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**IMPACT OF NUC ACCREDITATION INDICES ON STUDENTS'  
EDUCATIONAL OUTCOMES IN PUBLIC UNIVERSITY, FCT, ABUJA**

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DOI: <https://doi-doi.org/101555/ijarp.6160>**ABSTRACT**

This study examined the impact of National Universities Commission (NUC) accreditation indices on students' educational outcomes in public universities within the Federal Capital Territory (FCT), Abuja, Nigeria. Specifically, the research investigated the relationship between curriculum adequacy and students' educational outcomes, as well as the extent to which library resource adequacy influences students' academic achievement. The study adopted an ex-post-facto research design using the correlational method. The population comprised 613 junior and senior academic staff of the University of Abuja, from which a sample of 184 respondents (30%) was selected through stratified random sampling based on academic rank. Two self-developed instruments were employed for data collection: the Accreditation Questionnaire (AQ) containing 20 items structured on a four-point scale, and the Students' Educational Outcome Checklist (SEOC), which captured students' academic achievement using cumulative grade point average (CGPA). The instruments were validated by experts in Educational Management and Foundations, and reliability was established using Cronbach Alpha method, yielding a coefficient of 0.78. Data were analyzed using coefficient of determination for research questions and Pearson Product Moment Correlation Statistics for hypotheses testing at 0.05 level of significance. Findings revealed that curriculum adequacy has a significant positive relationship with students' educational outcomes ( $r = 0.566$ ,  $r^2 = 0.320$ ,  $p = 0.000$ ), accounting for 32% variance in academic outcomes. Similarly, library resource adequacy significantly relates to students' academic outcomes ( $r = 0.525$ ,  $r^2 = 0.275$ ,  $p = 0.000$ ), explaining 27.5% of the variance. Both null hypotheses were rejected, confirming that curriculum adequacy and library resource adequacy are significantly related to students' academic achievement. The study concluded that NUC accreditation indices are

not merely procedural requirements but critical quality assurance mechanisms that substantially influence students' learning experiences and academic performance. It was recommended that university management should ensure periodic curriculum review and updating, prioritize adequate funding for library development, and that the NUC should strengthen post-accreditation monitoring mechanisms to ensure sustained compliance with established standards.

**KEYWORDS:** NUC accreditation indices, curriculum adequacy, library resource adequacy, students' educational outcomes, academic achievement, quality assurance, University of Abuja.

## INTRODUCTION

The quest for quality in higher education has become increasingly paramount in contemporary society, particularly as universities worldwide face mounting pressures to demonstrate accountability, relevance, and effectiveness in producing graduates capable of meeting national and global demands. In Nigeria, the National Universities Commission (NUC) stands as the apex regulatory body mandated by law to ensure quality assurance across all universities through comprehensive accreditation processes. Established in 1962 as an advisory agency and transformed into a statutory body in 1974, the NUC has evolved into a crucial governmental arm responsible for laying down Minimum Academic Standards and accrediting academic programs to ensure Nigerian graduates remain competitive both nationally and internationally (Okojie, 2008; National Universities Commission, 2009). The Federal Capital Territory (FCT), Abuja, represents a unique educational system within Nigeria, hosting numerous federal, State and private universities that undergo periodic NUC accreditation exercises. As of 2025, the FCT accommodates fourteen universities, two federal and twelve private institutions, all of which are subject to rigorous accreditation standards (MySchoolGist, 2025). The strategic importance of Abuja as Nigeria's political and administrative centre makes it an ideal context for examining the relationship between accreditation indices and student educational outcomes.

The NUC accreditation framework evaluates multiple dimensions of institutional performance, with particular emphasis on four critical areas: academic matters, staffing, physical facilities, and library resources, each requiring a minimum score of 70% for full accreditation (Authority News, 2025). Among these accreditation indices, curriculum adequacy and library resource availability emerge as particularly critical determinants of

educational quality, directly influencing students' learning experiences and academic achievement. Curriculum adequacy encompasses the relevance, comprehensiveness, and quality of academic content aligned with contemporary educational standards and labour market demands, while library resource adequacy pertains to the availability, accessibility, and utilization of information resources essential for academic scholarship. Despite the significance of these quality assurance mechanisms, empirical evidence examining their actual impact on students' educational outcomes in the FCT context remains limited.

### **Statement of the Problem**

Quality assurance in Nigerian universities remains a major concern despite the regulatory oversight of the National Universities Commission (NUC). As the apex body responsible for accrediting academic programmes, the NUC employs specific accreditation indices such as curriculum adequacy, academic content relevance, staffing, library holdings, and instructional facilities to ensure that minimum academic standards are maintained. In principle, adherence to these indices should translate into improved students' educational outcomes, particularly in terms of academic achievement, skill acquisition, and overall learning quality. However, persistent complaints about declining standards, graduate unemployment, weak research skills, and poor academic performance in public universities raise critical questions about the actual impact of these accreditation indices on students' outcomes. In public universities within the Federal Capital Territory (FCT), Abuja institutions that are expected to model best practices due to their proximity to policy-making and regulatory agencies, there is growing concern that NUC accreditation outcomes may not sufficiently reflect the real learning experiences of students. Accreditation exercises often emphasize documentary evidence and compliance during periodic assessments, yet students continue to face challenges such as outdated curricula, inadequate library resources, limited access to current academic materials, and weak alignment between course content and contemporary societal and labour market demands. This situation creates a gap between formal accreditation status and the actual quality of education delivered.

Curriculum adequacy, a core NUC accreditation index, is intended to ensure that academic programmes are comprehensive, current, and responsive to national and global developments. Nonetheless, questions remain as to whether accredited curricula genuinely enhance students' academic outcomes or merely satisfy minimum regulatory benchmarks. Similarly, library resource adequacy covering the availability, currency, and accessibility of textbooks, journals, electronic databases, and learning spaces is central to effective teaching, learning,

and research. Despite its prominence in accreditation requirements, many students still report limited access to up-to-date resources, which may constrain independent learning, critical thinking, and academic performance. Empirical evidence linking NUC accreditation indices to measurable students' educational outcomes remains limited and inconclusive, particularly within the context of public universities in FCT, Abuja. Most existing studies focus on institutional compliance or administrative perspectives, with less attention given to how specific accreditation indices relate directly to students' academic outcomes. This lack of context-specific, evidence-based insight makes it difficult for policymakers, university administrators, and quality assurance units to assess whether accreditation processes are achieving their core objective of improving students' learning outcomes. Against this backdrop, the problem confronting this study is the uncertainty surrounding the extent to which key NUC accreditation indices specifically curriculum adequacy and library resource adequacy relate to and influence students' educational outcomes in public universities in FCT, Abuja. Addressing this problem is essential for validating the effectiveness of accreditation as a quality assurance mechanism and for informing reforms aimed at strengthening educational outcomes in Nigerian universities.

### **Research Questions**

The following questions were raised.

1. What is the relationship between curriculum adequacy and students' educational outcomes?
2. To what extent does the adequacy of library resources influence students' educational outcomes?

### **Hypotheses**

The following hypotheses were formulated

1. Curriculum adequacy has no significant relationship with students' academic outcomes.
2. Library resource adequacy does not significantly relate to students' academic outcomes.

### **Literature Review**

#### **Educational Outcomes Measurement in Higher Education**

Student educational outcomes encompass multiple dimensions extending beyond mere grade accumulation to include knowledge acquisition, skill development, personal growth, and preparation for professional practice. Academic achievement, typically measured through grade point average (GPA), represents the most commonly employed indicator of educational

outcomes in higher education research due to its objectivity, standardization, and availability. However, scholars increasingly recognize that comprehensive assessment of educational outcomes requires consideration of multiple indicators, including retention rates, degree completion, graduate employment, and long-term career success (Kuh & Gonyea, 2003). Research examining determinants of academic performance identifies multiple factors operating at individual, institutional, and systemic levels. A comprehensive study investigating key factors influencing university students' academic performance identified previous academic achievement, study hours, teaching quality, library resource availability, and institutional support as significant predictors of academic success (Arora et al., 2024). The research employed linear regression modeling and achieved 98% accuracy in predicting factors affecting student performance, underscoring the complex interplay of variables shaping educational outcomes.

Similarly, research conducted in Ethiopian universities found that field of study, age, smoking behaviour, and access to academic resources significantly influenced academic performance, with students in medical and health sciences demonstrating higher achievement levels (Kahsay et al., 2022). The relationship between institutional quality factors and student outcomes assumes particular importance in understanding how universities contribute to student success. Research suggests that effective institutions demonstrate alignment between mission, resources, curriculum, instruction, and assessment, creating coherent educational environments supporting student learning (Barber & Mourshed, 2007). Within this framework, accreditation indices such as curriculum adequacy and library resource availability function as enabling conditions facilitating effective teaching and learning rather than as isolated variables operating independently.

### **Curriculum Adequacy and Student Academic Outcomes**

Curriculum adequacy refers to the extent to which educational programs provide comprehensive, relevant, and high-quality content appropriately sequenced and aligned with defined learning objectives and contemporary societal needs. The relationship between curriculum quality and student achievement has attracted considerable scholarly attention, with mounting evidence suggesting that effective curriculum design significantly influences educational outcomes. Research demonstrates that high-quality curriculum serves as a coherent blueprint for achieving specified learning outcomes, encompassing not merely content coverage but also pedagogical approaches, assessment mechanisms, and alignment with student standards (Barber & Mourshed, 2007). Empirical investigations into curriculum

effectiveness reveal complex relationships between curriculum characteristics and student performance. A large-scale study involving nearly 6,000 schools across six U.S. states found that curriculum choice alone, without corresponding investments in teacher professional development and implementation support, yielded minimal differences in student achievement (Kane & Staiger, 2019). This finding highlights that curriculum adequacy extends beyond content selection to encompass implementation quality, teacher competence, and institutional support systems. The study concluded that districts seeking to maximize curriculum benefits must simultaneously invest in teacher development, suggesting that curriculum and teaching quality function as interdependent rather than independent variables. Research focusing on factors contributing to school effectiveness consistently identifies curriculum and instruction among critical determinants of student outcomes. A systematic literature review examining school effectiveness across multiple contexts concluded that effective schools demonstrate strong leadership, high-quality teachers, and effective curriculum and instruction as foundational pillars supporting student achievement (Granvik Saminathen et al., 2023). The review emphasized that curriculum relevance, depth of coverage, appropriate sequencing, and alignment with assessment mechanisms collectively contribute to enhanced educational outcomes. Furthermore, the study noted that curriculum effectiveness varies depending on contextual factors, including student characteristics, resource availability, and institutional culture.

Within higher education contexts, curriculum quality assumes particular importance in shaping graduate competencies and employability. A study investigating student satisfaction and academic performance found significant positive correlations between curriculum satisfaction and academic achievement, suggesting that students who perceive their curriculum as relevant and well-designed tend to demonstrate superior academic performance (Ali et al., 2012). The research emphasized that continuous monitoring and improvement of curriculum quality represent essential activities for university educators seeking to enhance student outcomes. Similarly, research on determinants of education quality revealed that students' perceptions of curriculum adequacy significantly influence their overall satisfaction with higher education and subsequent academic performance (Hossain & Asraf, 2016). In Nigerian universities, curriculum adequacy assumes heightened importance given the dual mandate of producing graduates competent for national development while maintaining international competitiveness. Studies examining NUC accreditation processes emphasize that curriculum evaluation focuses on content relevance, breadth and depth of coverage, alignment with benchmark standards, and capacity to equip graduates with requisite

knowledge and skills (Adegbesan, 2020). Research indicates that Nigerian universities face challenges in maintaining curriculum currency, with some programs lagging behind contemporary disciplinary developments and labour market requirements. These curriculum deficits potentially compromise graduates' competitiveness and employment prospects, underscoring the importance of rigorous curriculum evaluation within accreditation processes.

### **Library Resources and Educational Outcomes**

Academic libraries constitute essential components of university infrastructure, serving as repositories of scholarly knowledge and facilitating students' academic development through provision of diverse information resources. The relationship between library resource availability and student academic achievement has been extensively documented in empirical literature, with multiple studies establishing positive correlations between library usage and various indicators of academic success. These relationships persist even after controlling for demographic variables, prior academic performance, and concurrent college experiences, suggesting that library effects represent genuine contributions to student outcomes rather than mere correlations (Soria, Fransen, & Nackerud, 2013). One of the most comprehensive investigations of library impact, the Library Impact Data Project conducted at the University of Huddersfield and seven partner UK institutions, demonstrated that library use measured through electronic resource utilization, print book borrowing, and physical library visits bears significant relationships to student academic performance. While physical library visits showed weaker associations with academic standing, the use of electronic resources and material borrowing consistently correlated positively with grade point average, term retention, and degree completion rates (Stone, Pattern, & Ramsden, 2011; Allison, 2015). Subsequent analyses across multiple institutions confirmed these patterns, establishing library resource usage as a meaningful predictor of academic success.

Research examining first-year student library usage revealed that new students who utilize library resources at least once during their initial semester demonstrate higher first-term GPAs and improved fall-to-spring retention compared to non-users (Soria, Fransen, & Nackerud, 2013). The study, which examined over 5,300 first-year students while controlling for demographic characteristics, pre-college preparation, and campus experiences, found that students accessing electronic journals, borrowing books, or using library workstations achieved significantly better academic outcomes. Additionally, students enrolling in library instruction courses demonstrated higher retention rates, suggesting that systematic

introduction to library resources enhances their effective utilization and subsequent academic benefits. Longitudinal research investigating library impact on degree completion found that first-year students using library resources had significantly improved odds of graduating within four years or remaining enrolled compared to non-users (Soria, Fransen, & Nackerud, 2017). Specifically, students utilizing electronic resources and books demonstrated enhanced graduation probabilities, while those using electronic books and participating in library instruction showed improved retention odds. These findings suggest that library resource usage generates not merely short-term performance benefits but also contributes to long-term academic success and persistence.

In Nigeria, studies examining library resource utilization reveal both opportunities and challenges. Research investigating digital resource usage in Nigerian university libraries found that students' use of electronic resources, including e-books, e-journals, and online databases, positively correlates with academic performance (Ogunbodede & Oribhabor, 2022). The study established that increased digital resource usage definitively enhances student performance, with students demonstrating positive perceptions regarding these resources' impact on their academic outcomes. However, Nigerian university libraries face considerable challenges, including inadequate funding, limited modern infrastructure, insufficient qualified staff, and deficits in user education, all potentially constraining their impact on student achievement (Ezema, Ugwu, & Omah, 2024).

Research examining library resource management in Nigerian universities revealed statistically significant relationships between library resource adequacy and student academic performance, with electronic resources identified as particularly important for academic attainment (Idhalama, Oredo, & Makori, 2025). However, studies also document underutilization of university libraries by undergraduate students, attributable to factors including inadequate physical materials, cumbersome organization, insufficient user education, and limited awareness about available resources (Nkiko, Ugwu, & Okoye, 2020). These findings suggest that merely providing library resources proves insufficient; institutions must also invest in user education, digital literacy development, and systematic integration of library resources into curriculum delivery to maximize their educational impact. The relationship between different types of library resources and student success varies across resource categories. Research indicates that reference service usage associates positively with academic engagement and skill development, while library course enrollment correlates with higher GPAs, which in turn strongly associate with retention and degree completion (Gaha, Hinnefeld, & Pellegrino, 2018). These findings suggest that

comprehensive library programs encompassing diverse resources, services, and instructional components generate optimal student benefits compared to isolated resource provision.

**METHODS**

The study adopted an ex-post-facto research design using the correlational method to examine the relationship between NUC accreditation indices and students’ educational outcomes, as the variables of interest had already occurred and could not be manipulated by the researcher. The population of the study consisted solely of six hundred and thirteen (613) junior and senior academic staff of the University of Abuja. Using a stratified random sampling technique based on academic rank, a sample of one hundred and eighty-four (184) academic staff, representing 30% of the population, was selected to ensure adequate representation of junior and senior lecturers, associate professors, and professors. Data were collected using two self-developed instruments “Accreditation Questionnaire (AQ)”, which contained 20 items structured on a four-point scale, and the Students’ Educational Outcome Checklist (SEOC), which captured students’ academic achievement using cumulative grade point average (CGPA) on a four-point scale. The instruments were subjected to face and content validation by experts in Educational Management and Foundations, while reliability was established through a pilot study using the Cronbach Alpha method, yielding an overall reliability coefficient of 0.78 for the AQ. Data were analysed using coefficient of determination to answer the research questions, while Pearson Product Moment Correlation Statistics was employed to test the hypotheses at the 0.05 level of significance.

**RESULTS**

**Research Question 1:** What is the relationship between curriculum adequacy and students’ educational outcomes?

**Table 1: Relationship between curriculum adequacy and students’ educational outcomes.**

Variable	Mean	SD	r	r <sup>2</sup>	r <sup>2</sup> %	Remark
Curriculum Adequacy	3.64	.54	0.566	0.320	32.0	Positive Relationship
Students’ Educational Outcomes	3.08	.76				

Data in Table 1 shows the relationship between curriculum adequacy and students’ educational outcomes. The result shows a mean score of 3.64, SD = .54 for curriculum adequacy and mean score of 3.08, SD= .76 for students’ educational outcomes. The computed r value of .566 shows that there is a positive relationship between curriculum

adequacy and students’ educational outcomes. The  $r^2$  value of .320 revealed that curriculum adequacy relates to students’ educational outcomes by 32%.

**Research Question 2:** To what extent does the adequacy of library resources influence students’ educational outcomes?

**Table 2: Relationship between library resources and students’ educational outcomes.**

Variable	Mean	SD	r	r <sup>2</sup>	r <sup>2</sup> %	Remark
Library Resources	3.72	.52	0.525	0.275	27.5	Positive Relationship
Students’ Educational Outcomes	3.08	.76				

Data in Table 2 shows the relationship between library resources and students’ educational outcomes. The result shows a mean score of 3.72, SD = .52 for library resources and mean score of 3.08, SD= .76 for students’ educational outcomes. The computed r value of .525 shows that there is a positive relationship between library resources and students’ educational outcomes. The  $r^2$  value of .275 revealed that library resources relate to students’ educational outcomes by 27.5%.

**Hypothesis 1:** Curriculum adequacy has no significant relationship with students’ academic outcomes.

**Table 3: Pearson r on curriculum adequacy and students’ academic outcomes.**

		Curriculum Adequacy	Students’ academic outcomes
Curriculum Adequacy	Pearson Correlation	1	.566**
	Sig. (2-tailed)		.000
	N	184	184
Students’ academic outcomes	Pearson Correlation	.566**	1
	Sig. (2-tailed)	.000	
	N	184	184

\*\* Significant at 0.05

Table 3 revealed the Pearson r on curriculum adequacy and students’ academic outcomes. The table shows a significant relationship with r value of .566 and significance  $p=.000$ . at 0.05 level of significance. Therefore, the hypothesis which states that curriculum adequacy has no significant relationship with students’ academic outcomes was rejected. Thus, curriculum adequacy has a significant relationship with students ‘academic outcomes.

**Hypothesis 2:** Library resource adequacy does not significantly relate to students' academic outcomes.

**Table 4: Pearson r on library resource adequacy and students' academic outcomes.**

		Library Resource Adequacy	Students' academic outcomes
Library Resource Adequacy	Pearson Correlation	1	.525**
	Sig. (2-tailed)		.000
	N	184	184
Students' academic outcomes	Pearson Correlation	.525**	1
	Sig. (2-tailed)	.000	
	N	184	184

\*\* Significant at 0.05

Table 4 revealed the Pearson r on library resource adequacy and students' academic outcomes. The table shows a significant relationship with r value of .525 and significance  $p=.000$ . at 0.05 level of significance. Therefore, the hypothesis which states that library resource adequacy does not significantly relate to students' academic outcomes was rejected. Thus, library resource adequacy significantly relates to students' academic outcomes.

## DISCUSSION OF RESULT

Finding revealed that curriculum adequacy has a significant relationship with students' academic outcomes. The significant relationship between curriculum adequacy and students' academic outcomes can be attributed to the central role the curriculum plays in guiding teaching, learning, and assessment processes in the university system. A well-structured, relevant, and regularly updated curriculum ensures alignment between course objectives, instructional content, and expected learning outcomes, thereby enhancing students' understanding, engagement, and academic performance. When curricula are adequate in scope, depth, and relevance to contemporary knowledge and societal needs as required by NUC accreditation standards students are more likely to acquire essential cognitive skills, critical thinking abilities, and subject mastery, which translate into improved academic outcomes. This finding supports Ali et al. (2012), who found significant positive correlations between curriculum satisfaction and academic achievement, demonstrating that students who perceive their curriculum as relevant and well-designed tend to demonstrate superior academic performance. Similarly, Granvik Saminathen et al. (2023) identified effective curriculum and instruction among critical determinants of student outcomes, emphasizing

that curriculum relevance, depth of coverage, appropriate sequencing, and alignment with assessment mechanisms collectively contribute to enhanced educational outcomes. The finding also aligns with Hossain and Asraf (2016), who revealed that students' perceptions of academic content adequacy significantly influence their overall satisfaction with higher education and subsequent academic performance. Furthermore, Barber and Mourshed (2007) established that high-quality curriculum serves as a coherent blueprint for achieving specified learning outcomes, providing the foundation upon which effective teaching and learning are built. In the Nigerian context, Adegbesan (2020) emphasized that NUC curriculum evaluation focuses on content relevance, breadth and depth of coverage, and capacity to equip graduates with requisite knowledge and skills, underscoring the importance of curriculum adequacy in producing competent graduates.

Finding revealed that library resource adequacy significantly relates to students' academic outcomes. The significant relationship between library resource adequacy and students' academic outcomes is justified by the fact that libraries serve as the intellectual backbone of the university. Adequate library resources, including current textbooks, scholarly journals, electronic databases, and conducive study spaces, support independent learning, research activities, and effective completion of academic tasks. Access to up-to-date and diverse information resources enhances students' capacity for deeper inquiry, better coursework preparation, and improved examination performance. Hence, compliance with NUC requirements on library adequacy directly contributes to strengthening students' academic achievement. This finding supports Stone, Pattern, and Ramsden (2011), who found through the Library Impact Data Project that library use—measured through electronic resource utilization and print book borrowing—bears significant relationships to student grade point average, term retention, and degree completion rates. Similarly, Soria, Fransen, and Nackerud (2013) established that first-year students who utilize library resources at least once during their initial semester demonstrate higher first-term GPAs and improved retention compared to non-users, even after controlling for demographic characteristics and pre-college preparation. The finding also corroborates Allison (2015), who confirmed that while physical library visits showed weaker associations with academic standing, the use of electronic resources and material borrowing consistently correlated positively with academic performance across multiple UK institutions. In the Nigerian context, Ogunbodede and Oribhabor (2022) found that students' use of electronic resources, including e-books, e-journals, and online databases, positively correlates with academic performance, with increased digital resource usage definitively enhancing student performance. Furthermore, Idhalama, Oredo, and Makori

(2025) revealed statistically significant relationships between library resource adequacy and student academic performance in Nigerian universities, with electronic resources identified as particularly important for academic attainment. Soria, Fransen, and Nackerud (2017) provided longitudinal evidence that first-year students using library resources had significantly improved odds of graduating within four years, demonstrating that library benefits extend beyond immediate performance to long-term academic success.

## **CONCLUSION**

Based on the findings, the study concludes that key NUC accreditation indices specifically curriculum adequacy and library resource adequacy are significantly related to students' academic outcomes in the University of Abuja. This implies that accreditation standards are not merely procedural requirements but critical quality assurance mechanisms that influence students' learning experiences and academic achievement. When curricula are adequately designed and supported by robust library resources, students are better positioned to achieve desirable educational outcomes. Therefore, effective implementation and continuous monitoring of these accreditation indices are essential for improving academic standards in public universities.

## **Recommendations**

Based on the findings the following recommendations were provided;

1. University management should ensure periodic review and updating of academic curricula to maintain alignment with NUC benchmarks, emerging disciplinary trends, and labour market demands, thereby sustaining positive academic outcomes among students.
2. Adequate funding should be prioritized for the continuous development of university libraries, particularly in the acquisition of current textbooks, journals, and electronic databases, as well as the improvement of library infrastructure and access.
3. The National Universities Commission should strengthen post-accreditation monitoring mechanisms to ensure sustained compliance with curriculum and library standards beyond accreditation exercises, thereby promoting consistent improvement in students' academic outcomes.

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