Impact of Information Literacy on Academic Performance among Undergraduate Students in Nigeria

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Abstract

Purpose: The aim of the study was to investigate the impact of information literacy on academic performance among undergraduate students in Nigeria.

Methodology: This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low cost advantage as compared to a field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

Findings: A study on the impact of information literacy on academic performance among undergraduate students in Nigeria found a significant positive correlation between information literacy skills and academic achievement. The research highlighted that students with higher levels of information literacy were more likely to demonstrate better performance in their coursework, exams, and overall academic outcomes.

Unique Contribution to Theory, Practice and Policy: Social cognitive theory, information processing theory& constructivist learning theory may be used to anchor future studies on the impact of information literacy on academic performance among undergraduate students in Nigeria. Integrate information literacy instruction into the university curriculum across disciplines, ensuring that students acquire essential skills for locating, evaluating, and utilizing information effectively. Develop national guidelines for information literacy instruction within Nigerian higher education institutions, outlining standards and best practices for integrating information literacy into the curriculum.

Keywords: *Information Literacy, Academic Performance, Undergraduate Students*

INTRODUCTION

Academic performance refers to the extent to which a student achieves success in their educational endeavors within a formal academic setting, typically measured by various quantitative and qualitative indicators. These indicators may include grades, test scores, class rankings, completion rates, mastery of subject matter, participation in extracurricular activities, and overall educational attainment. In developed economies like the USA, academic performance is often measured through standardized testing and graduation rates. For example, according to the National Center for Education Statistics (NCES), high school graduation rates in the United States have been steadily increasing over the past decade, reaching an all-time high of 85% in the 2018-2019 school year (NCES, 2020). Additionally, performance on standardized tests like the SAT and ACT is frequently used as a benchmark for college readiness. For instance, data from the College Board indicates that the mean SAT scores for both the Evidence-Based Reading and Writing (ERW) and Math sections have remained relatively stable over the past five years, with slight fluctuations (College Board, 2020).

In Japan, academic performance is heavily emphasized and is often gauged through national exams like the National Center Test for University Admissions (commonly known as the "Center Test"). According to a study by Yokoyama and Goto (2017), Japanese students consistently demonstrate high levels of academic achievement, with performance on the Center Test serving as a key determinant for admission into prestigious universities. Additionally, international assessments such as the Programme for International Student Assessment (PISA) have consistently ranked Japan among the top-performing countries in terms of student performance in subjects like mathematics, science, and reading (OECD, 2018).

In developing economies, academic performance can vary widely depending on factors such as access to quality education, socio-economic status, and government investment in the education sector. For example, in India, academic performance is often assessed through national exams like the Central Board of Secondary Education (CBSE) examinations for secondary and senior secondary levels. According to data from the Ministry of Human Resource Development, the pass percentage for the CBSE Class 12 examinations has shown a slight increasing trend over the past few years, reaching 88.78% in 2020 (Ministry of Human Resource Development, 2020). However, challenges such as disparities in educational resources and infrastructure persist, leading to disparities in academic outcomes among different regions and socio-economic groups.

In Sub-Saharan African economies, academic performance often faces challenges due to factors such as limited access to quality education, infrastructure deficiencies, and socio-economic disparities. For instance, in Nigeria, academic performance is commonly evaluated through national examinations such as the West African Senior School Certificate Examination (WASSCE) administered by the West African Examinations Council (WAEC). However, despite efforts to improve educational standards, data from WAEC indicates that the percentage of candidates who obtain five credits and above, including English and Mathematics, has fluctuated over the years, with variations among different states and regions (West African Examinations Council, 2019). Furthermore, disparities in educational resources and teacher quality contribute to uneven academic outcomes across the country.

Similarly, in Kenya, academic performance is measured through national examinations like the Kenya Certificate of Secondary Education (KCSE). According to the Kenya National Bureau of Statistics (KNBS), the overall performance in the KCSE examinations has shown improvement in recent years, with a higher proportion of candidates achieving the minimum university entry grade (KNBS, 2020). However, challenges such as overcrowded classrooms, inadequate infrastructure, and curriculum gaps persist, affecting the quality of education and academic outcomes, particularly in rural and marginalized areas.

In South Africa, academic performance is assessed through national assessments like the National Senior Certificate (NSC) examinations administered by the Department of Basic Education. Despite efforts to address educational inequalities, disparities persist, particularly between urban and rural schools as well as across socio-economic groups. According to the Department of Basic Education (2020), while the overall pass rate for the NSC examinations has improved over the years, there are significant discrepancies in performance among provinces, with Western Cape consistently ranking higher than other provinces. Factors such as teacher shortages, inadequate infrastructure, and socioeconomic challenges contribute to these disparities, highlighting the complex landscape of academic achievement in South Africa.

In Ghana, academic performance is evaluated through examinations such as the West African Senior School Certificate Examination (WASSCE) conducted by the West African Examinations Council (WAEC). Despite improvements in educational policies and infrastructure development, the quality of education and academic outcomes vary across regions. For example, a study by Darteh and Owusu (2017) found that while urban schools tend to perform better in WASSCE examinations compared to rural schools, there are also intra-urban disparities, with schools in affluent neighborhoods outperforming those in deprived areas. This underscores the importance of addressing not only rural-urban disparities but also intra-urban inequalities to improve overall academic performance in Ghana.

In Ethiopia, academic performance is often measured through national examinations such as the Ethiopian General Secondary Education Certificate Examination (EGSECE). Despite improvements in access to education and government initiatives to enhance the quality of schooling, challenges persist, particularly in remote and rural areas. According to a study by Berhanu and Chala (2019), disparities in academic performance exist among regions, with students in urban centers generally outperforming their rural counterparts. Factors such as limited access to educational resources, teacher shortages, and socio-economic disparities contribute to these variations, highlighting the need for targeted interventions to improve academic outcomes across the country.

In Tanzania, academic performance is evaluated through national assessments like the Certificate of Secondary Education Examination (CSEE). While efforts have been made to improve educational infrastructure and curriculum delivery, challenges such as overcrowded classrooms, teacher quality, and inadequate resources remain prevalent, particularly in rural areas. According to data from the Ministry of Education, the overall pass rate in the CSEE examinations has shown improvement over the years, but regional disparities persist, with certain regions consistently performing below the national average (Ministry of Education, 2020). Addressing these challenges

requires comprehensive strategies that prioritize equitable access to quality education and targeted support for disadvantaged communities.

In Uganda, academic performance is assessed through national examinations such as the Uganda Certificate of Education (UCE) and the Uganda Advanced Certificate of Education (UACE). Despite efforts to improve the quality of education and increase access to schooling, challenges such as teacher shortages, inadequate infrastructure, and disparities in resource allocation persist. According to data from the Uganda National Examinations Board (UNEB), while the overall pass rates in UCE and UACE examinations have shown improvement over the years, there are significant variations in performance among regions and schools, with urban schools generally performing better than rural ones (UNEB, 2020). Bridging these disparities requires targeted interventions that address the root causes of educational inequality and prioritize equitable access to quality education for all Ugandan students.

In Zambia, academic performance is evaluated through national examinations such as the Grade 12 Examination administered by the Examinations Council of Zambia (ECZ). Despite progress in expanding access to education and implementing educational reforms, challenges such as inadequate funding, teacher shortages, and curriculum deficiencies hinder the attainment of quality education outcomes. According to the Ministry of General Education, while the pass rates in Grade 12 examinations have shown improvement, particularly in recent years, there are persistent disparities in performance among provinces and districts (Ministry of General Education, 2020). Addressing these challenges requires sustained efforts to strengthen educational infrastructure, enhance teacher training and support, and promote inclusive policies that prioritize the needs of marginalized communities.

Information literacy is a multifaceted concept encompassing the ability to identify, locate, evaluate, and effectively use information from various sources to solve problems, make informed decisions, and achieve specific goals (Bruce, 1997). It involves not only technical skills related to information retrieval and management but also critical thinking, ethical considerations, and effective communication. Four key dimensions of information literacy include information seeking behavior, critical evaluation of sources, information literacy skills, and ethical use of information (Bundy, 2004). Information seeking behavior refers to the strategies individuals employ to search for and access relevant information, which can significantly impact their academic performance by enabling them to access the resources needed for research and learning (Hemminger, 2007). Critical evaluation of sources involves assessing the credibility, reliability, and relevance of information, which is crucial for making informed decisions and producing high-quality academic work (Eisenberg & Berkowitz, 1990).

Furthermore, information literacy skills encompass the ability to effectively use various tools and technologies for information retrieval, analysis, and synthesis, enhancing students' capacity to engage with scholarly discourse and contribute meaningfully to academic discussions (Association of College & Research Libraries, 2000). Ethical use of information involves understanding and adhering to principles of intellectual property rights, plagiarism, and citation practices, ensuring academic integrity and fostering responsible scholarship (Bretag, 2019). By cultivating these dimensions of information literacy, students can develop the competencies necessary to excel

academically, navigate the complexities of information-rich environments, and contribute meaningfully to their academic disciplines and beyond.

Problem Statement

In Nigeria, undergraduate students face numerous challenges in achieving optimal academic performance, and one significant factor that may influence their success is their level of information literacy. Information literacy, defined as the ability to locate, evaluate, and effectively use information from various sources, plays a crucial role in students' academic endeavors (Bruce, 1997). However, there is a gap in understanding the extent to which information literacy skills impact the academic performance of undergraduate students in Nigerian higher education institutions. Recent studies have highlighted the importance of information literacy in academic settings, emphasizing its role in enhancing critical thinking, problem-solving abilities, and overall academic success (Kuhlthau, 2004; Adedoyin & Oyelekan, 2021). Despite these insights, limited research has specifically examined the relationship between information literacy and academic performance among undergraduate students in Nigeria. Furthermore, the Nigerian higher education landscape is characterized by diverse challenges, including inadequate library resources, limited access to technology, and varying levels of information literacy instruction (Ajiboye & Tella, 2007; Igwe & Uzuegbu, 2019). Therefore, there is a pressing need to investigate how these contextual factors intersect with students' information literacy skills and their academic performance. By addressing this gap in the literature, stakeholders in Nigerian higher education can better understand the factors influencing undergraduate students' academic success and develop targeted interventions to support their information literacy development.

Theoretical Framework

Social Cognitive Theory

Originated by Albert Bandura, social cognitive theory emphasizes the dynamic interplay between personal factors, environmental influences, and behavior (Bandura, 1986). In the context of information literacy and academic performance among undergraduate students in Nigeria, this theory suggests that individuals' information-seeking behaviors and academic outcomes are shaped by their beliefs, self-efficacy, and social interactions. For example, students with high self-efficacy in information literacy may engage more actively in seeking and utilizing information resources, thereby enhancing their academic performance. Understanding the role of social cognitive factors can provide insights into how to foster information literacy skills and improve academic outcomes among Nigerian undergraduate students.

Information Processing Theory

Proposed by George A. Miller, information processing theory focuses on how individuals acquire, store, and retrieve information (Miller, 1962). In the context of the suggested topic, this theory highlights the cognitive processes involved in information literacy, such as attention, perception, memory, and problem-solving. For instance, students' ability to critically evaluate information sources and synthesize relevant findings may be influenced by their cognitive capacities and strategies for information processing. Exploring information processing mechanisms can shed

light on the cognitive underpinnings of information literacy and its impact on academic performance among undergraduate students in Nigeria.

Constructivist Learning Theory

Originated by Jean Piaget and further developed by Lev Vygotsky, constructivist learning theory posits that individuals actively construct their knowledge through interaction with their environment (Piaget, 1977; Vygotsky, 1978). In the context of information literacy, this theory underscores the importance of active engagement, inquiry-based learning, and social collaboration in developing information literacy skills (Bruce, 1997). For example, creating opportunities for Nigerian undergraduate students to engage in authentic tasks that require information seeking and analysis can promote deeper understanding and application of information literacy concepts, thereby enhancing their academic performance.

Empirical Review

Adedoyin and Oyelekan (2021) investigated into the impact of information literacy skills on the academic performance of undergraduate students in Nigerian private universities. Utilizing a quantitative approach, the study aimed to ascertain the correlation between information literacy proficiency and students' academic achievements. Through the distribution of a survey questionnaire among a representative sample of undergraduate students, the researchers gathered data on students' information literacy skills and their corresponding academic performance. The findings unveiled a significant positive association between information literacy competencies and academic success, highlighting the pivotal role of information literacy in enhancing students' ability to excel in their academic pursuits. Consequently, the study recommended the integration of information literacy instruction into the university curriculum and the provision of adequate resources to bolster students' information-seeking behaviors, thereby fostering an environment conducive to academic excellence.

Oyewusi and Bamigbade (2018) explored to the relationship between information literacy and academic performance among undergraduate students in Nigerian universities. Employing a combination of surveys and interviews, the researchers sought to elicit insights from both students and faculty members regarding the significance of information literacy in shaping students' academic outcomes. The study uncovered a compelling connection between students' information literacy skills and their academic achievements, indicating that individuals with robust information literacy competencies tended to exhibit higher levels of critical thinking and research prowess, thereby translating into superior academic performance. To capitalize on these findings, the study advocated for the implementation of comprehensive information literacy programs, faculty training initiatives aimed at integrating information literacy into teaching methodologies, and the creation of supportive learning environments conducive to the holistic development of students' information literacy proficiencies.

Ajiboye and Tella (2017) explored the intricacies surrounding information literacy instruction in Nigerian university libraries and its implications for students' academic performance. By conducting interviews and focus group discussions involving librarians, faculty members, and

students, the researchers aimed to uncover the barriers hindering effective information literacy instruction and the potential opportunities for enhancing students' academic success through improved information literacy initiatives. The study revealed a multitude of challenges impeding the effective delivery of information literacy instruction, including resource constraints, inadequate training, and a lack of institutional support. Despite these obstacles, participants acknowledged the pivotal role of information literacy in augmenting students' academic achievements, underscoring the pressing need for concerted efforts to revitalize information literacy programs within Nigerian university libraries. To address these challenges, the study recommended the development of tailored information literacy curricula, collaborative partnerships between librarians and faculty members, and advocacy for increased institutional investment in information literacy initiatives.

Ezeala and Nwalo (2016) assessed the information literacy competencies of undergraduate students in Nigerian universities and their impact on academic performance. Through the administration of a structured questionnaire to a diverse cohort of students across various disciplines, the researchers sought to gauge students' proficiency in information seeking, evaluation, and utilization, while also examining the correlation between information literacy skills and academic success. The study unearthed a positive relationship between students' information literacy competencies and their academic performance, elucidating that individuals with enhanced information literacy skills tended to attain higher grades. Drawing upon these findings, the study advocated for the incorporation of information literacy assessment mechanisms into institutional quality assurance frameworks and the implementation of targeted interventions designed to bolster students' information literacy proficiencies, thereby fostering a conducive learning environment conducive to academic excellence.

Igwe and Uzuegbu (2015) investigated the information literacy competencies of undergraduate students in Nigerian university libraries and their impact on academic performance. Employing a mixed-methods approach encompassing surveys, interviews, and observations, the researchers aimed to glean insights into students' information literacy proficiencies and the factors influencing their development. The study unraveled disparities in students' information literacy skills across different disciplines and levels of study, with variables such as prior exposure to library resources and academic support exerting significant influences. To address these disparities and capitalize on students' information literacy potential, the study recommended the integration of information literacy into the university curriculum, the promotion of collaborative learning experiences, and the enhancement of library services to cater to students' diverse information needs.

Ogunyemi and Iahad (2014) evaluated the efficacy of information literacy interventions on the academic performance of undergraduate students in a Nigerian university. Through the implementation of a series of workshops and tutorials focusing on information literacy skills development over the course of an academic year, the researchers sought to ascertain the impact of these interventions on students' information literacy proficiencies and academic outcomes. The study revealed a discernible improvement in students' information literacy competencies and academic achievements following the interventions, underscoring the instrumental role of targeted information literacy initiatives in fostering academic excellence. Building upon these findings, the study advocated for the institutionalization of information literacy programs within Nigerian universities, active engagement of faculty members in supporting information literacy instruction,

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and the utilization of technology-enhanced learning resources to reinforce students' information literacy skills acquisition.

Iyoro (2013) explored the relationship between information literacy levels and academic performance among undergraduate students enrolled in various Nigerian universities. Through standardized tests and academic records analysis, the researchers aimed to ascertain the correlation between students' information literacy competencies and their corresponding grades across diverse disciplines and institutions. The study unveiled significant disparities in both information literacy levels and academic performance among students, with variables such as library resources availability and faculty support exerting notable influences. To mitigate these disparities and cultivate a conducive learning environment supportive of academic success, the study recommended the development of national guidelines for information literacy instruction, the enhancement of library infrastructure, and the promotion of collaborative efforts among stakeholders to address information literacy gaps across Nigerian higher education institutions.

METHODOLOGY

This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low-cost advantage as compared to field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

FINDINGS

The results were analyzed into various research gap categories that is conceptual, contextual and methodological gaps

Conceptual Research Gap: Despite the comprehensive investigations conducted by Adedoyin and Oyelekan (2021) and other researchers, there remains a lack of in-depth exploration into the specific mechanisms through which information literacy skills influence academic performance. While the studies have established a positive correlation between information literacy competencies and academic success, further research is needed to delve deeper into the cognitive processes involved, such as critical thinking, problem-solving, and knowledge application, which underpin this relationship.

Contextual Research Gap: While studies like that of Ajiboye and Tella (2017) shed light on the challenges faced in delivering effective information literacy instruction within Nigerian university libraries, there is a dearth of research focusing on the specific contextual factors influencing information literacy development and its impact on academic performance across different institutional settings within Nigeria. Understanding how variations in institutional resources, teaching methodologies, and support structures affect students' information literacy outcomes is crucial for designing contextually relevant interventions.

Geographical Research Gap: The studies predominantly focus on information literacy and academic performance within the Nigerian higher education context. However, there is limited comparative research examining how information literacy initiatives and their outcomes vary across different regions or countries with similar socio-economic backgrounds. Exploring such cross-cultural differences could provide valuable insights into effective strategies for promoting

information literacy and enhancing academic success in diverse educational settings beyond Nigeria.

CONCLUSION AND RECOMMENDATIONS

Conclusions

In conclusion, the studies conducted on the impact of information literacy on academic performance among undergraduate students in Nigeria collectively underscore the pivotal role of information literacy skills in shaping students' educational outcomes. Across various methodologies and contexts, researchers consistently find a positive association between information literacy competencies and academic success. These findings emphasize the importance of integrating information literacy instruction into the university curriculum and providing adequate resources to support students' information-seeking behaviors.

Moreover, the research highlights the challenges faced in delivering effective information literacy instruction within Nigerian university libraries, including resource constraints, inadequate training, and a lack of institutional support. Addressing these challenges is crucial for revitalizing information literacy programs and fostering a conducive learning environment supportive of academic excellence. Moving forward, there is a need for further empirical investigations to deepen our understanding of the specific mechanisms through which information literacy influences academic performance, as well as comparative research to explore variations in information literacy outcomes across different institutional settings within Nigeria and beyond. By addressing these research gaps and implementing targeted interventions, stakeholders can work towards enhancing information literacy proficiency among undergraduate students in Nigeria, ultimately contributing to their overall academic success and future prospects.

Recommendations

Theory

Conduct further research to explore the underlying mechanisms through which information literacy skills influence academic performance, including cognitive processes such as critical thinking and problem-solving. Develop theoretical frameworks that integrate information literacy into broader models of educational achievement, considering its interplay with other factors such as socio-economic background and institutional context. Investigate cross-cultural differences in information literacy outcomes to enrich existing theoretical perspectives and enhance our understanding of its universality across diverse educational settings.

Practice

Integrate information literacy instruction into the university curriculum across disciplines, ensuring that students acquire essential skills for locating, evaluating, and utilizing information effectively. Provide faculty training initiatives aimed at incorporating information literacy into teaching methodologies, thereby fostering a culture of information literacy across academic departments. Enhance library services and resources to cater to students' diverse information needs, including access to digital databases, research materials, and expert guidance from librarians. Promote collaborative learning experiences that encourage peer-to-peer knowledge sharing and the development of information literacy competencies through group projects and discussions.

Policy

Develop national guidelines for information literacy instruction within Nigerian higher education institutions, outlining standards and best practices for integrating information literacy into the curriculum. Advocate for increased institutional investment in information literacy initiatives, including funding for staff training, infrastructure development, and the acquisition of digital resources. Establish partnerships between universities, libraries, and government agencies to support the implementation of comprehensive information literacy programs and initiatives. Incorporate information literacy assessment mechanisms into institutional quality assurance frameworks to monitor and evaluate students' information literacy competencies systematically.

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