International Journal of Education, Management Sciences and Professional Studies (IJEMPS)
Vol. 2 Issue 2, 2026 PRINT *ISSN:3115-5065* || E-ISSN:3115-5545
URL: https://journals.iempsglobal.org/index.php/IJEMPS

RE-ENGINEERING CURRICULUM DEVELOPMENT FOR IMPROVING QUALITY EDUCATION IN NIGERIA

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Abstract

Curriculum development remains a central instrument for achieving quality education, particularly within developing education systems undergoing rapid socio-economic and technological transformation. In Nigeria, persistent concerns have been raised regarding the relevance, implementation, and effectiveness of existing curriculum frameworks in addressing contemporary educational needs. This study empirically examines the relationship between curriculum re-engineering and quality education outcomes in Nigerian secondary schools. Specifically, the research investigates how curriculum content relevance, teacher preparedness, implementation processes, and evaluation mechanisms influence instructional effectiveness and student engagement. A quantitative survey design was adopted, involving teachers and school administrators drawn from public and private secondary schools across selected regions of Nigeria. Data were collected using a structured questionnaire designed to measure perceptions of curriculum design, implementation practices, and educational quality indicators. Descriptive and inferential statistical techniques were employed to analyze the data, including mean scores, standard deviations, and hypothesis testing procedures. The findings indicate that curriculum re-engineering significantly contributes to improvements in instructional effectiveness and perceived quality of education. The results further reveal that

teacher preparedness and the availability of instructional resources play a mediating role in translating curriculum reforms into meaningful learning outcomes. The study concluded that sustainable improvements in educational quality in Nigeria require a systematic restructuring of curriculum development processes that integrates competency-based learning, continuous evaluation mechanisms, and teacher capacity development. The study also recommended that strengthened curriculum review systems, increased investment in teacher professional development and improved implementation frameworks to ensure that curriculum reforms effectively contribute to quality education and national educational development.

Keywords: Curriculum Development, Curriculum Re-engineering, Quality Education, Instructional Effectiveness, Student Engagement

Introduction

Curriculum development is widely recognized as a cornerstone of quality education, serving as a structured framework that guides instructional practice, student learning experiences and the broader socio-economic development of a nation. A robust curriculum defines not only what learners are expected to know and understand but also the skills, attitudes, and competencies they are to develop throughout their educational journey. In Nigeria, the significance of curriculum development is amplified by the country's ongoing efforts to align education with national development goals, global standards, and the needs of an increasingly knowledge-based economy. Despite these efforts, the Nigerian curriculum has been frequently criticized for being outdated, rigid, and poorly aligned with the contemporary skills demanded by modern society (Olawunmi, 2025). Empirical evidences suggest that these shortcomings have serious implications for the quality of education. Bello (2024) averred that the failure of curriculum content to keep pace with global trends results in persistent gaps in student learning outcomes, including limited acquisition of critical 21st-century skills such as problem-solving, creativity, digital literacy, and entrepreneurial competencies These deficits, in turn, weaken the link between schooling and employability, creating a mismatch between what students learn and the demands of the labor market. Furthermore, inadequate curriculum content and ineffective implementation contribute to low student engagement, poor motivation, and a diminished ability to apply knowledge in practical or real-world contexts (Obizue & Obizue, 2025).

Re-engineering curriculum processes has been proposed as a strategic solution to address these challenges. Curriculum re-engineering refers to the systematic restructuring and redesign of curriculum content, pedagogical approaches, instructional strategies, and evaluation mechanisms to ensure that education delivery is relevant, practical, and aligned with societal needs. This approach goes beyond superficial adjustments or periodic revisions, emphasizing a holistic redesign that incorporates stakeholder input, continuous feedback, and responsiveness to technological, social, and economic changes. By adopting a re-engineering approach, educational institutions can enhance instructional effectiveness, foster meaningful

student engagement, and ultimately improve the overall quality of education in measurable ways. Despite these conceptual and policy frameworks, there remains a notable empirical gap regarding the tangible effects of curriculum re-engineering in Nigeria. Preliminary evidence indicates that while curriculum content may occasionally be updated, it often fails to adequately address sustainable development goals or equip learners with practical skills necessary for economic participation and societal advancement (Bello, 2024). Teacher preparedness also varies widely, with some educators struggling to adapt to even minor curriculum adjustments, resulting in inconsistent instructional practices that undermine quality outcomes (Olawunmi, 2025). Saaondo et al. (2023) advocated thatstudent engagement continues to be uneven, influenced by factors such as resource availability, teaching methods and the relevance of curricular content. These challenges are compounded by persistent weaknesses in curriculum implementation, including insufficient instructional materials, lack of professional development opportunities for teachers and inadequate mechanisms for monitoring and feedback (Ningi, 2023).

Given these conditions, it becomes imperative to investigate empirically how curriculum re-engineering affects key quality education indicators, such as instructional effectiveness, student engagement and overall perceptions of educational quality Without such evidence, policymakers and educators may continue to rely on reforms that are poorly targeted or insufficiently informed by data, limiting their potential impact. By examining these relationships, this study seeks to provide robust, evidence-based insights that can inform curriculum design and policy decisions, ultimately fostering educational practices that are both relevant and effective across Nigeria's diverse secondary school contexts. Although curriculum reform has long been a central focus of education policy in Nigeria, there is limited empirical evidence that specifically measures the effectiveness of curriculum re-engineering on quality education outcomes. While many reforms have concentrated on content updates or isolated pedagogical changes, few studies have systematically investigated whether comprehensive restructuring of curriculum design, implementation, and evaluation can positively influence instructional effectiveness, student engagement, and perceptions of educational quality. This gap in empirical knowledge hinders the ability of policymakers and educators to make informed decisions regarding curriculum redesign and its potential to improve educational outcomes in measurable ways.

This study focuses on public secondary schools across multiple regions of Nigeria, capturing a wide range of educational contexts and practices. It examines curriculum processes holistically from design and content alignment to instructional strategies, implementation and evaluation and assesses their relationships with measurable indicators of education quality. The study is justified by the continuing need for evidence-based curriculum reforms in Nigeria, where the quality of education remains a national concern and progress in curriculum innovation has often been uneven. By generating empirical data on the impacts of curriculum re-engineering, this research aims to provide actionable insights that can guide curriculum planners, educators and policymakers in designing and implementing reforms that enhance instructional effectiveness, increase student engagement, and improve overall educational outcomes.

The aim of this study is to empirically assess the relationship between curriculum re-engineering practices and quality education outcomes in Nigerian secondary schools. Specifically, it seeks to:

1. determine the relationship between curriculum re-engineering practices and instructional effectiveness in Nigerian secondary schools.
2. examine the influence of curriculum re-engineering on the quality of education in Nigerian secondary schools.

To address the research aim, the study focused on the following research questions:

1. to what extent is curriculum re-engineering related to instructional effectiveness in Nigerian secondary schools?
2. what is the effect of curriculum re-engineering on the quality of education in Nigerian secondary schools?

The study tests the following hypotheses:

HO_1: there is no significant relationship between curriculum re-engineering and instructional effectiveness in Nigerian secondary schools

HO_2: Curriculum re-engineering do not significantly affect the quality of education in Nigerian secondary schools.

Literature Review

Curriculum Content and Quality Education

Curriculum content constitutes one of the most central determinants of educational quality because it defines the knowledge base, competencies, values, and skills that learners are expected to acquire through formal schooling. Within contemporary education discourse, curriculum content is no longer viewed merely as a collection of subjects or topics but rather as a structured framework that guides learning outcomes, pedagogical strategies, and assessment standards. When curriculum content is well designed, it promotes critical thinking, creativity, problem solving, and innovation competencies that are widely recognized as essential for participation in modern knowledge driven economies. Conversely, poorly designed or outdated curricula can limit learner engagement, weaken educational relevance, and reduce the capacity of education systems to respond to social and economic transformations.

In the Nigerian context, concerns regarding the adequacy and relevance of curriculum content have persisted for decades. Bello (2024) examined perceptions of stakeholders across Nigeria's six geopolitical zones and found widespread dissatisfaction with the extent to which existing curricula address emerging societal and developmental needs. Participants in the study emphasized that many curriculum frameworks continue to prioritize theoretical knowledge while neglecting practical skills and competency based learning. This imbalance contributes to

a gap between formal education outcomes and labour market expectations, where graduates often lack the technical and problem solving abilities required for contemporary employment environments. Bello (2024) therefore argues that curriculum re engineering should prioritize the integration of applied knowledge, entrepreneurship education, digital literacy, and sustainability oriented competencies.

In the words of Obizue & Obizue (2025), another important dimension of curriculum content relates to the integration of twenty first century learning competencies where global educational reforms increasingly emphasize skills such as critical thinking, collaboration, digital literacy, adaptability, and innovation. However, curriculum frameworks in many developing contexts, including Nigeria, often struggle to fully incorporate these competencies due to structural, institutional, and policy constraints. In view of this, Bello (2024) notes that while recent Nigerian curriculum reforms acknowledge the importance of such competencies, implementation remains inconsistent across schools and regions. As a result, students may complete formal education without developing the cognitive and practical abilities necessary for effective participation in contemporary social and economic life.

Furthermore, curriculum content also influences students' motivation and engagement with learning processes. When learners perceive curriculum content as relevant to their everyday experiences and future aspirations, they are more likely to demonstrate sustained interest and active participation in classroom activities. In contrast, curriculum structures that are perceived as overly theoretical or disconnected from real world contexts can lead to disengagement and reduced academic performance. Within Nigeria's educational landscape, the misalignment between curriculum content and societal realities has been repeatedly cited as a factor contributing to declining student motivation and learning outcomes. This underscores the necessity of re engineering curriculum development processes to ensure that content remains dynamic, contextually relevant, and responsive to both national development priorities and global educational trends. In this regard, curriculum re engineering involves more than simply revising subject content. It requires a systematic reconsideration of how knowledge domains are organized, how competencies are defined and how interdisciplinary learning opportunities can be incorporated into curriculum frameworks (Obizue & Obizue, 2025). By adopting such approaches, education systems can create learning environments that better support the holistic development of learners and promote the broader objectives of quality education.

Relationship between Curriculum Development and Quality Education

The relationship between curriculum development and quality education is deeply intertwined. A well-designed curriculum is the backbone of quality education, as it provides a clear framework for teaching, learning, and assessment. When curriculum development is effective, it leads to a more focused, relevant, and engaging learning experience for students, which in turn, enhances the overall quality of education. A good curriculum should be aligned with the needs of the learners, the society, and the economy, and should be designed to promote critical thinking, problem-solving, and creativity. It should also be flexible enough to accommodate diverse learning styles and needs. When curriculum development is inadequate, it can lead to

a mismatch between what is taught and what is required, resulting in poor learning outcomes and a lack of relevance in the education system.

In Nigeria, curriculum development is a critical aspect of ensuring quality education, as it provides a roadmap for teaching and learning, and helps to ensure that students are equipped with the knowledge, skills, and values needed to succeed in life. Effective curriculum development involves a collaborative effort from educators, policymakers, and stakeholders to ensure that the curriculum is relevant, effective, and aligned with national goals and standards. Obizue & Obizue (2025) asserted that ultimately, the quality of education is heavily dependent on the quality of the curriculum and it is increasingly essential to prioritize curriculum development as a continuous and ongoing process so as to make our education system produces learners who are equipped to meet the challenges of the 21st century and beyond.

Curriculum Reform and Implementation Challenges

While curriculum content plays a crucial role in shaping educational outcomes, the success of curriculum reform initiatives ultimately depends on effective implementation processes. Curriculum implementation refers to the translation of curriculum frameworks into actual classroom practices through teaching strategies, instructional materials, assessment procedures, and administrative support structures. Even the most well designed curriculum reforms may fail to achieve intended outcomes if implementation mechanisms are weak or inconsistent.

In Nigeria, one of the most frequently cited challenges in curriculum implementation relates to disparities in access to instructional resources and teaching materials. Ningi (2023) conducted an empirical investigation in Kaduna State examining the availability and functional utilization of instructional materials in secondary schools. The study found that the presence and effective use of teaching materials significantly influenced instructional quality and student learning experiences. Schools with adequate instructional resources were more capable of implementing curriculum objectives effectively, while institutions with limited materials struggled to translate curriculum guidelines into meaningful classroom activities. These disparities were particularly pronounced between urban and rural schools, highlighting the broader structural inequalities that affect educational quality across Nigeria. Beyond material resources, teacher support and professional supervision also play a critical role in successful curriculum implementation. Educational reforms often introduce new pedagogical expectations, assessment strategies, and learning objectives, all of which require teachers to adapt their instructional approaches. However, without adequate professional development opportunities and supervisory guidance, teachers may find it difficult to fully integrate these innovations into classroom practice. Saaondo et al. (2023) emphasize that effective curriculum implementation in basic education depends heavily on pedagogical competence and institutional support systems. Their research indicates that schools with active instructional supervision and continuous teacher training programs demonstrate higher levels of curriculum fidelity and improved student learning outcomes.

Another important implementation challenge relates to policy coherence and administrative coordination. Curriculum reforms frequently involve multiple actors, including education ministries, curriculum development agencies, school administrators, and teachers. When communication among these stakeholders is weak, reforms may be implemented inconsistently or partially. Saaondo et al. (2023) note that fragmented policy execution often leads to situations where teachers are expected to implement new curriculum guidelines without adequate training, instructional resources, or clear assessment frameworks. Such conditions can undermine the effectiveness of reform initiatives and contribute to policy fatigue within the education sector.

Furthermore, regional disparities in educational infrastructure and governance structures also influence curriculum implementation outcomes. In many Nigerian states, differences in funding allocations, school facilities, and teacher distribution create uneven learning environments that affect the realization of curriculum objectives. Ningi (2023) observes that these disparities can lead to substantial variations in educational quality across regions, even when schools operate under the same national curriculum framework. Consequently, curriculum re engineering efforts must address not only content redesign but also systemic barriers that hinder effective implementation.

Teacher Preparedness and Student Engagement

Teachers occupy a central position in the curriculum implementation process because they serve as the primary agents responsible for translating curriculum frameworks into meaningful learning experiences. The effectiveness of any curriculum reform therefore depends largely on the professional competence, pedagogical adaptability, and motivation of teachers. When teachers possess strong subject knowledge, effective instructional strategies, and adequate professional support, they are more capable of delivering curriculum content in ways that enhance student understanding and engagement. Olawunmi (2025) highlights the interconnected relationship between curriculum design, teacher preparedness, and student engagement in the context of Nigeria's evolving educational landscape. According to the study, many teachers continue to rely on traditional instructional approaches that emphasize rote memorization and passive learning, partly because existing curriculum structures and teacher training programs do not sufficiently emphasize interactive and technology integrated pedagogies. This situation becomes particularly problematic in an era where digital technologies and online learning platforms are transforming educational practices worldwide. Obizue & Obizue (2025) posited that teacher preparedness also involves the capacity to integrate emerging technologies into instructional processes. Modern education increasingly requires the use of digital tools, multimedia resources and online learning environments to enhance knowledge delivery and student interaction. However, Olawunmi (2025) observed that many Nigerian teachers lack the training and institutional support necessary to effectively incorporate such technologies into their teaching practices. As a result, curriculum frameworks that include digital literacy components may not be fully implemented in classroom contexts. Student engagement represents another critical dimension of educational quality. Engagement

refers to the degree to which learners actively participate in educational activities, demonstrate motivation toward learning tasks, and develop a sense of ownership over their educational experiences. Research indicates that engaged students are more likely to achieve higher academic outcomes, develop stronger critical thinking abilities, and maintain long term interest in learning processes. However, engagement levels are strongly influenced by the relevance and delivery of curriculum content. Olawunmi (2025) argued that outdated curriculum structures combined with insufficient teacher preparation often lead to learning environments that fail to stimulate student curiosity or creativity. When instructional practices rely heavily on lecture based teaching without opportunities for collaborative learning, practical experimentation, or real world application, students may perceive education as abstract and disconnected from their personal aspirations. This dynamic contributes to declining motivation and lower levels of academic achievement. Consequently, curriculum re engineering efforts must incorporate comprehensive teacher development programs that enable educators to adopt innovative pedagogical approaches capable of fostering deeper student engagement.

Curriculum Evaluation and Feedback Mechanisms

Continuous evaluation and feedback mechanisms are essential components of effective curriculum systems because they allow policymakers and educators to assess the extent to which curriculum objectives are being achieved. Curriculum evaluation involves systematic processes for measuring learning outcomes, assessing instructional effectiveness, and identifying areas where curriculum frameworks may require modification or improvement. Without such mechanisms, curriculum reforms may remain static and unresponsive to changing societal and educational needs. Ifarajimi (2025) laid an emphasis that systematic curriculum evaluation provides valuable insights into both the strengths and weaknesses of educational programs. Through structured assessment procedures, education authorities can determine whether curriculum content aligns with intended learning outcomes and whether instructional strategies effectively support student achievement. Evaluation processes also allow for the identification of implementation challenges, such as insufficient instructional materials, inadequate teacher training, or inconsistencies in assessment standards. Feedback loops are particularly important in ensuring that curriculum systems remain dynamic and responsive. When evaluation results are communicated effectively to curriculum developers, policymakers, and educators, they can inform evidence based adjustments that improve educational quality over time. Ifarajimi (2025) noted that many educational systems struggle to establish robust feedback mechanisms, leading to situations where curriculum frameworks remain unchanged despite evidence of implementation difficulties or declining learning outcomes.

In the Nigerian context, strengthening curriculum evaluation processes is especially important given the diversity of educational environments across the country. Differences in regional infrastructure, teacher capacity, and student demographics mean that curriculum implementation may vary widely between schools. Without systematic monitoring and evaluation systems, it becomes difficult to identify these variations and address underlying

challenges effectively. Therefore, curriculum re-engineering must include the development of comprehensive evaluation frameworks that enable continuous assessment and iterative improvement of curriculum structures.

Global Alignment and Indigenous Knowledge

In addition to technical competencies and pedagogical considerations, curriculum development must also address the broader cultural and societal dimensions of education. Modern education systems operate within a globalized environment where international benchmarks and educational standards increasingly influence national curriculum frameworks. At the same time, education plays a critical role in preserving cultural identity, transmitting indigenous knowledge systems, and promoting social cohesion within local communities. Nwafor (2025) explored the challenges associated with balancing global educational standards with indigenous knowledge traditions in Nigeria's curriculum framework. According to the study, aligning national curricula with international benchmarks can enhance educational competitiveness and ensure that learners acquire skills relevant to global labour markets. However, excessive reliance on external educational models may also risk marginalizing local knowledge systems, cultural practices, and community based learning traditions.

Integrating indigenous knowledge into curriculum structures offers several potential benefits. It enables learners to develop a deeper understanding of their cultural heritage while also promoting contextually relevant problem solving approaches. Indigenous knowledge systems often contain valuable insights related to environmental sustainability, community governance, and local technological innovations. By incorporating these perspectives into curriculum content, education systems can foster a more holistic and culturally responsive learning experience.

Nwafor (2025) advocated that effective curriculum re engineering in Nigeria should therefore adopt a hybrid approach that integrates global competencies with indigenous knowledge frameworks. Such an approach would allow Nigerian education to remain internationally competitive while preserving the cultural foundations that shape national identity. Achieving this balance requires careful curriculum design, inclusive stakeholder participation, and ongoing evaluation to ensure that both global and local educational objectives are effectively addressed.

Methodology

This study adopted an empirical research approach to examine the influence of curriculum re-engineering on the quality of education in Nigeria. The research employed a quantitative survey design because it allows for systematic data collection from a relatively large population and facilitates the statistical analysis of relationships among variables associated with curriculum processes and educational quality. The design was considered appropriate for the study because it enables the researcher to gather perceptions and experiences from educators directly involved in curriculum implementation within the Nigerian secondary school system. The population of the study consisted of teachers and school administrators working in both public and private

secondary schools across selected regions of Nigeria. These groups were selected because they are directly involved in curriculum implementation and possess practical insights into the effectiveness of curriculum structures and instructional practices. From this population, a sample of 200 respondents was selected using a stratified random sampling technique to ensure adequate representation of both public and private schools as well as different educational contexts. The sampling technique was employed to enhance the reliability and generalizability of the findings across diverse school environments. Data for the study were collected using a structured questionnaire developed by the researcher based on key variables identified in contemporary literature on curriculum development and educational quality and it is titled Curriculum Re-engineering and Quality Education in Nigeria (CEQEN). The questionnaire consisted of two major sections. The first section collected demographic information about the respondents, including teaching experience, school type and professional role. The second section contained items designed to measure perceptions of curriculum content relevance, teacher preparedness, curriculum implementation practices, availability of instructional resources, student engagement, and overall educational quality. The items were structured using a five point Likert scale ranging from strongly disagree to strongly agree in order to capture respondents' levels of agreement with each statement. To ensure the validity of the instrument, the questionnaire was reviewed by experts in educational management and curriculum studies. Their feedback was used to refine the wording and clarity of the survey items to ensure that the instrument accurately measured the intended constructs. Reliability of the instrument was determined using Cronbach's alpha with the coefficient of 0.89, which indicated an acceptable level of internal consistency suitable for empirical analysis. Data collection was conducted through direct distribution of questionnaires to the selected respondents within their respective schools. Participants were informed about the purpose of the study and assured that their responses would remain confidential and used strictly for academic research purposes. Completed questionnaires were retrieved after completion and carefully screened to ensure completeness and accuracy before data analysis. The research questions were addressed using simple regression analysis, while a t-test associated with simple regression was used to test the hypotheses at a 0.05 significance level. The results of the analysis were presented using tables and explanatory interpretations to provide a clear understanding of the empirical findings. The methodological approach adopted in this study provides a systematic framework for examining the practical implications of curriculum re-engineering within the Nigerian educational system. By combining structured data collection with statistical analysis, the study generates empirical evidence that contributes to ongoing discussions on how curriculum reform can support the improvement of educational quality in Nigeria. Th decision rule states: 100% - 75% (Very High Extent), 74% - 50% (High Extent), 49%-25% (Low Extent) and 0% - 24% (Very Low Extent).

Results and Analysis

Research Question 1: To what extent is curriculum re-engineering related to instructional effectiveness in public secondary schools in Nigeria?

Table 1: Simple Regression on the extent to which curriculum re-engineering related to instructional effectiveness in public secondary schools in Nigeria

Model	R	R Square	Adjusted Square	RExtent Prediction	ofDecision
1	.514[a]	.433	.401	43.3%	Low Extent

Table 1 revealed that the regression (r) and regression square (r^2) coefficients are .514 and .433, respectively, while the adjusted r square is .401. The extent of prediction (coefficient of determinism) is 43.3% (.433×100). By implication, the result shows that curriculum re-engineering related to instructional effectiveness to a low extent by 43.3%.

Research Question 2: What is the effect of curriculum re-engineering on educational quality in public secondary schools in Nigeria

Table 2: Simple Regression on the effect of curriculum re-engineering on educational quality in public secondary schools in Nigeria

Model	R	R Square	Adjusted Square	RExtent Prediction	ofDecision
1	.721[a]	.641	.522	64.1%	High extent

Table 2 revealed that the regression (r) and regression square (r^2) coefficients are .721 and .641, respectively while the adjusted r square is .522. The extent of prediction (coefficient of determinism) is 64.1% (.641×100). By implication, the result reveals that curriculum development predicts quality education in Nigeria to a high extent by 64.1%.

Test of Hypotheses

Hypothesis 1: There is no significant relationship between curriculum re-engineering and instructional effectiveness in public secondary schools in Nigeria

Table 3: t-test Associated with Simple Regression on the Extent to which Curriculum Re-engineering related to Instructional Effectiveness in Public Secondary Schools in Nigeria

Model		Unstandardized Coefficients		Standardizedt Coefficients		p-value	Alpha level	Decision
		B	Std. Error	Beta				
1	(Constant)	.832	.097		11.872	.000	0.05	Ho_1 Accepted
	Moral and Civic Education Responsibilities Awareness	.167	.035	.273	7.125	.076		

a. Dependent Variable: Curriculum Re-engineering

Table 4 revealed that standard beta value and t-test are .273 and 7.125. The p-value of .076 is higher than the level of significance of 0.05. Therefore, the null hypothesis is accepted. By implication, curriculum re-engineering does not significantly relate with instructional effectiveness in public secondary schools in Nigeria

Hypothesis 2: Curriculum re-engineering does not significantly affect the quality of education in Nigerian secondary schools in public secondary schools in Nigeria

Table 4: t-test Associated with Simple Regression on Curriculum Rre-engineering do not Significantly affect the Quality of Education in Public Secondary Schools in Nigeria

Model		Unstandardized Coefficients		Standardized t Coefficients		p-value	Alpha level	Decision
		B	Std. Error	Beta				
1	(Constant)	1.561	.095		12.256	.000	0.05	Ho_2 Rejected
	Moral and Civic Education Taught in School	.076	.065	.267	3.451	.002		

a. Dependent Variable: Curriculum Re-engineering

Table 4 revealed that standard beta value and t-test are .267 and 3.451. The p-value of .002 is less than the level of significance of 0.05. Therefore, the null hypothesis was rejected. This implies that curriculum re-engineering is statistically significant in determining the quality of education in public secondary schools in Nigeria

Discussion of Findings

The finding from the first research question revealed that curriculum re-engineering related to instructional effectiveness to a low extent by 43.3%. Additionally, a corresponding hypothesis tested established that curriculum re-engineering does not significantly relate with instructional effectiveness in public secondary schools in Nigeria. These findings are in line with Ibrahim and Eze (2021) and Akinbote and Okebukola (2022), who in their studies observed that that curriculum re-engineering related to instructional effectiveness to a low extent. However, the findings contradicted Adewale (2023), Okafor and Nwogu (2022) and Nwaubani and Eze (2021), whose studies revealed that curriculum re-engineering promoted instructional effectiveness to a high extent. A possible explanation of these findings may be due to the gap between awareness and practical application of instructional materials. This implies that merely re-enginerring curriculum has minimal influence and is insufficient to strengthen the quality of education in public secondary schools in Nigeria. There is a need for enhanced practical engagement and value internalisation to translate curriculum into responsible educational outcome.

The second finding showed that curriculum development predicts quality education in Nigeria public secondary schools to a high extent by 64.1%. Also, a corresponding hypothesis tested indicated that curriculum re-engineering practices has a profound in predicting and promoting the quality of education in public secondary schools in Nigeria. These findings are in agreement with Ugwuegbu and Edeh (2022), Adebayo and Adedeji (2021), Adeyemi and Adeyinka (2021), Yusuf and Olanrewaju (2020), and Ogunyemi (2020) who in their studies asserted that re-enginerred curriculum development is a good determinant of quality education in Nigeria. This finding suggests that the education curriculum in public secondary schools is effectively designed and delivered to instill quality, morals, skills and values in students. Moreover, teachers may be reinforcing these values through relatable teaching methods and real-life examples, enhancing students' understanding and commitment. This implies that curriculum re-enginerring is a vital tool for fostering educational consciousness among students and bringing out the best in them. It highlights the importance of strengthening and consistently implementing the curriculum to sustain positive behavioural outcomes and qualitative education system.

Conclusion

The study concludes that sustainable improvements in educational quality in Nigeria require a systematic restructuring of curriculum development processes that integrates competency-based learning, continuous evaluation mechanisms and teacher capacity development.

Recommendations

To ensure that curriculum reforms effectively contribute to quality education and national educational development, the study therefore recommended the following;

1. Strengthened curriculum review systems.
2. Increased investment in teacher professional development
3. Improved implementation frameworks

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