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ANALYSIS OF SCHOOL PLANT MAINTENANCE IN SOME  
SELECTED SECONDARY SCHOOLS IN IBADAN METROPOLIS  
NIGERIA: FINANCIAL PLANNING IMPLICATIONS.

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**Abstract:** This study investigates the school plant maintenance in public secondary schools in Ibadan metropolis, Nigeria. Frequency count, simple percentage and T-test were used for the study. The targeted population consisted of 60 selected public secondary schools using stratified simple random sampling. Thus, 60 head-teachers and students participated in the study. The reliability co-efficient of 0.75 was obtained for questionnaire at 0.05 alpha level. The findings of the study revealed that the status of public schools plants in the opinion of the respondents is good and in terms of functionality of available school plants such as staff room, classroom and library are functional but generator, school bus, introduction technology workshop, toilet laboratory – physics, chemistry, biology and agricultural science are not functional in the school visited. The school plant maintenance activities are not covered as expected. In terms of time or period for general repairs of damaged school plants. There is no specific period or time for the general repairs of damaged school plants and schools are not governed by rules and regulations regarding the maintenance of school plants. This was indicated by the number of respondents who responded negatively to the statement. It was therefore recommended that the government should make funds available to each school so that school plant maintenance should be taken care of and each head teacher should spend the money allocated appropriately to maintain the school plants. Each head teacher should inculcate maintenance culture and head teacher, teachers and students should involve in maintenance. Government should employ maintenance staff into each school.

## **INTRODUCTION**

Nothing lasts forever, all things are bound to depreciate while repair should be anticipated regardless of size of the capital outlay. School plant is considered as an entire scope of physical infrastructural facilities provided in the school for the purpose of educating the child. Elsbree, McNally and Wynn (1967) said that school building and education are inextricable related. It is known that the physical nature of the school environment has a substantial impact on the entire learning culture. Olutola (1981) school plant includes the site, the building equipment these include permanent structure like machines, laboratory equipment. Adegboyeje (1994) describes maintenance as a potent strategy in the effort to give adequate protection to school plants as well as the users of such plants; prompt repair of damaged and grounded of faulty school physical plants is an indication of genuine desire to give adequate protection to such plants and users. Moreover, maintenance is concerned with keeping grounds, building and equipment near their original condition of completeness and efficiency as possible or near original state of utility as possible.

Adesina (1990) lamented that "no area seems to be more neglected in Nigeria school system than this important area of provision and maintenance of school physical facilities". This neglect of maintenance school plants also made Alozie (1987) to point out that "it is common in Nigeria to see schools with split walls, leaking roofs, broken windows, smashed cupboard, cracked floors and falling ceiling. Ojelabi (1981) supported Alozie's assertion when he said that, a casual visit to some secondary schools leaves one wondering about the state of affairs a poor building, rickety furniture and inadequate textbooks and crowded classrooms. Adegboyeje (1994) stated that a repair workshop could be set up in the secondary where minor repairs of various categories can be handled for example broken furniture. Olaniyonu (1999) also affirmed that secondary school students should assist the plant maintenance by cleaning the classrooms, toilets, bathrooms, corridors and playground. He continued that

cleaners, gardeners, craftsmen, night guards should be employed in the secondary school to help in the maintenance of school plants.

Edem (1982) supports this claim when he said that "investment in school buildings involves a great capital outlay and therefore proper care of this building is a very important administrative task". It is unfortunate to note that little effort has been made so far by the principals. An evidence of this was revealed by Aderalegbe (1985) "from the inspectors' reports over the years, there is abundant evidence of catalogue of inadequacies in the provision and judicious use of school buildings and materials for instruction. Classes had been held under unsafe and unhygienic conditions. In effect, plant and equipment are left to rot in many schools". Is such huge money and valuable materials are left to waste away, more havoc may occur. Awokoya (1981) opined that worse of our woes is the maintenance of school building; millions of naira got waste away if the school are not properly maintained.

The health of students can be in peril when the toilets are not hygienic and life itself is in danger as walls are likely to fall. Therefore for efficient turning of the schools to avoid any hazard, heads of schools should plan maintenance programme. The maintenance programme of a school is along-time proposal that covers the full equipment of all school facilities. It reflects a continuous cycle of planning, implementation and evaluation. A school maintenance programme is an organization activities carried out by the school community in other to prolong the life expectancy of the school building, its furniture and equipment. The school maintenance is a daily activity. It is an important factor in the delivery of education. The education officers and the public work department are responsible for the maintenance of building and the physical plants. Besides that, the school community (administrative staff, teachers, students and parents) should constitute its own school maintenance programme. Everybody should be involved in the maintenance of school plant. Government alone cannot shoulder the responsibility.

Adeboyeje (1994) observed that school plant maintenance requires maximum cooperation from a combine team of school principal, the teachers, the students, other school personnels and the community. He stated that a useful approach in ensuring adequate maintenance of school plant is to have a committee on plant and maintenance development, which comprises the teaching staff, the student, schools personnel and members of the community. The tasks of the committee include the site planning, beautification and formulation of maintenance policy and objectives and insisted on desirable adherence to plant maintenance schedule. Ajibade (1993) said that the principal is the administrative head of the school that supervises other officers in the realization of educational goals. She buttressed this by saying that the principal is held accountable for all the shortcomings arising from the school programme. Olaniyonu (1999) in his own contribution said that for effective schools plants operation and maintenance, the principal should formulate a programme of operation, maintenance of the school buildings and equipment so as to extend their physical life. Apart from the principal inspection of materials and supervision of custodian staff, other staff members should be involved in identifying and reporting the areas that need repairs in the school.

Olutola (1981) supported this when he said that all staff including the principal, the teachers, secretarial staff and maintenance officers should be involved in identifying and reporting these areas of needed repairs. The principal should evaluate and collate the reports for the onward transmission of appropriate authority for further action. This harmonizes all efforts on maintenance procedure. Students also have a role to play in classroom management this; they can do by decoration of their classroom with flowers and wall pictures. This is believed to generate a lot of interest amongst the students towards liking their classrooms and hence their studies. Awokoya (1981) said that many schools do not involve students in their school maintenance programme hence their modernized schools with generous establishment often look like ghost town, weedy and

unkempt especially during rainy season. Awokoya (1981) "The poor state of Nigeria school has brought about both financial and human loss to the nation. For example in the 1990 incident of Saque Comprehensive College in Port Harcourt, River State where a number of lives were lost when the school building collapsed. December 12, 2006, two students died while six others were severely injured when the balcony of King Ado Secondary school building at Jankata area of Lagos Island collapsed. Further in 1999/2000 the balcony of Adifase High School, Apata, Ibadan collapsed and several students were injured. Improper maintenance of school plant has seriously hampered instructional process in Nigeria schools.

Edem (1982) pointed out that "The problem of education is further aggravated by the fact that, quite often, the planners do not relate school facilities to the learning process. Attempts have been made by school administrator and government to improve the school plant situation, this effort seems to be impeded by numerous factors. Adeboyeje (1984), financial constraints are very common in the secondary schools. Essential equipment and structures needed are not there simply because of the financial constraints. Enahwo et al (1989) declared that, funds for development and maintenance of school plant has been the greatest cause of duties in secondary school in developing countries.

Furthermore, indiscipline on the part of school administrators, students and non-teaching staff also contributes to the poor keeping of our school plants. Edem (1992) rightly pointed out that most of them (administrators) fails in their responsibility to maintain school plant. Adesina (1981) blame the improper maintenance of school plant on the lukewarm attitude of the maintenance staff. Lastly, poor maintenance culture on the part of the management and other stakeholders. It is against this backdrop that there is need to examine school plant maintenance in secondary schools in Ibadan Metropolis of Oyo-State, Nigeria.

## **STATEMENT OF PROBLEM**

The main problem for this study is to state categorically the extent to which school plants have been abandoned and subjected to serious deterioration. Without adequate maintenance in some selected secondary school in Ibadan Metropolis Oyo-State Nigeria. How it has affected the teaching learning process. Many lives have lost, many are injured through collapse of school building as a result of inadequate maintenance. A lot of money are wasted on building a new structure which ought to have been used for maintenance. As a result of this, students' academic performances are also affected. In order to fill this yawning gap, this study investigated school plants maintenance and its financial implication in Oyo state public secondary schools.

## **Research Questions**

The following research questions were formulated to guide the study:

- 1) Respondents' opinion on the state of school plants.
- 2) To what extent are the listed school plants functional?
- 3) To what extent are school maintenance activities covered as expected?
- 4) Did school have specific time for repairs of school plants?
- 5) Are school governed by rules and regulations on the public use of school plant?
- 6) Is there maintenance workshop(s) for the repairs of school plants and equipment?

## **Hypothesis 1**

There is no significant difference in gender in their opinion on the state of school plants.

## **Purpose of the Study**

The purpose of this study is to examine the rate at which school plants dilapidate without proper maintenance. This poses us with the question whether government and heads of school are really doing what they are supposed to do. This study examined why school plant should be maintained, cared for.

## **METHODOLOGY**

This study adopted a survey research design in carrying out the investigation.

### **Population**

The population consisted of all teachers and principals in all the public secondary schools in Oyo state.

### **Sample and Sampling Techniques**

A multistage probability proportion to size sampling technique was utilized to determine the number of local government, schools, students and teachers selected for this study. Four (4) local governments out of eleven (11) were randomly selected through simple random sampling. In sampling of the schools, out of 100 (one hundred) public secondary schools in Ibadan Metropolis, fifteen (15) public schools were randomly selected in each of the local government totaling sixty (60) public secondary schools. Furthermore, one (1) principal and one (1) were randomly selected from each school totaling sixty (60) principals and sixty (60) teachers.

### **Research Instrument**

The data was collected through the use of sets of questionnaire. The 1<sup>st</sup> questionnaire on principals consisted of 20 (twenty) items while 15 (fifteen) item questionnaire was administered on the class teachers of the schools selected for the study. The questionnaire were designed to gather information on the state of school plants in public secondary schools, to what extent are the listed school plants functional, to what extent are school maintenance activities covered as expected; Do schools have specific time for repairs of damaged plants, are schools governed by rules and regulations on the public use of school plants. To what extent are school plants listed functional.

### **Reliability of the Instrument**

The reliability of the instrument was sought using test—retest method. The reliability coefficient of 0.88 was obtained using Crombach coefficient of Alpha formula. Also, participant observation method and existing school records on resources availability and functionality were used for the purpose data collection.

### **Data Analysis**

The data collected were analyzed using percentage frequency counts, and t-test statistical method for testing the five research questions generated for the study.

**Question 1:** What are the opinions of respondents on the state of plants in public secondary schools?

Table 1: Percentage distribution of respondents' views of state of public school plants

State of school plants	Frequency	Percentage (%)
Good	33	55.0
Deplorable	27	45.0
Total	60	100.00

The result in table 1: revealed the status of public plants in the opinion of the respondents to study. According to the table, 33 (55%) respondents believed that the state of public secondary school plants in Ibadan Metropolis is good while 27 (45%) of the respondents believed otherwise. Hence, we can conclude that many of the school plants in public secondary schools in Ibadan Metropolis are good.



**Question 2:** To what extent are the listed school plants functional?

Table 2: Percentage distribution of school plants according to functionality

School plants	Functional frequency	Functional Percentage	Not Functional Frequency	Not Functional Percentage
1. Staffrooms	31	51.7	29	48.3
2. Students' desks	12	20.0	48	80.0
3. Laboratories	60	100.0	0	0.0
A. Physics	12	20.0	48	80.0
B. Chemistry	20	25.0	40	75.0
C. Biology	27	45.0	33	55.0
D. Agric. Science	0	0.0	60	100.0
E. Home Econs.	8	13.3	52	86.7
4. Library	32	53.3	28	46.7
5. Male Toilet	8	13.3	52	86.7
6. Female Toilet	0	0.0	100	100.0
7. Classrooms	8	13.3	52	86.7
8. Fans	0	0.0	100	100.0
9. Students Table	3	5.0	57	95.0
10. School Bus	0	0.0	0	0.0
11. Introduction Technology Lab.	58	96.7	2	3.3

Source: Field work, 2017.

The result in table 2 revealed the views of the respondents in terms of the functionality of available school plants expressed in percentages. From the table, while school plants such as staff room, classroom and library are functional according to the respondents; the other school plants listed are not functional in the school visited.

**Question 3:** To what extent are school maintenance activities covered as expected?

Table 3: Distribution coverage of maintenance activities covered in schools

Maintenance activities	Frequency	Percentage
Yes(covered)	50	83.3
No(not covered)	10	16.7
Total	60	100.0

The result in table 3: indicates that majority of the respondents believed that school maintenance activities are not covered as expected. Fifty respondents (83.3%) expressed support for this view while the remaining believed otherwise. Hence, it is concluded that school maintenance activities are not covered as expected.

**Question 4:** Do schools have specific time for repairs of damaged plants?

Table 4: Percentage distribution of respondent's view with respect to specific time for repairing school plants

Time for repairs	Frequency	Percent(%)
Yes(there is)	12	20.0
No(there is none)	48	80.0
Total	60	100.0

Source: Field work, 2017.

As revealed by the result in table 4, 48 (80%) respondents believed that there is no specific time or period for the general repair of damaged school plants while the remaining believed otherwise. Since majority responded in the affirmative, we conclude that schools do not actually set aside specific time or period for the general repairs of damaged school plants.

**Question 5:** Are schools governed by rules and regulations on the public use of school plants?

Table 5: Percentage distribution of respondent's views on Rules and regulations guiding public use of school plants

Rules & Regulations	Frequency	Percent (%)
Yes (there is are)	15	25.0
No (there is none)	45	75.0
Total	60	100.0

Source: Field work, 2017.

The result in table 5 revealed that there are no specific rules and regulation governing the public use of school plants. This indicates by the number of respondents who responded negatively (75%) to the statement requesting to find out whether rules and regulations are spelt out for such purpose as compared with the number that responded positively (25%) to the items. Hence, schools are not particularly guided by rules and regulations on the use of school plants by the public.

**Question 6:** Is there maintenance workshop(s) for the repairs of schools plants and equipment?

Table 6: Percentage distribution of respondents view to the availability of maintenance workshop for plants

Maintenance work shop	Frequency	Percent (%)
Yes(there is are)	13	21.7
No(there is none)	47	78.3
Total	60	100.0

Source: Field work, 2017.

The result in table 6 showed that maintenance workshop for the repairs of school plants and equipment are not readily available in most of the schools as corroborated by the views of the respondents. Majority of the respondents (78.32) believed there is no workshop in the schools while only about 21% believed otherwise. Hence, maintenance workshop for the repairs of school plants and equipment are not adequate.

**Hypothesis 1:** There is no significant difference in gender in their opinion on the state of school plants.

Table 7: Gender difference in the respondents' views on the state of school plant

Gender	N	Mean	s.d	df	t	Sig
Male	20	51.15	4.89	58	0.369	0.713
Female	40	51.65	4.97			
Total	60					

Source: Field work, 2017.

The results in table 7 revealed a non-significant outcome ( $t=0.369$ ,  $p>0.05$ ). This means that observed difference in the respondents' views on the state of public school plants is not statistically significant. The observed mean difference in the respondents' opinion is therefore not significant. Hence, respondents' gender does not significantly affect their opinions on the state of public school plants.

### **Financial Planning Implications**

The result of the data analysis revealed that the status of public school plant in the opinion of the respondents 33 (55%) believed that the status is good while 45% of the respondents believed otherwise. This finding corroborates the findings of George (1998), Eden (1982) that investments in school building involves a capital out lay and therefore proper care of this building is very important task. The current economic depression notwithstanding, government should come to the aid of schools by making funds available for carrying out repairs and maintenance of school plant that are in dysfunctional states. This is a situation that must be addressed in an effort to achieve the goods of effectiveness and efficiency in our schools. Funds should be made available by the state government to each school so that school plant maintenance can be taken care of.

This study revealed that there is no specific time for general repair. Repair should be done annually and workshop for maintenance is needed. School must budget for maintenance annually and government must provide money. School plants must be renovated every five years. There is no maintenance culture this is because of lack of funds. Total absence of school plants maintenance results in fund wastage. This is because the huge amount of money spent on resources provision again amounted to double money spent.

Furthermore, the study revealed that maintenance workshop for repairs of school plants are not readily available in most of the schools as corroborates by view of respondents. This is in support by Ojelabi (1981) Alozie (1987), Adesina (1990).

## **CONCLUSION**

School plant maintenance is a powerful tool in the hand of an administrator in achieving effectiveness and efficiency in the various institutions of learning in Nigeria if properly entrenched by the government and adopted by administrators. The government should ensure that institutional administrators do not sacrifice financial returns in terms of tuition and other fees paid by learners for plant maintenance. Thus, when it becomes visible that school expansion in terms of population can no longer guarantee effective and efficient plant maintenance, the government should not hesitate to halt that expansion.

The three tiers of government as the proprietors and custodians of public schools and institutions in Nigeria, should introduce into their annual estimates/budgets a separate and distinct head or subhead which will be devoted to cater exclusively for the planned maintenance of school plants. Funds from such will also provide for insurance coverage as well as the servicing of existing insurance schemes in schools. Government Inspectors of schools and Auditors will be required to ensure that schools comply with any rules and regulations that government might prescribe for the expenditure under the head/subhead.

## **RECOMMENDATIONS**

Government at all levels must introduce maintenance policy into the school system in which all hands must be on deck in the maintenance of school plants.

There should be adequate monitoring of school plants through regular inspection on monthly and termly bases.

Maintenance committee should be set up in each school to monitor the activities.

Adequate repair must be done on damaged school plants. Those that cannot be repaired must be replaced with new ones in order to aid teaching-learning process.

Public enlightenment and regular workshop on school plants maintenance and insurance of school plants must be done. Adequate security must be put in place to prevent public from using school plants or facilities.

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