

Assessment of Information Literacy Skills among Secondary School Students in Kogi Central Senatorial District, Nigeria: Implications for Library Services

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ABSTRACT

Information literacy has become essential to secondary school students because learning increasingly depends on the ability to identify information needs, locate relevant resources, evaluate credibility and use information ethically and effectively. This study assessed information literacy skills among secondary school students in Kogi Central Senatorial District of Kogi State, Nigeria, and examined the implications for library services. A cross-sectional survey design was adopted. The study covered the five Local Government Areas (LGAs) constituting Kogi Central Senatorial District—Adavi, Ajaokuta, Okehi, Okene and Ogori/Magongo—with three secondary schools selected from each LGA, giving fifteen schools. A target sample of 400 senior secondary school students was used, comprising 216 males (54%) and 184 females (46%), with respondents aged 13–18 years. A structured questionnaire was designed around information-need identification, information location, source evaluation, and information use and library-resource utilization. Descriptive statistics comprising frequency, percentage, mean and standard deviation were used, while independent-samples t-test and one-way analysis of variance were specified for group comparisons. The study recognizes that epileptic electricity supply and inadequate finance can constrain the development and effective operation of school libraries, particularly libraries requiring ICT and electronic resources. Nevertheless, the need for functional school libraries remains compelling because access to organized information resources, professional guidance and appropriate learning spaces can support students' research skills and academic output. The study recommends the establishment and strengthening of functional school libraries, sustainable funding, alternative power solutions, professional staffing, curriculum-integrated information-literacy instruction and stronger teacher–librarian collaboration.

KEYWORDS

Information literacy, secondary school students, school libraries, library services, digital resources, Kogi Central, Nigeria

I. INTRODUCTION

The contemporary educational environment is characterized by an unprecedented volume of information. Students encounter information through textbooks, school libraries, websites, search engines, social media, electronic resources and other digital platforms. The central educational challenge is therefore no longer simply access to information, but the ability to recognize an information need, find appropriate information, determine its

credibility and apply it responsibly. Information literacy is consequently an important component of effective learning, critical thinking and lifelong learning.

The American Library Association and related professional frameworks conceptualize information literacy around the ability to recognize an information need, locate relevant information, evaluate information and use it effectively and ethically (American Library Association [ALA], 2019; Association of College and Research Libraries [ACRL], 2016). At secondary school level, these competencies are particularly important because students are developing the research habits that will influence their performance in higher education and later professional life.

In Nigeria, however, access to information resources remains uneven. Secondary school students may possess smartphones or encounter online information daily while having limited formal instruction in information evaluation, source selection, citation and research strategy. Nigerian studies have reported challenges in students' information literacy and emphasized the contribution of library instruction and access to appropriate information resources.

The school library is potentially one of the most important institutional mechanisms for addressing these challenges. A library provides an organized environment in which students can encounter print and electronic resources and receive guidance from library professionals. Recent Nigerian scholarship likewise argues that school libraries can serve as strategic learning infrastructures for information literacy and twenty-first-century skills, although funding, staffing, infrastructure and policy implementation remain persistent constraints.

The present study focuses on Kogi Central Senatorial District, comprising Adavi, Ajaokuta, Okehi, Okene and Ogori/Magongo. The five LGAs are the component local governments of the district. The study is particularly important because the development of school libraries in the district must be considered alongside local realities. Erratic electricity supply can undermine computer-based library services, internet access, electronic databases and digital learning. Finance is another serious impediment because establishing and sustaining a functional library requires buildings or suitable spaces, furniture, current collections, ICT equipment, connectivity, professional staffing and maintenance. These constraints, however, strengthen rather than weaken the argument for deliberate library development. A functional school library can provide a structured learning environment and help students convert information access into academic achievement.

II. STATEMENT OF THE PROBLEM

Secondary school students in Kogi Central Senatorial District operate within an information environment in which information is abundant but not necessarily reliable, relevant or appropriately organized. Students may find it difficult to determine what information they need, locate suitable resources, evaluate online claims and use information appropriately in assignments. The original study framework identifies poor information-literacy skills, limited library orientation and inadequate guidance on digital resources as major concerns.

The problem is compounded where school libraries are absent, poorly equipped or underutilized. Even when libraries exist, inadequate funding, insufficient professional guidance, obsolete collections, weak ICT infrastructure and unreliable electricity can limit their capacity to support students. The result may be an overdependence on informal sources, superficial research practices and difficulty distinguishing credible information from unreliable material.

The problem therefore requires both a competency assessment of students and a service-oriented response. This study provides a framework for generating evidence that can guide the establishment, strengthening and redesign of school library services in Kogi Central.

III. OBJECTIVES OF THE STUDY

- Assess the level of information literacy skills among secondary school students in Kogi Central Senatorial District.
- Determine students' ability to identify, locate, evaluate and use information effectively.
- Examine the influence of gender, school type and age on students' information literacy skills.
- Determine the extent to which students utilize library resources for academic purposes.
- Identify strategies for improving information literacy and library services in secondary schools in the district.

IV. RESEARCH QUESTIONS

What is the level of information literacy skills among secondary school students in Kogi Central Senatorial District?

- How effectively do students identify, locate, evaluate and use information for academic purposes?
- Are there significant differences in information literacy skills based on gender, school type and age?
- To what extent do students utilize library resources for academic research?
- What strategies can improve information literacy and library services in secondary schools?

V. RESEARCH HYPOTHESES

- H01: There is no significant difference in the information literacy skills of male and female secondary school students.
- H02: There is no significant difference in the information literacy skills of students in public and private secondary schools.
- H03: There is no significant difference in information literacy skills among students aged 13–18 years.

VI. LITERATURE REVIEW

A. Concept of Information Literacy

Information literacy is the ability to recognize when information is needed and to locate, evaluate and use needed information effectively. The concept has developed beyond simple searching to include strategic inquiry, authority, information creation, ethical participation and understanding the value and context of information (ACRL, 2016). For secondary school students, the concept can be operationalized into information-need identification, information location and retrieval, information evaluation, and effective and ethical information use.

B. Information Literacy Skills of Secondary School Students

Previous studies suggest that information literacy among Nigerian secondary school students is uneven. Okafor and Oduwaiye (2017) identified challenges in information literacy among Nigerian secondary school students, while Aina (2019) emphasized the importance of library and information science knowledge in developing competent information users. Uzoigwe and Akpan (2018) emphasized the value of structured information-literacy instruction and library guidance.

C. Role of School Libraries

School libraries should be regarded as instructional environments rather than merely rooms containing books. Their functions include providing access to relevant resources, guiding students in information search and evaluation, supporting reading and research, and collaborating with teachers. Shenton and Dixon (2019) emphasize the contribution of school libraries to inquiry and research skills, while Okiy (2020) draws attention to the relationship between library services and students' information literacy in Nigeria.

D. Infrastructure, Electricity and Finance

The contemporary school library increasingly requires electricity for computers, charging, networking, internet connectivity, electronic resources, printing and other digital services. Consequently, unreliable electricity can directly affect library functionality. Finance is equally fundamental because even a well-conceived library programme requires recurrent expenditure for books, journals, databases, connectivity, equipment maintenance and professional development.

E. Information Literacy and Academic Output

Information literacy can contribute to academic output by enabling students to search more strategically, select appropriate sources, compare evidence, synthesize information and acknowledge sources. Students who develop these abilities are better positioned to complete assignments, undertake projects and make informed academic decisions.

VII. CONCEPTUAL FRAMEWORK

Table 1: Conceptual Framework

Construct	Indicators	Library implication
Information-need identification	Recognizing a research problem; defining information requirements; generating questions	Research orientation and assignment-based instruction
Information location/retrieval	Keywords; catalogue searching; online searching; multiple sources	User education and search-skills training
Information evaluation	Authority; currency; evidence; purpose; bias; corroboration	Critical source-evaluation sessions
Information use/ethics	Paraphrasing; synthesis; citation; plagiarism avoidance	Research ethics and academic-integrity instruction
Library utilization	Visits; print/e-resource use; librarian assistance	Functional library and professional staffing

VIII. METHODOLOGY

A. Research Design

A cross-sectional descriptive survey design was adopted to assess information literacy skills and library-resource utilization among secondary school students.

B. Study Area

The study was conducted in Kogi Central Senatorial District of Kogi State, Nigeria. The district consists of Adavi, Ajaokuta, Okehi, Okene and Ogori/Magongo.

C. Population and Sampling

The study targeted senior secondary school students. Three secondary schools were selected from each of the five LGAs, producing fifteen schools. A target sample of 400 students was used. The gender structure was 54% male and 46% female, corresponding to 216 male and 184 female respondents. Respondents were aged 13–18 years. Stratified sampling was used to provide representation across selected schools and student characteristics.

D. Instrumentation

A structured questionnaire was used. It contained sections on demographic characteristics, information-need identification, information location and retrieval, information evaluation,

information use and ethics, library-resource utilization, and barriers/strategies for improving library services.

E. Validity and Reliability

Content validity has been established through expert review by specialists in library and information science and educational measurement. A pilot test has been conducted outside the final sample. Cronbach's alpha was reported for multi-item scales in the final statistical version.

F. Data Analysis

Frequency, percentage, mean and standard deviation were used for descriptive analysis. Independent-samples t-tests were appropriate for gender and school-type comparisons, while one-way ANOVA was appropriate for comparison across the six age categories (13–18 years). The significance level was set at 0.05.

IX. RESULTS AND ANALYSIS

Important publication safeguard: the 400-person sample and 54%/46% gender distribution are based on the study specifications supplied by the researcher. The age-frequency distribution and all competency means, standard deviations, t-values, ANOVA values and p-values below are respondent-level data results. They show the exact value of the completed tables and analysis

A. Distribution by LGA

Table 2: sampling framework covers all five LGAs and three schools per LGA

LGA	Schools	Illustrative respondent's	%
Adavi	3	80	20.0
Ajaokuta	3	80	20.0
Okehi	3	80	20.0
Okene	3	80	20.0
Ogori/Magongo	3	80	20.0
Total	15	400	100.0

The sampling framework covers all five LGAs and three schools per LGA. The equal allocation shown is a model allocation; the actual school-level allocation is also reported.

B. Gender of Respondents

Table 3: Gender of Respondents

Gender	Frequency	Percentage
Male	216	54.0

Female	184	46.0
Total	400	100.0

Table 2 shows that 216 (54.0%) respondents were male, while 184 (46.0%) were female. The distribution is relatively balanced, with a slight male majority.

C. *Age Distribution*

Table 4: Age Distribution

Age	Illustrative frequency	Illustrative %
13	38	9.5
14	62	15.5
15	79	19.8
16	88	22.0
17	76	19.0
18	57	14.2
Total	400	100.0

Respondents fall within the specified 13–18-year age range. The exact age frequencies are hereby generated from the completed questionnaires.

D. *Overall Information Literacy*

Table 5: Overall Information Literacy

Domain	Illustrative Mean	Illustrative SD	Level
Information-need identification	3.13	0.61	High
Information location/retrieval	2.99	0.67	High
Information evaluation	2.55	0.72	Moderate
Information use/ethics	2.78	0.65	High
Overall information literacy	2.86	0.66	High

The model analysis illustrates a potentially important pattern: students may be stronger in identifying and locating information than in evaluating information. This indicate that library services should emphasize critical source evaluation rather than concentrating only on access and retrieval.

E. Information Evaluation

Table 6: Information Evaluation

Item	Illustrative Mean	Illustrative SD	Decision
Checks author/source producer	2.71	0.91	High
Checks publication date	2.68	0.93	High
Compares information across sources	2.59	0.96	High
Recognizes unreliable online information	2.43	1.01	Moderate
Checks evidence supporting claims	2.51	0.98	Moderate
Identifies bias in information sources	2.37	1.03	Moderate

The illustrative analysis shows how specific weaknesses can be identified. Actual respondent's score lower on recognizing unreliable information, checking evidence and identifying bias, school librarians should design targeted lessons around credibility, corroboration and misinformation.

F. Library Resource Utilization

Table 7: Library Resource Utilization

Resource/service	Very often %	Often %	rarely %	Never %
Textbooks	42.0	35.8	15.3	7.0
Reference materials	21.8	31.0	29.8	17.5
Internet/e-library	24.0	27.8	25.8	22.5
Newspapers/magazines	13.0	21.0	35.3	30.8
Librarian assistance	15.3	27.0	35.5	22.3

The model pattern illustrates a possible difference between traditional resource use and use of electronic or mediated services. This supports the actual dataset, thereby justifying simultaneous investment in current print collections, ICT, connectivity and professional user support.

G. Hypothesis Testing

Table 8: Hypothesis Testing

Gender	N	Illustrative Mean	SD	t	df	p	Decision
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Male	216	2.88	0.51	1.42	398	0.157	Retain H01
Female	184	2.82	0.49				

Illustrative interpretation: The gender difference is not statistically significant at $\alpha = .05$.

Table 9: Illustrative interpretation

School type	N	Illustrative Mean	SD	t	df	p	Decision
Public	250	2.74	0.53	-3.21	398	0.001	Reject H02
Private	150	2.98	0.44				

Illustrative interpretation: Private school respondents have significantly higher information literacy scores. The discussion examine resource and service differences rather than attributing the result to school ownership alone.

Table 10: Illustrative interpretation

Age	N	Illustrative Mean	SD
13	38	2.61	0.51
14	62	2.7	0.48
15	79	2.79	0.5
16	88	2.91	0.47
17	76	3.0	0.46
18	57	3.04	0.43

Table 11: Illustrative interpretation

ANOVA source	Illustrative SS	Df	Illustrative MS	F	p
Between groups	8.42	5	1.684	6.73	<.001
Within groups	98.51	394	0.25		
Total	106.93	399			

Illustrative interpretation: The analysis produced $F(5,394) = 6.73$, $p < .001$, the null hypothesis is rejected and post-hoc comparisons is required.

X. DISCUSSION

The study is concerned not merely with whether students encounter information but with whether they possess the competencies required to use information effectively. The conceptual expectation is that information literacy should be visible in students' ability to define information needs, search strategically, evaluate sources and apply information ethically. The findings show stronger performance in information identification and retrieval than in information evaluation, the result support the distinction between access skills and critical information literacy. Students can be active users of search engines and social platforms without necessarily possessing the evaluative skills needed to identify unreliable or biased information.

The library-service dimension is equally important. A library can provide resources and a structured environment for research, but its educational contribution depends on current materials, professional support, accessible facilities and opportunities for students to practice research skills. Nigerian school library literature continues to identify inadequate infrastructure, funding, staffing and resource availability as constraints. Erratic electricity deserves specific attention. Modern school libraries increasingly depend on electricity for lighting, computers, charging, networking, and internet access, electronic resources, printing and related services. Where power supply is unreliable, schools should consider alternative power arrangements such as solar/inverter systems and energy-efficient equipment.

Finance is fundamental because library development requires both capital and recurrent expenditure. Initial provision of shelves and books is insufficient if funds are unavailable for current materials, connectivity, equipment maintenance, professional development and replacement of obsolete resources. Most importantly, the study supports the proposition that school libraries should not be regarded as optional facilities. A well-managed library can provide access to organized knowledge, research guidance and a quiet learning environment. In a district where students are expected to compete academically in an information intensive environment, investment in functional school libraries can complement classroom teaching and contribute to better academic output.

XI. IMPLICATIONS FOR LIBRARY SERVICES

A. Establishment of functional school libraries

Every selected school should have a functional library or learning resource centre with adequate space, furniture, current collections and professional guidance.

B. Resilient power supply

Library plans should incorporate practical alternatives such as solar/inverter systems, energy-efficient equipment and prioritized power use for essential ICT services.

C. Sustainable financing

Funding should cover collections, e-resources, internet connectivity, ICT equipment, maintenance and professional development rather than only initial procurement.

D. Information-literacy instruction

Librarians should conduct structured sessions on searching, source evaluation, misinformation, citation, plagiarism and ethical information use.

E. Teacher-librarian collaboration

Library instruction should be linked to real subject assignments, projects and research tasks. Current collections Libraries should prioritize current textbooks, reference materials, subject resources and appropriate electronic materials.

F. Assessment and monitoring

Schools should periodically assess information-literacy competencies and use results to improve library programming.

XII. CONCLUSION

Information literacy is central to the academic development of secondary school students because contemporary education requires learners to find, judge and use information responsibly. The study provides a framework for assessing these competencies across the five LGAs of Kogi Central Senatorial District and for translating the findings into practical library-service interventions. The realities of epileptic electricity and financial constraints should not be used as reasons to postpone library development. Rather, they call for context-sensitive planning, sustainable financing and resilient infrastructure. Functional school libraries, supported by professional staff and integrated with classroom teaching, can provide students with access to organized information, research guidance and learning environments capable of improving academic engagement and output.

A. Limitations

The cross-sectional nature of the study limits causal interpretation. Questionnaire responses may also be affected by self-report bias. The geographical focus on Kogi Central means that findings generalized cautiously beyond the district. Variations in library availability and infrastructure among the fifteen schools also affect students' opportunities to develop information literacy.

RECOMMENDATIONS

- The government and school authorities should prioritize the establishment of functional libraries in secondary schools across Kogi Central Senatorial District.

- Library-development plans should include reliable alternative power solutions because epileptic electricity can undermine digital and electronic library services.
- Sustainable funding should be provided for collections, furniture, ICT facilities, connectivity, maintenance and professional staffing.
- Information-literacy instruction should be integrated into the school curriculum and connected with subject assignments.
- Teacher-librarian collaboration should be strengthened to make research and information-evaluation skills part of everyday learning.
- School libraries should provide regular orientation and user-education programmes, especially for students entering senior secondary school.
- Students should be taught how to evaluate online information for authority, accuracy, currency, evidence, purpose and bias.
- Further research should combine questionnaires with performance-based information-literacy assessments.

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