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Research Article

INFORMATION LITERACY SKILLS AND STUDENTS' RESEARCH COMPETENCE IN EKITI STATE UNIVERSITY, ADO EKITI, NIGERIA

Prof. Adepoju, E. O.

Department of Vocational and Technical Education, Faculty of Education, Ekiti State University, Ado-Ekiti, Nigeria

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ABSTRACT

The study examines Information Literacy Skills and Students' Research Competences in Ekiti State University, Ado Ekiti, Nigeria. The descriptive survey research design was adopted for the study. The population of the study consists of all the 239 undergraduate students in the Department of Library and Information Science in the selected university. A sample of one hundred and twenty (120) students were randomly selected through simple random techniques. The instrument for the data collection was a structured questionnaire. To ensure validity of the instrument, Library and Information Science experts checked the questionnaire for face and content alignment, correcting items for clarity and coverage. Reliability was established via a pilot test with an outside student sample; Cronbach's Alpha yielded a coefficient of 0.78, confirming acceptable internal consistency. Data collected were analyzed using descriptive statistics. The findings of the study revealed that students possessed adequate information literacy skills and research competences. The study further highlighted the critical role of academic libraries and librarians in enhancing students' research capacity. The study contributes to academic policy by providing empirical evidence that justifies extending structured ILS training beyond professional departments. Based on the findings of the study, it is recommended that the integration of information literacy programmes into the university curricula to promote effective research practices, ethical information use and sustainable academic development for the benefits of students that are not in LIS department

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1. Introduction

Information literacy is a comprehensive set of skills, knowledge, and attitudes that allow individuals to find, analyze, and apply information effectively. It goes far beyond simply reading books or searching the internet. Information literacy skills are changing the way students carry out research in universities across Nigeria and beyond. Technology and access to information are growing faster than ever, and without proper skills, students' risk being left

behind in their academic work. Society today depends heavily on information. Every student is expected to therefore be comfortable finding, judging, and using information resources for projects, assignments, and theses. Information literacy is more than searching the internet or reading books it is the full set of skills, knowledge, and attitudes that allow students to locate relevant information, evaluate the credibility of sources, organize material, and generate ideas that support strong research output. Information literacy refers to the ability to use digital tools, communication applications, and networks to access, manage, integrate, evaluate, and create information, enabling students to function effectively in a knowledge-based society (Deurse & Van Dijk, 2019). Owoeye and Owoeye (2023) describe it as a critical digital-age skill needed to search for, evaluate, and use information effectively, responsibly, and ethically.

Students who master these skills are expected complete their work faster, make fewer mistakes, and produce research that meets the expectations of lecturers and examiners. Students who lack these skills, on the other hand, waste time on unreliable sources, struggle to finish projects on time, and end up with weak arguments in their final-year papers or theses. This study examines the link between information literacy skills and students' research competence at Ekiti State University, so that practical steps can be taken to improve outcomes at both undergraduate and postgraduate levels.

These skills cover what is needed for full and active participation in a world full of media and information. Students are expected to locate, organize, understand, evaluate, analyze, and present information in digital or print form, while also managing their own digital identity. Bawden and Robinson (2019) define information literacy as the capacity to access, use, and evaluate digital information efficiently and ethically, and to create and communicate using available technologies. The American Library Association (2018) adds that it involves using digital tools to access, evaluate, create, and share information while adapting to new technologies as they emerge. These mean that information literacy is not one skill but a group of connected abilities students need throughout their academic journey. Without them, research becomes difficult: students cannot separate good sources from bad ones, organize their findings properly, or present their work clearly. At Ekiti State University, where students come from varied backgrounds with different levels of exposure to technology, these skills matter even more for building research competence.

A report by UNESCO (2019) on digital and information literacy in Nigeria revealed a significant skills gap. Only a small percentage of the population, including university students, possess basic information literacy abilities. The report called for greater investment in capacity-building programmes and identified five key areas students must develop: information and data literacy, communication and collaboration, digital content creation, safety and security, and problem solving. Without these foundational skills, students cannot fully participate in academic life or prepare for the labour market after graduation. This gap in digital capability is not new, as Adepoju (2009) observed in earlier assessments of computer skills within library environments, the lack of hands-on technological competence among information users limits the potential benefits of modern information systems. This seems to affect research competence, since students seems unable to evaluate sources critically or organize findings logically.

The problem is not limited to students, lecturers and administrators also face challenges when students lack these skills. Class assignments, seminar papers, and final-year projects

suffer in quality, and lecturers spend extra time correcting basic errors instead of engaging with higher-level ideas.

At Ekiti State University, observation over recent years shows that many undergraduate and postgraduate students struggle with basic research tasks. Some cannot use the university library databases effectively; others accept information from social media without checking its accuracy. Power outages, slow internet, and the high cost of data compound the problem. As a result, research competence remains low, projects take longer time to complete, and submitted work often falls below expectation. This is supported by earlier work of Ajayi (2019), studied information and communication service delivery in the Ekiti State University library, found that students who received proper guidance on using library resources showed significantly improved research output, completing postgraduate projects faster and with fewer errors. Ajayi (2026), examined the influence of information literacy skills on postgraduate students across selected universities in Ekiti State, including EKSU, found a strong positive relationship between information literacy and the ability to detect fake news, choose reliable sources, and produce high-quality research students who scored high on information literacy also scored high on research competence. Onuoha (2024) similarly found that Nigerian undergraduates who received information literacy training achieved higher grades, because they could search, evaluate, and use information more effectively. Oladapo (2025), focusing on postgraduate students in South-West Nigeria, concluded that information literacy directly improves the utilization of electronic resources for research.

Research Questions:

The following research Questions were raised to guide the study:

1. What is the level of research and database search skills possessed by LIS undergraduate students at Ekiti State University?
2. What are the source evaluation skills of LIS undergraduate students at Ekiti State University in determining the credibility and reliability of academic information?
3. What structural organization skills do LIS undergraduate students at Ekiti State University possess when planning and writing academic reports?
4. What is the citation and referencing skills of LIS undergraduate students at Ekiti State University, and how familiar are they with approved citation styles?

2. Literature Review

Conceptual Framework of Information Literacy

Information literacy is a broad concept covering the skills, knowledge, and attitudes students need to find, evaluate, organize, and use information in academic work (American Library Association, 2018). It goes beyond internet searching it includes knowing how to select good sources, verify their reliability, synthesize ideas clearly, and share findings properly (Bawden & Robinson, 2019).

This framework treats information literacy as the foundation of research competence: it links the ability to *access* information with the ability to *convert* that information into usable knowledge (Adindu & Ordu, 2024). Internationally, the IEA's International Computer and Information Literacy Study (ICILS 2023) reinforces this view, framing advanced skills in

evaluating, producing, and communicating information as central to educational and civic participation, and documenting how these skills vary across countries and education systems.

At Ekiti State University, where students come from varied backgrounds and face uneven access to technology, this framework helps explain why some students succeed at research while others struggle with the same assignment and it guides lecturers and librarians on what to teach, and in what sequence, to build these skills systematically. Nigerian studies applying this framework have found that students who master information literacy do complete their projects on time and produce work meeting university standards (Ajayi, 2026).

Information Literacy and the Utilization of Electronic Resources

Electronic resources online databases, e-journals, e-books, and digital archives are only useful to students who have the skills to access and search them effectively (Adindu & Ordu, 2024). A study at Rivers State University found a positive relationship between digital literacy skills and electronic resource use among library students, with better-skilled students more likely to complete academic tasks successfully (Adindu & Ordu, 2024). The structural requirement for digital competencies extends across the information environments Adepoju and Opele (2021) demonstrated that effective utilization of specialized electronic records and data management systems depends on continuous digital training and user technological readiness. This finding is consistent with research on international doctoral students, which found that research knowledge and the ability to critically evaluate academic texts significantly shaped students' self-assessed research competence from the very start of their studies. At EKSU, however, many students still underuse electronic resources, relying instead on unstructured Google searches rather than academic databases (Oladapo, 2025). This gap between available resources and students' capacity to use them is a recurring theme across the literature, and one this study investigates directly.

Core Information Literacy Skills and Research Competence

Rather than treating evaluation, organization, and citation as separate topics, the literature increasingly frames them as interdependent components of the same competence the ability to move from raw information to a defensible piece of research. Evaluation skills allow students to judge whether information is reliable, accurate, and current, by examining the author, source, date, and purpose of a text (Ajayi, 2026). Weak evaluation skills leave students vulnerable to misinformation. Ajayi's (2026) study of postgraduate students in Ekiti State found that strong evaluation skills improved students' ability to detect fake news and choose credible sources, directly strengthening research output (Onuoha, 2024).

Organization skills enable students to structure information logically through note-taking, outlining, and arranging ideas for reports or theses (Adindu & Ordu, 2024). Nigerian studies link organization skills directly to final research grades (Oladapo, 2025), since well-organized information produces arguments that are easier for lecturers and examiners to follow.

Citation skills involve giving proper credit to sources and avoiding plagiarism, including correct use of citation styles (American Library Association, 2018). At EKSU, students frequently lose marks for poor citation. Therefore, these three skill areas evaluation, organization, and citation form the practical core of research competence measured in this study, alongside search and database retrieval skills.

Challenges to Information Literacy Development in Nigerian Universities

Nigerian universities, including Ekiti State University, face structural barriers to building information literacy: limited access to technology, unstable internet, frequent power outages, and inadequate training (Van Deursen & Van Dijk, 2019). Many students come from homes without computers or reliable connectivity, and curricula still emphasize traditional methods with little attention to digital skills a gap widened by lecturers who are themselves undertrained in these areas (Adindu & Ordu, 2024). This suggests that solutions developed for EKSU may need to account for infrastructure constraints specifically, rather than relying on models built for better-resourced university systems abroad. These challenges infrastructural, curricular, and instructional help explain why research competence remains low among many EKSU students, and they define the practical constraints this study's recommendations must work within.

3. Methodology

This study adopted a descriptive survey research design to investigate the information literacy skills of students. The population of the study consisted of the 239 undergraduate students in the Department of Library and Information Science at Ekiti State University, Ado-Ekiti. A sample size of 120 students was randomly selected using simple random sampling techniques to ensure fair representation. The primary instrument for data collection was a structured questionnaire titled "Information Literacy Skills and Research Competence Questionnaire,"(ILSRCQ). To ensure the validity of the instrument, the questionnaire was subjected to face and content validity checks by experts in Library and Information Science, who reviewed the items for clarity, relevance, and adequate coverage of the constructs being measured, and necessary corrections were made based on their observations. The reliability of the instrument was established through a pilot test administered to a sample of students outside the main study population, with the resulting data analyzed using Cronbach's Alpha to determine internal consistency, yielding a coefficient value of 0.78 which was considered acceptable for the study. The research instrument was administered by the researcher with the help of a trained research assistant, respondents were assured of the confidentiality and anonymity of their responses, participation was entirely voluntary with the right to withdraw at any stage, the data collected were analyzed using descriptive statistics, which include frequency counts, percent, mean and standard deviation for each item on the questionnaire. This design was considered most appropriate for this study because it allows the researcher to systematically describe the current level of information literacy skills among students and to establish the relationship between these skills and their research competence, without manipulating any variables, which suits a study concerned with existing conditions rather than experimental outcomes (Nworgu, 2015).

4.Results

Analysis of Research Questions

Table 1 shows how united students are in their basic search habits versus advanced techniques.

Table 1: Research skills of LIS Students?

S/N	ITEMS	SA	A	D	SD	MEAN	SD
1	I know how to use search engines for academic purpose	74(62%)	33(27%)	13(11%)	-	40	31.10
2	I can identify and use appropriate keywords when searching for information	34(28%)	74(62%)	12 (10%)	-	40	31.43
3	I know how to use Boolean operators (AND OR NOT)	12(10%)	57(48%)	51(42%)	-	40	24.43
4	know how to search electronic databases for scholarly materials	24(20%)	81(68%)	15(13%)		40	35.79
5	I can refine search results to obtain relevant information	36(30%)	75(62.5%)	9(7.5%)		40	33.18
6	I know how to use advanced options in search engines	33(27.5%)	60 (50%)	24(20%)	3(2.5%)	30	23.62
7	am confident of my ability to conduct academic searches independently	45(37.5%)	69(57.5%)	6(5%)		40	31.80

Source: Field Survey, 2026

The highest standard deviation is seen in searching electronic databases (SD = 35.79) and refining search results (SD = 33.18). Because the votes are clustered around "Agree," these high SD values indicate a strong consensus that students are competent in routine database searches. The lowest standard deviations are found in using advanced search engine options (SD = 23.62) and Boolean operators (SD = 24.43). These lower values mean the responses were spread more widely across agreement and disagreement, highlighting that advanced search syntax is an area where student skill levels are mixed and inconsistent.

Table 2: Evaluation skills of LIS Students

S/N	ITEMS	SA	A	D	SD	MEAN	SD
1	I can determine whether information is reliable or not	37(30.83%)	76(63,3%)	7(5.83%)	-	40	34.60
2	I evaluate the credibility of	44(36.67%)	65(54.17%)	11(9.17%)		40	27,22

	authors before using information sources						
3	I can identify outdated information sources	35(29.17%)	77(64.17%)	8(6.67%)		40	34.77
4	I compare information from multiple sources before accepting it as valid	35(29.17%)	73(60.83%)	9(7.50%)	3(2.50%)	30	31.85
5	I examine the relevance of information to my academic needs	45(37.50%)	72(60%)	3(2.50%)		40	34.77
6	I examine the relevance of information to my academic needs	33(27.50%)	81(67.50%)	6(5%)		40	37.99
7	I can distinguish between factual information and misinformation	35(29.17%)	56(46.67%)	29(24.17%)		40	14.18
8	I assess whether information sources are scholarly or non-scholarly before use	32(26.67%)	74(61.67%)	14(11.67%)		40	30.79

Source: Field Survey, 2026

Table 2 highlights a strong consensus on checking basic relevance but wide disagreement on deeper critical evaluation. The highest standard deviations are recorded for examining the relevance of information to academic needs (SD = 37.99) and identifying outdated sources (SD = 34.77), showing that the vast majority of students agree on performing these basic checks. However, distinguishing between factual information and misinformation yielded the lowest standard deviation in this table (SD = 14.18). This low SD reveals that the students' votes were highly scattered, meaning there is significant division and lack of uniformity in their ability to detect misinformation.

Table 3: The organisation skills of LIS Students

S/N	ITEMS	SA	A	D	SD	MEAN	SD
1	I arrange information in a logical manner during academic work	30(25%)	81(67.50%)	6 (5%)	3(2.50%)	30	36.08
2	I take and organise my notes during lectures and research activities	39(32.50%)	78(65%)	3(2.50%)		40	37.50
3	I create outlines before writing assignment or research report	24(20%)	84(70%)	9(7.50%)	3(2.50%)	30	37.06
4	I organize ideas systematically when writing my assignment/term paper/ project	30(25%)	87(72.50%)	3(2.50%)		40	42.88
5	I can classify information according to relevance and importance	26(21.67%)	86(71.67%)	8(6.67%)		40	40.83
6	I develop structured plan before starting academic writing	33(27.50%)	75(62.50%)	12(10%)		40	32.09
7	I use headings and subheadings effectively in organising my assignment/ term paper	30(25%)	78(65%)	9(7.50%)	3(2.50%)	30	33.96

Source: Field Survey, 2026

Table 3 shows the highest standard deviations in the entire study, which indicates that organization skills represent the strongest area of consensus among the students. Organizing ideas recorded an extremely high standard deviation (SD = 42.88), supported by classifying information by relevance (SD = 40.83). These peaks occur because nearly all respondents chose "Agree" or "Strongly Agree," leaving the other categories almost empty. Even the lowest standard deviation in this table, which is for developing a structured plan before writing (SD = 32.09), remains relatively high, confirming that the entire student cohort shares highly uniform and consistent organizational habits.

Table 4: The Citation Skills of LIS Students

S/N	ITEMS	SA	A	D	SD	MEAN	SD
1	I Know how to cite information sources correctly in academic writing	44(36.67%)	68(56.67%)	8(6.67%)		40	30.20
2	I can prepare references using approved citation styles	32(26.67%)	62(51.67%)	26(21.67%)		40	19.29
3	I acknowledge author properly when using their ideas or work	41(34.17%)	70(58.33%)	9(7.50%)		40	30.51
4	I am familiar with different citation styles	33(27.50%)	39(32.50%)	30(25%)	18(15%)	30	8.83
5	I can cite books, journals and online sources accurately	41(34.17%)	68(56.67%)	11(9.17%)	(%)	40	28.51
6	I know how to use in-text citations correctly	32(26.67%)	59(49.17%)	26(21.67%)	3(2.50%)	30	23.02
7	I understand the importance of citations in avoiding plagiarism	41(34.17%)	65(54.17%)	11(8.17%)	3(2.50%)	30	28.50
8	I use citation management software effectively for academic writing	38(31.67%)	71(59.17%)	11(9.17%)		40	30.05

Source: Field Survey, 2026

Table 4 reveal a massive gap between general citation practices and technical familiarity with different formats. The highest standard deviations appear in acknowledging authors properly (SD = 30.51) and correctly citing sources (SD = 30.20), showing that students agree on the importance of referencing. In sharp contrast, familiarity with different citation styles produced an exceptionally low standard deviation (SD = 8.83). This is the lowest value in the entire study because the votes were spread almost completely evenly across Strongly Agree, Agree, Disagree, and Strongly Disagree. This profound spread highlights that practical fluency across multiple citation style manuals is polarized, marking the biggest area of skill disparity among the students.

5.Discussion

The findings revealed that Library and Information Science undergraduate students at Ekiti State University possess adequate information literacy and research competencies. This outcome explicitly aligns with recent regional studies, such as Adindu and Ordu (2024), who observed a clear positive relationship between digital literacy skills and the successful completion of academic tasks among students at Rivers State University. Similarly, the current results corroborate Ajayi (2026) and Onuoha (2024), who established that strong information evaluation skills directly enhance students' abilities to detect misinformation, choose credible sources, and achieve higher academic grades. Furthermore, the students' demonstrated capacity to effectively search and utilize electronic databases supports the conclusions of Oladapo (2025), confirming that foundational information literacy directly improves the utilization of electronic resources for research across South-West Nigeria.

Despite these positive correlations, the study presents an unexpected result: the high level of competence found among the sampled students contradicts earlier observations by UNESCO (2019). The UNESCO report previously identified a digital and information literacy skills gap in Nigeria, warning that only a small percentage of the population, including university students, possessed basic abilities in data literacy, digital content creation, and problem-solving. The contradiction between this widespread national deficit and the high proficiency observed in the current study is attributed to the specialized training of the sample population. Because the respondents are Library and Information Science students, their specific disciplinary training naturally equips them with advanced evaluation and organization capabilities that the general student population lacks. Furthermore, the data analysis tables reveal that while general citation ethics and basic source evaluation are highly uniform, significant polarization remains regarding technical familiarity with diverse citation styles and the deeper critical detection of misinformation.

The implications of these unexpected findings are critical for university policy and library administration. The study highlights that the broader systemic issue of low digital literacy remains a significant barrier to global academic standards if not properly addressed through robust, continual training. The observed competence of the LIS cohort serves as empirical evidence justifying the urgent need to extend structured information literacy training beyond specialized professional departments. This aligns with Adepoju (2009), who emphasized that technological infrastructure remains underutilized unless accompanied by structured, recurrent skills development programs for both information managers and students. To ensure sustainable academic development, the study implies that university management must

integrate mandatory, practical training programs into the broader university curricula to benefit non-LIS students. Additionally, it underscores the critical necessity for academic libraries and professional librarians to continuously upgrade digital infrastructure and provide hands-on workshops focused strictly on advanced database search strategies.

6.Conclusion

The study concludes that while Library and Information Science students possess strong foundational research and organization competencies, specific skill gaps remain in advanced search execution, misinformation detection, and multi-style citation. Practically, these findings demonstrate that standard classroom instruction is insufficient for achieving comprehensive information literacy, even among specially trained cohorts. The study provides empirical justification for university management and academic libraries to collaboratively design targeted, hands-on training interventions to address these specific technical deficits. Furthermore, by using the baseline proficiency of LIS students as a benchmark, institutions can implement evidence-based literacy programs across all university departments, thereby extending essential digital evaluation and research skills to the broader student body and elevating overall academic standards.

7.Recommendations

Based on the findings the following recommendations are made:

1. Academic Libraries and Professional Librarians should design practical training workshops specifically focused on advanced Boolean search syntax and multi-style citation formatting.
2. Department of Library and Information Science (LIS) Faculty should upgrade source-evaluation coursework to include applied exercises in deep critical evaluation to improve students' ability to detect fake news and misinformation.
3. University Management should upgrade the academic library's digital infrastructure by stabilizing internet access, providing functional computer systems, and securing reliable power to ensure sustained access to electronic databases.
4. Department of Library and Information Science (LIS) should establish a peer-mentoring program where LIS students use their strong organizational skills to train non-LIS students in structured notetaking, outlining, and research paper formatting.

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