

Original Article

PRINCIPALS' SCHOOL PLANT MAINTENANCE STRATEGIES, AS DETERMINANT OF QUALITY ASSURANCE IN PUBLIC SECONDARY SCHOOLS IN ENUGU STATE

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Abstract

This study was carried out to examine principals' School Plant Maintenance strategies as Determinant of Quality Assurance in Public secondary schools in Enugu State. The design adopted for the study was descriptive survey research Design. The population comprised of 298 principals and 826 Teachers in the 298 public secondary schools in the state. A researcher-developed instrument titled "Principals School Plant Maintenance Strategies Questionnaire" (PSPMSQ) was used for data collection. PSPMSQ was duly validated. The co-efficient of .79 was obtained for PSPMSQ using Cronbach Alpha method. The researcher collected the data from the respondents. The research question was answered using mean and standard deviation while t-test was used to test the hypotheses at .05 level of significance. Findings indicated that respondents agreed on principals' strategic planning and organizing of school plant maintenance in secondary schools will to a great extent determine the achievement of quality assurance in Public Schools.

Keywords: Principals; Planning strategies, Organizing Strategies; School; Plant Maintenance; Secondary Schools.

Introduction

The achievement of quality assurance in the school system is depended on the ability of the school administrator to effectively implement the use of administrative strategies to ensuring all time functionality of the school plant. Education could be seen as the development of appropriate skills, mental, physical and social abilities and competencies to empower the individuals to live and contribute meaningfully to the society where such individual finds him or herself. It is an instrument for national development and social changes (Federal Republic of Nigeria, 2013). Education is the tool for

the development of countries in all facets. It is a fundamental tool for social, economic, political and cultural development all over the world. Uche (2019) defined education as the necessary weapon which every individual needs to navigate this complex society and drive personal changes and societal development.

School plant maintenance is very imperative for effective teaching and learning. Whenever the term, "school plant maintenance" is mentioned, it means that there is dysfunctionality in the functionality of the school plant. However, school plant are all the facilities that are helpful in carrying out teaching and

learning activities in school such as school buildings, class rooms, libraries, laboratories, ICT, recreational facilities etc.

According to Onuh (2018), school plant maintenance is the repair, replacement and general upkeep of physical facilities as found in school buildings, ground and safety systems. While Offor (2017) consider maintenance as being concerned with ensuring safe conditions for facility users.

Ajayi (2014) takes school plant maintenance to include all activities embarked upon with a view to sustaining initial use value of the school plant. In school plant maintenance, administrative strategies of planning and organising are very imperative. They are among the vital administrative roles of the principal. School plant forms the major and integral aspects of school administration. These facilities are found at all levels of the education system which secondary education is one of them.

Secondary education, serves as a bridge that connects primary and tertiary levels of education. It is very crucial to the national development of any nation like Nigeria, because without it, there will be no link to higher levels of education where professional skills of the individual will be developed for societal advancement. This is to say that the realization of the education objectives of any society is to a greater extent determined by the functionality of the secondary school system. Nwafor (2018) observed that secondary education in Nigeria stand a great chance of solving Nigeria educational problems when School plant provision and maintenance is prioritized by the school principals who are the chief administrators of the schools. The school plant/facilities comprise of buildings for academic and non-academic activities, equipment for academic and non-academic activities, areas for sports and games, landscape, farms and gardens including trees, roads and paths (Offor

2017). The provision, availability, adequacy and maintenance of relevant school plant influence efficiency and quality assurance in schools.

Quality assurance in the education system is under serious threat when these facilities are under supplied and poorly maintained when they begin to malfunction to ensure their continuity in providing the services for which they are provided. This is why there is need for effective school plant provision and maintenance to facilitate teaching and learning of the students. It will be interesting to know that even, though there are these huge investments on education, School plant are usually inadequate in public schools. Currently in the educational system, school plants are insufficient due to over population of students. The school buildings that were erected in decades ago are no longer containing the contemporary students due to increasing awareness of education role, which has made parents and guardians to send their children and wards to schools.

To achieve the establishment of effective maintenance culture in the school system, Okpa (2018) opined that management effectiveness has to be implemented by the administrator; hence facility maintenance in schools is a core management function. He further explained that management effectiveness is all activities pertaining to the administration of institutions like school. Aniebo (2015) held that for an administrator to effectively administer an institution like school, he is to poses some managerial qualities with which to carry out management functions. Babadudu (2021) suggested that the achievement of management effectiveness can be realised through the implementation of strategic planning and organising in the school system by the school administrator. Virtually all the various aspect of the school programmes and activities related to plant maintenance should be

planned. Udeagbala (2014) opined that planning is the process of deciding in advance, the methods and procedures which an individual, group or organization intends to follow in order to accomplish its outlined objectives. The important thing in planning is to decide in advance, the objectives to be achieved and how to utilize effectively, the available resources in achieving these objectives. In other words, to plan is to decide in advance what is to be done and how to do it. To achieve quality assurance in the school system, Onyefulu (2018) observed that the school administrator has to make plans on how to repair students damaged desks, damaged windows, leaking roof, provide books for the library etc. Ani (2020) held that repair and equipment of library, laboratories, as well as the provision of conducive class rooms, sports facilities; ICT facilities etc will help in the achievement of quality assurance in public schools. Uwakwe (2017) observed that making plans to fix collapsed school vehicles, repairing of ICT facilities, provision of materials for practical, repair of damaged sports facilities etc are strategies for achieving quality assurance in schools. Still on Uwakwe, to provide facilities is one thing, another is to ensure their functionality through effective maintenance. Aniebo (2015) held that school administrators should design a framework of maintenance schedule to facilitate the functionality of the provided facilities. Aniebo, further observed that when maintenance culture is put in place in the school system, it will bring about functionality of school plant, thereby improve students' interest to participate in learning, motivate teacher's interest to teach and improve the quality of the educational outcome of the schools.

However, the administrator needs to organize a structure for efficiency in the use of the facilities. Organizing strategy is sometimes seen as a process on which an administrator identifies and groups the

work to be done in smaller units, and assigns people to the various units with relevant materials and authority. In secondary schools, it enables the principal to coordinate the various organizational activities, since he is aware of the various assignments given to individuals. The principal however, makes effective use of managerial skill to put the right persons in the right places to do the right thing at the right time for the administrative effectiveness of the school and for the effective and efficient accomplishment of specific goals in the school. Abraham, Adenaike and Malam (2014) noted that there are four (4) fundamental steps involves in organizing. They are: i. Works is divided into tasks to be carried out by individual with appropriate skills and competence. ii. Tasks are combined in related manner, often referred to as departmentalization. iii. These departments are linked with one another, specifying who reports to who; who gives order and instructions. The linking of such departments results in hierarchy. iv. Mechanisms are devised to integrate the various task activities for proper co-ordination. They further noted that organizing as a process deals with the following: a. Determining grouping and structuring. b. Dividing and allocation of roles arising from the grouping and restructuring of activities. c. Assigning accountability for result. d. Determining detailed rules and system of working, making and conflict resolution. Ekwo (2019) observed establishment of plant maintenance committee involving teachers and students, seeking community participation in school plant maintenance, organize direct labour on facility maintenance are ways of achieving quality assurance in schools. Allocation of some powers to committee on maintenance, organization of orientation, Development of rules on plant management, drafting of time table for school plant maintenance are all strategies for achieving quality assurance in schools

(Enuezor 2020). Therefore, the achievement of quality assurance in schools is easy and possible when the school administrator and his team adopt the above organising strategies as a culture in maintaining the school plant, Enuezor noted.

Behind the principal are teachers who carry out the pedagogical responsibilities to ensure that the students are better prepared for the task of achieving self-reliance in life. The goals of the school cannot be achieved without the teachers who are the principals back bone in driving educational programmes of the school (Nwakpa, 2018). The teacher is a counselor, mentor, guardian to students, mother/father at school, instructor and a motivator (Nnadi, 2019). The achievement of quality assurance through effective plant maintenance culture is a responsibility which the principal cannot achieve alone but with collaboration with the teachers who deal directly with the students in both the classes and outside classes.

The importance of plant maintenance culture introduction in public secondary schools cannot be over emphasized, since it is the bedrock for the actualization of educational goals. To achieve quality assurance in public secondary schools, school administrators need to change their administrative strategies for managing the schools especially with regard to plant maintenance culture. It is in view of this background, that this study was designed to examine principals' school plant maintenance strategies as determinant of quality assurance in public secondary schools in Enugu State.

Statement of the Problem

It is observed that many public secondary schools today in Nigeria, have no class rooms where students receive their lessons, no library, no laboratories, no sports, no ICT etc facilities for students teaching and learning activities. These students are the prospective engineers, medical practitioners, lawyers etc but they

have no foundation for their academic journey to the future. Meanwhile, it is observed too that lack of these facilities in some of the public schools is as a result of poor management/maintenance culture by the school administrators who allow them to rotten and decay, hoping that government will soon provide new ones. This ugly situation is observed to have contributed to the graduation of students who have excellent West Africa Examination Council (WEAC) results but have no knowledge of the subjects they were taught in schools thereby making teaching and learning very difficult for both students and lecturers in higher Institutions in Nigeria, after they gain admission into the universities. It is against this background that the study was designed to examine principals' planning and organizing strategies in school plant maintenance determine quality assurance in public secondary schools in Enugu State.

Purpose of the Study

The purpose of this study was to examine the extent to which principals' school plant maintenance strategies determine quality assurance in public secondary schools in Enugu State.

Specifically, the study sought to:

1. examine the extent to which principals' planning strategies in the maintenance of school plant determine quality assurance in public secondary schools in Enugu State.
2. ascertain the extent to which principals' organising strategies in the maintenance of school plant determine quality assurance in public secondary schools in Enugu State.

Research Questions

To what extent do principals' planning strategies in the maintenance of school plant determine quality assurance in public secondary schools in Enugu State?

2. To what extent do principals' organising strategies in the maintenance of school plant determine quality assurance in public secondary schools in Enugu State?

Hypotheses:

H₀₁: There is no significant difference in the mean score of principals and teachers on the extent to which principals' planning strategies in maintenance of school plant determine quality assurance in public secondary schools in Enugu State.

H₀₂: There is no significant difference in the mean score of principals and teachers on the extent to which principals' organising strategies in the maintenance of school plant determine quality assurance in public secondary schools in Enugu State.

Method

This study was carried out on public secondary schools in Enugu State. The design adopted for the study was descriptive survey research design. The population comprised 298 principals and 826 Teachers in the 298 public secondary schools in the State. The whole population was studied using simple random sampling technique. A researcher-developed instrument titled "Principals School Plant Maintenance Strategies Questionnaire" (PSPMSQ) was the instrument for data collection. The instrument was made up of two parts- "A" and "B". Part A was on the bio-data of the respondents while part B contained items on principals planning and organizing strategies in school plant maintenance. The instrument was scaled thus: Very Great Extent (VGE) = 4points; Great Extent (GE) = 3points; Low Extent (LE) = 2points; and Very Low Extent (VLE)

= 1 point. The face and content validity of the instrument were established by three experts; two in Educational Management and one in Measurement and Evaluation, all in the Faculty of Education, Enugu State University of Science and Technology, (ESUT), Agbani. To determine the reliability of the instrument, Cronbach Alpha method was used. Ten copies of the instrument were administered on 10 respondents who are principals and teachers in public secondary schools in Imo State. The coefficient of .78 and .80 with the overall of .79, was obtained for PSPMSQ. This high reliability index indicated that the instrument is reliable and therefore considered adequate for the study. The data collected were analysed using mean score and standard deviation. A mean score of 2.50 was adopted as the base line. The t-test statistics was used to test the null hypotheses. The researcher found out that strategic planning and organizing of school plant maintenance activities will to a great extent promote the achievement of quality assurance in secondary schools Enugu State.

Results

Research Question One

To what extent does principals' planning strategies in the maintenance of school plant determine quality assurance in public secondary schools in Enugu State?

Answer to research question 1 is presented in Table 1 thus:

Table 1: mean ratings of principals and Teachers on principals' planning strategies in the maintenance of school plant as determinant of quality assurance in public secondary schools.

S/No	ITEM: principal's planning strategies include:	Principal		DEC	Principal		DEC
		X	SD		X	SD	
1	Making plan for the provision of library facilities for students	2.89	3.79	GE	3.11	3.93	GE
2	Making plan for adequate provision of ICT facilities to enhance teaching and learning in the school	2.99	3.30	GE	2.94	3.68	GE
3	Making plan for the Provision of enough furniture in the school	2.88	2.86	LE	3.02	3.81	GE
4	Planning for the Provision of standard laboratory facilities in the school.	3.01	3.80	GE	3.11	3.83	GE
5	Playing major role in school curriculum implementation	2.90	3.82	GE	3.89	3.38	GE
6	Making plan for the Renovation of collapsed buildings	2.96	3.44	GE	3.37	3.61	GE
7	Making provision for employing security operatives within the school.	2.87	3.15	GE	2.94	3.58	GE
8	Making plan for the Renovation of the school plant as at when due	2.86	3.79	GE	3.72	2.75	GE
9		3.46	3.57	GE	3.69	3.72	GE
10	Making plan to organize orientation periodically for both staff and students	3.56	3.42	GE	3.71	3.60	GE
	Establishing school maintenance programmes with school staff						
	CLAUSTER MEAN	3.04	3.49	GE	3.35	3.89	GE

Table 1 shows that the cluster means scores of principals and Teachers opinion are 3.27 and 3.62 respectively. Since the mean scores are above the cut off mean of 2.50 for accepting items, it indicates that the principals and Teachers are of the opinion that principals planning strategies in the maintenance of school plant as determinant of quality assurance in secondary schools are making plan for the provision of library facilities for students, making plan for adequate provision of ICT facilities to enhance teaching and learning in the school, making plan for the Provision of enough furniture in the school, planning for the provision of standard laboratory facilities in the school, planning for the provision of

standard laboratory facilities in the school, playing major role in school curriculum implementation, making plan for the renovation of collapsed buildings, making provision for employing security operatives within the school, making plan for the renovation of the school plant as at when due, making plan to organize orientation periodically for both staff and students, establishing school maintenance program with school staff.

Research Question Two

To what extent does principals' organising strategies in the maintenance of school plant determine quality assurance in public secondary schools in Enugu State?

Answer to research question 2 is presented in Table 2 thus:

Table 2: Mean ratings of principals and Teachers on principals' organising strategies in the maintenance of school plant as determinant of quality assurance in public secondary schools.

S/NO	ITEMS: principal's organizing strategies include:	Principals			Teachers		
		X	SD	DEC	X	SD	DEC
11	Formation of plant maintenances committee	3.39	3.79	GE	3.37	3.19	GE
12	Seek community participation in plant maintenance	3.51	3.52	GE	3.62	3.44	GE
13	Organizing Direct labour on plant maintenance	3.88	3.76	GE	3.02	3.81	GE
14	Holding staff meetings regularly to discuss school plant issues.	3.64	3.60	GE	3.88	3.71	GE
15	Organizing orientation for students and staff on new school plant use rules	2.84	3.68	GE	2.77	3.61	GE
16	Involving class prefects in the school plant supervision committee	2.96	3.44	GE	3.37	3.66	GE
17	Allocation of some powers to school plant management committee to function	3.92	4.00	VGE	3.79	3.51	GE
18	Organizing workshop on structure	2.26	3.52	GE	3.44	3.23	GE
19	neatness/cleanliness	3.17	3.87	GE	3.45	3.64	GE
20	Organizing award function for the most clean class	2.98	3.46	GE	3.43	3.56	GE
	Inform education board on the changes on school plant maintenance in the school						
	CLUSTER MEAN.	3.36	3.66	GE	3.41	3.54	GE

From the data presented in Table two above, principals and Teachers agreed to a great extent that formation of plant maintenances committee, seek community participation in plant maintenance, organizing direct labour on plant maintenance, holding staff meetings regularly to discuss school plant issues, organizing orientation for students and staff on new school plant use rules, involving class prefects in the school plant supervision committee, allocation of some powers to school plant management committee to function, organization of workshop on structure neatness/cleanliness, organisation of award function for the most clean classes, informing education board on the changes on school plant maintenance in the school are all principals' organizing strategies in the maintenance

of school plant as determinant of quality assurance in secondary schools with the Mean scores of 3.51 and 3.48 respectively which are above the 2.50 cut off set for the study.

Hypothesis One

There is no significant difference between the mean ratings of Principals and Teachers on principal's planning strategies in the maintenance of school plant as determinant of quality assurance in secondary schools in Enugu State.

Table 3: Summary of t-test on the difference between the Mean Rating of Principals and Teachers on Principal's Planning Strategies in the maintenance of school plant as determinant of quality assurance in secondary schools in Enugu State

Original Article

S/NO	Respondent Group	No of Respondents	Mean	SD	DF	Calculated –t	Table-t	Dec
1	Principals	298	3.04	3.49	1,122	-0.15	1.96	Not significant
2	Teachers	826	3.35	3.89				

The table above shows the calculated t-value of -0.15 at 202 degree of freedom and .05 level of significance. Since the calculated t-value of -0.15 is less than the table of 1.96, the null hypothesis is accepted. Therefore, there is no significant difference in the mean rating of Principals and Teachers on principal's planning strategies in the maintenance of school plant as determinant of quality assurance in secondary schools in Enugu State.

Hypothesis Two

S/NO	Respondent Group	No of Respondents	Mean	SD	DF	Calculated –t	Table-t	Dec
1	Principals	298	3.36	3.66	1,122	-0.15	1.96	Not significant
2	Teachers	826	3.41	3.54				

The table above shows the calculated t-value of -0.15 at 202 degree of freedom and .05 level of significance. Since the calculated t-value of -0.15 is less than the table of 1.96, the null hypothesis is accepted. Therefore, there is no significant difference in the mean rating of Principals' and Teachers on principals' organizing strategies in the maintenance of school plant as determinant of quality assurance in secondary schools in Enugu State.

Discussion of Findings

Research question one addressed the issue of principals' planning strategies in the maintenance of

There is no significant difference between the mean ratings of Principals and Teachers view on principal's Organising strategies in the maintenance of school plant as determinant of quality assurance in secondary schools in Awgu Education Zone of Enugu State.

Table 4: Summary of t-test on the difference between the Mean Rating of Principals and Teachers on Principal's organizing Strategies in the maintenance of school plant as determinant of quality assurance in secondary schools in Enugu State

school plant as determinant of quality assurance in secondary schools in Enugu State. The findings revealed that strategic planning of school plant maintenance programmes and activities will to a great extent necessitate the achievement of quality assurance in secondary schools. This is based on the opinion of principals and teachers, that making strategic plan for the provision of library facilities for students, adequate provision of ICT facilities to enhance teaching and learning in the schools, Provision of enough furniture in the schools, Provision of standard laboratory facilities in the schools, school curriculum implementation,

renovation of collapsed buildings, renovation of other school plant as at when due, organization of orientation periodically for both staff and students, are all targeted at enhancing educational outcome and will to a great extent, bring about the achievement of quality assurance in the school system. This is as a result of the positive cluster mean which is above the criterion level of acceptance for the study. The findings are in line with the work of Onyefulu (2018) who observed that the school administrator has to make plans on how to repair students damaged desks, damaged windows, leaking roof, provide books for the library etc for the achievement of the educational set goals. Again, Ani (2020) held that repair and equipment of library, laboratories, as well as the provision of conducive class rooms, sports facilities; ICT facilities etc will help in the achievement of quality assurance in schools. Uwakwe (2017) observed that, to provide facilities is one thing, another is to ensure their functionality through effective maintenance. Aniebo (2015) held that school administrators should design a framework of maintenance schedule to facilitate the functionality of the provided school plant.

Research question two focused on principals' organising strategies in the maintenance of school plant as determinant of quality assurance in public secondary schools in Enugu State. The findings of the study revealed that strategic and effective organization of human, material and financial resources in schools will to a great extent contribute in the maintenance of school plant and in turn result in the achievement of quality assurance in secondary schools. However, the opinion of principals and teachers showed that formation of plant maintenances committee, seeking community participation in plant maintenance programmes, organization of award function for the cleanest classes, holding staff meetings regularly to discuss

school plant maintenance issues etc are strategies towards effective school plant maintenance organization steps. The findings are in line with the submission of Ekwo (2019) who noted that effective organizing strategies help the principals to make maximum use of available resources within his/her disposal in the achievement of his/her educational set goals. Also, Akaose (2016) stated that when principals properly implement organizing strategies, the goals of the schools will be achieved in an orderly manner without any conflict.

Hypothesis one sought to find out if there is any significant difference between the mean rating of Principals and Teachers on principals planning strategies in the maintenance of school plant as determinant of quality assurance in public secondary schools in Enugu State. Subjecting the mean score for the two categories to t-test statistics, no significant difference was observed at .05 level of significance. The null hypothesis was not rejected. This means that there is no significance difference between the Principals and Teachers on principals' planning strategies in the maintenance of school plant as determinant of quality assurance in public secondary schools in Enugu State.

Hypothesis two tried to find out if there is any significant difference between the mean rating of Principals and Teachers on principals organising strategies in the maintenance of school plant as determinant of quality assurance in public secondary schools in Enugu State. Subjecting the mean score of the opinions of the principals and Teachers to t-test statistics, no significant difference was observed at .05 level of significance. The null hypothesis was not rejected. This means that there is no significance difference between the opinion of Principals and Teachers on principals' organising strategies in the maintenance of school plant as determinant of

quality assurance in public secondary schools in Enugu State.

Conclusion

Based on the findings of the study and the discussions that followed, the following conclusions were made:

Being that this study aimed at determining the principals' planning strategies in the maintenance of school plant as determinant of quality assurance in public secondary schools in Enugu State, strategic use of these administrative processes are very crucial in the achievement of quality assurance in secondary schools. Strategic planning and organizing will to a great extent, enhance the actualization of quality assurance in secondary schools. None of the two null hypotheses tested in the study were rejected because, there were no significant difference between the opinion of Principals and Teachers on the principals' strategies in school plant maintenance as determinant of quality assurance in secondary schools.

Recommendations

Based on the findings of the study, the researcher made the following recommendations thus:

1. Principals should improve in their planning strategies in school plant maintenance programmes, as this will to a great extent determine the achievement of quality assurance in secondary schools.
2. Communities where such schools are located should be involved in the evaluation of the performance level of both the students and the staff. This will help increase community participation in school plant maintenance; hence result in quality outcome in school activities.

References

Adenaike, A., & Mallam A. (2014). Managing school safety in the primary school. Vanderbijipark: North West University. Unpublished dissertation.

Ajayi, I. A. (2014). Issues in school management. Lagos: Bolabay Publishers.

Akaose, O. S. (2016). Repositioning school plant in the face of climate change in secondary schools in Imo State. *Journal of Resourcefulness and Distinction*, 13(1), 95-105.

Ani, M. V. (2020). School Plants Management in Nigeria. Ibadan: University Press.

Aniebo, E. (2015). Introduction to secondary school administration. *All Nigerian Conference of Principals of Secondary Schools (ANCOPSS). Suggested solutions to British Journal of Education*.

Babadudu, S. O. (2021). Measurement and evaluation in the educational system. Lagos: J. P Press.

Ekwo, I. (2019). Role of physical facilities in teaching learning process, Pakistan. *Interdisciplinary Journal of Contemporary Research in Business*, 8(3), 90-99.

Enuezor, F. (2020). Managing school plant for efficiency in the education system. Best place pres, Kogi State.

Federal Government of Nigeria. (2013). National policy on education. Lagos: NERDC Press.

Nnadi, S. (2019). Reviewing the role of National policy on education for effective education in Kwara State. *JERAD*, 2(1), 203-231.

Nwafor, S. (2018). A community-based relational approach to parent engagement in schools. *Teachers College Record*.

- Nwkpa, V. A. (2018). Managing school safety in the primary school. Vanderbijipark: North West University. Unpublished dissertation.
- Offor, G. (2017). Impact of participatory management in schools. America: OFTE.
- Onuh, I. (2018). Assessing school facilities in public schools in Abia State, Nigeria. *An International Journal of Education, Island* 3(3):17, 164-175.
- Okpa, C. (2018). School Plant Maintenance models in high schools. *Journal of Women in Academics (JOWACS)*, 2(2), 165-179.
- Onyefulu, I. (2018). Internally Generated Revenue Methods, School Plant Management and Internal Efficiency of KIU. *Journal of Social Sciences*, 2(2), 32-45.
- Uche, N. B. (2019). Roles of communities in the development of secondary education in Enugu State. *Nigeria Journal of Educational Leadership and Management*, 3, 408-417.
- Udeagbala, F. (2014). Decision making in school administration. JAI Press.
- Uwakwe, T. (2017). School Plant Maintenance Culture and Quality Delivery of Plateau State Tertiary Institutions. *Dusema Journal of Education*, 1(2), 57-63.