Maintenance of Facilities in Public Secondary Schools in Port Harcourt Metropolis

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ABSTRACT
The study examined maintenance of facilities in public secondary schools. The descriptive survey design was employed for the study. 54 male principals and 48 female principals which gave a total number of 102 principal comprised the sample the sample size. The study was guided with two research questions and one hypothesis. The instrument used for data collection was a structured questionnaire developed by the researchers. The findings revealed that preventive, predictive and corrective maintenance are the maintenance choice used by principals. Also it was also found that lack of funding, lack of periodic inspection, lack of clear schedule of duties allocation and sub-standard rules guiding the maintenance are the factors affecting maintenance of facilities in schools. The study recommended that principals should appoint technical personnel in the school to conduct regular inspection of school facilities.

Keywords: Maintenance, facilities, public secondary schools

INTRODUCTION
Education for any nation is believed to be veritable machinery for the development of any nation. This is obvious because of the role played by education in the development of science, socio-economy and political structure to improvement of the individual, families and making the society a better place to live. In light of this value, education today must be geared towards preparing the child to function effectively and positively influence the society. Surprisingly, Nigerian schools regularly faced with challenges of industrial action by academic staff, lack of fund for infrastructural development and a host of others. This is evident in the fact that teachers are indeed the school principals are challenged by inadequate training in the maintenance of school facilities which made it difficult for them to prepare students to meet the needs of the society.

Maintenance of School Facilities
An aspect of the school management that is generally overlooked is facilities maintenance. When new buildings are constructed and taken over by the appropriate authorities, practically no attention is paid to the maintenance of such buildings. Several buildings that are over fifty years old have never undergone renovation or any form of modernization in spite of the challenges in the education system. Facilities maintenance is an issue that concerns all levels of educational system ranging from the kindergarten to the
tertiary levels. Some of these facilities are architecturally obsolete and therefore cannot contribute to functional education. Maintaining the new buildings, renovating and modernizing the outdated ones require considerable expertise and commitment of human and material resources. Changes in weather condition and lack of maintenance culture are responsible for the aging and deterioration of the buildings, ground and equipment. School principals and teachers who constantly use school facilities lack knowledge of facilities maintenance planning. Consequently, they fail to integrate facility maintenance into the management of the school. At all levels of educational system, the issue of facilities maintenance is haphazardly addressed. Repairs take place only when there is breakdown of existing facility. Facility maintenance simply means providing clean and safe environment for teaching and learning. School facility is one of the things that give credence to the schools and its maintenance may have effect on principals’ performance.

A principal as the head of school occupies a pivotal position requires initiatives and skill for the day-to-day administration of secondary schools. Agwara (2003) asserts that the principal is one who breeds a healthy classroom inspires teachers towards greater commitment and achievement. This implies that principals are responsible for supervising, motivating and ensuring that teachers are satisfied in their job. Ekundayo (2010) opined that principal must be completely interested with the real things in the school environment especially the facilities in school surrounding. The principal who is the custodian of school facility ensures proper maintenance of educational facilities to prevent loss of time and money. Fund must be made to carry out all round maintenance of school facilities, financial support for school facility maintenance may be derived from several sources such as government grant, school fees, Parent Teachers Association (PTA) levies and proceeds from school activities.

According to Ezike (2014), the principal is a leader who transform and motivates followers through his or her idealized influence, intellectual stimulation and individual consideration. A school head is expected to give overhauling by repainting and rehabilitating and replace bad and damaged facilities. Such principal articulate vision towards school facilities maintenance; stimulate staff and students to be committed, dedicated and innovative and influence positive maintenance culture among students and teachers. School facilities refers to school site, the buildings, and the playgrounds, the equipment and other material resources provided in the school for effective teaching operation. According to Yusuf and Adigun (2012) school facilities refers to all consumable physical and infrastructural facilities available in the school for teachers and students use in order to make teaching and learning effective and ensure the achievement of the predetermined aims and objectives of education. In view of Adeboyeje (2002), maintenance enhances performance and durability; prevents wastage, corrects breakdown and shutdown service.

Uko (2001), Ngoka (2003), and Agenyi (2001) had identified types of maintenance of school facilities; namely

- Preventive Maintenance
- Corrective Maintenance
- Routine Maintenance
- Emergency Maintenance
- Structural Maintenance
- Predictive Maintenance

Preventive maintenance includes inspection of the buildings and immediate repair of minor damages and deterioration (Uko, 2001). This is done to avoid breakdown and to ensure optimal performance of school facilities and saves cost and time. (Ngoka, 2003). Corrective maintenance include remodeling, renovating and updating existing facilities avoiding absentee and making facilities adapted to current educational needs. (Uko, 2001). Routine maintenance requires periodic serving and machine equipment-monthly, quarterly yearly as per the requirements provided in the manufacturers’ guide. (Agenyi, 2012). Emergency or breakdown maintenance may take place due to unforeseen occurrences which may as a result of lack of maintenance culture.
Statement of Problems
School facilities maintenance is essential for the realization of secondary schools’ objectives. However, where school facilities are inadequate, poorly maintained and not safe guarded the teaching and learning process becomes difficult. The goals and objectives of secondary school may not be accomplished under this kind of condition.
It has been observed that there are serious negative consequences students and schools faced when school facilities are not properly maintained. First, it will lead to poor academic performance of the students, school runs the risk of losing students to other well equipped institutions when their schools lack the required facilities or available facilities are not properly managed. School principals and teachers who constantly use school facilities lack knowledge of facilities maintenance. This study therefore aimed at examining maintenance of school facilities in public senior secondary schools in Port Harcourt Metropolis.

Purpose of study:
1. Ascertain maintenance choice favored adopted by the principals towards facilities maintenance in public secondary schools in Port Harcourt Metropolis.
2. Determine the factors affecting maintenance of facilities in public secondary schools in Port Harcourt Metropolis.

Research Questions
1. What are the maintenance choice favored adopted by the principals towards facilities maintenance in public secondary school in Port Harcourt Metropolis?
2. What are the factors affecting maintenance facilities in public secondary schools in Port Harcourt Metropolis?

Hypothesis
$H_{01}$: There is no significant difference in the mean scores of male and female secondary school principals on the maintenance choice favored by principals towards facilities maintenance in Port Harcourt Metropolis.

METHODOLOGY
This study was carried out in Port Harcourt Metropolis across two Local Government Areas in Rivers State namely: Port Harcourt City Local Government and Obio-Akpor Local Government Area. The study adopted a descriptive survey research design. Population of the study comprised all the principals in public senior secondary schools in Port Harcourt Metropolis which include both male and female principals. 54 male principals and 48 female principals which gave a total number of 102 principal. There was no sample size due to the small nature of the population. The instrument for data collection was a structured questionnaire; data was analyzed using mean rating and standard deviation to the research questions. Also, $z$-test was used to test the hypothesis at 0.05 level of significance.
RESULTS

Research Question 1: What are the maintenance choices favored adopted by principals towards maintenance of facilities?

Table 1: Mean and standard deviation of the respondents on maintenance choice favored adopted by principals towards maintenance of facilities

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items</th>
<th>Male Principal</th>
<th>Female Principal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>S.D</td>
</tr>
<tr>
<td>1</td>
<td>Preventive maintenance</td>
<td>3.04</td>
<td>1.05</td>
</tr>
<tr>
<td>2</td>
<td>Corrective maintenance</td>
<td>3.07</td>
<td>0.88</td>
</tr>
<tr>
<td>3</td>
<td>Predictive maintenance</td>
<td>3.22</td>
<td>0.66</td>
</tr>
<tr>
<td>4</td>
<td>Breakdown Maintenance</td>
<td>1.96</td>
<td>0.92</td>
</tr>
<tr>
<td></td>
<td><strong>Grand mean &amp; S.D</strong></td>
<td><strong>2.82</strong></td>
<td><strong>0.88</strong></td>
</tr>
</tbody>
</table>

Field survey, 2017

Table 1 above shows the standard deviation responses of male and female principals on choice on the favored by the principals in facilities maintenance. The result revealed that preventive maintenance (3.04 & 3.19), corrective maintenance (3.07 & 2.81) and predictive maintenance (3.22 &3.29) are choice of maintenance while breakdown maintenance (1.96 & 2.21) was not accepted by the respondent as the choice of maintenance favored by the principals in facilities maintenance.

Research Question 2: What are the factors affecting maintenance of school facilities in public secondary schools in Port Harcourt Metropolis?

Table 2: Mean and standard deviation of the respondents on factors affecting maintenance of school facilities in public secondary schools in Port Harcourt Metropolis

<table>
<thead>
<tr>
<th>S/ N</th>
<th>Items</th>
<th>Male Principal</th>
<th>Female Principal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>S.D</td>
</tr>
<tr>
<td>1</td>
<td>Inadequate funding for the maintenance of School facilities</td>
<td>3.37</td>
<td>0.78</td>
</tr>
<tr>
<td>2</td>
<td>Lack of periodic inspection of facilities</td>
<td>2.98</td>
<td>1.05</td>
</tr>
<tr>
<td>3</td>
<td>Lack of clear schedule of duties allocation</td>
<td>3.19</td>
<td>0.88</td>
</tr>
<tr>
<td>4</td>
<td>Non proper rules and Regulations guiding the maintenance of school facilities.</td>
<td>3.43</td>
<td>0.90</td>
</tr>
<tr>
<td></td>
<td><strong>Grand mean &amp; S.D</strong></td>
<td><strong>3.24</strong></td>
<td><strong>0.90</strong></td>
</tr>
</tbody>
</table>

Field Survey, 2017
The analyzed data revealed that inadequate funding in secondary schools (3.37 & 3.44) lack of periodic inspection of facilities (2.98 & 3.02), lack of clear schedule of duties allocation to guide the staff (3.19 & 3.42) and non-proper rules and regulation guiding the maintenance of school facilities (3.43 & 3.29).

**Hypothesis**

$H_{01}$: There is no significant difference in the mean scores of male and female secondary school principals on the maintenance choice favored by principals towards facilities maintenance in Port Harcourt Metropolis.

**Table 3: z-test analysis of the mean responses of male and female secondary school principals on maintenance choice favored by principals towards maintenance of school facilities Port Harcourt Metropolis**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D</th>
<th>N</th>
<th>Lev. of z-cal</th>
<th>z-crit</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male principals</td>
<td>2.82</td>
<td>0.88</td>
<td>54</td>
<td>0.05</td>
<td>0.34</td>
<td>1.96</td>
</tr>
<tr>
<td>Female principals</td>
<td>2.88</td>
<td>0.93</td>
<td>48</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field survey 2017.

The result in the table above shows that male principals have mean and standard deviation scores 2.82 and 0.88 and 0.93 at 0.05 level of significance, z-calculated value of 0.34 and z-critical value of 1.96. Since the z-cal value of 0.11 is less than the z-crit value of 1.96, therefore the null hypothesis is accepted. This implies that there is no significant difference between the mean responses of male principals and female principals on maintenance choice favored by principals towards facilities maintenance in Port Harcourt Metropolis.

**DISCUSSION OF FINDINGS**

Findings on the study revealed that maintenance choice favored by school principals include; preventive maintenance, corrective maintenance, predictive maintenance and the use of breakdown of maintenance. This agreed with Wakaham (2003) who asserts that the principal is responsible for the maintenance activities and repair, raising fund for maintenance activities and educating the school community on how to look after facilities properly.

The findings also revealed that factors affecting maintenance of facilities which include; inadequate funding, lack of periodic inspection, non - proper rules and regulations guiding the staff. This is supported by Aliyu and Garb (2003) who outlined some factors affecting maintenance of facilities; lack of working tools, lack of adequate funding for purchasing maintenance tools, lack of regular inspection to detect building equipment, furniture and other facilities for prompt repairs, lack of a clear schedule of duties allocation to guide the staff and lack of delegation of authority to community for participation in the maintenance operation.

**CONCLUSION**

Based on the findings, it is concluded that the maintenance choice favored by the principals include; preventive maintenance, corrective maintenance, predictive maintenance and the use of breakdown maintenance.

More so, inadequate funding for the maintenance of school facilities, lack of periodic inspection of facilities, lack of clear schedule of duties allocation, and non proper rules and regulations guiding the maintenance of school facilities.
RECOMMENDATIONS
Based on the findings the following recommendations were made:
Principals should plan activities to raise fund. This is necessary since money is very important and highly
needed in the maintenance of processes in the facilities to be obtained and maintained
The principals should appoint technical personnel in the school to conduct regular inspection of school
facilities. This will help identify in time major deficiencies which may affect the normal activities in the
school.

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