School Plant and Academic Performance of Secondary Schools Students in Tai/Eleme Local Government Area of Rivers State

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ABSTRACT
This study investigated school plant and academic performance of secondary school students’ in Tai/Eleme local government areas of Rivers State. To achieve this purpose, four research question and four null hypotheses were formulated to guide the study. A sample size of 416 SS II students were drawn from 6 selected public secondary schools in Tai/Eleme local government areas of Rivers State for the study. A correlational design was used in this research. A developed checklist of school plant and academic performance of secondary school students’ was the instrument used for collecting relevant data needed for the study. The data was analyzed using mean rating and standard deviation for the research questions while Pearson product moment correlation was used to analyzed the hypothesis at 0.05 alpha levels of significance. The results of the analysis showed that a significant relationship exist between school plant and academic performance of secondary school students’. Upon these findings a conclusion was reached that school plant are basic necessities in educational system and their provision improves teachers teaching skill and students’ academic performance. Recommendations were made based on the outcome of findings.

Keywords: academic performance, school plant, students, secondary school

INTRODUCTION
Education is a veritable tool for the development of both the individuals and the state. It involves the transmission of worthwhile value such as skill, knowledge and planned activities that can develop learners’ potential for national development (Ochoyi and Danladi, 2008). It is the basic tool for achieving development at all levels. Education is the process of acquiring new values and skills for the purpose of effective functioning in the society (Etuk, Ering and Ajake, 2012). Adeyanju (2010) in Anaduaka and Okafor (2013) collaborate with the above, and added that no development can take place in human society without education and no peace and security can take place without development. This proves that
development of both the individuals and state is dependent to a large extend on the quality and accessibility of individuals to the education. Education becomes the indices for measuring the development capacity of both the individuals and state (Daura and Adu, 2015). Education is a process of acquiring skills, obtaining relevant knowledge and aptitudes in order to survive in this technological world. It is the process whereby individuals are provided with the means, tools and knowledge for understanding their society and its structures. Education, needless to say, is a priority sector in every well-meaning society.

Ehiametator (2001) viewed school plant as “operational inputs of every instructional programme”. In her own view Akpan (2003), states that the environment, facilities, equipment and buildings constitutes school plant. Thus, modern school requires suitable classroom, libraries, laboratories, recreational facilities, assembly hall, school farm, vehicle, staff-rooms, office etc. for the comfort and convenience of both staff and students. The nature, conditions, adequacy and relevance of school plant have direct impact on the learning engagement. Bosah (1997) in Mgbodile (2004) defined school plant as the physical expression of the school programmes and activities. It is consciously designed and controlled environment with the aim of achieving teaching and learning activities within the school. Adesina and Ogunsaju (2003) in their recognition of the need for school plant for effective academic performance of educational programmes noted that for effective teaching and learning situations, school plant and educational goals should be viewed as being closely interwoven and interdependent. School plant, apart from protecting secondary school students from sun, rain, heat and cold, school building represents learning environment which has tremendous impact on comfort and safety for everyone within the school premises.

The function of school plant generally is to provide the most suitable environment for effective teaching and learning. Piaget and Roger cited in Dienye and Gbamanya (1990) believe that a supportive and responsive environment, which permits the learner to interact freely with another and with the subject matter, is best for learning and that in such an environment, students will not need extensive rewards or punishment as they learn naturally through their own activity.

Secondary school is the stage of education that follows primary school. It is generally the final stage of compulsory education Webster (2009), saw secondary school as an intermediary between elementary school and college where general technical vocational or challenge preparatory course are usually offered. Collins (2003) referred to it as a school for young people, usually between the age of eleven and eighteen. FRN, (2013), stated that it is the form of education children receive after primary education and before the tertiary institution.

Since the academic performance of secondary school students depends on the school plant, management and maintenance of school facilities are very important. The responsibility of effective school plant management rests on the principal, post primary school board and the teachers. Management is the life-wire of any secondary school for academic achievement. School plant management involves effective maintenance of the school structures as well as its facilities and equipment to ensure quality teaching and learning. School plan contribute mostly to education when used by motivated and competent teachers and responsive students.

Aguokogbou (2002) observed that the teacher is crucial to curriculum implemental. Ubom (2002) remarked that the teacher is the one to formulate, design, assemble, control, supervise, select, explore, assess, facilitate and manipulate the teaching learning materials. The teacher must necessarily function as a major resource because he possesses a wealth of knowledge and skills which he dispenses to the learners. Uga (2000) added that the teacher is the one who translates ways of the curriculum into practice. Thus there are bound to be problems in a system with an excellent curriculum and functional school plant but without necessary moral and financial support needed by teachers to implement it.

Mboto, (2000) lamented that most secondary schools have dilapidated buildings, broken windows and leaking roofs due to poor maintenance culture. Furthermore, school plant are needed to develop knowledge, abilities and skills that are necessary for academic performance of students, in light of the above, school plant plays a crucial role in academic performance of secondary school students in Tai/Eleme local Government Areas of Rivers State.
Statement of the Problem
In recent times, the poor academic performance of students in the internal and external examinations has become a source of concern in the educational sector and the general society. Some people blame teachers for lack of commitment in their work as the cause, others attributed the problem to poor and inadequate infrastructural facilities and inadequate human resource in most secondary schools. A close look at public secondary school programmes in Tai/Eleme Local government areas of Rivers State reveals a state of general disrepair, inadequate facilities and equipment, poor funding, poor maintenance culture and poorly motivated teachers. It is generally believed that the quality of any education system is a function of quality of input.

The problem of inadequate infrastructural facilities in schools is further aggravated by the fact that some principals, teachers and students seems not to take maintenance seriously. The study therefore investigated the relationship existing between school plant and academic performance of secondary school students in Tai/Eleme Local Government Areas of Rivers State.

Purpose of the Study
The major purpose of this study was to examine the relationship between school plant and academic performance of secondary school students in Tai/Eleme Local Government Areas of Rivers State. Specifically the study intend to:

1. Investigate how instructional materials as an aspects of school plant can affect the academic performance of secondary school student in Tai/Eleme Local Government Areas of Rivers State.
2. Determine how library facilities as an aspect of school plant can affect academic performance of secondary school students in Tai/Eleme Local Government Areas River State.
3. Ascertain how school building design as an aspect of school plant can affect academic performance of secondary school students in Tai/Eleme Local Government Areas of Rivers State.
4. Examine how science laboratory as an aspect of school plant can affect academic performance of secondary school students in Tai/Eleme Local Government Areas of Rivers State.

Research Questions
The following research questions guided the study:

1. How can instructional materials as an aspect of school plant affect the academic performance of secondary school student?
2. How can library facilities as an aspect of school plant affect academic performance of secondary school students?
3. How can school building design as an aspect of school plant affect academic performance of secondary school students?
4. How can science laboratory as an aspect of school plant affect academic performance of secondary school students?

METHODOLOGY
The research design adopted for this study was the descriptive survey. The population of the study included 1664 senior secondary school students (S.S.S 2) in the 6 public secondary schools in Tai/Eleme Local Government Areas of Rivers State. The sample size is 416 respondents from the larger population the sample random sampling technique was used to select the sample. A self-design questionnaire titled educational research problems was used to obtain information for this study experts in measurement and evaluation subjected the instrument to scrutiny they certified the instruments as having both face and content validity, the reliability of the instrument was estimated using test retest method the set of scores were co-related using Pearson product moment correlation statistics (PPMC). The instrument was a compound instrument and the reliabilities were 2.663, 2.609, 3.301, & 2.928 for the sections A,B,C and D respectively mean was used to analyze the data obtained. A 4 point likert scale was used and a mean of 2.5 was used as cut-off point for accepting or rejecting the various factors. The use of the mean to answer
research questions and rejecting a statement has been widely implored by many researchers including Osahon (1998), Usoro (2001), in Nwankwo (2006).

RESULTS
Research Question 1
How can instructional materials as an aspect of school plant affect the academic performance of secondary school students?

Table 1: Mean and Standard Deviations on how can instructional materials as an aspect School plants affect academic Performance of Secondary School Students.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Instructional Materials</th>
<th>SA (4)</th>
<th>A (3)</th>
<th>D (2)</th>
<th>SD (1)</th>
<th>Total</th>
<th>N</th>
<th>( \bar{x} )</th>
<th>STD</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The school have enough computers</td>
<td>207</td>
<td>95</td>
<td>2</td>
<td>112</td>
<td>1229</td>
<td>416</td>
<td>2.954</td>
<td>1.257</td>
<td>Agreed</td>
</tr>
<tr>
<td>2</td>
<td>We have enough pictures and charts</td>
<td>4</td>
<td>154</td>
<td>122</td>
<td>136</td>
<td>858</td>
<td>416</td>
<td>2.063</td>
<td>0.856</td>
<td>Disagreed</td>
</tr>
<tr>
<td>3</td>
<td>We have sufficient audio and visual aids</td>
<td>16</td>
<td>371</td>
<td>5</td>
<td>24</td>
<td>1211</td>
<td>416</td>
<td>2.911</td>
<td>0.556</td>
<td>Agreed</td>
</tr>
<tr>
<td>4</td>
<td>We have enough textbooks</td>
<td>100</td>
<td>83</td>
<td>161</td>
<td>72</td>
<td>1043</td>
<td>416</td>
<td>2.507</td>
<td>1.039</td>
<td>Agreed</td>
</tr>
<tr>
<td>5</td>
<td>We have enough chalk</td>
<td>28</td>
<td>313</td>
<td>73</td>
<td>2</td>
<td>1199</td>
<td>416</td>
<td>2.882</td>
<td>0.499</td>
<td>Agreed</td>
</tr>
</tbody>
</table>

Table 1 shows that the grand mean regarding how instructional materials as an aspect of school plant affects the academic performance of secondary school students is 2.663, which is greater than the mean of 2.5. This indicates that all the items mentioned above are recognizably the instructional materials as an aspect of school plant that affects the academic performance of secondary school students in Tai/Eleme Local Government Areas of Rivers State.
Research Question 2  
*How can library facilities as an aspect of school plant affect the academic performance of secondary school students?*

Table 2: Mean rating and standard deviations on how can library facilities as an aspect of school plant affect the academic performance of secondary school students?

<table>
<thead>
<tr>
<th>S/N</th>
<th>Library Facilities</th>
<th>SA (4)</th>
<th>A (3)</th>
<th>D (2)</th>
<th>SD (1)</th>
<th>Total</th>
<th>N</th>
<th>̄X</th>
<th>STD</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The library is accommodated in a good building</td>
<td>14</td>
<td>231</td>
<td>162</td>
<td>9</td>
<td>1082.00</td>
<td>416</td>
<td>2.60</td>
<td>0.593</td>
<td>Agreed</td>
</tr>
<tr>
<td>2</td>
<td>It is well stocked with current and relevant textbooks</td>
<td>40</td>
<td>281</td>
<td>89</td>
<td>6</td>
<td>1187.00</td>
<td>416</td>
<td>2.85</td>
<td>0.589</td>
<td>Agreed</td>
</tr>
<tr>
<td>3</td>
<td>The Library is always supplied with current newspaper and magazine</td>
<td>28</td>
<td>313</td>
<td>73</td>
<td>2</td>
<td>1199.00</td>
<td>416</td>
<td>2.88</td>
<td>0.499</td>
<td>Agreed</td>
</tr>
<tr>
<td>4</td>
<td>Library facilities help students to study effectively leading to academic performance</td>
<td>4</td>
<td>154</td>
<td>122</td>
<td>136</td>
<td>858.00</td>
<td>416</td>
<td>2.06</td>
<td>0.856</td>
<td>Disagreed</td>
</tr>
<tr>
<td>5</td>
<td>We have competent library staff to guide us on the correct usage of the library facilities</td>
<td>42</td>
<td>264</td>
<td>31</td>
<td>79</td>
<td>1101.00</td>
<td>416</td>
<td>2.64</td>
<td>1.047</td>
<td>Agreed</td>
</tr>
</tbody>
</table>

Table 2 revealed that the grand mean regarding how library facilities as an aspect of school plant affects the academic performance of secondary school students is 2.609, which is more than the mean point of 2.5 this indicates that the library services is an aspect of school plant that can affect the academic performance in Tai/Eleme Local Government Areas of Rivers State.

Research Question 3  
*How can school building design affect the academic performance of secondary school students?*

Table 4.3: Mean rating and standard deviations on school building design affect academic performance of secondary school students.

<table>
<thead>
<tr>
<th>S/N</th>
<th>School Building Design</th>
<th>SA (4)</th>
<th>A (3)</th>
<th>D (2)</th>
<th>SD (1)</th>
<th>Total</th>
<th>N</th>
<th>̄X</th>
<th>STD</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>We have enough classroom</td>
<td>48</td>
<td>342</td>
<td>0</td>
<td>26</td>
<td>1244.00</td>
<td>416</td>
<td>2.99</td>
<td>0.605</td>
<td>Agreed</td>
</tr>
<tr>
<td>12</td>
<td>Class rooms are of good size</td>
<td>282</td>
<td>130</td>
<td>0</td>
<td>4</td>
<td>1522.00</td>
<td>416</td>
<td>3.65</td>
<td>0.532</td>
<td>Agreed</td>
</tr>
<tr>
<td>13</td>
<td>Building are well located for quick accessibility</td>
<td>340</td>
<td>8</td>
<td>50</td>
<td>18</td>
<td>1502.00</td>
<td>416</td>
<td>3.61</td>
<td>0.860</td>
<td>Agreed</td>
</tr>
<tr>
<td>14</td>
<td>Class room are well ventilated</td>
<td>0</td>
<td>310</td>
<td>4</td>
<td>102</td>
<td>1040.00</td>
<td>416</td>
<td>2.50</td>
<td>0.861</td>
<td>Agreed</td>
</tr>
<tr>
<td>15</td>
<td>The building are of good conditions</td>
<td>310</td>
<td>106</td>
<td>0</td>
<td>0</td>
<td>1558.00</td>
<td>416</td>
<td>3.74</td>
<td>0.436</td>
<td>Agreed</td>
</tr>
</tbody>
</table>
Table 3 shows that the grand mean about how can school building design affect the academic performance of secondary school students is 3.301 which is higher than the mean point of 2.5. This implies that these are the factors that can affect academic performance of secondary school students in Tai/Eleme Local Government Area of Rivers State.

Research Question 4
How can science laboratory as aspect of school plant affect the academic performance of secondary school students?

Table 4.4: Mean rating and standard deviations on school science laboratory affect academic performance of secondary school students.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Science Laboratory</th>
<th>SA (4)</th>
<th>A (3)</th>
<th>D (2)</th>
<th>SD (1)</th>
<th>Total</th>
<th>N</th>
<th>( \bar{X}_1 )</th>
<th>STD</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>The school have well equipped biology laboratory</td>
<td>0</td>
<td>229</td>
<td>176</td>
<td>11</td>
<td>105.</td>
<td>416</td>
<td>2.524</td>
<td>0.550</td>
<td>Agreed</td>
</tr>
<tr>
<td>17</td>
<td>The school have well equipped chemistry</td>
<td>373</td>
<td>19</td>
<td>17</td>
<td>7</td>
<td>159.</td>
<td>416</td>
<td>3.822</td>
<td>0.574</td>
<td>Agreed</td>
</tr>
<tr>
<td>18</td>
<td>Laboratory experiment stimulate my interest in science subjects an also help me perform better in examination.</td>
<td>297</td>
<td>99</td>
<td>14</td>
<td>6</td>
<td>1519.</td>
<td>416</td>
<td>3.651</td>
<td>0.618</td>
<td>Agreed</td>
</tr>
<tr>
<td>19</td>
<td>Regular practical lessons are carried out</td>
<td>2</td>
<td>231</td>
<td>175</td>
<td>8</td>
<td>1059.</td>
<td>416</td>
<td>2.546</td>
<td>0.545</td>
<td>Agreed</td>
</tr>
<tr>
<td>20</td>
<td>Laboratory facilities are of good standard</td>
<td>3</td>
<td>391</td>
<td>11</td>
<td>11</td>
<td>1218.</td>
<td>416</td>
<td>2.928</td>
<td>0.367</td>
<td>Agreed</td>
</tr>
</tbody>
</table>

Table 4 reveals that the grand mean on how science laboratory as an aspect of school plant and affects academic performance of secondary school students Tai/Eleme Local Government Area of Rivers State is 2.928, which higher than the mean point of 2.5 this shows that science laboratory as an aspect of school plant affect the academic performance of secondary school students in Tai/Eleme Local Government Area of Rivers State.

DISCUSSION

Table 1: this table shows that the grand mean (\( \bar{X} \)) regarding on how Instructional Materials as an aspect of school plant affects the academic performance of secondary school students is 2.663 which higher than the mean point of 2.5 this indicates that all the items was accepted as how instructional materials an aspect of school plant can affect the academic performance of secondary school students in Tai/Eleme Local Government Area of Rivers State.

Table 2: This shows that the grand mean (\( \bar{X} \)) how library facilities as an aspect of school plant affects the academic performance of secondary school students was 2.609, which higher than the mean point of 2.5 this indicates that library facilities an aspect of school plant affects the academic performance of secondary school students in Tai/Eleme Local Government Area of Rivers State.

Table 3: The table reveals that the grand mean (\( \bar{X} \)) about how school building design as an aspect of school plant can affect the academic performance of secondary school students was 3.301, which higher than the mean point of 2.5, this implies that school building design as an aspect of school plant affects the academic performance of secondary school students in Tai/Eleme Local Government Area of Rivers State.
Table 4: The table reveals that the grand mean (x̄) regarding how science laboratory as an aspect of school plant the academic performance of secondary school students was 2.928, which higher than the mean point of 2.5, this shows that science laboratory as an aspect of school plant affects the academic performance of secondary school students in Tai/Eleme Local Government Area of Rivers State.

CONCLUSION
The importance of school plants in the educational system has necessitated the need for the provision and management of these facilities in the school. They have been found to enhance the achievement of school goals, especially the academic performance of students.

In Tai/Eleme Local Government Area of Rivers State, educational facilities in the schools are not adequate and in most cases, the available ones are in the state of general disrepairs. These deplorable conditions in schools affect the efficiency and effectiveness of the education system since they are necessary tools for the teachers and learners. There is therefore the need to ensure that the situation of public secondary schools in Rivers State are improved upon especially in the area of adequate funding, provision of facilities and supervises.

RECOMMENDATIONS
On the basis of the finding and conclusions, the following recommendations were specifically made:

1. Schools should be located in noise free environment, health, safety and security of students, and staff should be guaranteed. Schools should be easily located and accessible.

2. School building should be design considering space, ventilation and height of structures.

3. Instructional materials, library facilities, laboratory and workshop equipment’s should be adequately provided and long range plan should equally be in order to sustain them.

4. Utilization of school facilities should be considered, users of school facilities should be taught on how to use them.

5. Teachers should be encouraged to go for in-service training and professional development within the profession. They should always attend workshops and seminars to keep in touch with new findings in their subject areas most importantly now that school curriculum has been expended to accommodate computer science, technological and vocational courses.

6. Government should see the way of improving on teacher’s welfare in line with other professionals with the same qualifications.

REFERENCES


