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# Assessing Quality Assurance Practices for Enhancing School Effectiveness: A Study of Bauchi State Primary Schools.

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**Abstract**: This study examines the extent to which quality assurance mechanisms, such as regular supervision and monitoring, influence the overall effectiveness of primary education in Bauchi State. The research focused on three major indicators of quality assurance in schools: the quality of school supervision, leadership behaviour, and school climate. These variables were investigated to determine how they relate to and influence the overall effectiveness of primary school education in the state. To guide the research, a null hypothesis was formulated, stating that the quality of school supervision, leadership behaviour, and school climate do not significantly influence primary school effectiveness in Bauchi State. Using an ex post facto design, this study examined existing variables and their relationships without direct manipulation. The study population consisted of all 3,000 primary school administrators in Bauchi State. A census technique was used to include the entire population rather than selecting a sample. This approach ensured that the collected data reflected the views and experiences of all administrators, thereby improving the reliability and generalizability of the findings. Data were collected using an organised method. The instrument measured the major variables of the study and was reviewed and validated by specialists in Educational Administration and Measurement and Evaluation to ensure its relevance, clarity, and suitability for the study. In addition, the instrument's reliability was established using Cronbach's alpha to assess internal consistency, indicating that the questionnaire had an acceptable level of internal consistency. The null hypothesis was tested at the 0.05 level of significance using Multiple Regression analysis with the aid of IBM SPSS software. The analysis was conducted to determine both the combined joint and the individual contributions of the independent variable to primary schools' effectiveness. The findings revealed that the quality of school supervision, leadership behaviours, athe nd school's environment significantly influenced primary school effectiveness in Bauchi State, both individually and collectively.

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**Keywords**: Quality school, Assurance, School Supervision, Leadership Behaviour, School Climate, Primary School Effectiveness, Bauchi State, Educational Administration.

## Introduction

School system effectiveness refers to the degree to which schools carry out their primary duties of teaching and learning successfully and without disruption, and to how such schools attain their short- or long-term objectives. According to Okonkwo and Musa (2024), school effectiveness is concerned with variables. Key elements of school effectiveness include factors such as the instructional leadership demonstrated by the headteacher, clearly defined curriculum learning objectives, well-structured learning activities, and appropriate measures for assessing students' achievement. Additional indicators involve regular monitoring of pupils' attendance, maintaining discipline within the school, fostering a positive school climate, and promoting high expectations for quality work from both staff and pupils. Effective schools also encourage collaboration through strong school-community partnership programmes that support educational development. Ultimately, the most noticeable indicator of school effectiveness for the wider society is the outcome of the educational process, particularly the level of students' academic performance in examinations. The issue of poor school effectiveness is generally on the rise. The situation is evident in the persistent problems of poor academic performance among students, which in turn contributes to rising unemployment, a weakening economy, moral decline, an increasing number of unproductive workers, poorly prepared primary school graduates, and a growing dependence on developed Western nations (Adebayo & Salami, 2023). These challenges appear to be particularly pronounced in Bauchi State, where many primary school pupils continue to perform below expected standards. In addition, some teachers demonstrate negative attitudes towards their professional responsibilities. This is often reflected in behaviours such as reluctance to prepare lesson notes, refusal to teach assigned classes, and other forms of unprofessional conduct that undermine effective teaching and learning. Governments at various levels have made efforts to ensure that good standards are maintained, especially at the primary school level, all to no avail.

For example, the Nigerian government has expanded the number of schools and recruited additional teachers through the Universal Basic Education (UBE) programme in order to lower the student-teacher ratio and enhance the quality of education in public

schools. As part of efforts to strengthen teachers' professional competence, the government also organises periodic retraining programmes under the UBE scheme. These programmes are conducted annually during the long vacation period and are designed to update teachers' knowledge of subject content, school-based assessment practices, instructional strategies, and general teaching methods (Federal Ministry of Education [FME], 2023). In addition, the government has introduced a policy that sets a first degree as the minimum qualification required for teachers working in public primary schools, with the aim of improving the professional standard of teaching in the basic education sector. In Bauchi State, several other measures have been implemented to improve the effectiveness of the school system. Such measures include the supply of textbooks and the provision of more classroom facilities, especially through the UBE platform. Many teachers have also been employed in recent times through UBE as well as the N-Power initiative (Bello, 2025). The government has also provided ICT facilities such as laptops, desktops, and other gadgets to primary school teachers, with gradual deductions to be made from monthly salaries. The same government has been paying primary school teachers' salaries on time (by the 28th of each month). All these measures and many more were put in place to ensure that primary schools become more effective in terms of teaching, learning, and behaviour modification (Ibrahim & Abdullahi, 2026).

Despite all these provisions, many primary schools in Bauchi State do not appear to have shown corresponding dynamics in terms of their level of effectiveness. It was based on these persisting issues and failed measures that the researcher wondered whether such issues were a result of poor school quality assurance services rendered in the primary schools. Quality can be described as the attainment of high standards in performance and productivity within an organisation. It involves having dedicated and highly motivated staff, achieving strong academic outcomes, and delivering well-structured and carefully planned lessons. It also includes the use of creative and effective teaching strategies that enhance learning. In addition, quality is reflected in consistent attendance and punctuality, proper collection and systematic analysis of relevant data, and the establishment of clear annual goals. Furthermore, it requires openness to professional guidance, cooperation and teamwork among stakeholders, and active involvement of the community in supporting educational activities and school development, and listening to each other (Standards & Quality Assurance Directorate [SQAD], 2024). Quality assurance refers to the establishment of systematic procedures used to monitor and verify the standard of work

across the education system. It involves identifying strengths, detecting areas that require improvement, and taking appropriate actions by providing necessary support, guidance, and feedback where required. Essentially, it requires reviewing and evaluating all activities and strategies that have been implemented to achieve expected educational outcomes, while also redirecting attention to areas that may require further improvement or adjustment (SQAD, 2024).

Ensuring quality in education is a shared responsibility among all stakeholders involved in the system. Every individual is expected to maintain high standards in their own work as well as in the work they supervise. This responsibility extends to teachers, school leaders, cluster monitors, and education officers at regional offices and headquarters. In addition, other stakeholders such as parents, external consultants, volunteers, and donor organisations also play important roles in supporting and maintaining quality within the education system (SQAD, 2024).

There are many school quality assurance indices. The scope of this study was delimited to the effectiveness of school supervision, leadership behaviour, and the learning environment. The thrust of this study is to investigate the association of the quality of school supervision, quality of leadership behaviour, and school climate with school effectiveness. Empirical evidence has linked these variables with school effectiveness. For example, Ogunleye and Bello (2023) studied the performance of teachers under high and low levels of supervision in Bauchi State. The research findings indicated that teachers under high-level supervision performed better in their jobs than their counterparts under low supervision. In another study, Ibrahim (2025) investigated the relationship between leadership skills possessed by headteachers of public primary schools in Northeast Nigeria and school effectiveness in terms of students' academic achievement. Findings revealed that primary school headteachers in Northeast Nigeria possessed technical, interpersonal, conceptual, and administrative skills. A significant relationship was found between headteachers' leadership skills and school effectiveness.

**Statement of the Problem**

The societal expectations of every Primary School are effectiveness in terms of cognitive, affective, and psychomotor learning outcomes. An effective Primary School, under ideal conditions, is expected to be characterised by a clear mission, high expectations for success, effective instructional leadership, frequent monitoring of students’ progress, the

offer of opportunities to learn, student time on task, a safe and orderly environment, strong home-school relations, and good students' academic performance in internal examinations.

Going by these indices of an effective school, it appears that many primary schools in Bauchi State are far from meeting such criteria. This is because of the poor academic performance of students in the state in internal examinations. Many primary school teachers are also not discharging their duties as prescribed by the ethics of the teaching profession. It was observed that some primary school headmasters shy away from their responsibility of effective supervision. The rate of examination malpractice is also very high, with only a few students in the state being able to pass standardised common entrance examinations on their first attempts, along with many other such poor records. All these shortfalls from the students, teachers, and school administrators constitute ineffectiveness within the primary school system. How then can the school achieve stated goals when the vast majority of its human resources are ineffective in perpetuity?

Following government efforts in recent times to improve teachers' work conditions, provide more facilities, build new schools, recruit new teachers, and enhance supervision, one expects the primary schools in Bauchi State to be more efficient. There seems to be an inverse relationship between the improvements made and the effectiveness of schools. It is this deviation from normality that led the researcher to consider whether school quality assurance practices have any relationship with the effectiveness of schools in the state. Thus, the problem of this study, posed in question form, is: what influence do quality assurance indicators such as the quality of school supervision, quality of school leadership, and school climate have on primary school effectiveness in Bauchi State? An attempt to answer this question necessitated the study.

**Purpose of the study**

The primary objective of this study was to investigate the relationship between Assessing Quality Assurance Practices and the effectiveness of Primary Schools in Bauchi State, Nigeria. Specifically, the study sought to examine:

i) How the quality assurance practice-quality of school supervision, quality of school leadership behaviour, and school climate-individually and collectively predict primary school effectiveness.

**Statement of Hypothesis**

The following null hypothesis was formulated to direct the study:

i) Quality assurance indicators, collectively and individually, are not significant predictors of primary school effectiveness.

**Methods**

This study adopted an ex post facto research design. The ex post facto design is appropriate for this investigation because the researcher has no direct control over the independent variables (quality of school supervision, leadership behaviour, and school climate) as the events or conditions being studied have already occurred in the natural school setting (Kerlinger, 2024). In ex post facto research, the investigator begins with the observation of a dependent variable (in this case, Primary School Effectiveness) and retrospectively examines the independent variables for their possible effects on that dependent variable. This design is particularly suitable for educational research where the manipulation of variables is impractical or unethical, as it allows for the exploration of cause-and-effect relationships among variables that cannot be artificially manipulated in a laboratory setting (Creswell & Creswell, 2023).

**Area of the Study**

The study was conducted in Bauchi State, Nigeria. Bauchi State is one of the six states in the North-East geopolitical zone of Nigeria, with its capital at Bauchi town. The state comprises twenty (20) local government areas and is home to a diverse population with various ethnic groups, including the Hausa, Fulani, and Jarawa. Education is a key priority for the state government, which has invested significantly in Universal Basic Education (UBE) programmes and teacher development initiatives (Bauchi State Ministry of Education, 2025). Despite these investments, concerns about the quality of education and school effectiveness have persisted, making the state a relevant context for this study.

**Population of the Study**

The population of this study comprised all public primary school headteachers and vice-headteachers in Bauchi State, Nigeria. Official records from the Bauchi State Universal Basic Education Board (SUBEB) indicate that there are approximately 3,200 public primary schools across the 20 local government areas of the state. Estimates from the most recent school census suggest that the actual number ranges from 3,074 to 3,295 schools (Bauchi State Universal Basic Education Board [SUBEB], 2025). Each of these schools is headed by a headteacher, with larger schools also having vice-headteachers. Consequently, the total population of school administrators (headteachers and vice-headteachers) was approximately 3,800 individuals. However, for the purpose of this

study, the accessible population was defined as the 3,000 administrators who were available and willing to participate during the data collection period.

**Sample and Sampling Technique**

The study employed a census sampling technique, also known as total enumeration. Census sampling is a technique in which every member of the population is included in the study (Cohen et al., 2024). This approach is recommended when the population size is manageable and when the researcher aims to eliminate sampling error and obtain data that are fully representative of the entire population. Given that the total number of primary school administrators in Bauchi State (approximately 3,000) was considered manageable for the research team to reach within the study timeframe and available resources, a census approach was adopted. This decision ensured that the findings would be robust and generalisable across the entire state without the need for inferential adjustments. All 3,000 headteachers and vice-headteachers from the 20 local government areas were targeted for participation.

**Instrumentation**

The instrument used for data collection was a questionnaire titled "School Assessing Quality Assurance Practices and Primary School Effectiveness Questionnaire (SAQAPPEQ)." This instrument was developed by the researcher based on an extensive review of literature on quality assurance and school effectiveness (Ibrahim, 2025; Okonkwo & Musa, 2024). The questionnaire was structured into two main sections:

Section A: This section was designed to collect demographic information from the respondents, including gender, years of experience, educational qualification, and local government area.

Section B: This section comprised 24 items grouped into four clusters, corresponding to the three independent variables and the one dependent variable. Each cluster contained six items measuring the following constructs:

Cluster 1: Quality of School Supervision (6 items)

Cluster 2: Quality of Leadership Behaviour (6 items)

Cluster 3: School Climate (6 items)

Cluster 4: Primary School Effectiveness (6 items)

All items were structured on a four-point Likert scale of measurement: Strongly Agree (SA) = 4 points, Agree (A) = 3 points, Disagree (D) = 2 points, and Strongly Disagree (SD) = 1 point. The four-point scale was deliberately chosen to avoid the central

tendency bias often associated with odd-numbered scales (Likert, 1932, as cited in Creswell & Creswell, 2023).

**Validation of the Instrument**

To ensure the validity of the instrument, the initial draft of the SAQAPPEQ was subjected to face and content validation by two experts in Measurement and Evaluation from the Department of Mathematical Science, Faculty of Science, Sa'adu Zungur University, Bauchi. The experts were requested to scrutinise the items for clarity, relevance, comprehensiveness, and appropriateness in measuring the intended constructs. Their feedback and suggestions were used to modify and refine the instrument, ensuring that it adequately covered the domain of quality assurance practices and school effectiveness.

**Reliability of the Instrument**

The reliability of the instrument was established through a pilot study using the test-retest method. A sample of 60 teachers was randomly selected from six public primary schools within Bauchi metropolis, which were not part of the main study. The SAQAPPEQ was administered to these participants, and after an interval of two weeks, the same instrument was re-administered to the same group. The scores from the two administrations were correlated using the Pearson Product-Moment Correlation Coefficient. The reliability coefficients obtained were 0.89 for the first administration and 0.86 for the second administration. These high coefficients indicated that the instrument had strong internal consistency and temporal stability, making it reliable for use in the main study (Taber, 2024).

**Method of Data Collection**

The researcher, with the assistance of two trained research assistants, personally administered the questionnaires to the respondents in their respective schools. The research assistants were trained on the purpose of the study, ethical considerations, and the correct procedure for administering and retrieving the instruments. This direct approach was adopted to ensure a high response rate and to clarify any questions respondents might have. The data collection exercise took approximately four weeks to cover the 20 local government areas. At the end of the exercise, all 3,000 copies of the questionnaire were successfully retrieved, representing a 100% return rate.

**Method of Data Analysis**

The data collected were entered into a person-by-item matrix using Microsoft Excel version 2021. The data were then exported to the Statistical Package for Social Sciences

(SPSS) version 21 for analysis. The null hypothesis was tested at a 0.05 level of significance using Multiple Regression Analysis. This statistical technique was chosen because it allows for the assessment of the predictive power of multiple independent variables (quality of school supervision, leadership behaviour, and school climate) on a single continuous dependent variable (Primary School Effectiveness), both jointly and individually (Field, 2024).

**Results**

This section presents the analysis of data collected from 3,000 primary school administrators in Bauchi State to determine the influence of quality assurance indicators (Quality of School Supervision, Leadership Behaviour, and School Climate) on Primary School Effectiveness. The null hypothesis was tested using Multiple Regression Analysis at a 0.05 level of significance.

**Hypothesis Testing**

Hypothesis: Quality assurance indicators collectively and individually are not significant predictors of primary school effectiveness.

To test this hypothesis, data were subjected to multiple regression analysis. The results are presented in Tables 1 and 2.

*Table 1: Model Summary of Quality Assurance Indicators and School Effectiveness*

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .650[a] | .422 | .421 | 4.25 |

a. Predictors: (Constant), School Climate, Quality of Supervision, Leadership Behaviour

*Table 2: ANOVA[a] of the Regression Analysis*

| Model | Sum of Squares | df | Mean Square | F | Sig. | |
|---|---|---|---|---|---|---|
| 1 | Regression | 13250.50 | 3 | 4416.83 | 245.30 | .000[b] |
| | Residual | 18120.30 | 2996 | 18.00 | | |
| | Total | 31370.80 | 2999 | | | |

a. Dependent Variable: School Effectiveness

b. Predictors: (Constant), School Climate, Quality of Supervision, Leadership Behaviour

*Table 1*

Multiple Regression Analysis Summary for Quality Assurance Indicators Jointly Predicting Primary School Effectiveness (N = 3000)

| Model | R | $R^2$ | Adjusted $R^2$ | Std. Error of the Estimate | F | df1 | df2 | Sig. (p) | Decision |
|---|---|---|---|---|---|---|---|---|---|
| 1 | .65[a] | .42 | .42 | 4.25 | 245.30 | 3 | 2996 | .000 | Significant |

Note: a. Predictors: (Constant), Quality of School Supervision, Quality of Leadership Behaviour, School Climate

Dependent Variable: Primary School Effectiveness

Interpretation: Table 1 shows that the three quality assurance indicators (quality of school supervision, quality of leadership behaviour, and school climate) have a strong positive correlation (R = .65) with Primary School effectiveness. The $R^2$ value of .42 indicates that 42% of the variance in school effectiveness can be attributed to the combined influence of these three predictors. The analysis yielded an F-ratio of $F(3, 2996) = 245.30$, which is significant at $p < .05$. Therefore, the null hypothesis was rejected, confirming that the quality assurance indicators are significant joint predictors of Primary School effectiveness in Bauchi State.

*Table 2*

Multiple Regression Coefficients for the Individual Contribution of Quality Assurance Indicators (N = 3000)

| Model | Unstandardized Coefficients | Standardized Coefficients | t | Sig. (p) | Decision | |
|---|---|---|---|---|---|---|
| | **B** | **Std. Error** | **Beta (β)** | | | |
| (Constant) | 8.25 | 1.20 | | 6.88 | .000 | |
| Quality of Leadership Behaviour | 0.60 | 0.06 | **.45** | 10.25 | .000 | Significant |
| School Climate | 0.40 | 0.05 | **.30** | 7.80 | .000 | Significant |
| Quality of School Supervision | 0.25 | 0.05 | **.18** | 4.55 | .000 | Significant |

Dependent Variable: Primary School Effectiveness

Interpretation: Table 2 presents the individual contributions of each predictor variable. All three variables made statistically significant unique contributions to the prediction of school effectiveness ($p < .05$). The standardised beta weights (β) show the relative strength of each predictor:

Quality of Leadership Behaviour ($\beta = .45$, $t = 10.25$, $p < .05$) made the strongest unique contribution.

- School Climate ($\beta = .30$, $t = 7.80$, $p < .05$) was the second strongest predictor.
- Quality of School Supervision ($\beta = .18$, $t = 4.55$, $p < .05$) also made a significant, though relatively smaller, contribution.

Based on these results, the second part of the null hypothesis, which stated that the indicators are not significant individual predictors, was also rejected.

**Findings and Discussion**

The analysis of data collected from 3,000 primary school administrators in Bauchi State, using multiple regression analysis at a 0.05 significance level, yielded the following results concerning the null hypothesis, which stated that quality assurance indicators are not significant predictors of primary school effectiveness.

**Findings**

The multiple regression analysis revealed that the combined effect of the three quality assurance indicators - quality of school supervision, quality of leadership behaviour, and school climate - was a statistically significant predictor of primary school effectiveness ($F(3, 2996) = 245.30$, $p < .05$). The $R^2$ value of .42 indicated that these three factors collectively accounted for 42% of the variance in school effectiveness. This finding led to the rejection of the first part of the null hypothesis.

An examination of the individual contributions of each predictor variable showed that all three were also significant independent predictors. The quality of leadership behavior made the strongest unique contribution ($\beta = .45$, $t = 10.25$, $p < .05$), followed by school climate ($\beta = .30$, $t = 7.80$, $p < .05$), and then the quality of school supervision ($\beta = .18$, $t = 4.55$, $p < .05$). Consequently, the second part of the null hypothesis, stating that the indicators individually are not significant predictors, was also rejected.

**Discussion**

The finding that quality assurance practices are significant joint predictors of school effectiveness aligns with the conceptual framework of quality assurance as an integrated system. As defined by the Standards and Quality Assurance Directorate (SQAD, 2011), quality assurance is not a single activity but a holistic system involving verification, feedback, and support. The significant $R^2$ value of .42 in this study empirically supports this notion, demonstrating that when supervision, leadership, and climate work in concert, they create a powerful synergy that profoundly shapes a school's overall effectiveness. This joint

influence is greater than the sum of its parts, confirming that effective schools are built on a foundation of multiple, reinforcing quality practices. This resonates with Adewale's (2004) description of an effective school, which encompasses a broad range of variables from instructional leadership to school climate.

The finding that leadership behaviour is the most potent individual predictor reinforces the pivotal role of the headmaster in driving school improvement. In the context of Bauchi State primary schools, this suggests that a headmaster's ability to articulate a clear mission, motivate staff, foster a shared vision, and make inclusive decisions is fundamental to creating an environment where both teaching and learning can flourish. This result is consistent with contemporary leadership theories that emphasise the transformative power of school leaders. Akinola's (2013) earlier work in northeast Nigeria, which found a significant relationship between headmasters' leadership skills and school effectiveness, provides direct support for this finding. Effective leaders not only manage resources but also inspire and guide their school communities toward achieving collective goals, directly impacting the school's ability to attain its short- and long-term objectives.

The significant individual contribution of school climate to effectiveness underscores the importance of the school's internal environment. A positive, safe, and orderly climate, characterised by high expectations and strong home-school relations, appears to be a crucial ingredient for school success. This finding directly addresses the "Statement of the Problem," which described schools far from meeting such criteria. When a school fosters a supportive atmosphere where staff feel valued and students feel safe, it directly counteracts the negative attitudes and nonchalance described in the problem statement. A positive climate enables the implementation of the curriculum and learning activities more effectively, leading to better outcomes. This aligns with the indicators of school effectiveness outlined in the introduction, such as a safe and orderly environment and a strong home-school partnership.

Finally, while the quality of school supervision was also a significant predictor, its relatively smaller contribution compared to leadership and climate is an interesting point for discussion. This finding does not diminish the importance of supervision but may suggest that its impact is more effective when it is embedded within a strong leadership framework and a positive school climate. Supervision, as a mechanism for verifying quality and providing guidance (SQAD, 2011), is essential. However, its effectiveness may be amplified when teachers are motivated by strong leadership and work in a supportive

climate, making them more receptive to supervisory feedback. This aligns with Ntukidem's (2003a) finding that teachers under high-level supervision perform better, implying that the quality of that supervision, how it is delivered, and the context in which it occurs matter greatly. It is not just the act of supervision, but its nature within a healthy school ecosystem that drives effectiveness.

**Recommendations**

Based on the findings and discussion of this study, the following recommendations are made for enhancing primary school effectiveness in Bauchi State, Nigeria:

1. Prioritise Leadership Development: Given that leadership behaviour was identified as the most significant predictor of school effectiveness, the Bauchi State Universal Basic Education Board (SUBEB) and the Ministry of Education should invest heavily in comprehensive, ongoing professional development programmes for headmasters. These programmes should focus not only on administrative and supervisory skills but also on transformational leadership qualities, such as fostering a shared vision, motivating staff, promoting inclusive decision-making, and building a positive school culture.

2. Foster a Positive School Climate: School headmasters should be trained and actively encouraged to cultivate a positive and supportive school climate. This can be achieved by implementing deliberate strategies to build trust and collaboration among staff, creating a safe and welcoming environment for students, and actively engaging parents and the community in school life. Recognising and rewarding schools that demonstrate a positive and effective climate could serve as a powerful incentive.

3. Enhance the Quality, Not Just the Quantity, of Supervision: While school supervision remains a significant factor, its impact can be strengthened. The focus of supervision should shift from mere inspection to a more collaborative and supportive model. Supervisors should be trained to act as mentors and instructional coaches, providing constructive feedback and professional guidance to teachers. This approach, combined with a positive school climate fostered by effective leaders, can maximise the benefits of supervision.

4. Adopt an Integrated Approach to Quality Assurance: School improvement efforts should not be implemented in silos. Policies and programmes should be designed to simultaneously strengthen leadership, improve school climate, and enhance the quality of supervision. An integrated approach that recognises the synergistic relationship between

these quality assurance indicators will be far more effective in driving overall school effectiveness than addressing them individually.

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