive, there is a need to encourage deeper involvement and stronger collaboration with librarians to fully integrate IL into curricula.

The responses from librarians revealed a composite mean of 3.05, with high scores across all items, highlighting their active commitment to promoting information literacy through orientations, workshops, technological tools, and resource updates. This finding reinforces Owolabi's (2021) claim that academic librarians in Nigeria remain central drivers of IL instruction despite resource constraints. It also supports Onuoha and Omeluzor (2022), who emphasized the growing use of digital platforms by librarians to meet the needs of students in a technology-driven academic environment. Nevertheless, librarians' efforts are sometimes underutilized due to limited faculty collaboration, as highlighted by Anunobi (2023), who stressed that meaningful IL integration requires faculty-librarian partnerships. The findings of this study suggest that information literacy is increasingly valued across academic communities, with all groups reporting high levels of awareness and engagement. However, persistent challenges remain: students need stronger training on plagiarism and citation, faculty require greater involvement in collaborative IL efforts, and librarians need stronger institutional support to sustain their initiatives. These results confirm the argument of Adeleke (2021) that the success of IL programs in Nigerian universities depends on shared responsibility among librarians, faculty, and students. Strengthening this triangular relationship will enhance students' academic success and research integrity while improving the overall effectiveness of academic libraries.

Conclusion

This study set out to evaluate the effectiveness of information literacy (IL) programs in academic libraries by examining the perspectives of students, faculty, and librarians. The findings revealed that, overall, IL programs are positively received and considered essential for academic success, research competence, and the promotion of lifelong learning. Students demonstrated a growing ability to locate, evaluate, and apply information resources, although gaps remain in their understanding of plagiarism and citation practices. Faculty members acknowledged the importance of IL in enhancing teaching and research, but their level of collaboration with librarians was found to be insufficient, limiting the integration of IL into the broader academic curriculum. Librarians, on their part, showed a strong commitment to designing and implementing IL programs, yet their efforts are often constrained by institutional and resource limitations.

The results further highlight that the effectiveness of IL programs cannot be measured solely by the skills of one user group but must be viewed as the outcome of a collaborative framework involving students, faculty, and librarians. When these three groups work in isolation, the full potential of information literacy is not realized. However, when they cooperate through shared teaching, curriculum integration, and institutional support information literacy becomes a transformative tool that enhances academic performance, nurtures critical thinking, and builds research integrity.

Recommendations

1. The management of the library need to strengthen plagiarism and citation training for student since the findings revealed that students have limited knowledge of plagiarism and

proper citation practices. Also, there is a need for the management of the library to design and deliver structured workshops and tutorials focused on academic integrity.

2. The management of the library should enhance faculty-librarian collaboration by encouraging them to work closely with librarians in embedding information literacy into course syllabi. Joint seminars, co-teaching arrangements, and faculty development programs can foster deeper collaboration and ensure that information literacy becomes an integral part of teaching and research.
3. There is a need for institutionalize information literacy in curricula by the management of the institution, this will help library to adopt policies that formally integrate information literacy into the academic curriculum. Making it a compulsory credit-bearing course will ensure consistent exposure and allow for structured assessment of students' competencies.
4. Provide continuous training for librarians for in emerging technologies, online pedagogy, and innovative IL instruction methods. This will improve their ability to deliver engaging, technology-driven literacy programs that align with global best practices.

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