



Effect of Curriculum Evaluation on Academic Achievement among ... Kamilu, H., Et. al. (2026)

Effect of Curriculum Evaluation on Academic Achievement among Secondary School Students in Katsina State, Nigeria

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Abstract

Curriculum evaluation is an essential component of educational quality assurance and serves as a mechanism for determining the effectiveness, relevance, and efficiency of educational programmes. Despite various curriculum reforms implemented in Nigeria, concerns continue to be raised regarding the academic achievement of secondary school students, particularly in Katsina State. This study investigated the effect of curriculum evaluation on academic achievement among secondary school students in Katsina State, Nigeria. The study adopted a quasi-experimental research design involving pre-test and post-test non-equivalent control groups. The population consisted of 15,333 Junior Secondary School (JSS II) students in public secondary schools in Katsina State. A sample of 384 students was selected using multistage sampling procedures. The Curriculum Evaluation Intervention Package (CEIP) and Junior Secondary Academic Achievement Test (JSAAT) were used for data collection. The instruments were validated by experts in Educational Measurement and Evaluation and Curriculum Studies. Reliability coefficients of 0.86 and 0.88 were obtained using Cronbach Alpha and Kuder-Richardson Formula 20 respectively. Data were analysed using mean, standard deviation, and Analysis of Covariance (ANCOVA) at 0.05 level of significance. Findings revealed that curriculum evaluation significantly improved students' academic achievement. Students exposed to curriculum evaluation-based instructional strategies performed significantly better than those taught using conventional approaches. The study concluded that systematic curriculum evaluation enhances instructional effectiveness, improves curriculum implementation, and contributes positively to students' academic achievement. It was recommended that educational stakeholders institutionalize periodic curriculum evaluation and provide teachers with adequate training in curriculum implementation and assessment practices.

Keywords: Curriculum Evaluation, Academic Achievement, Educational Evaluation & Students.

Background to the Study

Education occupies a central position in national development because it serves as a means through which knowledge, skills, attitudes, and values are transmitted to learners. The effectiveness of any educational system largely depends on the quality of its curriculum and the extent to which the curriculum achieves its intended objectives. Curriculum evaluation therefore remains one of the most important processes in educational planning, implementation, and improvement. Curriculum evaluation refers to the systematic collection, analysis, and interpretation of information regarding curriculum effectiveness for the purpose of determining whether educational objectives are being achieved and identifying areas requiring improvement. According to Tyler's Objective-Centred



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Evaluation Model, curriculum evaluation determines the degree to which intended educational objectives are attained through instructional activities. Contemporary scholars maintain that curriculum evaluation provides evidence-based information for curriculum review, revision, implementation, and quality assurance (Akinbote & Olatoye, 2024). The importance of curriculum evaluation has increased significantly in recent years due to rapid technological advancement, globalization, changing labour market demands, and evolving educational priorities. Educational systems across the world continuously evaluate their curricula to ensure relevance, effectiveness, and responsiveness to societal needs. In Nigeria, curriculum reforms have been introduced to improve educational quality, promote learner-centred instruction, and enhance academic achievement among students.

Academic achievement refers to the extent to which students attain desired educational goals as measured through examinations, tests, assignments, and other assessment procedures. Academic achievement serves as an important indicator of educational effectiveness and quality. Researchers have consistently identified curriculum-related factors as significant determinants of students' academic achievement (Adeyemi & Yusuf, 2023). In Katsina State, concerns have been raised regarding students' performance in both internal and external examinations. Reports from educational stakeholders indicate that many students experience difficulties in achieving expected learning outcomes. These concerns have generated interest in examining factors that may contribute to improved academic achievement. One such factor is curriculum evaluation. Effective curriculum evaluation enables educational authorities to identify strengths and weaknesses in curriculum implementation, instructional strategies, learning materials, assessment practices, and teacher effectiveness. Findings from curriculum evaluation provide useful information for educational improvement and informed decision-making. Theoretical perspectives emphasize the importance of curriculum evaluation in educational improvement. Tyler's Objective-Centred Evaluation Theory argues that educational programmes should be evaluated based on clearly stated objectives and measurable outcomes. Similarly, Stufflebeam's CIPP (Context, Input, Process, Product) Evaluation Model views evaluation as a continuous process for improving educational programmes and informing decision-making. Recent empirical studies have reported positive relationships between curriculum evaluation and educational outcomes. Olatunde and Bello (2024) found that curriculum evaluation practices significantly improved instructional quality and students' learning outcomes. Similarly, Mohammed and Hassan (2025) reported that schools implementing systematic curriculum evaluation recorded higher levels of academic achievement than schools with weak evaluation systems. Despite these findings, limited empirical studies have specifically investigated the effect of curriculum evaluation on academic achievement among secondary school students in Katsina State. This study therefore seeks to fill this gap.

Statement of the Problem

The Nigerian educational system has witnessed several curriculum reforms aimed at improving educational quality and enhancing students' academic achievement. Despite these reforms, concerns continue to exist regarding the effectiveness of curriculum implementation and students' academic performance at secondary school level. In Katsina State, reports from educators, parents, and examination bodies indicate persistent challenges in students' academic achievement. Many students fail to attain expected learning outcomes despite the availability of curriculum guidelines and instructional resources. This situation raises questions regarding the extent to which curriculum implementation aligns with intended curriculum objectives. Although curriculum evaluation is expected to facilitate continuous improvement in educational programmes, evidence suggests that



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curriculum evaluation practices are not consistently implemented in many schools. Consequently, weaknesses in curriculum implementation may remain unidentified, thereby affecting students' academic achievement. Previous studies have examined various factors influencing academic achievement; however, limited attention has been given to the effect of curriculum evaluation on students' academic achievement in Katsina State. Therefore, this study investigates whether curriculum evaluation can significantly improve academic achievement among junior secondary school students in Katsina State, Nigeria.

Objective of the Study

The study sought to:

1. Determine the effect of curriculum evaluation on academic achievement among secondary school students in Katsina State.

Research Question

1. What is the effect of curriculum evaluation on academic achievement among secondary school students in Katsina State?

Research Hypothesis

H₀₁: Curriculum evaluation has no significant effect on academic achievement among secondary school students in Katsina State.

Research Methodology

The study adopted a quasi-experimental research design involving pre-test and post-test non-equivalent control groups. The population and sample of 15,333 and 384 Junior Secondary School II students respectively enrolled and selected from public Junior secondary schools in Katsina State. A multistage sampling procedure involving stratified sampling, purposive sampling, and simple random sampling techniques was employed. Two instruments were used: Curriculum Evaluation Intervention Package (CEIP) and Secondary Academic Achievement Test (SAAT). The instruments were validated by three experts in Educational Measurement and Evaluation and Curriculum Studies.

Reliability

Instrument	Reliability Coefficient
CEIP	0.86
JSAAT	0.88

Experimental Procedure

The experimental group was exposed to curriculum evaluation-based instructional strategies for eight weeks, while the control group received conventional instruction. Pre-test scores were collected before treatment, while post-test scores were collected after treatment.

Method of Data Analysis

Research question was answered using mean and standard deviation.

Hypothesis was tested using Analysis of Covariance (ANCOVA) at 0.05 level of significance.

Presentation of Results

Research Question One

What is the effect of curriculum evaluation on academic achievement among junior secondary school students in Katsina State?

To answer this research question, the mean and standard deviation of the pre-test and post-test scores of students in the experimental and control groups were computed.



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Table 1

Mean and Standard Deviation of Pre-test and Post-test Scores of Students Exposed to Curriculum Evaluation and Conventional Instruction

Group	N	Pre-test Mean	Pre-test SD	Post-test Mean	Post-test SD	Mean Gain
Experimental Group (Curriculum Evaluation)	192	42.36	8.21	71.84	7.34	29.48
Control Group (Conventional Instruction)	192	41.91	8.47	58.27	8.12	16.36

Table 1 indicates that students in the experimental group recorded a pre-test mean score of 42.36 and a post-test mean score of 71.84, resulting in a mean gain of 29.48. Students in the control group recorded a pre-test mean score of 41.91 and a post-test mean score of 58.27, resulting in a mean gain of 16.36. The results suggest that students exposed to curriculum evaluation-based instructional strategies performed better than students taught using conventional instructional approaches.

Hypothesis Testing

Hypothesis One

H₀₁: Curriculum evaluation has no significant effect on academic achievement among junior secondary school students in Katsina State.

Table 2

Analysis of Covariance (ANCOVA) Showing the Effect of Curriculum Evaluation on Academic Achievement

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	18972.461	2	9486.231	112.814	.000
Intercept	51243.716	1	51243.716	609.215	.000
Pre-test	4326.584	1	4326.584	51.439	.000
Treatment Group	14389.772	1	14389.772	171.087	.000*
Error	32048.315	381	84.116		
Total	1687931.000	384			
Corrected Total	51020.776	383			

R² = .372 (Adjusted R² = .369)

Significant at $p < .05$

Decision

Since the probability value ($p = .000$) is less than the alpha level of .05, the null hypothesis is rejected. The ANCOVA result shows that curriculum evaluation had a statistically significant effect on academic achievement among junior secondary school students in Katsina State, $F(1,381) = 171.087$, $p < .05$. The effect size ($R^2 = .372$) indicates that curriculum evaluation accounted for approximately 37.2% of the variance in students' academic achievement. This implies that curriculum evaluation contributed significantly to improving students' academic performance.

Discussion of Findings

The findings of this study revealed that curriculum evaluation significantly improved academic achievement among secondary school students in Katsina State. Students exposed to curriculum evaluation-based instructional practices achieved higher post-test scores than those taught through conventional instructional methods. The significant difference observed between the experimental and control groups demonstrates the effectiveness of curriculum evaluation in enhancing learning



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outcomes. The finding may be attributed to the systematic monitoring and assessment of curriculum implementation, which enabled teachers to align instructional practices with curriculum objectives. Curriculum evaluation helped identify instructional weaknesses, improve teaching methods, and ensure that learning experiences matched intended educational goals. The result supports the position of Tyler's Objective-Centred Evaluation Theory, which emphasizes that educational programmes should be evaluated according to the extent to which stated objectives are achieved. Through continuous evaluation, teachers and curriculum planners can determine whether learning objectives are being attained and make necessary adjustments to improve instructional effectiveness. The finding is consistent with Adeyemi and Yusuf (2023), who reported that effective curriculum evaluation significantly improved students' academic performance in secondary schools. The finding also agrees with Olatunde and Bello (2024), who found that curriculum evaluation enhanced instructional quality and students' learning outcomes. Similarly, Mohammed and Hassan (2025) observed that schools implementing regular curriculum evaluation practices recorded significantly better academic performance than schools lacking structured evaluation systems. Ibrahim and Garba (2025) further reported that curriculum evaluation contributed significantly to educational quality assurance and students' academic success. The finding therefore confirms that curriculum evaluation remains an indispensable component of educational quality improvement and academic achievement enhancement.

Educational Implications of the Study

The findings of this study have important implications for educational policy, curriculum development, educational measurement, and school administration.

1. Curriculum Evaluation Promotes Quality Assurance; Regular curriculum evaluation provides evidence regarding curriculum effectiveness and facilitates educational quality assurance.
2. Curriculum Evaluation Enhances Students' Achievement; The significant improvement observed among students exposed to curriculum evaluation indicates that evaluation contributes positively to learning outcomes.
3. Evidence-Based Educational Decision-Making; Curriculum evaluation provides empirical information that assists policymakers in making informed educational decisions.
4. Improved Curriculum Implementation; Curriculum evaluation helps identify implementation gaps and promotes effective delivery of curriculum content.
5. Improved Teacher Effectiveness; Teachers become more reflective and responsive when curriculum evaluation findings are utilized for instructional improvement.
6. Better Resource Utilization; Curriculum evaluation helps identify resource needs and ensures efficient allocation of educational resources.
7. Strengthening Educational Accountability; Evaluation findings enhance accountability among teachers, administrators, and curriculum planners.

Conclusion

Based on the findings of this study, it was concluded that curriculum evaluation significantly enhances academic achievement among secondary school students in Katsina State. Students who were exposed to curriculum evaluation-based instructional strategies demonstrated significantly higher academic achievement than their counterparts who received conventional instruction. The study established that curriculum evaluation serves as an effective mechanism for improving curriculum implementation, instructional delivery, and learning outcomes. Consequently, curriculum evaluation should be regarded as an essential component of educational quality assurance and educational improvement initiatives in Katsina State and Nigeria at large.



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Recommendations

Based on the findings and conclusion of the study, the following recommendations were made:

1. Educational authorities should institutionalize regular curriculum evaluation at all levels of education.
2. Teachers should receive continuous professional development training on curriculum implementation and evaluation techniques.
3. School administrators should establish curriculum monitoring and evaluation committees within schools.
4. Curriculum evaluation findings should be used to inform curriculum review and revision processes.
5. Government should provide adequate resources to support curriculum evaluation activities.
6. Educational planners should integrate evaluation outcomes into policy formulation and implementation.
7. The Katsina State Ministry of Basic and Secondary Education should strengthen quality assurance mechanisms across schools.
8. Curriculum specialists should collaborate with teachers to ensure effective implementation of curriculum innovations.
9. Parents and community stakeholders should be involved in curriculum evaluation processes where appropriate.
10. Further studies should investigate additional curriculum variables that influence students' academic achievement.

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