

Principals’ School Plant Management Strategies and Effective Teachers’ Job Performance in Secondary Schools in Bayelsa State, Nigeria

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Abstract

This study investigated principals’ school plant management strategies and Teachers’ job performance in secondary schools in Bayelsa State, Nigeria. The descriptive survey research design was adopted for the study. Three research questions and three hypotheses were formulated to guide the study. The target population for this study was all the public senior secondary school principals’ and teachers’ in Bayelsa State. All were studied due to the manageable size of the population. The instrument for data collection was a questionnaire which was validated by experts in Educational Management and in Measurement and Evaluation. The data collected were analysed using mean and standard deviation to answer the research questions, while z-test was used to test the hypotheses at 0.05 level of significance. The findings outlined school plant operational practices, school plant maintenance practices, and problems associated with school plant management as they affect Teachers’ job performance in secondary schools in Bayelsa State. It was also revealed that there was no significant difference in the mean responses of principals and teachers on school plant operational practices, maintenance practices and the problems associated with school plant management and Teachers’ job performance in secondary schools in Bayelsa state. It was recommended, among others, that principals should organize workshops for teachers, students and other stakeholders in their various institutions in order to sensitize them on the need to imbibe appropriate school plant operation and maintenance culture.

Keywords: School Plant, Management Strategies, Teacher Job Effectiveness

INTRODUCTION

School plant management is an essential tool in the achievement of secondary school objectives. The effective and efficient management of school plant contributes immensely to high quality development in education. Olujide (2011) stated that “the attainment of good school plant management requires committed and qualified principals.

School plant is made up of the school land and all the physical structures on it. It includes the site, buildings, physical equipment, recreational spaces and books used for the achievement of educational objectives (Oluchukwu, 2012). From these views, school plant simply means the location, fixed structures and movable materials in schools.

High educational standards are achieved when school plants are effectively managed in schools. This is when students live in clean, attractive and pleasant learning environment; it is also achieved when classrooms and hostels are in good working conditions and when the laboratories, libraries, and workshops are well equipped. Adesina and Ogunsaju (2013) in their recognition of the need for school plant and effective performance of educational programmes noted that: “for effective teaching and learning situations, school plant and educational goals should be viewed as being closely interwoven and interdependent apart as they serve in protecting students from the sun, rain, heat and cold. In this context, school plant and educational goals are interdependent. Therefore, school plant management is an essential tool in the achievement of quality instructional delivery in the school.

The achievement of principal relies on his administrative capacities and ability to make reasonable decisions for effective secondary school administration. Biasness of some teachers’ and poor academic performance of students in secondary schools could be attributed partly to poor administrative skills of school principals. This is because the principal is the pioneer of his school and should be expected to perform certain expert and authoritative functions, bearing in mind that the end goal will be determined by effective teaching and learning. Be it big or small, public or private school, it is the leader who usually provides direction towards goals attainment. Unfortunately, principals’ abilities and powers as the authoritative, specialized and pedagogical leader of the school have turned into matter of worry as there are public cry on how principals’ direct school activities. To accomplish school goals, a proficient and viable executive must head the school. In schools, be it public or private the administrator is mostly viewed as the principal.

In Nigeria principal heads the secondary education, such head should have demonstrated quality and the information to accomplish his managerial goals. The principals are the custodian and bookkeeping officers of their various institutions. Mbipom (2016) states that they assume all routine jobs to accomplish all administrative tasks as leaders for achieving school objectives for posterity. Principals are the uncompromising leaders of their schools as well as administrators in whose hands lie the future of the institutions. He co-ordinates and organizes the entire organization towards the achievement of goals. Being top on the hierarchy, his activities directly or indirectly affect every other factor in the system; the teachers’, students and non-teaching personnel. The principal’s role performance to a great extent determines the effectiveness of the teachers in the performance of their job. In fact, his dealings transcend the boundary of school to government agencies like the school board, education commission as well as the host community. Each of these bodies have a role expectation of the principal and he must successfully pilot the affairs of the school to fulfillment of goals.

The effective management of the school head can produce efficient and effective work force among the teachers for the achievement of educational goals and objectives through appropriate maintenance strategies that would motivate and influence teacher job performance.

STATEMENT OF THE PROBLEM

Teachers' job performance depends on effective school facility management through adequate and proper school plant operation and maintenance. Studies have severally confirmed this, but the state of school plant in some schools leaves much to be desired. School plants do not seem to be properly operated and maintained in Bayelsa State; though since 2012, the State Government has done a lot better to equip schools through its state of emergency policy (Korikiye 2017). Nonetheless there seems to be a slack in maintenance culture. Equipment do not get repaired as they break down and other school plant maintenance and operations do not seem to be adequately put in place. There are no known studies on the school plant practices of principals' specifically in Bayelsa State. The problem of this study, therefore, was to establish an empirical evidence of principals' school plant management strategies and teacher job performance in secondary schools in Bayelsa State.

AIM AND OBJECTIVES OF THE STUDY

The aim of this study was to examine principals' school plant management strategies and effective teacher job performance in secondary schools in Bayelsa State.

Specifically, the objectives of the study were to identify the following:

1. Principals' school plant operation practices for improving effective teachers' job performance in Bayelsa State.
2. Principals' school plant maintenance practices for improving effective teachers' job performance in Bayelsa State.
3. The problems associated with Principals' school plant management practices for improving effective teacher job performance in Bayelsa State.

Research Questions

The following research questions were formulated to guide the study:

1. What are the principals' school plant operation practices for effective teachers' job performance in secondary schools in Bayelsa State?
2. What are the principals' school plant maintenance practices for effective teachers' job performance in secondary schools in Bayelsa State?
3. What are the problems associated with principals' school plant management practices for effective teacher job performance in secondary schools in Bayelsa State?

Hypotheses

The following null hypotheses were formulated and were tested at 0.05 level of significance:

- H₀₁:** There is no significant difference between the mean responses of principals' and teachers on principals' school plant operation practices for teacher job performance in secondary schools in Bayelsa State.

H02: There is no significant difference between the mean responses of Principals' and teachers on principals school plant maintenance practices for improving teacher job performance in secondary schools in Bayelsa State.

H03: There is no significant difference between the mean responses of principals and teachers on problems associated with principals' school plant management practices for teacher job performance in secondary schools in Bayelsa State.

METHODOLOGY

The design of the study was a descriptive survey. The use of this research design was considered appropriate because it established the opinions of principals on strategies of school plants management and teacher job performance in secondary schools.

The population of the study comprised of all the 5293 principals' and teachers in the 191 Government owned Secondary Schools in Bayelsa State. The study adopted the multi-sampling technique; Stratified random and the cluster sampling techniques based on the three senatorial districts in the state, was used to sample 3 out of the 8 local government areas. Simple random sampling was used to select two (2) schools each from the local government areas. The 3 model schools in the local government areas of interest were purposively selected because they are the only urban schools in the area, making it a total of nine (9) schools. All the one hundred and twenty (120) teachers' and nine (9) principals' from the nine (9) schools formed the sample of the study.

The instrument for data collection was a "*Principals' School Plant Management Strategies and Teachers' Job Performance Questionnaire (PSPMSTJPQ)*", developed by the researcher. The instrument had 21 items structured on a four-point rating scale of: Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) and were weighted 4, 3, 2 and 1 respectively. The face and content of the instrument was validated by one expert of Measurement and Evaluation and one expert from Educational Management and Planning. Their criticisms and corrections resulted to the final draft used in the study. The reliability of the instrument was ascertained through Cronbach Alpha, 20 teachers in secondary schools in Yenagoa Local Government Area of Bayelsa State were administered the instrument. The scores collected were analyzed, which a reliability index of 0.80, 0.82, 0.84 which was deemed reliable for the study.

The researcher administered the questionnaire through the permission of the school principals to the respondents. The respondents were informed of the purpose of the research. The researchers retrieved all the distributed copies of the questionnaire from the respondents. The data gathered was analyzed using the mean and standard deviation to answer the research questions and t-test for testing the hypotheses respectively. The decision rule for answering the research questions was arrived at by finding the average of the 4-point scale, thus; $\frac{4+3+2+1}{4} = \frac{10}{4} = 2.50$ thus, any item with mean of 2.50 and above was interpreted as agreed, while mean score below were interpreted as disagreed. For the hypotheses, the decision rule is that if the calculated z-value is greater than the critical or table value, the null hypothesis would be rejected, otherwise, it would not be rejected.

Analysis and Results

Research Question

Research Question 1: What are the principals' school plant operation practices and Teachers' job performance in secondary schools in Bayelsa State?

Table 1: Mean Ratings of Teachers on Principals' Plant Operation Practices

S/N	Item	Total Number	Mean	SD	Remark	Mean	SD
1.	My school makes rules and regulations concerning cleanliness of buildings, equipment and facilities	129	3.38	0.85	Agree	3.32	0.80
2.	In my school, teachers' are assigned to supervise the cleanliness of classrooms in their section.	129	3.44	0.95	Agree	3.24	0.79
3.	My school uses experts or specialists for the operation of school plant such as cleaning of computer.	129	1.79	0.65	Disagree	1.65	0.51
4.	My school pays attention to hedges, trees and flowers in order to boost the students' aesthetic quality.	129	3.40	0.10	Agree	3.44	0.82
5.	My school makes use of anti-termite chemicals for the reservation of relevant school plant.	129	3.34	0.72	Agree	3.30	0.67
6.	My school utilizes direct labour where applicable, in the operation of school plant.	129	3.35	0.80	Agree	3.12	0.67
7.	My school sets up special committees to oversee different aspect of school plant.	129	1.79	0.65	Disagree	1.70	0.60
Cluster Mean			2.93		Agree		

Table 1 showed respondents agreed to questionnaire items 1, 2, 4, 5 and 6 with mean scores above 2.5 while items 3 and 7 scored less than 2.5 indicating disagreement. The cluster mean of 2.93 showed agreement to principals' use of school plant operational practices.

Research Question 2

What are Principals' School Plant Maintenance Practices for Teachers' job Performance in secondary schools in Bayelsa state?

Table 2: Mean Rating of Teachers' on Principals' Plant Maintenance Practices

S/N	Item	Total Number	Mean	Remark
8.	My school carries out repairs services on buildings, furniture and equipment.	129	3.6	Agree
9.	My school carries out periodic replacement maintenance on school plant.	129	3.42	Agree
10.	My school organizes periodic briefings on the proper maintenance of school plant by experts.	129	1.68	Disagree
11.	My school exhibits seriousness in the issue of repair of school plant.	129	3.29	Agree
12.	My school elicits the assistance of both P.T.A. and S.B.M.C. in the maintenance of school plant	129	3.43	Agree
13.	My school fails to mete out punishment for vandalism of school plant.	129	3.25	Agree
14.	My school resorts to illegal levies in maintenance of school plant.	129	1.63	Disagree
Cluster Mean			2.90	Agree

Table 2 showed that the principals' and teachers' agreed to items 8, 9, 11, 12 and 13 as principals' school plant maintenance practices while they disagreed to items 10 and 14. With a cluster mean of 2.90 this study established that principals' use most of school plant maintenance practices.

Research Question 3

What are the problems associated with Principals' School Plant Management Practices for Teachers' job Performance in secondary schools in Bayelsa State?

Table 3: Mean Rating of Principals' and Teachers' on the Problems of School Plant Management Practices in Secondary Schools

S/N	Item	Total Number	Mean	Remark
15.	My school faces the problem of financial constraints for plant maintenance.	129	3.28	Agree
16.	My school faces the problem of vandalism of school plant by students.	129	3.39	Agree
17.	My school faces the problem of providing security for school plant.	129	3.29	Agree
18.	My school faces the problem of lack of commitment by teachers' as regards school plant supervision.	129	1.74	Disagree
19.	My school faces the problem of encroachment on school land by host communities.	129	3.42	Agree
20.	My school faces the problem of accurate inventory of school plant due to wear and tear.	129	3.52	Agree
21.	My school faces the problem of termite attack on wooden aspect of school plant.	129	3.22	Disagree
Cluster Mean			3.12	Agree

Table 3 showed that the teachers' agreed to items 15, 16, 17, 19, 20 and 21 with scores above 2.5. On the other hand, item 18 recorded a mean score of 1.7 which is below the cut-off point. The cluster mean score of 3.12 indicate agreement to the problems of school plant management.

Research Hypotheses

Ho₁: There is no significant difference in the mean responses of principals' and teachers' on principals' school plant operation practice and teachers' on principals' school plant operation practices and Teachers' job performance in secondary schools in Bayelsa State

Table 4: z-test Summary Reviewing the Differences in the Responses of Principals' and Teachers' on Principals' School Plant Operation Practices for Improving Teachers' job performance

Category	N	Mean	St.D.	df	p	Z _{cal}	Z _{crit}	Decision
Principals'	9	2.87	0.47	127	0.05	0.660	1.960	Accept Ho ₁
Teachers'	120	2.98	0.62					

Source: Fieldwork (2022)

From Table 4 above, there is no significant difference between the responses of principals' and teachers' on Principals' School Plant Operation Practices for improved Teachers' job performance in secondary schools. The null hypothesis is, therefore, accepted.

Ho₂: There is no significant difference between the mean responses of principal and teachers' on Principals' school plant maintenance practices for improving and Teachers' job performance in secondary schools in Bayelsa State.

Table 5: z-test Summary Reviewing the Differences in the Responses of Principals' and Teachers' on Principals' School Plant Maintenance Practices for Improving Teachers' job performance

Category	N	Mean	St.D.	df	p	Z _{cal}	Z _{crit}	Decision
Principals'	9	2.78	0.55	127	0.05	1.220	1.960	Accept Ho ₂
Teachers'	120	3.02	0.78					

Source: Fieldwork (2021)

From Table 5 above, there is no significant difference between the responses of male and female teachers' on Principals' School Plant Maintenance Practices for improved Teachers' job performance in secondary schools. The null hypothesis is accepted.

Ho₃: There is no significant difference between the mean responses of principal and teachers' on problems associated with principals' school plant management practices for Teachers' job performance in secondary schools in Bayelsa State.

Table 6: z-test Summary Reviewing the Differences in the Responses of Principals' and Teachers' on Problems Associated with Principals' School Plant Maintenance Practices for Improved Teachers' Job Performance

Category	N	Mean	St.D.	df	P	Z _{cal}	Z _{crit}	Decision
Principals'	9	3.05	0.53	127	0.05	0.740	1.960	Accept H ₀₃
Teachers'	120	3.19	0.76					

Source: Fieldwork (2022)

From Table 6 above, there is no significant difference between the responses of principals' and teachers' on the problems associated with principals' school plant maintenance practices for Teachers' job performance in secondary schools in Bayelsa State. The null hypothesis is accepted.

DISCUSSION OF FINDINGS

This study found that principals' use rules and regulations, assign teachers' to supervise cleanliness of school plants, aesthetics, anti-termite chemicals and students labour to effect school plant operations in schools. On the other hand, they fail to use the services of experts and special committees to perform school plant operations. This is a major setback because committees will afford the principals' extra resourcefulness and help from community members. Alonsabe (2011) posits that positive school maintenance requires the cooperation and joint efforts of the staff, students, school administrators and other stakeholders. In addition, Amanchukwu and Ololube (2015) contended that principals' should not rest on their oars simply because they have delegated duty to staff. According to them, principals' should go the extra mile to look at what has been done because this type of supervision will make the staff diligent in whatever tasks they are given. That principals' do not use the services of experts for operational activities is unprofessional. They probably wait until plants break down before they contract them; but as is universally known, "a stitch in time saves nine"

On principals' school plant maintenance practices, the respondents agreed that principals' carry out periodic replacement maintenance, they elicit help from the PTA and SBMCs, carry out periodic maintenance of buildings, but do not give staff periodic briefing by experts on the use of school plants. Overall, majority of the items highlighted in the study received high agreement rates from the teachers' as the factors that significantly influence principals' school plant maintenance practices. This tallies with the assertions of Allen (2015), Ehiametalor (2011), Castaldi (2014), Lawanson and Gede (2011) and Xaba (2014) that management of school plant entails good leadership, effective monitoring of both the users and the plant itself, applying sound maintenance culture of those facilities and other things required for the school plant to give maximum services. In addition, Oleforo and Maxwell (2015) stated that a positive school environment creates an optimal setting for teaching and learning, therefore since students conduct could simply be an extension of the physical environment that surrounds them, school plant should be adequately provided, utilized and maintained to provide a stabilizing force for students and staff both emotionally and academically.

This study also established that financial constraints, vandalism by students, insecurity, encroaching on school property by host communities, accurate data bank problem and termite menace recorded mean scores above the benchmark point. The respondents disagreed with the item on teachers' lack of commitment regarding school plant supervision. The teachers' can only be as committed to proper school plant management as the leader who in this situation is the principal. Overall, majority of the items earlier highlighted were unanimously accepted by the respondents as factors that positively reflect problems associated with principals' school plant management practices in the study area. This study corroborates Alonsabes (2011) position that the poor position of most school plants can be traced to the fact that no budgetary provisions are made by federal and state governments for school plant maintenance. Schools require suitable classrooms, libraries, laboratories, recreational facilities, assembly hall, school farm, staff rooms, offices, vehicles and other infrastructures for improved performance. In addition, Alonsabe (2011) argued that considerable care should be exercised in the selection of custodial staff on the basis of their demonstrated skills, knowledge and personal character at an interview. He explained that they should see themselves as having been selected on merit like other workers in the school rather than on the basis of political patronage, sentiment or favouritism. There is also the need for host communities to be involved in schools management because the schools are for them too.

The test of significant difference in the responses of principals' and teachers' on principals' school plant operation practices for improved teacher job performance in secondary schools showed that their responses did not differ significantly. The findings also showed no significant difference in the responses of principals' and teachers' on principals' school plant maintenance practices for Teachers' job performance. This result indicates that principals' and teachers' in Bayelsa state agree with the viewpoint of Udosen (2012) that school plant is very essential to achieving positive outcomes in the teaching-learning process and they put practices in place within the limits of their constraints, to maintain school plants. According to Udosen (2012), school plant is the pillar and support of all teaching and learning activities. In addition, Oleforo and Maxwell (2015) stated that the principals' should motivate staff as well as students to imbibe and internalize maintenance culture with respect to the school plant. Further, Amanchukwu and Ololube (2015) asserted that tasks should be shared in our institutions of learning and every person should bear the consequences emanating from lack of care of his/ her own task. According to them, those facilities and equipment should be properly maintained for them to render their services always.

CONCLUSION

Based on the findings and recommendations of this study, persistent poor performance of Bayelsa State secondary school students in external examinations may not continue indefinitely. There is hope that with the improvement in the quality of teachers', provision of adequate funding, construction of more school buildings and provision of other useful educational resources the situation is likely to change for better. The study found out that the administrator's resource management strategies on school plant were important to teacher job performance. This implies that the school administrators (principals') require adequacy of relevant components of

educational resources to be able to effectively and efficiently coordinate and manage the school organization in collaboration with the teachers' to bring about positive job performance and the required academic achievement of students not only in Bayelsa State but also within the country.

RECOMMENDATIONS

Based on the findings, the following recommendations were made:

1. Government should make more funds available to principals' to organize workshops for staff, students, PTA, SBMC and other stakeholders in the school system in order to sensitize them on the need to imbibe appropriate school plant operation and maintenance culture.
2. Adequate security arrangement should be made by the school management to work with the Town Vigilante groups in order to safeguard available school plant and prevent the vandalism of the school plant
3. Principals' of schools should as a matter of necessity form committees made up relevant stakeholders to oversee the proper management of available school plants in schools in Bayelsa State.

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