

INFLUENCE OF QUALITY ASSURANCE SUPERVISION ON THE EFFECTIVENESS OF PHYSICS TEACHERS IN ILORIN, NIGERIA

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Abstract

Physics is a vital discipline that underpins scientific advancement and national development. However, physics education in Nigeria has not fully achieved the objectives of the National Policy on Education, thereby highlighting the need for effective supervision and monitoring. This study examined the influence of Quality Assurance supervision on the effectiveness of physics teachers in Ilorin, Kwara State. The study specifically investigated the frequency of supervisory visits, the instructional supervisory practices employed by Quality Assurance personnel, the impact of supervision on teacher effectiveness, and teachers' perceptions of the competencies of the Quality Assurance Bureau. A descriptive survey research design was adopted, using questionnaires and interviews for data collection. A stratified sampling technique was used to select 50 Ministry of Education personnel and 100 secondary school physics teachers. Descriptive statistics (frequency, percentage, and mean) were used to answer research questions, while t-tests were used to test hypotheses. Findings revealed that Quality Assurance personnel monitor instructional activities through classroom observation, checking of lesson plans and records, monitoring attendance, and evaluating school facilities. Their supervision was found to have a positive impact on the effectiveness of physics teachers. Teachers also perceived Quality Assurance personnel as competent in instructional supervision. Despite these strengths, gaps remain in ensuring consistent supervision and maximizing its impact on teaching practices and infrastructure. The study underscores the importance of effective quality assurance supervision in improving teacher performance and maintaining educational standards. It is therefore recommended that the government provide adequate funding to support regular supervisory visits and organize continuous professional development programs, such as seminars and workshops, to strengthen the supervisory competencies of Quality Assurance personnel and enhance the effectiveness of physics teachers.

Keywords: Quality Assurance, Supervision, Physics, Teachers

1.0 Introduction

Education is a structured process of socialization through which individuals acquire the knowledge, skills, values, and attitudes required to function effectively within society. It does not only prepare

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learners for personal development but also equips them for active participation in social, economic, and national life. In recognition of this role, the Federal Government of Nigeria, through the National Policy on Education, describes education as an instrument “par excellence” for achieving national development (FGN, 2013). This underscores its central position in driving societal progress and transformation.

The attainment of these educational goals depends largely on the quality of teachers, who serve as the primary agents of knowledge transmission and character formation. Teachers do not merely deliver content; they shape learners’ intellectual growth, attitudes, and behaviour. As such, the transformation of learners into productive members of society is closely tied to the competence, commitment, and effectiveness of teachers. Empirical evidence supports this position, as studies have shown that teacher quality remains a major determinant of students’ academic performance, often exerting greater influence than other school-related factors (Qingyan et al., 2023).

Teacher effectiveness, often used interchangeably with effective teaching, refers to the extent to which teachers are able to facilitate meaningful learning and achieve desired instructional outcomes. Afe (2003) describes an effective teacher as one who demonstrates intellectual competence, emotional stability, and social maturity, while also exhibiting genuine concern for learners and a positive attitude toward the teaching profession. Such teachers possess the ability to motivate students and instill desirable values that support both academic success and personal development. Similarly, Evans (2006) views teacher effectiveness as the degree to which instructional objectives are achieved, reflected in measurable improvements in students’ knowledge, skills, and overall academic achievement.

In comparison with factors such as class size, gender differences, and students’ socio-economic background, teacher effectiveness has been found to have a more direct and sustained impact on students’ learning outcomes. This highlights the need for mechanisms that ensure and sustain high standards in teaching. Quality assurance and control in education play a critical role in this regard. According to Onyegele and Agbarakwe (2023), quality assurance processes help to maintain the credibility and reliability of teaching and learning by ensuring that established standards are consistently met. Through supervision, monitoring, and evaluation, quality assurance contributes to improving teacher performance and sustaining educational standards across schools.

Nigeria can make use of tremendous power of education through quality teacher education to tackle its numerous problems and so achieve rapid national development (Ukeje, 1996). Physics teachers are therefore at the vanguard of bringing about reforms in Nigeria’s policy on physics education. The basic purpose of physics teacher education program in any nation is the production of adequate number of highly competent physics teachers who are capable of providing qualitative instruction effectively. As entrenched in the Nigeria National Policy on Education (2013 revised), the goal of teacher education generally shall be to strengthening teacher development and improving the overall quality of education in Nigeria.

These objectives include the need to produce highly motivated, conscientious, and efficient classroom teachers at all levels of the education system; encourage a sustained spirit of enquiry and creativity among teachers; and support teachers in integrating effectively into the social life of their communities while maintaining strong commitment to national goals. In addition, the policy emphasizes the importance of equipping teachers with adequate intellectual and professional backgrounds that enable them to perform their duties effectively and adapt to changing educational demands. It also seeks to enhance teachers’ commitment to the teaching profession (FGN, 2013:5).

Despite the clarity of these objectives, their realization in practice remains a significant challenge within the Nigerian education system. In many cases, teachers exhibit low motivation, limited professional growth, and inadequate adaptability to modern instructional practices. These shortcomings suggest a gap between policy intentions and actual implementation. One critical factor contributing to this gap is the weakness or inconsistency in quality assurance supervision within schools.

Quality assurance supervision is expected to serve as a mechanism for monitoring, guiding, and improving teachers’ professional practices. However, where supervision is irregular, ineffective, or merely routine, it fails to provide the necessary support and accountability required to achieve the stated

objectives of teacher education. The absence of strong supervisory practices can lead to poor instructional delivery, reduced teacher commitment, and limited innovation in the classroom. Consequently, the failure to fully achieve these policy goals can be linked, in part, to deficiencies in quality assurance supervision, which undermines efforts to maintain high standards in teaching and learning.

The attainment of the objectives of teacher education, particularly in physics, depends largely on the extent to which quality assurance is upheld within teacher training institutions and secondary schools. These goals may remain unattainable where there is a failure to ensure effective teaching through proper supervision and monitoring mechanisms. In the context of physics education, quality assurance goes beyond the acquisition of formal qualifications, as the subject requires teachers who possess not only sound content knowledge but also the pedagogical competence to simplify abstract concepts and engage learners meaningfully. This has become increasingly important as the issue of educational quality continues to attract global attention, especially in the face of ongoing reforms aimed at improving learning outcomes. As noted by Olaifa et al. (2022), quality assurance has emerged as a key strategy for achieving educational effectiveness and sustaining policy reforms.

Quality assurance in education is generally understood as the process of ensuring that established standards are consistently met. Hayward (2006) views it as conformity to agreed standards set by relevant academic and professional bodies, while Gasey (2017) describes it as the process of attaining a specified level of excellence. In a broader sense, Roffe (2008) explains that quality assurance involves continuous improvement in all aspects of the educational system in order to meet the expectations of society. Within the school system, this includes the systematic management, monitoring, and evaluation of teaching and learning processes, with a view to ensuring effective utilization of resources, proper curriculum implementation, and improved student performance (Adegbesan, 2011).

In physics education, quality assurance practices are particularly significant because they prepare school administrators, teachers, and students for effective teaching and learning. Through regular supervision, teachers are guided to improve their instructional methods, deepen their subject mastery, and adopt innovative strategies that enhance students' understanding. Supervision also promotes accountability and professional growth, thereby improving teacher effectiveness and encouraging students to engage more actively in learning. Tuoyo (2000) emphasizes that effective supervision leads to improved classroom instruction, increased teacher competence, and better student achievement, all of which contribute to the realization of educational objectives.

Against this background, the aim of this study is to examine the role of quality assurance supervision in enhancing the effectiveness of physics teachers. Specifically, the study seeks to assess how supervision influences teachers' instructional practices, professional competence, and commitment to teaching. The significance of the study lies in its potential to provide empirical evidence that will assist educational administrators, policy makers, and school leaders in strengthening supervisory practices within schools. It will also contribute to existing literature by offering insights into how quality assurance mechanisms can be better applied to improve the teaching and learning of physics, thereby supporting the achievement of national educational goals.

1.1 Statement of the Problem

Despite the societal emphasis on quality assurance in education and the recognized need for systematic supervision in schools, there are growing concerns about the achievement of secondary education objectives. Observations suggest that both the Quality Assurance Bureau and many secondary schools give limited attention to the supervision of instructional activities, particularly in physics. As a result, there has been a noticeable decline in the instructional performance of physics teachers, indicating that quality assurance standards are not being fully realized in these schools (Adeniji, 2012).

This situation has significant implications. Many students show declining interest in physics due to the persistent underachievement of the goals and objectives of the subject, while inefficiencies among teachers exacerbate the problem. Schools, which are intended to promote intellectual development, moral values, and manpower development, appear to have deviated from their core responsibilities of

teaching, research, and holistic student development. Reports of teachers prioritizing commercial ventures over their professional duties are increasingly common. In response to these challenges, this study specifically investigates the influence of quality assurance supervision on the effectiveness of physics teachers in secondary schools in Ilorin, Kwara State, Nigeria.

1.2 Objectives of the Study

The main aim of this study was to examine the influence of quality assurance supervision on the effectiveness of physics teachers in secondary schools in Ilorin, Kwara State, Nigeria. Specifically, the study sought to:

1. Determine the frequency of visits by quality assurance personnel to monitor instructional activities in schools.
2. Examine the instructional supervisory practices employed by Quality Assurance Bureau personnel.
3. Assess the impact of quality assurance supervision on the effectiveness of physics teachers.
4. Explore physics teachers' perceptions of the supervisory competencies of quality assurance personnel.
5. Investigate the effect of quality assurance supervision on school teaching resources and infrastructural facilities.
6. Examine how inadequate feedback from the Quality Assurance Bureau influences physics teachers' effectiveness.

1.3 Research Hypotheses

The study tested the following hypotheses:

1. There is no significant difference between the perceptions of quality assurance personnel and physics teachers regarding the supervisory competencies of the Quality Assurance Bureau.
2. There is no significant difference between the perceptions of quality assurance personnel and physics teachers regarding the effect of supervision on school infrastructural facilities.

2.0 Literature Review

2.1 Concept of Quality Assurance in Education

Quality assurance in education refers to a systematic process aimed at maintaining and improving the standards of teaching, learning, and overall school performance. It involves continuous monitoring, evaluation, and improvement of educational practices to ensure that established objectives are achieved. In the Nigerian context, quality assurance is closely tied to the implementation of national educational policies and the maintenance of minimum standards across schools.

Scholars generally agree that quality assurance goes beyond inspection. It includes planning, supervision, evaluation, and feedback mechanisms that support continuous improvement. It ensures that inputs such as teachers, facilities, and instructional materials are effectively utilized to produce desirable learning outcomes. In this sense, quality assurance is both a control mechanism and a developmental process. Within secondary schools, quality assurance practices are carried out by designated bodies such as the Quality Assurance Bureau under the Ministry of Education. Their responsibilities include monitoring classroom instruction, evaluating school resources, and ensuring compliance with curriculum standards. When properly implemented, these activities help to improve teacher performance and student achievement.

2.2 Theoretical Review

Clinical Supervision Model: The Clinical Supervision Model was developed by Morris Cogan and Robert Goldhammer in the late 1950s and early 1960s at Harvard University School of Education (Cogan, 1973; Goldhammer, 1969). Originally designed for supervising pre-service teachers during their preparatory stages, clinical supervision has evolved into a contemporary supervision model applicable to in-service teachers (Gürsoy, Kesner, & Salihoğlu, 2016). Clinical supervision is defined by its emphasis on an up-close, face-to-face relationship between teachers and supervisors, contrasting with traditional supervision models that may be conducted from a distance (Goldhammer, 1969). This clinical relationship offers educators the opportunity for close observation, the gathering of detailed observational data, and direct interactions, thereby fostering a "intimate professional relationship" (Goldhammer, 1969, p. 54). The model is distinguished by its emphasis on inquiry and analysis, its inherent conceptual complexity, and the promotion of greater teacher autonomy.

2.3 Stages of Clinical Supervision

Goldhammer (1969) formulated a five-stage clinical supervision cycle, whereas Cogan (1973) introduced an eight-stage model. Despite these differences, both frameworks encompass five fundamental stages:

Pre-observation Conference: This initial stage establishes the conceptual foundation for the forthcoming observation. The teacher and supervisor collaboratively discuss the lesson's objectives, potential difficulties, and the specific focus of the observation. This initial stage facilitates the establishment of communication channels and the cultivation of trust among the individuals involved (Goldhammer, Anderson, & Krajewski, 1980).

Classroom Observation: The supervisor undertakes the observation of the teacher's instructional practices, gathering detailed and thorough data pertaining to both teaching methodologies and student learning experiences. School administrators meticulously document teachers' pedagogical approaches and their interactions with students (PMC, 2023).

Analysis and Interpretation: The supervisor subsequently analyses the observed teaching and learning activities. The primary objective is to support teachers in formulating self-assessments of their instructional practices by furnishing them with objective data for reflective purposes (Khaef, 2021).

Supervision Conference (Post-observation): In this phase, the teacher and supervisor engage in a collaborative discussion concerning the observational data. Both parties collaborate to analyse the data and pinpoint areas for improvement (Cogan, 1973).

Post-conference analysis and professional support constitute the concluding phase, entailing reflection on the supervisory process and the formulation of plans for future professional growth. The supervisor may offer academic professional support as required. Clinical supervision emphasizes structured observation, feedback, and reflective practice to improve teaching quality. In this study, it explains how quality assurance supervision can guide physics teachers to enhance instructional strategies and classroom effectiveness. Teachers' perceptions of supervision as supportive influence their willingness to implement recommended practices.

2.4 Empirical Review

A study conducted by Oguntimehin *et al.* (2018) on assessment of quality assurance indices on secondary schools teachers' job performance adopted the ex-post facto survey design method which was carried out at Remo zone of Ogun State. The population of the study consists of all the principals and teachers of all public secondary schools in all the three (3) Local Government Areas (Ikenne, Sagamu and Remo North) in Remo zone of Ogun State. Thirty-eight (38) secondary schools (Junior and Senior) from the three Local Governments were randomly selected. In all the thirty-eight schools, thirty-eight principals and three hundred and eighty teachers (four hundred and eighteen participants) were used for the study. The study engaged the teachers and the principals using two questionnaires

tagged Quality Assurance Education Questionnaire (QAEQ) and Teachers' Job Performance Questionnaire (TJPQ). The data collected were subjected to statistical analysis of simple percentage and regression analysis, significant at 5% error margin. It was revealed that teachers' job performance to a very great extent depends on variables like school environment, leadership style, instructional supervision, and instructional resources.

A study carried out by Oyetola *et al.*, (2012) on Quality Assurance and effectiveness of Lagos State secondary schools in which the population of the study comprises of all teachers in the selected secondary schools in Lagos State. Thirty (30) secondary schools were selected on an equal basis from six educational districts that make up the state and thirty teachers were selected from each school. Nine hundred teachers constitute the sample subject of the study. The instrument used for the study was a questionnaire. The data collected were subjected to chi-square analysis. Based on the findings of the study it was concluded that Quality Assurance is a necessity to school effectiveness in terms of teachers input and school leadership that is, teachers input would improve with Quality Assurance.

A study by Mbuya and Mpiza (2025) in Tanzania examined the influence of internal quality assurance practices on teaching and learning in colleges within the Morogoro Region. Using data collected from lecturers and administrators, the study found that activities such as classroom monitoring, evaluation of teaching methods, and regular feedback significantly improved instructional effectiveness. Lecturers in institutions with active quality assurance teams were more prepared, adopted better teaching strategies, and engaged students more effectively. The study concluded that strong internal quality assurance systems enhance teaching quality and recommended consistent supervision and staff development to sustain improved learning outcomes.

According to Ikegbusi and Eziamaka, (2016), study on the impact of supervision of instruction on teachers' effectiveness in secondary schools in Nigeria. The study used a comparative survey research design to collect data from teachers. The population comprised of all the secondary school teachers in Government owned secondary schools in Enugu South Local Government Area of Enugu State, Nigeria. A sample of nine hundred and five (905) teachers was drawn through proportionate, stratified, simple random sampling technique. The instrument that was used for data collection was a questionnaire called Internal Supervision Assessment Scale (ISAS) and External Supervision Assessment Scale (ESAS). The data collected was analyzed using mean and standard deviation for the research questions. It was concluded from the study that both internal and external supervision of instruction have significant influence on the effectiveness of teachers in secondary school in Enugu State.

Onyekuru and Ibegbunam (2013) investigates teaching effectiveness of secondary school teachers in Emohua Local Government Area of Rivers State, Nigeria. A sample of eighty (80) secondary school teachers from twenty-seven registered secondary schools in Emohua Local Government Area of Rivers State was involved in the study. The instrument used for the data collection was teachers' effectiveness checklist. It was concluded from the study that teaching experience and teachers' qualifications had a significant influence on the teaching effectiveness of secondary school teachers.

A study conducted by Bassey and Ushie, (2013) in Enugu, Cross River and Akwa- Ibom State on Quality Assurance for effective agricultural teachers' preparation and school administration in Nigeria employed survey research design. The targeted population was two thousand two hundred and thirty-one (2,231) respondents comprising of 2,021 lecturers from universities and 210 lecturers from colleges of education. A total of two hundred and twenty-one (221) university lecturers and twenty-one (21) college lecturers were selected using simple random sampling technique. Practices for Quality Assurance and Application in Teachers Education (PQAATE) questionnaire was structured instruments used to elicit the needed information from respondents. The data collected was analyzed using mean and standard deviation statistics to answer the research question and independent *t*-test statistical tool to test the null hypothesis. It was concluded that establishment of well monitored supervisory for service delivery, effective supervision of teaching exercise has potentials of establishing quality assurance for effective agricultural teachers' preparation and school administration in Nigeria.

Mwaniki's (2019) findings revealed that teachers perceive Quality Assurance and Standards Officers' (QASOs) as not completely equal to their task of offering technical expert knowledge on issues related

to curriculum interpretation and implementation. The teachers were found to hold the opinion that instructional supervisory competences of QASOs were partially effective in respect to technical and conceptual skills. However, teachers were of the opinion that QASOs exhibit favorable human relations competences. The study established that although the instructional supervisory practices exercised by QASOs in the schools appear well organized, there are certain inadequacies; the QASOs don't do sufficient preparations before conducting instructional supervision in schools, QASOs hardly engaged principal and heads of department teachers in pre-observational conference, QASOs spend most of the time checking teachers' professional records, and there was usually no sufficient time for delivering feedback and engaging teachers in the plenary meetings.

The QASOs instructional supervisory practices were found to have positive influences on the instructional competences of teachers insofar as improving teachers' competences in assessment and evaluation of students. Hardly had Quality Assurance and Standards Officers' instructional supervisory practices improved teachers' pedagogic skills, their ability in preparation and utilization teaching aids while teaching. The extent of the utilization of the QASOs' instructional reports and recommendations in schools was found to be inadequate. School principal and heads of department teachers did not fully implement or utilize the QASOs' recommendations because it required more financial, physical or human resources which the school could not afford. QASOs hardly used the previous supervision reports as reference document while conducting subsequent instructional supervision in schools and lastly, there is no optimal use of QASOs instructional field reports in refining the activities of QASOs' and in informing decisions related to formulation of policies and plans on quality education.

Nwite and Nkiru, (2017) assessed the quality assurance practices in secondary schools in Enugu State Nigeria. Six specific purposes, six research questions and six null hypotheses guided the study. The descriptive survey research design was adopted for the study. The population of comprised 291 principals of public secondary schools and 92 school evaluators in the Ministry of Education totaled 383. The entire population served as the sample. The instrument used for data collection was structured questionnaire titled "Assessment of Quality Assurance Practices in Secondary Schools Questionnaire (AQAPSSQ). The data collected were analyzed using mean and standard deviation to answer the research questions while *t*-test statistics was used to test the null hypotheses at 0.05 level of significance. The findings of the study revealed among others that: provision of infrastructural facilities, recruitment of qualified teachers, secondary school curriculum implementation and effective leadership management are quality assurance practices in secondary schools in Enugu State.

A study conducted by Oghuvbu (2022) a comprehensive study examining the impact of instructional supervision on teacher effectiveness in secondary schools across Delta State, Nigeria. The research employed a descriptive survey design and utilized a stratified random sampling technique to select 480 teachers from 60 secondary schools, comprising both public and private institutions. The researcher developed and validated a structured questionnaire titled "Instructional Supervision and Teacher Effectiveness Questionnaire" (ISTEQ) with a reliability coefficient of 0.85 using Cronbach's Alpha. Data were analyzed using Pearson Product-Moment Correlation and multiple regression analysis. The findings revealed a significant positive relationship between instructional supervision practices and teacher effectiveness.

Metta, Range, et al (2023) conducted a study examining educators' perspectives on supervision and evaluation frameworks across various U.S. states. Employing a cross-sectional survey methodology, the researchers gathered data from 2,847 teachers, encompassing a range of grade levels and subject areas, via an online questionnaire. The sample comprised teachers from urban, suburban, and rural districts spanning 15 states. The instrument assessed teacher perceptions of supervision's fairness, developmental benefits, and influence on instructional practices, utilizing a 45-item Likert scale questionnaire that demonstrated established validity and reliability. Data analysis incorporated structural equation modelling and hierarchical linear regression techniques. The findings revealed a significant correlation between teachers' favourable perceptions of supervision quality and their self-reported instructional enhancements.

Eze and Okoye (2023) conducted an empirical investigation into the relationship between quality assurance supervision mechanisms and teacher job performance in public secondary schools across

southeastern Nigeria. The study adopted a descriptive survey design and selected 680 teachers from 120 public secondary schools using proportionate stratified random sampling across five states. The researchers utilized two validated instruments: the "Quality Assurance Supervision Assessment Scale" (QASAS) and the "Teacher Job Performance Inventory" (TJPI). Job performance was measured through multiple dimensions including instructional delivery, assessment practices, classroom management, professional ethics, and student outcomes. Data collection incorporated teacher self-reports, principal ratings, and analysis of students' terminal examination results. Statistical procedures included descriptive statistics, Pearson correlation, independent samples t-tests, and stepwise multiple regression. Results indicated a strong significant positive correlation between quality assurance supervision and overall teacher job performance.

Nurudeen *et al*, (2020) examined the impact of quality assurance on teachers' productivity in public secondary schools in Lagos State Education District V. The purpose was to find out the relationship between quality assurance and teachers' productivity. Correlational survey design was adopted to guide the study. Three hypotheses which were tested at 0.05 level of significance guided the study. The population of the study comprised all secondary school teachers in Lagos State Education District V. Pearson Product Moment Correlation Coefficient were used to test all the hypotheses at 0.05 level of significance. Finding showed that there was no significant relationship between quality assurance and attendance of teachers in school to a great extent influences the academic performance of students. Also, the activities of quality assurance team help teachers in the delivery of school curriculum which invariably improve students' academic performance.

Abdullahi, (2020) investigated quality assurance and management of basic education improvement in North-central, Nigeria. The population of this study comprised all 12,775 head teachers and 93, 201 teachers in public primary schools in North-central. Sample of 375 head teachers and 384 teachers were proportionally selected in the seven states with the use of Research Advisor (2006), table of determining sample size of known population. Stratified random sampling techniques was used to select head teachers and teachers of the sample primary schools in order to ensure that every member of the population has equal right and chance of being selected. *t*-test statistical analysis was used to analyze the collected data. The results show that there was no significant difference between external supervision, classroom-based student assessment, staff development and management of basic education in Nigeria.

3.0 Methodology

This study employed a survey type research because this study collected information so as to extract some facts, which helped to describe the influence of quality assurance supervision on physics teachers' performance and the perception of teachers on the quality assurance supervision using interview and questionnaire.

3.1 Population, Sample and Sampling Technique

The population for this study comprised all physics teachers in secondary schools in Ilorin, Kwara State, as well as personnel from the Quality Assurance Bureau of the Ministry of Education, Ilorin. The sample included 100 physics teachers drawn from all available secondary schools in the area and 50 personnel from the Quality Assurance Bureau, in respect to Appendix I. A stratified sampling technique was employed to select respondents from both groups. This approach ensured that the study captured information from all physics teachers and the personnel directly responsible for supervising instructional activities in schools, providing a comprehensive understanding of the role of quality assurance supervision in physics education.

3.2 Research Instrument

The instrument that was used in collecting data for this study is questionnaire and interview. The structured questionnaire which was designed by the researchers contained two sections for quality

assurance bureau supervisors and three sections for the physics teachers. Section A consists of demographic data, section B consists of questions designed to elicit response from the sample of the study on the influence of quality assurance on effective teaching of physics while section C will elicit response from the teachers on perception of teachers on quality assurance bureau supervision. The item on section B and C were rated on a four-point Likert scale of Strongly Agreed (4 points), Agreed (3 points), Disagree (2 points), and Strongly Disagree (1 point).

3.3 Validity of the Instrument

The instrument was subjected to criticism and moderation from experts in the Departments of Science Education, University of Ilorin. The criticism and moderation helped in eliminating inadequate and invalid items thereby establishing content validity of the instrument.

3.4 Procedure for Data Collection

In the quest to collect relevant and appropriate data for the purpose of this study, the researcher collected a letter of introduction from the Head of Department of Science Education, Faculty of Education University of Ilorin. The letter of introduction was presented to the principal of each school to seek the approval before administering a copy of the questionnaire to each of the teachers and also to the Head of Quality Assurance Bureau before administering the questionnaire to each of the personnel at the Department. The questionnaire was administered personally by the researcher to the respondents, waits for the respondents to fill in their opinions and the questionnaire was retrieved immediately after completion. This was to ensure high rate of return and if for any reason some of the copies of the questionnaire were not immediately retrievable the researcher went back to such schools to retrieve them.

3.5 Data Analysis Techniques

The data collected was analyzed using descriptive statistics of frequency and percentage. Percentage was used to answer the research questions. *t* - test was used to answer the research hypotheses.

4.0 Result and Analysis

The table presents the distribution of respondents based on gender and institutional affiliation. Out of a total of 100 respondents, 68 (68%) were male, while 32 (32%) were female, indicating that the sample was predominantly male. In addition, 50 of the respondents were personnel from the Ministry.

Demographic Characteristic	Gender	Frequency	Percentage (%)
Gender	Male	68	68
	Female	32	32
	Total	100	100
Quality Assurance Personnel	Ministry Personnel	50	50

4.1 Research Question 1: How often do quality assurance personnel monitors instructional activities in schools?

Results from Table 1 revealed the mean response of the teachers and quality assurance personnel for items relating to frequency of monitoring instructional activities in schools by the Quality assurance bureau personnel. The items of the instruments were structured in such a way that a mean value that is equal or greater than the benchmark value of 2.00 indicates regularity in monitoring instructional activities in schools by the Quality assurance personnel while a mean value of less than 2.00 indicates that monitoring instructional activities in schools by the Quality assurance personnel is not regular. By

comparing the aggregate mean of the quality assurance with that of teachers, it can be observed that for quality assurance personnel, the mean $2.04 > 2.0$. This implies that responses by the quality assurance personnel show that they regularly monitor instructional activities in schools. However, for the teachers, the mean $1.81 < 2.00$ shows that quality assurance personnel do not regularly monitor instructional activities in schools.

Table 1: Frequency of monitoring instructional activities in schools by the Quality Assurance Personnel

Items	Mean (Quality Assurance)	Mean (Teachers)
How often do quality assurance personnel visit schools for monitoring and supervision	2.38	1.83
How often do quality Assurance notify school before visitation	2.00	1.71
How often do school managements make request for quality assurance bureau supervision in schools	1.58	1.86
How often do quality assurance bureau visit schools within scheduled time	2.18	1.84
Aggregate Mean	2.04	1.81

4.2 Research Question 2: What are the instructional supervisory practices exercised by Quality Assurance Bureau personnel in the school?

Results from Table 2 revealed responses to the items relating to the instructional supervisory practices exercised by Quality Assurance Bureau personnel in the school. The items of the instruments were structured in such a way that a mean value that is equal or greater than the benchmark value of 2.50 indicates agreement with the item while a mean that is lesser than 2.50 indicate disagreement. For both the quality assurance personnel and the teacher, the mean is greater than the benchmark of 2.50 for each of the items. Cumulatively, the aggregate mean for the quality assurance personnel $3.51 > 2.50$ and the teachers $2.88 > 2.50$ implies that both the quality assurance personnel and the teacher agree on the instructional supervisory practices exercised by Quality Assurance Bureau personnel.

Table 2: The instructional supervisory practices exercised by Quality Assurance Bureau personnel in the school

Items	QA Mean	QA Std. Dev	Teachers Mean	Teachers Std. Dev
Quality Assurance Bureau personnel observe teachers in classroom while teaching	3.76	0.431	3.05	0.757
Quality Assurance Bureau personnel monitor teachers' punctuality and regularity in the school	3.66	0.479	2.80	0.817
Quality Assurance Bureau personnel check the school infrastructural facilities	3.46	0.542	2.92	0.800
Quality Assurance Bureau personnel check and ensure adequate preparation of lesson plan, scheme of work, and records of work in the school	3.76	0.431	2.83	0.900
Quality Assurance Bureau personnel assess the level of learners' attainment by checking their notebooks	3.51	0.443	2.81	0.885
The visitation by Quality Assurance Bureau personnel is only to check professional records	2.54	0.541	2.77	0.802
Standards are set for school evaluation and reporting	3.56	0.950	3.00	0.853
Aggregate Mean	3.74	—	2.88	—

4.3 Research Question 3: What are the impacts of Quality Assurance personnel evaluation on Physics teachers' effectiveness?

Results from Table 3 revealed the responses for items relating to the impacts of Quality Assurance personnel evaluation on physics teachers' effectiveness. The items of the instruments were structured in such a way that a mean value that is equal or greater than the benchmark value of 2.50 indicates positive impact while a mean that is lesser than 2.50 indicate negative impact. All the items were agreed to by the teachers. Cumulatively, the aggregate mean $2.99 > 2.50$ indicate that Quality Assurance personnel evaluation has positive impact on physics teachers effectiveness.

Table 3: The impacts of Quality Assurance personnel evaluation on Physics teachers' effectiveness

S/N	Items	N	Mean	Std Deviation	Remark
1	Quality Assurance bureau personnel encourages teachers to use learner-centered method of teaching when impacting knowledge	100	3.08	0.706	Agreed
2	Visitation by Quality Assurance Bureau personnel enhances teachers' punctuality and commitment to teaching.	100	2.98	0.803	Agreed
3	Quality Assurance Bureau personnel contribute to professional growth of teachers.	100	3.04	0.764	Agreed
4	Supervision of Quality Assurance ensures mastering of subject matter or concepts by the teachers.	100	2.87	0.812	Agreed
5	Visitation by Quality Assurance Bureau personnel enhances teachers' use of periodic questioning to obtain and retain students' attention in the classroom.	100	2.97	0.870	Agreed
Aggregate Mean			2.99		

4.4 Research Question 4: What perceptions do teachers' and Quality assurance personnel have towards the Quality Assurance Bureau personnel Visitation on instructional supervisory competencies?

Results from Table 4 revealed mean response to items relating to the Perceptions about visitation of Quality Assurance Bureau personnel on instructional supervisory competencies. The items of the instruments were structured in such a way that a mean value that is equal or greater than the benchmark value of 2.50 indicates positive perception of quality assurance on instructional supervisory competence while a mean that is lesser than 2.50 indicate negative perception of visitation on instructional supervisory competence. Cumulatively, the aggregate mean $2.46 < 2.50$ implies that the quality assurance has negative perception towards their visitation on instructional supervisory competence. However, the mean $2.92 > 2.50$ indicate that the teachers has positive perception towards quality assurance visitation on instructional supervisory competence.

Table 4: Perceptions about visitation of Quality Assurance Bureau personnel on instructional supervisory competencies

S/N	Items	QA Mean	QA Std. Dev	Teachers Mean	Teachers Std. Dev
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1	Teachers are always scared of being reprimanded during visitation.	1.90	0.678	2.77	0.863
2	Teachers think that some quality assurance personnel are incompetent to supervise their works.	1.94	0.740	2.88	0.924
3	Teachers think that the monitoring inspectors do not carry out their inspections in accordance to their codes of conduct.	1.96	0.727	2.76	0.818
4	Teachers think we do not communicate our findings to them in an objective and lucid manner.	3.64	0.631	3.11	0.764
5	Teachers think our visitations encourage and motivate them towards effective teaching.	2.46	—	2.92	—
Aggregate Mean		2.88	0.689	3.06	0.851

4.5 Research Question 5: Do Quality Assurance personnel supervision improve the school teaching and infrastructural facilities.

Results from Table 5 show the response to items relating Effects of Supervision on the School Facilities. The items of the instruments were structured in such a way that a mean value that is equal or greater than the benchmark value of 2.50 indicate that Quality Assurance personnel supervision improve the school teaching and infrastructural facilities while a mean less than 2.5 indicate Quality Assurance personnel supervision does not improve the school teaching and infrastructural facilities. Cumulatively, the aggregate mean for quality assurance 3.72 > 2.50 implies that Quality Assurance personnel supervision improve the school teaching and infrastructural facilities. Similarly, for teachers, the aggregate mean 3.01 > 2.50 implies that Quality Assurance personnel supervision improve the school teaching and infrastructural facilities.

Table 5: Effects of Supervision on the School Facilities

Items	QA Personnel Mean	QA Personnel Std. Dev	Teachers Mean	Teachers Std. Dev
Quality Assurance Bureau personnel encourage the use of teaching aids by teachers during instructional activities.	3.94	2.400	3.17	0.697
Quality Assurance Bureau ensures compliance with set standards on the school's infrastructural facilities and learning environment.	3.64	0.485	2.91	0.889
Quality Assurance Bureau ensures compliance with set standards on the school's infrastructural facilities and learning environment.	3.66	0.479	3.01	0.798
Visitation by Quality Assurance personnel has helped to improve the school teaching and infrastructural facilities.	3.64	0.465	2.95	0.914
Quality Assurance personnel has helped to improve the school teaching and infrastructural facilities.	—	—	—	—
Aggregate Mean	3.72	—	3.01	—

Results from Table 6 reveal mean for items relating to Supervisor Feedback and Teachers' Effectiveness. Cumulatively, the aggregate mean for quality assurance 2.97 > 2.50 implies that quality assurance gives feedback and the feedback are effective for physics teachers effectiveness. Similarly, for the teachers, the mean 2.82 > 2.50 implies that quality assurance gives feedback and the feedback are effective for physics teachers' effectiveness.

Table 6: Supervisor Feedback and Teachers Effectiveness

Quality Assurance Mean	Quality Assurance Std. Dev	Teachers Mean	Teachers Std. Dev
3.74	0.443	2.79	0.880
1.98	0.843	2.88	0.868
3.22	0.545	2.87	0.812
1.88	0.849	2.64	0.905
3.56	0.501	2.71	0.891
3.44	0.733	3.08	0.907
2.97	—	2.82	—

4.6 Hypotheses Testing

4.6.1 *H₀₁: There is no significant difference between the perception of quality assurance and the teachers on the supervisory competency of the quality assurance personnel.*

Table 7 showed that the calculated t-value is -5.083 with 148 degrees of freedom computed at a significance level 0.05. Since the calculated sig (0.00) is lesser than the table sig (0.05), the null hypothesis is rejected. Hence, there is significant difference between the perception of quality assurance and the teachers on the supervisory competency of the quality assurance personnel. To ascertain where the significant difference lies, the mean of the quality assurance was compared with the mean of teachers. The mean of teachers (72.9000) > than quality assurance (61.6000) implies that teachers perceived quality assurance to possess instructional competence.

Table 7: t-test showing the difference between the perception of quality assurance and the teachers on the supervisory competency of the quality assurance

	No	Mean	Std Dev	df	Cal. t-value	Sig(2-tailed)	Decision
QA	50	61.6000	10.47056				
Teachers	100	72.9000	13.85677	148	-5.083	0.00	S

4.6.2 *H₀₂: There is no significance difference between the perception of quality assurance and the teachers on the effect of supervision on school facilities*

Table 8 showed that the calculated t-value is 7.629 with 148 degrees of freedom computed at a significance level 0.05. Since the calculated sig (0.00) is lesser than the table sig (0.05), the null hypothesis is rejected. Hence, there is significant difference between the perception of quality assurance and the teachers on the supervisory competency of the quality assurance. To ascertain where the significant difference lies, the mean of the quality assurance was compared with the mean of teachers. The mean of quality assurance (93.0000) > than teachers (75.2500) implies that teachers perceived quality assurance to have effect supervision on school facilities.

Table 8: t-test showing the difference between the perception of quality assurance and the teachers on the effect of supervision on school facilities

	No	Mean	Std. Dev	df.	Cal. t-value	Sig(2-tailed)	Decision
QA	50	93.0000	8.04959				
Teachers	100	75.2500	16.28154	148	7.629	0.00	S

4.7 Summary of Major Findings

The study revealed several key findings from the comparison of responses obtained from Quality Assurance Bureau personnel and physics teachers. First, while the personnel reported that they regularly monitor instructional activities in schools, teachers indicated that such supervision is not consistently carried out, highlighting a gap between official practice and teacher perception.

Second, the instructional supervisory practices of the Quality Assurance Bureau personnel were found to be comprehensive. These include classroom observation of teachers during instruction, monitoring teacher punctuality and attendance, inspecting school infrastructural facilities, ensuring adequate

preparation of lesson plans, schemes of work, and records of work, as well as assessing student attainment through notebook checks and reviewing professional records. These activities are guided by established standards for school evaluation and reporting.

Third, the evaluations conducted by quality assurance personnel were found to have a positive impact on the effectiveness of physics teachers, enhancing their instructional performance. However, a divergence in perception was observed: while the Bureau personnel expressed a negative perception regarding their own instructional supervisory competence, teachers held a positive view of the Bureau's competence in supervising instructional activities.

Fourth, supervision by Quality Assurance Bureau personnel was shown to contribute to improvements in school teaching practices and infrastructural facilities, ensuring that schools maintain higher standards of education. Finally, the feedback provided by the Bureau after monitoring and evaluation was considered effective in improving physics teachers' performance, further reinforcing the role of quality assurance supervision in enhancing instructional quality.

4.8 Summary of Interview Responses from Teachers

1. Findings from interviews with secondary school teachers indicate that Quality Assurance personnel do conduct supervisory visits; however, these visits are infrequent and lack consistency.
2. During supervision, Quality Assurance inspectors focus on examining school records, monitoring teachers' and students' attendance, reviewing lesson plans and schemes of work, assessing infrastructural facilities, and observing teachers' instructional methods.
3. The majority of teachers reported that they feel comfortable and at ease during supervision visits by Quality Assurance inspectors.
4. Although teachers generally perceive Quality Assurance personnel as competent in instructional supervision, they noted that such supervision has limited impact on improving teaching practices and school infrastructure.

5.0 Discussion of Findings

This study revealed that on the part of quality assurance personnel response, they regularly monitor the instructional activities in schools while on the part of the teachers, quality assurance personnel do not regularly monitor the instructional activities in schools. A regular visitation of school by quality assurance bureau personnel is important to maintain the standards sets for school. Ugochukwu, (2020) opine that Quality Assurance in secondary school education can be entrenched when educational facilities, teachers, students and curriculum and instructions are constantly subject to regular examination, evaluation, innovation communication. However, Abdullahi (2020) found that there was no significant difference between external supervision, and staff development in basic education in Nigeria.

Results from this study revealed that the instructional supervisory practices by Quality Assurance Bureau personnel in the school include observing teachers in the classroom while teaching. Monitoring teachers' punctuality and regularity in the school, checking the school infrastructural facilities, checking and ensuring adequate preparation of lesson plan, scheme of work, and records of work in the school, assessing the level of learners' attainment by checking through their notebooks, checking professional records and setting standards for school evaluation and reporting. Adequate supervisory practices by quality assurance on teachers enhance the teachers' performance. This corroborates the position of Oguntimehin *et al.* (2018) that teachers' job performance to a very great extent depends on instructional supervision.

Findings from this study also show that quality assurance personnel evaluation has positive impacts on physics teachers' effectiveness. This is in line with the submission of Oyetola *et al.*, (2012) that quality assurance is a necessity to school effectiveness in terms of teachers input. Nurudeen *et al.*, (2020) found

that the activities of quality assurance team help teachers in the delivery of school curriculum which invariably improve students' academic performance.

It was also found that Quality assurance personnel have negative perception towards their visitation on instructional supervisory competence while the teachers' has positive perception towards quality assurance visitation on instructional supervisory competence. Competence in instructional supervision is a keep ingredient in enhancing teachers' performance. According to Oguntimehin *et al.* (2018), teachers' job performance to a very great extent depends on instructional supervision. However, it disagrees with Mwaniki, (2019) findings that teachers perceive QASOs as not completely equal to their task of offering technical expert knowledge on issues related to curriculum interpretation and implementation.

In this study, it was found that quality assurance personnel supervision improves the school teaching and infrastructural facilities. This agrees with the findings of Ikegbusi and Eziamaka, (2016) that the study that both internal and external supervision of instruction have significant influence on the effectiveness of teachers in secondary school in Enugu State. Similarly, it is consistent with the conclusion of Bassey, and Ushie, (2013) that the establishment of well monitored supervisory for service delivery, effective supervision of teaching exercise has potentials of establishing quality assurance for effective agricultural teachers preparation and school administration in Nigeria.

It was also found that quality assurance bureau gives adequate feedbacks to the physics teachers after monitoring and evaluation and the feedbacks are effective on physics teachers' effectiveness. This disagrees with Mwaniki, (2019) findings that there was usually no sufficient time for delivering feedback by quality assurance personnel. When feedbacks are given to teachers, it would enable teachers to make necessary adjustment that would make them effective in their teaching profession.

5.1 Conclusion

Based on the findings of this study, the following conclusion was drawn. Regarding the monitoring of instructional activities, Quality Assurance Bureau personnel reported that they regularly supervise schools, while physics teachers indicated that such supervision is not consistently carried out. The supervisory practices of Quality Assurance Bureau personnel include observing teachers during classroom instruction, monitoring teacher punctuality and attendance, inspecting school infrastructural facilities, verifying the preparation of lesson plans, schemes of work, and records of work, assessing students' learning outcomes through notebook checks, and reviewing professional records and established standards for school evaluation and reporting. Evaluations conducted by Quality Assurance Bureau personnel were found to have a positive impact on the effectiveness of physics teachers. While Quality Assurance Bureau personnel held a negative perception regarding their own instructional supervisory competence, physics teachers expressed a positive perception of the Bureau's competence in supervising instructional activities. Supervision by Quality Assurance Bureau personnel was found to contribute to improvements in school teaching practices and infrastructural facilities. Feedback provided by the Quality Assurance Bureau to physics teachers after monitoring and evaluation was deemed adequate and contributed significantly to enhancing the effectiveness of the teachers.

5.2 Recommendation

The following recommendations were made. Government should provide targeted funding specifically for the regular mobilization of Quality Assurance Bureau personnel to schools, ensuring consistent monitoring and support. Government should organize structured and continuous professional development programs (seminars, workshops, and field-based training) tailored to the specific gaps observed among Quality Assurance personnel. The Quality Assurance Bureau should adopt a standardized feedback framework that ensures feedback is timely, specific, and actionable, with follow-up mechanisms to monitor improvement. There should be a formal linkage between supervision reports and teacher support systems, such as mentoring, coaching, and targeted instructional interventions. Quality Assurance personnel performance should be conducted, using measurable indicators tied to teaching outcomes and school improvement.

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