



## **Status of School Plant Maintenance Among Public Secondary School Principals in Rivers State**

<sup>1</sup>Dr. Blessing Wey Amaewhule & <sup>2</sup>Nnebue, Adebabari Harmony

<sup>1</sup>Department of Business Education  
Rivers State University, Nkpolu-oroworukwo, Port Harcourt, Nigeria

<sup>2</sup>Department of Educational Management  
University of Port Harcourt, Port Harcourt, Nigeria  
Email: [harmonynebue2018@gmail.com](mailto:harmonynebue2018@gmail.com)

### **ABSTRACT**

This study investigated status of school plant maintenance among public secondary school principals. The purpose of study was to identify the various methods that could be used by the school principals to enhance status of school plant maintenance. Two research questions and two null hypotheses were formulated to guide the study. The entire population (247 principals) was used for the study. A questionnaire titled “Status of School Plant Maintenance among Public Secondary School Principals (SSPMAPSSP) was used for data collection. The questionnaire was validated by and some experts in the field. The research questions were analyzed using the mean and standard deviation. The null hypotheses were tested at 0.05 level of significance using the z-test statistics, from which, findings were made. All the mean items were accepted by the respondents. Out of the two hypotheses formulated, one was accepted while one was rejected. The rejected one indicates that there was a significant difference between factors that impede female and male principals in respect of factors that affect school plant maintenance. Based on the findings, the following recommendations were made; that there should be policy guideline on school plant and budgetary provision should be made for plant maintenance. It was therefore concluded that male and female principals face different challenges that impede status of school plant maintenance.

**Keywords:** Status, School plant, Maintenance among Public Secondary School Principals

### **INTRODUCTION**

Education as known all over the world is the bedrock of the society. It is an indispensable tool for personal and societal development. It is regarded as an international key to economic development. This implies that the roles and contribution of education in developing an individual and the society cannot be quantified. Secondary Education is an important sector of education in the preparation of human capital for the development and provision of life opportunities as it provides a vital link between basic education and the world of work on one hand, and further training on the other. The importance of secondary education can be seen from its objectives as contained in the national policy on education. Some of the objectives of secondary education as contained in the national policy on education (2008) are:

- Equipping individuals with knowledge, skills, morals and cultural values, to think independently and rationally, respect views and feelings of others and appreciate the dignity of labor;
- Preparing individuals for self reliance and usefulness of the society;
- Preparing individuals for pursuit of educational advancement and
- Developing patriotic young people equipped to contribute to social development and in the performance of their civic responsibilities.

In order to achieve the above goals, there is need for effective school plant maintenance. School plant and its adequate provision and effective maintenance is a life wire of any educational system. (Adebayo 2009) posited that quality education cannot be achieved without the ability of the principals to ensure effective school plant maintenance in secondary education. Educational facilities have been discovered to have positive relationship with the standard and quality of education. It is believed that a well-planned and maintained school plant will gear up expected learning outcomes of education which facilitate effective teaching and learning that brings about a better academic performance of students.

Peter (2012) posited that school plant maintenance is very essential to teaching and learning processes in the school system and is capable of affecting the standard of education. The aim of school plant maintenance is to keep maximum retardation of physical decay of school plant that may arise due to some circumstances. This is because if school plants are not maintained, it will not function adequately. School plants are those facilities that enhance teaching and learning so that educational objective could be achieved. They are those things that enable the teacher to do his job effectively. School plant are things be it physical or materials that aid the educational process in order to actualize its goals.

Alogu (2014) posited that school plant can be described to mean the site, building and all the facilities within the school which enhance teaching and learning activities and at the same time protects the physical wellbeing of the teachers and the learners. School plant is the sum total of buildings, equipments, textbooks including the surrounding where teaching and learning takes place. It refers to many things used in the school which may include school buildings, grounds, equipment, lawns and paths, furniture, fields, laboratories, libraries, tools and machines and chalk board etc. School plant is the hard ware through which the educational curriculum (that is software) is transmitted to the group being educated. School plant include grounds and the gardens, acres of land that form the site for buildings, classrooms, subject rooms, head masters' room, library room, the school office, the staff room, school laboratories, the school halls, the playground, the school hostel, refectory and refectory facilities etc. The school plant is a basic requirement for the establishment of an institution where teaching and learning takes place.

School plant maintenance is simply keeping the school plant in its original state. This has to do with those activities designed to repair plant to their original conditions. Maintenance refers to those cyclic but intermittent services intended to keep school plant near its original state. It is the services, activities and procedure concerned with preserving, protecting and keeping plant in its original nature. The extent to which a principal is able to carry out effective maintenance function determines his effectiveness. Effective is producing an effect, powerful in its effect that is making a striking impression. It means producing the result; this is measured in term of the achievement of predetermined/desired objectives. The school administration is complex due to a lot of factors one of which is school plant maintenance. An effective principal is one who does the right thing and produces the desired results like eliciting willingness and cooperation from his staff, discipline on the part of his staff and students, provision of morals that will promote effective maintenance culture in the school which will in turn boost the confidence and perception of parents about his school. Lack of maintenance make schools inadequate and endanger the achievement of educational goals. It is therefore the responsibility of principals to build a brand name for his school through effective school plant maintenance.

Principal is the person with the highest authority in the secondary school. A person who takes a leading part in secondary education he/she is the teacher with the greatest responsibility for the management, organizing, directing, controlling, guiding the school to better teaching and learning. A Principal is someone who is the leader of an entire community within the school. He/she is responsible for managing the major administrative tasks and supervising all students and teachers. The various activities in the school are usually planned and executed by the principal.

The principal is confronted with the challenge of addressing all issues that is relevant to the school where he oversees. He reports the various activities that take place in the school and also receive instruction on how the school should be managed. The principal is responsible for the various programmers' of the government in the school. Despite the importance of the individual activities that occur in the school and how experienced the principal is, lack of school plant maintenance has always proved to be one thing that obstructs the achievement of educational goals and objectives.

Quality education cannot be achieved without effective maintenance of school plant. In order to achieve educational goals and objectives; it is the responsibility of the principal to ensure that educational facilities are effectively maintained.

### **Statement of the Problem**

Maduagwu and Nwogu (2006:47) posited that “the problem of Nigerian society is not the procurement of resources but its upkeep (maintenance). The Scholars further stated that our attitude to public property is that of indifference when it comes to usages, repair and maintenance. They maintained that this attitude has become a major factor in most public institutions including our educational institution. According to them in most of the schools for example, there are lots of broken vehicles, chairs, leaking roofs, overgrown lawns/compounds etc. What could be responsible for this ugly situation? Could it be due to lack of technicians to manage them, or the principals lack maintenance culture to maintain them? And if not urgently checked it will lead to debacles of Rivers State Public secondary school at large. For address this, there is need to empirically study and determine the extent, this factor affects educational system in Rivers State public secondary schools. The study is needed since no research in his area has been documented in respect of status of school plant maintenance in Rivers state. A gap in knowledge therefore exists, which needs to be filled through this study

### **Aim and Objectives of the Study**

The main aim of this study was to investigate the status of school plant maintenance among public secondary schools principals in Rivers State. Specifically, the objectives of the study seek to:

1. Find out the strategies adopted by public secondary school principals to enhance status of school plant maintenance in Rivers State.
2. Determine factors that impede status of school plant maintenance among public secondary principals in Rivers State.

### **Research Questions**

The study was guided by the following questions.

1. What are the strategies adopted by principals to enhance status of school plant maintenance in Rivers State public secondary schools?
2. What are the factors that are likely to impede status of school plant maintenance in Rivers State public secondary schools?

### **Hypotheses**

1. Ho: There is no significant difference between the strategies adopted by experienced and inexperienced principals to enhance status of school plant maintenance in Rivers State public secondary schools.
2. Ho: There is no significant difference between the mean rating of male and female principals in respect of factors likely to impede status of school plant maintenance in Rivers State public

### **METHODOLOGY**

The study adopted descriptive survey design. The population of this study includes all the 247 Public Senior Secondary School Principals in the 23 Local Government Areas of Rivers State. There was no sampling since the population is small.

The instrument was design on a 4-points likert rating scale of strongly agree (SA-4) Agree (A-3) Disagree (D-2) and strongly Disagree (SD-1) point for the research questions. The test retest estimate was used for this study. The two set of scores obtained were correlated, using the Pearson product moment correlation coefficient. The correlation co-efficient was 0.84

**RESULTS**

**Research question 1:** *What are the strategies adopted by public secondary school principals to enhance the status of school plant maintenance in Rivers State?*

**Table 1: Mean (X) and deviation scores of respondents on strategies adopted by public secondary school principal to enhance the status of school plant maintenance.**

S/N	ITEMS	N	$\bar{X}$	S.D	RANK	REMARK
1	Periodic inspection of school Plant	243	3.12	1.25	3 <sup>rd</sup>	Agreed
2	Inculcating in all affiliates of school spirit to handle school Plant with care.	243	3.30	1.34	1 <sup>st</sup>	Agreed
3	Creation of department in charge of maintenance	243	3.10	1.28	5 <sup>th</sup>	Agreed
4	Formation of committee Dedicated to school plant.	243	3.11	1.29	4 <sup>th</sup>	Agreed
5	Budgetary provision for Maintenance of school plant.	243	3.30	1.34	1 <sup>st</sup>	Agreed
6	Regular maintenance culture	243	3.25	1.32	2 <sup>nd</sup>	Agreed

Criterion mean (X) = 2.50

Grand mean (X) = 3.20

From the table above, the high mean scores ranging from 3.10 to 3.30 indicated that all identified items were accepted as the strategies adopted by public secondary school principals to enhance status of school plant. This is because the mean scores were above the criterion mean. Therefore, the respondents agreed that periodic inspections of school plant; inculcating in all members of the school the spirit to handle school plant with care, formation of committee dedicated to school plant, creation of department in charge of maintenance; budgetary provision for maintenance of school plant and regular maintenance culture are strategies adopted by principals to enhance status of school plant maintenance in Rivers State public secondary schools.

**Research question 2:** *What are the factors that are likely to impede status of school plant maintenance among public secondary school principals in Rivers State?*

**Table 2: Mean and standard deviation scores of respondents on factors that are likely to impede status of school plant maintenance among public secondary school principals.**

S/N	ITEMS	N	$\bar{X}$	S.D	RANK	REMARK
1.	Lack of data on condition of plant	243	2.91	1.20	5 <sup>th</sup>	Agreed
2.	Inadequate funding	243	3.07	1.27	1 <sup>st</sup>	Agreed
3.	Lack of maintenance culture	243	3.00	1.24	3 <sup>rd</sup>	Agreed
4.	Lack of policy guidelines on Plant	243	2.99	1.23	4 <sup>th</sup>	Agreed
5.	Poor leadership style of Principals	243	3.05	1.26	2 <sup>nd</sup>	Agreed
6.	Involvement of non-committed persons.	243	2.83	1.17	6 <sup>th</sup>	Agreed

Criterion mean (X) = 2.50

Grand mean ( $\bar{X}$ ) = 3.00

From the table above, the high mean scores ranging from 2.83 to 3.07 indicated that all identified items were accepted as factors that are likely to impede status of school plant maintenance among public secondary school principals. This is because the mean scores were above the criterion mean. Therefore, the respondents agreed that lack of information on the state of plant, inadequate funding; lack of maintenance culture; lack of policy guidelines on plant; poor leadership style of principals and involvement of non-committed persons are factors that impeded status of school plant maintenance among public secondary school principals in Rivers State.

**Hypothesis 1**

There is no significant difference between the strategies adopted by experienced and in-experienced principals to enhance status of school plant maintenance in Rivers State.

**Table 3: z-test analysis on the difference opinion on the strategies adopted by principals to enhance status of school plant maintenance**

Principals	N	$\bar{x}$	SD	z-cal	z-crit	DF	Level of Sig	Decision
						241	0.05	H <sub>0</sub> . Was accepted
Experienced	172	3.26	1.37	0.732	1.960	241	0.05	
Inexperienced	71	3.12	1.35					
Total	243					243		

The data in table 3 above shows that the z-calculated value of 0.732 is less than the z- critical value of 1.960 at 0.05 level of significance with 241 degree of freedom. The null hypothesis (H<sub>0</sub>) was accepted therefore. There is no significant difference between strategies adopted by experience and inexperienced principals.

Criterion mean ( $\bar{X}$ ) = 2.50

Grand mean ( $\bar{X}$ ) = 3.40

**Hypothesis 2**

There is no significant difference between the mean rating of male and female principals in respect of factors likely to impede status of school plant maintenance in Rivers State public secondary schools.

**Table 4: Z-test analysis on the difference in opinion of principals on factors that impede status of school plant maintenance**

Principal	N	$\bar{x}$	SD	Z-cal	Z-crit	DF	Level of sig	Decision
						241	0.05	H <sub>0</sub> Was Rejected
Male	197	3.27	1.37	3.066	1.960	241	0.05	
Female	46	2.67	1.15					
Total	243					243		

The data in the table above show that the z-calculated value of 3.066 is greater than the z-critical value of 1.960 at 0.05 level of significance with 241 degree of freedom. The null hypothesis H<sub>0</sub> was rejected. Therefore, there is a significant difference.

**DISCUSSION**

**Strategies Adopted By Principals to Enhance Status of School Plant Maintenance**

The findings show that, there is no significant difference between the strategies adopted by experienced and inexperienced principals to enhance status of school plant maintenance in Rivers State.

Some similar studies obtained results that are identical to this present study. For example Mormoh (2008) found that there is no significant difference between the strategies adopted by experienced and inexperienced principals for instilling facility maintenance. Schneider (2008) also found out that there is no significant difference with regard to strategies employed by school administrators to enhance effective management of school property in the United States of America.

Ndeko (2009) in similar study also found out that there is no significant difference with regard to strategies adopted by principals to enhance facility maintenance.

The study is absolutely independent of previous studies, because the finding and results collaborates with previous studies. This strongly confirms that the laid down and established strategies and policies work out well for both experienced and non-experienced public school principals.

However, finding divergent with the present study was Adele (1992) who found out a significant difference between strategies adopted by principals in respect of their years of experience. The reasons for these divergent findings may be due to the fact that the study adopted co relational design while the present adopted descriptive survey.

This current study implies that both experienced and inexperienced principals adopt same strategies such as periodic inspection of school plant, inculcating all members of the school the spirit to handle school plant with care; formation of committee dedicated to school plant creation of department in charge of maintenance, budgetary provision for maintenance of school plant and regular maintenance culture are adopted by both experienced and inexperienced principals.

### **Factors That Impede Status of School Plant Maintenance**

The findings show that there is a significant difference between the mean rating of male and female principals in respect of factors likely to impede status of school plant maintenance in Rivers State public secondary schools.

Some similar studies obtained results that are identical to this present study. For example, Ndaka (2014) found that there is a significant difference between the mean ratings of male and female principals with regard to factors that affect school plant management.

Essien (2015) in his findings on the Gender effect on public school plant management found that there is a significant difference between the feminine gender and masculine in the management of public school plant Nabor (2008) on a similar topic also revealed that there is a significant difference between female and male principal with regards to factors that affect school plant maintenance. Kessger (2008) on a similar topic revealed that there is no significant difference between male and female principals with regard to factors that affect facility management. The reason for these divergent findings may be better a motivation in terms of remuneration as compared to what is obtainable here in this state. Maccoly and Jacklin (1994) stated that no two individuals are exactly alike in overall personality, characteristics.

Observation from the current study showed that in maintenance of school plant, male principals are better managers of school plant. This is because male principals scare away those that damage school plant. The difference between the two variables is the characteristic of different personality.

Thus, male and female principals face different challenges in terms of school plant maintenance. The male principals because of the masculine characteristics impose fear on the individual who might have vandalized public school plant.

Big and small schools adopt the same factors that enhance status of school plant maintenance. Thus, to enhance status of school plant, both principals of small and big schools do the following; staff and students orientation in usage of school property, constant taking inventory of school plant and disciplinary measures taken against violators of plant guidelines are adopted by principals in small and those of big schools.

### **CONCLUSION**

The following conclusions were drawn based on the research findings. Both experienced and inexperienced principals adopt same strategies that enhance status of school plant maintenance. Male and Female principals face different challenges that impede status of school plant maintenance.

### **RECOMMENDATIONS**

Based on the research findings and conclusion drawn above, the following recommendations were made.

1. Strategies should not be a concept of theory, but the involvement and delegation of responsibilities to other principals as it is done now by school principals.

2. Government should establish policy guidelines on minimum standard in relation to school plant maintenance; provision should be made in federal and state budgets for the maintenance of school plant.
3. Principals should be given adequate incentives to motivate them to put in more effort and be committed to the training of the students to maintain the present progressive status of school plant maintenance.
4. Principals should ensure that they work hand in hand with the maintenance department and also adopt appropriate leadership style as it is done now by both principals in urban and those of rural schools to maintain the high status of school plant.  
. It will also inculcate in principals the spirit to have appropriate leadership style.

## REFERENCES

- Abraham, N.M (2003) *Educational Administration in Nigeria*: Port Harcourt Pam Unique Publications.
- Afolabi, S.S & Adeleke, J.O (2010). *Assessment of resources and instructional materials status in teaching of mathematics in South Western* 406-410. Nigeria European journal of Scientific Research 43 (3). Retrieved on August 23, 2011 from <http://www.eurojournals.com/eisr.html>
- Agabi, O.G & Okorie, N.C. (2002). Classroom Management Fredsbary.
- Agabi, O.G (2012). *Approach to Educational planning and development*, Port Harcourt: ICES press
- Ajayi, A.I. (2007). *Issues in school management*. Lagos Bola: Publications.
- Akandi, D.V (2010), Effective maintenance of school plant, *Unpublished Thesis*, University of Calabar.
- Aloga O. A (2014) School plant Administration. Retrieved from: <http://wordconferences.net>
- Akinsola, S.R. (2004). Provision and Management of Facilities in Nigeria Primary Schools. In E.O.
- Arends, R. I., Winitzky. N. E & Tannenbaum, M. D. (2009) *Explaining teaching, an Introduction to Education*. United States: McGraw- Hall.
- Asiabaka, I.P. (2008). The Need for Effective Management in Schools in Nigeria: *New York Science Journal*. 1(2), 10-21.
- Ehan 2 (N. D) Major Components of a School Plant. Article retrieved from [www.yourarticlelibrary.com/school](http://www.yourarticlelibrary.com/school)
- Fagbemiye, J.B. Babalola, M. Fabunmi & Ayemi (Eds). *Management of Primary and Secondary Education in Nigeria*: NAEAP Publication.
- Federal Republic of Nigeria, (2004) *National Policy on Education*. 4<sup>th</sup> Edition: Lagos. NERDC press
- Henson, K T (2008) *Methods and Strategies for Teaching in Secondary and Middle Schools* New York. Longman.
- Jones, C. (2003) *Differentiate Teaching and providing for special Educational needs* London: Routhledge Falmer.
- Koeu, H. F (2008) Dormitories and Learning Centres school girls. Retrieved from: <http://www.pid.abd.org/cetennis.com>
- Kpee, G. G. (2013) The School Plant Planning in J. D. Asodike, J. M. Ebong, S. O. Oluwuo & N. M. Abraham, *Contemporary Administrative Teaching Issues in Nigerian Schools*: Alphabet Nigeria Publishers
- Lawson, O.A & Gede, N.T (2011) Provision and management of School facilities for the implementation of UBE programme. *Journal of Educational and social Research*. Vol 1 (4): 47-55.
- Longe, R.S (2003). *Introduction to educational planning in J.B. Babalola (Ed.). Basic text in educational planning* Ibadan. Awemark.
- Moore, K.D (2004) *Secondary Instructional methods*, New York: McGraw-Hall Company Inc.
- Nte, A.R, (2005). *Introduction to Educational planning*, Port Harcourt: MINSON publishers
- Nworgu, B.G (2006). *Educational Research Basic Issues and methodology second and enlarged edition* Nsukka: University Trust publishers.
- Obasi, F.N & Asodike, J.D. (2007). *Resources management in Nigerian schools*, Imo State: Alphabet Nigeria Publishers

- Obasi, F. N. (2016). *Educational planning*. Lecture delivered to 2015/2016 post graduate (M.Ed.) students.
- Obi, E. (2003). *Educational Planning in contemporary Nigeria*, Enugu: Computer Edge publishers.
- Ohia, A. (2016). *Educational planning*. Lecture delivered to 2015/2016 post graduate (M.Ed.) students.
- Onye, C. O. (2012). *Effective Educational planning & strategic management techniques*, Abuja: Cape publishers Int'l Ltd.
- Peter U. N (2012) Importance of School Plant to the Teaching and Learning Process retrieved from: <https://namsewordpress.com/2013/08/01>.
- Peretemode, V.F. (2009). *Introduction to Educational Administration, Planning and Supervision*. Lagos: Joja Educational Research and Publishers ltd.
- Rivers State Senior Secondary school board (2016) List of Senior secondary schools in Rivers State.
- Wikipedia (2017).Management. Retrieved :<https://en.wikipedia.org/wiki/Management>