Quality Control Practices of Managers and Secondary School Effectiveness in Calabar Municipality of Cross River State - Nigeria

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Abstract
The study was designed to investigate the relationship between managers’ quality control measures and secondary school effectiveness in Calabar municipality of Cross River State. Four hypotheses were formulated to guide the study while descriptive survey design was adopted for the study. The population of the study consisted of all principals and vice principals in secondary schools of Calabar Municipality. The sample of the study consisted of 100 principals and vice principals in secondary schools of the study area. A questionnaire titled “quality control practices of managers and secondary school effectiveness “was the instrument for data collection. The hypotheses were tested at 0.05 levels of significance with relative degree of freedom using Pearson Product Moment Correlation Analysis and Multiple Regression analysis as the statistical tools. The results of the analysis revealed that, classroom observation, inspection of students’ notebooks and continuous assessment significantly relate to secondary school effectiveness. The study further revealed through regression analysis that inspection of students' notebooks had greater effect on school effectiveness as compared to continuous assessment which ranked second and classroom observation which came third. Based on the findings, it was recommended among other things that inspection of students notebooks should be a priority of school managers, and it should be done regularly to help enhance instructional effectiveness in secondary schools.

Keywords: Quality control practices, secondary school managers, school effectiveness

Introduction
Secondary schools are established to achieve specific goals in the Nigerian society. These goals broadly expressed include useful living within the society and higher education among others. The goals can only be achieved if the different activities of schools are well coordinated to achieve expected results. Instructional engagements and other activities need to happen according to schedule not accidentally or discordantly. Schools with ineffective instructional activities or those where the school climate does not promote teaching and learning and many other defects produce students with a piece of paper called a certificate, but such students are defective products, lacking in quality. They constitute problem to society just like a fake product that leaves a bad assembly line. The presence of so many secondary school leavers who are neither able to enter the university nor acquire meaningful skills for decent living have put the society under pressure and raise many questions about the quality of education offered at this level of learning. Many question as to why the school system is not always able to spot and correct these defects before graduation point to the fact that the mechanism for effective quality control in some schools are lacking.
The Oxford University Press (2019) defines effectiveness in its noun form as the degree to which something is successful in producing the desired result, while the Microsoft Encarta (2008) defines the concept as a result producing or causing activity especially the right result. It also introduces synonyms as effectual and efficacious. Actions are effectual or efficacious if they yield expected results. School effectiveness in its noun form is the description of actions or activities in schools which elicit or cause the expected result. Hoque and Kamaluddin, (2014) define an effective school in terms of school outcome especially based on student results, performance, or outcomes. Thus instructional leadership, clear and focused mission, safe and orderly environment, climate of high expectations, frequent monitoring of student progress, positive home-school relations are identified according to this source as outstanding features of an effective school. Furthermore, Scheerens (2004) mention features of school effectiveness to include: time, opportunity to learn and a structured approach to teaching that includes frequent monitoring of students’ progress at classroom level conditions, and supportive educational leadership at school level.

The analysis of above definitions in their conceptualization of what constitute an effective school or school effectiveness indicate a generally agreement that leadership, security status of school, instructional atmosphere, evaluation/monitoring of students and general organizational state of the school are important component of the subject (school effectiveness) in focus. Lynch (2015) presented the result of a 2008 study on school effectiveness which culminated in the formation of the so called Five Factor Theory of School Effectiveness in which the factors were presented following a ranking thus: quality leadership; high expectations of students, as well as teachers; ongoing screening of students' performance and development; existence of goals and direction and finally the extent to which the school is secure and organized. Thus school effectiveness can be defined as the extent to which school activities in terms of leadership, security status of school, instructional atmosphere, evaluation/monitoring of students and general organisational state of a school are harnessed towards achievement of the desired objectives of teaching and learning.

Quality control in education according to Ellis (2018) is a process undertaken to ensure that the standards and goals of school operations are both realistic and being met. Education quality control, according to this source, involves setting of school standards which could be done by an institution, district, state, or national guidelines through the inspectorate department of Ministry of Education. At the micro level of educational management where principals and their collaborators operate, quality control is that investigative aspect of management which involves supervision of school processes through inspections, observations, checking, examinations and assessments. This periodic conformance audits of the operations of the school system enables the finding and eliminating of sources of quality problems so that parents and society's expectations are continually met. The general aim of quality control activities in schools is to identify defects in the school system especially those that are concerned with students and their work in the developmental process before they are certified and released into the job market. ASQ (2018) sees quality control as a crucial concept in total quality management which deals with establishing the observation techniques and activities that will fulfill an organization's requirements for quality. It also enables weak links in schools' instructional processes with
particular reference to teacher quality to be spotted and upgraded to function optimally in these schools.

Education quality control practices therefore, are those activities that are done to ensure that the observed outcome in the school system meets with the expected outcome in the same system. Thus activities in the school system that are concerned with inspections, verifications, monitoring and testing to establish variance or error in educational delivery and management are part of quality control measures. In practical situations, the formation of rules and regulations, checking teachers' notes of lesson, headmasters monitoring of classroom management, examinations and continuous assessments, checking of attendances, inspection of students' notebooks and many others are part of quality control measures in the education system.

Principals according to Oyodeji and Fasasi (2006) are the chief executive officers, managers and supervisors of schools which they run, and are directly responsible for focusing school activities towards achieving desired result. They, according to this source, exercise their coordinating authority in schools by assigning duties, giving authority to their subordinates through delegation in order to achieve school goals (Babayemi 2006). Being chief executive managers in their schools therefore, principals can specify and delegate the work of quality control to vice principals while he (principal) retains supervisory control over them. In this scenario, vice principals can carry out such functions as classroom observations, inspection of students' notebooks, coordination of continuous assessment and generally ensure quality control by engaging in investigative aspect of administration and reporting back to the principal. The principal with the vice principals thus form a quality control team in the school and can now engage in periodic conformance audits of the operations of the school system to enable the finding and eliminating of sources of quality problems so that educational goals are met.

**Statement of the problem**

The essence of secondary school education is to ensure that teaching and learning take place so that students may secure admission into universities to further their education or engage in other meaningful life venture. The condition for this to happen is the establishment of an administrative mechanism in those schools where activities happen as at when due: teachers go to class and teach students, school leadership provide goals and expectations, safe and secure school climate is ensured, students are monitored and evaluated regularly and others. In this way, school activities are all focused, by deliberate act of school management, towards achieving results of teaching and learning.

This trend does not seem to be observed in all schools of the study area. While some schools are seen to be well organised and performing optimally, the contrary is what obtains in others: students roaming the streets, teachers permanently discussing in staff room and the principal who is never seen in the office. Principals, vice principals and other school workers have the duty of ensuring that faults and errors in the teaching/learning activities and school processes are investigated, uncovered and corrected before students graduate. This is to avoid a situation in which an unqualified student is certified and allowed to enter the labour market or seek admission into the university after graduation. They do this by monitoring, tracking and being investigative of school processes through inspections, observations, checking, continuous
assessments, examinations and other things. If these happen, school processes will happen in a result oriented way and vice versa. The problem of this study therefore is to establish if there is a relationship between managers' quality control practices and secondary school effectiveness in Calabar Municipality of Cross River State.

Objectives of the study
The objectives of the study generally was to find out the relationship between quality control practices of managers and effectiveness in secondary schools of Calabar municipality. Specifically, the study sought to:
1. Examine the relationship between classroom observation and school effectiveness
2. Assess the extent of relationship between inspection of students' notebooks and secondary school effectiveness.
3. Ascertain the relationship between continuous assessment and school effectiveness
4. Confirm if quality control practices of school management in terms of classroom observation, inspection of students' notebooks and continuous assessment are predictors of school effectiveness.

Null Hypotheses
1. There is no significant relationship between classroom observation and secondary school effectiveness.
2. There is no significant relationship between inspection of students' notebooks and secondary school effectiveness.
3. There is no significant relationship between continuous assessment and secondary school effectiveness.
4. Quality control practices of managers in terms of classroom observation, inspection of students' notebooks and continuous assessment do not significantly influence secondary school effectiveness in Calabar Municipality of Cross River State.

Methodology
The design adopted for this study was the survey research method which ensured the making of inference about the population under study by using the sample drawn from that population. The study area is Calabar Municipal local government area in Cross River State, which lies between latitude 04° 15' and 5° N and longitude 8° 25' E. in the Southern Senatorial district of the state. It is bounded by Odukpani local government area in the north-west and west, Calabar South local government area in the south, Akpabuyo local government area in the east, and Akamkpa local government area in the north-east according to Tukool (2018). The population of the study comprised all principals and vice principals in both public and private secondary schools of Calabar municipality. There are fifteen (15) principals in the public schools of Calabar Municipality and thirty vice principals, while there are 51 principals in private secondary schools and 102 vice principals. Census sampling technique was used to select all the principals and vice principals of public secondary schools, while random sampling method was used to select 30 principals and 25 vice principals from the private secondary schools. The sample size for the study was 100 consisting of principals and vice principals of the study area. The instrument for data collection was questionnaire titled: “quality control practices of management and effectiveness in secondary schools". The questionnaire had two sections of 30 questions. The
Cronbach alpha reliability method was used to establish the reliability of the instrument which yielded a coefficient value of 0.86 which certified the instrument reliable enough for use in the study. Data collection was carried out by the researchers and two assistants. The data collected were analyzed statistically using Pearson Product Moment Correlation Analysis and Regression analysis.

**Results**

**Null Hypothesis 1:** There is no significant relationship between classroom observation and school effectiveness. The independent variable in this hypothesis is classroom observation, while the dependent variable is school effectiveness. The Hypothesis was tested using Pearson Product Moment Correlation Analysis. The result of the analysis is presented in Table 1.

**Table 1:** Correlation analysis of classroom observation and school effectiveness.

<table>
<thead>
<tr>
<th>Variables</th>
<th>( \sum )</th>
<th>( \sum^2 )</th>
<th>( \sum_{XY} )</th>
<th>( r_{cal} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom Observation</td>
<td>3240</td>
<td>108614</td>
<td>110483</td>
<td>.34</td>
</tr>
<tr>
<td>School Effectiveness</td>
<td>3349</td>
<td>115655</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significance at .05, df = 98; critical \( r = 0.195 \); calculated \( r = 0.34 \)

The result of the analysis shows that the calculated \( r \)-value of 0.34 was found to be greater than the critical \( r \)-value of 0.195 when tested at 0.05 level of significance with 98 degree of freedom. This implies that the result is significant. The result of the analysis thereby reveals that there is a significant relationship between classroom observation and school effectiveness, thus the null hypothesis is rejected while the alternative is accepted.

**Null Hypothesis 2:** There is no significant relationship between inspection of students’ notebooks and school effectiveness. The independent variable in this hypothesis is inspection of students’ notebooks, while the dependent variable is school effectiveness. The hypothesis was tested using Pearson Product Moment Correlation Analysis. The result of the analysis is presented in Table 2.

**Table 2:** Correlation analysis of inspection of students’ notebooks and school effectiveness.

<table>
<thead>
<tr>
<th>Variables</th>
<th>( \sum )</th>
<th>( \sum^2 )</th>
<th>( \sum_{XY} )</th>
<th>( r_{cal} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspection of notebooks</td>
<td>3191</td>
<td>107283</td>
<td>110248</td>
<td>.71</td>
</tr>
<tr>
<td>School Effectiveness</td>
<td>3349</td>
<td>115655</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significance at .05, df = 98; critical \( r = 0.195 \); calculated \( r = 0.71 \)

The result of the analysis shows that the calculated \( r \)-value of 0.71 was found to be greater than the critical \( r \)-value of 0.195 when tested at 0.05 level of significance with 98 degree
of freedom. This implies that the result is significant. The result of the analysis thereby reveals that there is a significant relationship between inspection of students’ notebooks and school effectiveness, thus the null hypothesis is rejected while the alternative is accepted.

**Null Hypothesis 3:** There is no significant relationship between continuous assessment and school effectiveness. The independent variable in this hypothesis is continuous assessment, while the dependent variable is school effectiveness. The Hypothesis was tested using Pearson Product Moment Correlation Analysis. The result of the analysis is presented in Table 3.

**Table 3:** Correlation analysis of continuous assessment and school effectiveness.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Σ</th>
<th>Σ²</th>
<th>ΣXY</th>
<th>r_{cal}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Assessment (X)</td>
<td>3195</td>
<td>107309</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Effectiveness (Y)</td>
<td>3349</td>
<td>115655</td>
<td>109702</td>
<td>.51</td>
</tr>
</tbody>
</table>

Significance at .05, df = 98; critical r = 0.195; calculated r = 0.51

The result of the analysis shows that the calculated r–value of 0.51 was found to be greater than the critical r–value of 0.195 when tested at 0.05 level of significance with 98 degree of freedom. This implies that the result is significant. The result of the analysis thereby reveals that there is a significant relationship between continuous assessment and school effectiveness, thus the null hypothesis is rejected while the alternative is accepted.

**Null Hypothesis 4:** Quality control practices of managers in terms of classroom observation, inspection of students' notebooks and continuous assessment do not significantly influence secondary school effectiveness in Calabar Municipality of Cross River State.

In order to test hypothesis 4, multiple regression analysis was used to determine the extent to which the quality control practices of managers variables (classroom observation, inspection of students' notebooks and continuous assessment) significantly influence the secondary schools effectiveness in Calabar municipality of Cross River State. The F-value and the coefficient of determination/ multiple correlation square (R²) value are shown on Table 4

**Table 4:** Multiple regression analysis of the influence of the quality control practices of managers (classroom observation, inspection of students' notebooks and continuous assessment) on the secondary schools effectiveness.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R square</th>
<th>Adjusted R square</th>
<th>Std. error of the estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.752</td>
<td>0.566</td>
<td>0.552</td>
<td>3.27453</td>
</tr>
</tbody>
</table>

**ANOVA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of squares</th>
<th>Df</th>
<th>Mean square</th>
<th>F</th>
<th>P</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1342.633</td>
<td>3</td>
<td>447.544</td>
<td>41.738</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>Residual</td>
<td>1029.367</td>
<td>96</td>
<td>10.723</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2372.000</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variables</td>
<td>B</td>
<td>S.E</td>
<td>B</td>
<td>t</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------</td>
<td>-------</td>
<td>------</td>
<td>------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>11.124</td>
<td>2.471</td>
<td>0.117</td>
<td>4.501</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classroom Observation</td>
<td>0.112</td>
<td>0.068</td>
<td>0.117</td>
<td>1.641</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspection of Notebooks</td>
<td>0.422</td>
<td>0.056</td>
<td>0.577</td>
<td>7.520</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuous Assessment</td>
<td>0.168</td>
<td>0.057</td>
<td>0.224</td>
<td>2.928</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

P < 0.05; critical F (3, 96) = 41.73; critical t = 4.50

Table 4 shows the values of the parameters of multiple regression analysis between the independent variables (classroom observation X1, inspection of students’ notebooks X2 and continuous assessment X3) and secondary schools effectiveness. The prediction equation for the regression line is \( Y = 11.124 + .117X1 + .577X2 + .224X3 \). From the table, quality control practices of managers when taken against schools effectiveness yielded a coefficient of multiple correlations (R) of 0.752 and the multiple correlation square (R²) of 0.566. The R² value indicates that 56.6% of the total variance in the secondary school effectiveness scores is predicted by the quality control practices of managers. Also the F-value of 43.758 is significant at an alpha level of 0.05 (F = 41.738, df = 3, 96; P < 0.05). The result of the analysis revealed that the quality control practices of managers (classroom observation, inspection of students' notebooks and continuous assessment) significantly influence secondary schools effectiveness in Calabar Municipality of Cross River State. From the Table, inspection of students’ notebooks made the highest contribution to secondary school effectiveness (\( \beta = .577; p < .05 \)). The second in the rank of relative contributions is continuous assessment (\( \beta = .224; p < .05 \)) these two variables made contributions which were found to be significant. Also, the Table shows that classroom observation made the third and the lowest in the order of magnitude of contributions (\( \beta = .117; p > .05 \)) and this is not significant. These imply that inspection of students’ notebooks predicts secondary schools effectiveness more than classroom observation and continuous assessment. However continuous assessment predicts secondary schools effectiveness more than classroom observation.

**Discussion of the Findings**

The result of hypothesis one revealed that there is a significant positive relationship between classroom observation and secondary school effectiveness. The finding of this hypothesis is in line with view of MNISI (2016) who opined that classroom visitation by principals as instructional leaders can bring about change in terms of teaching, developing teachers, and evaluating if what they teach to learners is beneficial and authentic. The Integrated Quality Management System (2006) in Mnisi (2006) also sees class visits as peer visitation or a visitation by a supervisor or the Head of Department (HOD) with the aim of fostering discussions on teaching and sharing of ideas and providing constructive criticism about the teaching effectiveness of each member. This however goes against the findings of Ing, (2010) who, in studying the variability of principals' classroom observations across schools and relating same to schools' instructional climate concluded that there was no evidence that principals' frequency, duration, or instructional focus of classroom observations varies across schools with different student demographic characteristics or student performance levels. Furthermore, the same research provided no evidence that the frequency or duration of conducting classroom
observations relates to the instructional climate of the school. The reason for this disparity could be the difference in the competence of teachers and depth of grasp of subjects they teach.

The result of hypothesis two indicated that there is a significant positive relationship between inspection of students' notebooks and school effectiveness. The finding of this hypothesis is in agreement with the view of University of Nebraska (2018) who suggested that studies on the subject report that notetaking helps students' focus attention, promotes more thorough elaboration of ideas, and encourages efforts to relate ideas and organize materials. In short, notetaking helps students to process information more deeply. As an instructor, the teacher can do a number of things to help students take and use their notes more effectively like outlining lesson notes and being overt in the organization of the note in such a way they have both oral and visual quality as all these increases instructional effectiveness. This can be done by writing lecture outline on the board, being discriminatory in use of the board or transparencies; referring to outline to highlight shifts in topic and lastly, using signaling phrases and transition statements such as "this is important," "you will want to remember," "these differ in three important ways," "the second point is," or "next as the case may. University of Nebraska (2018) concludes that studies show that students usually record what the instructor has written, and therefore what the teacher writes on the board will find its way into the notebooks of students. Jain (2008) while advising on the process of correcting of note books suggest following as important details for teachers to follow: Very thorough and accurate checking is expected from teachers, reading each and every word carefully while correcting.

The corrections should be so thorough that even commas and full stops should not be ignored and teachers should avoid correcting in the classrooms as they may not concentrate fully and are bound to overlook mistakes. Teachers should underline spelling mistakes and write sp on top; circle or underline grammatical mistakes; put a mark for incomplete sentences while using only red pen to do the corrections. Helseth (2013) also reported that teacher comments and feedback on students' work in science notebooks was a key element in understanding the development of students’ thinking. In the investigation, a critical teacher feedback was given in students' science notebooks with the purpose of improving student achievement and critical thinking. Every week during the intervention, students' notebooks were scored using a rubric and were given critical feedback from the teacher. The results showed that though critical teacher feedback did not have a significant effect on students' academic achievement, the process of giving students feedback created a valuable formative assessment that the teacher can use to adjust instruction.

The result of third hypothesis showed that continuous assessment has a significant positive relationship with students' school effectiveness. The finding of this hypothesis is in line with the study of Siyum, (2016) who held the view that effective school based continuous assessment can be an answer in eliminating the element of risk associated with a single examination, and providing authentic and meaningful feedback for improving student learning and hence giving a valid indication of student achievement (Safarath and Kingtin 2014). Continuous assessment apart from being an important factor in education quality control according to Birhanu (2013), is needed in schools to enhance students' performance because of it being guidance oriented. Hernandez (2012) holds the view that continuous assessment has the potential to support students' learning through feedback and to increase students’ motivation for learning. Ramalepe,
and Zengele, (2014) also suggested that a good continuous assessment program aims at developing learners’ knowledge, skills and values, assesses learners’ strength and weaknesses, provides additional support to learners and revisits for revision certain sections of the curriculum in order to motivate and encourage learners.

The result of the fourth hypothesis analysis revealed that the quality control practices of managers (classroom observation, inspection of students' notebooks and continuous assessment) significantly influence secondary schools effectiveness in Calabar Municipality of Cross River State. From the Table, the effect of independent on dependent variable can be ranked: Inspection of students’ notebooks made the highest contribution to secondary school effectiveness ($\beta=.577; p<.05$). The second in the rank of relative contributions is continuous assessment ($\beta = .224; p <.05$) these two variables made contributions which were found to be significant. Also, the Table shows that classroom observation made the third and the lowest in the order of magnitude of contributions ($\beta = .117; p > .05$) and this is not significant. These implies that inspection of students’ notebooks predicts secondary schools effectiveness more than classroom observation and continuous assessment. However continuous assessment predicts secondary schools effectiveness more than classroom observation.

**Conclusion**
Through quality assurance, standards are established for daily operation of the school as an administrative system, but in quality control management actions are taken to ensure that the obtained educational standard in secondary schools is in consonance with the expected standard. Educational quality control practices are actions undertaken by school management to uncover errors and mistakes in education assembly lines: classrooms, school halls, playgrounds and others through setting up of school rules and regulations, checking attendances, visiting and observing classroom proceedings, checking students' notebooks, continuous assessments and others. These actions ensure that when children leave home, they go to school, and being in school such student participate in school activities. Quality control in schools ensures that any type of result is not acceptable, but the desired result since it locates and fixes faults in instructional and other school processes. When things happen in the school as it should in both the curricular and the co-curricular activities because of the investigative and supervisory actions of principals, vice principals and other collaborators, the following indicators will be obvious: Students' performance and achievement will be high, negative disciplinary issues will fall as there will be peaceful school climate, attendance rate in the school will increase as parents will have more confidence in the school and teachers will experience higher job satisfaction. Students who graduate from such schools do not just leave with a piece of paper called a certificate, but with knowledge which is said to be power.

**Recommendations**
1. Principals should regularly visit and observe teachers teach in the classroom for the purpose of fostering discussions on teaching methods, sharing of ideas and providing constructive criticism about the teaching process and effectiveness.
2. Teachers should handout their version of lesson notes from time to time after class to students for the purpose of comparison, correction and instructional effectiveness.
Checking of students' notebooks should be a priority for principals and teacher. In doing this, attention should given to what type of mistakes a child is repeating: is it mistake related to knowledge of grammar or a child has problem in identification of letters.

Principals as chief supervisors of their schools should make efforts to upgrade their competencies through reading of professional journals, peer mentoring, and participating in professional conferences/seminars to help them achieve the necessary competencies for instructional supervision in school.

The principal should have a local inspectorate team in schools who regularly inspect students' note in company of subject teachers to improve instructional effectiveness

References


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