School Environment and Academic Achievement of Students in Secondary Schools in Rivers State

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ABSTRACT
The study centred on school environment and academic achievement of students in secondary schools in Rivers State. Thus, three research questions and hypotheses were drawn for the study. The population of the study consists of 180 teachers and 411 students. The researcher adopted purposive sampling technique. The instrument was titled, School Environment and Students Academic Achievement Questionnaire (SESAAQ). Twenty (22) structured items were drawn for the study. Likert scale was used and the respondents were requested to select one of the four (4) options: Strongly Agree (SA) Agree (A) Disagreed (D) and Strongly Disagree (SD). Thus, 591 copies of questionnaire were administered and retrieved 438 (74%) for the study. The data were analyzed using frequency tables, mean scores and standard deviation as well as chi-square for the test of hypotheses. Findings indicated that school environment contributes to students’ achievement when there is provision of the relevant facilities that encourage and develop curiosity in the mind of the students. It was therefore recommended that favorable environment should be provided for adequate teaching and learning processes or procedures.

Keywords: school environment, academic achievement, students, secondary schools

INTRODUCTION
Educational system is closely linked to the larger society hence becoming an agent of social change and transformation. The totality or nature of the learning environment is highly a great concern for management, government, parents and stakeholders for the attainment of the desired educational goals and objectives of the educational system. This is because the forces of environment highly influence the growth and development of the students.

Hallack (1990) revealed that the process of educational development is determined through: physical, social, cultural and psychological environment. Thus, a fundamental and reasonable environment that will enhance the capacities and potentialities of the students is quite relevant for achievement or performance in every learning activity. Certainly, school environment has become a vital stimulus for learning experiences as students spends most of the time in school. More so, school environment exerts different forms of influence on the learners through contact with varieties of curricula activities, teaching techniques, relationship or mutual cooperation between the school administrators and the students (Arul, 2012).

Concept of School Environment
School Environment is physical, aesthetic surroundings, psychological climate and culture of the school that facilitates or enhances proactive learning outcomes. Farrant (1991) and Farombi (1998), is of the view that school environment simply revolve around the issues of books, audio-visual, software and hardware of educational technology, size of classroom, social climate, sitting position and arrangement, availability of tables, chairs, chalkboards, shelves as well as other facilities that encourage active learning activities both in curricular and extra-curricular programmes.
Common experiences indicated that the school environment may have negative influence on students’ academic achievement especially if such environment lacks good school climate, instructional materials, discipline, physical facilities, poor teachers’ quality and over population of students in classrooms. In addition, unattractive school buildings and overcrowded classrooms among others contribute to low academic performance of the students in the long run. It is on this note that academic performance of students is conceived as a correlate of school environment as it shapes intellectual ability of the students.

Concept of Academic Achievement
Bossaert, Doumen, Buyse and Verschueren (2011) conceived academic achievement in term of success attained. it is the knowledge, potentialities or capacities gained or achieved in the relevant school programme or subjects usually through test scores or marks assigned. In other words, it suggests the results or behavior potentially attained in respects of learning activities. As contended by Mudassir and Norsuhaily (2015) when students find their school environment supportive and caring, they are less likely to become involved in substantive abuse, violence and other unnecessary behavior. This is because school environment enriched with enough learning facilities provide for greater independent learning or collaborative activities.

Statement of the Problem
School environment has broad influence on students’ learning. Supportive school environment foster positive result or outcomes by enhancing students sense of reasoning, cordiality or community. Students who experience their school as a caring community become more motivated, ambitious and curious for high level of academic achievement.

Several researchers have identified relevant instructional materials and qualified teachers, infrastructural facilities, laboratories, adequate classroom, administrative blocks, hostels, audio visual facilities as fundamental tools or predicator for good learning environment. However, these facilities are in short supply which of course affects students’ academic achievement. It is on this premise that the researchers therefore investigate school environment and academic achievement of students in secondary schools in Rivers State.

Purpose of the Study
The purpose of the study was to examine school environment and academic achievement of students in secondary schools in Rivers State. The objectives of the study were:

1. To examine how physical facilities contribute to academic achievement of students in secondary schools.
2. To identify how library materials enhance academic achievement of students in secondary schools.
3. To ascertain how recreational facilities promote academic achievement of students in secondary schools.

Research Questions
1. How do classroom facilities contribute to academic achievement of students in secondary schools?
2. How do library materials enhance academic achievement of students in secondary schools?
3. How do recreational facilities promote academic achievement of students in secondary schools?

Hypotheses
1. There is no significant relationship between physical facilities and academic achievement of students
2. There is no significant relationship between library materials and academic achievement of students.
3. There is no significant relationship between recreational facilities and academic achievement of students.

Significance of the Study
The study will reveal how various learning facilities in the school environment can encourage and enhance students’ academic performance. It will be of interest to the students, educationists and researchers who will likely research in a similar topic.
The study may be of assistance to educational planners as the data or information collected can be used for further planning and projections. The study will add to the volume of literatures on school environment and academic achievement of students in secondary schools in Rivers State.

Scope of the Study
The study was limited to school environment and academic achievement of students in senior secondary schools in Rivers State. It will also cover availability of physical facilities, availability of instructional materials, recreational facilities and academic achievement of students.

REVIEW OF THE RELATED LITERATURE
Physical Facilities and Academic Achievement
In the educational system, the values of physical facilities have remained predominant in the teaching and learning activities. For the educational system to acquire the expected goals and objectives there is need for sufficient provision of the necessary facilities that will enhance effective teaching and learning among the students. As stated by Ayoo (2002) physical facilities include: classroom furniture, recreational equipment, modern laboratories, libraries and classrooms, chairs, desks, cabinets, buildings etc. Ajayi (2001) succinctly stated that physical facilities provide additional learning opportunities for students to improve reading skills, comprehension and writing, clarity of expression as well as supporting independent learning capacity in all subjects. Evidence abounds that experiences occur through interaction with the physical facilities as learning outcome are made more concrete and absolute. For instance, books, audio-visual, software and hardware of educational technology, size of classroom, libraries, sitting position and arrangement, availability of tables, chairs, chalkboards and shelves and recreational facilities if practically available the extent of academic productivity among students will definitely be high.

Adyemo (2005) noted that a knowledgeable teacher can create changes and progress in the teaching and learning processes especially when necessary facilities are made available in the school. The fundamental benefits are that lesson objectives can be easily transmitted to students with different characteristics and learning behaviors. On the contrary, schools with inadequate physical facilities will definitely undermined the extent of academic curiosity among the students.

Stanley (2003), one of the fundamental ways of ensuring optimum utility of available resources is through adequate strategies by the leaders. Strategies reflect on the various procedures and processes embarked on to achieve the desired objectives of the lesson using accurate physical facilities. It involves articulate scheming and manipulation of the relevant information that revolves around teaching and learning activities.

In the school system, there are varieties of physical facilities that require regular and adequate strategies for its effective utilization by the students and teachers. Among which are: science laboratories, home economics, language laboratories, local craft workshops, school library with facilities for photo copying, typing pool, technical drawing room for introductory technology, guidance and counseling office. This implies that management has to develop medium of utilizing the available resources to ensure its viability.

Instructional Materials and Academic Achievement
Effective learning begins with concrete experience and proceeds towards more abstract experiences. On this note, students have the advantage of reacting to well-selected and wisely used media and materials. A learner profits most from instruction when he becomes involved through his own interests and desires. Hence, well chosen educational media present concept in such a way as to incite interest and stimulate involvement. In other words, students become partakers in teaching/learning activities rather than passive or observers.

The best way for learners to learn is how to use knowledge in multiple contexts. This position was taken in favor of the theory proposing that how one learns is not restricted to concept about learning but the context in which the teachers intelligently used materials that play crucial roles in perception, cognition, memory and measurable cognitive achievements. It is further argued by Okafor (2003) that application of
relevant instructional media enables the teachers to cover the taxonomies (cognitive effective and psycho motive) domains.

As theorized by Bloom (1974) when the quality of instruction is high, the level of achievement of the students and the time on task increases. In support of the above assertion, Carroll (1989) presented a model for understanding differences in educational achievements that involved the interaction of instructional media and students’ ability to understand. This was made more explicit by Felting and Canady (1996) while presenting the theory of pervasiveness in instructional approach. The study maintained that in schools were active learning methods were persuasive; the students demonstrated significant higher achievement.

**Recreational Facilities and Academic Achievement**

Recreational facilities play an important role in the development of education programs when considering large number of activities like: athletics, publications, fine arts, academic clubs, service organizations and special interest activities. Activities aligning with students’ talent validate their sense of self-efficacy, concept and esteem. In other words, these activities also energized their academic activities as most of the experiences asserted from participation in extra-curricular activities are infused into learning and teaching activities (Bong & Skaalvik, 2003).

It is further adjudged that recreational facilities provides networking opportunities which allow students to develop social skills in the form of increased interaction between peers, mentors and others in different specializations (Broh, 2002). Increased interactions with these supportive networks grant better visibility to potential learning outcome (Broh, 2002, Feldman & Matjasko, 2005). This is because an attractive recreational facility often leads to continue development of initiative and potentialities beyond the formal or structural learning objectives. Interactions among students are seen as crucial to the development and creation of social bonds that will integrate the student within the school community.

Dalgarn (2001) observed that campus recreation facilities play critical roles in creating a sense of community for students. In particular, this scholar identified that recreation facilities support in the development of the students by providing prospect to restore, relax, relieve stress and renew perspectives. It offers more than just a place to exercise but it also creates opportunities for students to enhance their social relationships with others. Artinger , Clapham, ,Hunt, , Meigs, , Milord, and Sampson (2006) examined the social benefits of recreational facilities in five different areas: personal social benefits (improving self-confidence), cultural social benefits (increasing understanding and tolerance of different cultures), social group bonding (decreasing social alienation), university integration (improving students’ sense of belonging at the university) and reliable alliance benefits (increasing trust in peers). It was thus concluded that recreational facilities contribute fundamentally to the enhancement of the students’ participation in learning activities in the long run by being much adaptive and responsive to several learning activities.

**METHODOLOGY**

The study used correlation survey design method to examine school environment and academic achievement of students in six selected secondary schools in Rivers State. The population of the study consists of 180 teachers and 411 students. The researcher adopted purposive sampling technique. The instrument was titled, School Environment and Students Academic Achievement Questionnaire (SESAAQ). Twenty (22) structured items were drawn for the study. Likert scale was used and the respondents were requested to select one of the four (4) options: Strongly Agree (SA) Agree (A) Disagreed (D) and Strongly Disagree (SD). Thus, 591 copies of questionnaire were administered and retrieved 438 (74%) for the study. The data were analyzed using frequency tables, mean scores and standard deviation as well as chi-square for the test of hypotheses.
RESULTS

Research question 1: How do physical facilities contribute to academic achievement of students in secondary schools?

Table 1.1: weighted responses on physical facilities and academic achievement of students.

<table>
<thead>
<tr>
<th>S/No</th>
<th>ITEMS</th>
<th>Teachers (N=129)</th>
<th>Students (N=309)</th>
<th>Mean set</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>( \bar{X} )</td>
<td>STD</td>
<td>( \bar{X} )</td>
<td>STD</td>
</tr>
<tr>
<td>1</td>
<td>Facilitates increased in learners’ performance</td>
<td>3.38</td>
<td>0.72</td>
<td>3.30</td>
<td>0.72</td>
</tr>
<tr>
<td>2</td>
<td>Supports students’ achievement in all subjects</td>
<td>2.56</td>
<td>0.78</td>
<td>2.70</td>
<td>0.89</td>
</tr>
<tr>
<td>3</td>
<td>Concretize students learning abilities</td>
<td>2.94</td>
<td>1.8</td>
<td>2.92</td>
<td>1.01</td>
</tr>
<tr>
<td>4</td>
<td>Create changes and progress in the teaching and learning</td>
<td>3.47</td>
<td>0.69</td>
<td>3.50</td>
<td>0.67</td>
</tr>
<tr>
<td>5</td>
<td>Improve reading skills, comprehension and writing</td>
<td>3.25</td>
<td>0.71</td>
<td>3.23</td>
<td>0.62</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.72</td>
<td>0.94</td>
<td>2.73</td>
<td>0.78</td>
</tr>
</tbody>
</table>

The result of table 1.1 showed responses on physical facilities and academic achievement of the students in secondary schools in Rivers State. Teachers and students agreed with all the items with average mean scores of 3.12. The aggregate mean scores of 2.72 (teachers) and 2.73 (students) showed that the respondents subscribed to all items.

Research question 2: How does an instructional material enhance academic achievement of students in secondary schools?

Table 1.2: weighted responses on instructional materials and academic achievement of students.

<table>
<thead>
<tr>
<th>S/No</th>
<th>ITEMS</th>
<th>Teachers (N=129)</th>
<th>Students (N=309)</th>
<th>Mean set</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>( \bar{X} )</td>
<td>STD</td>
<td>( \bar{X} )</td>
<td>STD</td>
</tr>
<tr>
<td>1</td>
<td>Learning activities are retained longer in the memory.</td>
<td>3.34</td>
<td>0.69</td>
<td>3.25</td>
<td>0.721</td>
</tr>
<tr>
<td>2</td>
<td>Increase the amount and quality of learning that takes place</td>
<td>3.02</td>
<td>0.91</td>
<td>3.24</td>
<td>0.76</td>
</tr>
<tr>
<td>3</td>
<td>Students’ interests are stimulated for independent learning.</td>
<td>3.15</td>
<td>0.80</td>
<td>3.28</td>
<td>0.75</td>
</tr>
<tr>
<td>4</td>
<td>Guides teaching of concepts, principles and facts to portray reality.</td>
<td>3.09</td>
<td>0.79</td>
<td>3.20</td>
<td>0.78</td>
</tr>
<tr>
<td>5</td>
<td>Efficient evaluation of the content of learning materials before teaching.</td>
<td>3.22</td>
<td>0.81</td>
<td>3.17</td>
<td>0.79</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.16</td>
<td>0.80</td>
<td>3.23</td>
<td>0.76</td>
</tr>
</tbody>
</table>
The result of table 1.2 shown means score on instructional materials and academic achievement of students in secondary schools. Teachers and students agreed to items 1-5 with mean scores of 3.29, 3.13, 3.22, 3.15 and 3.19 which are greater than the criterion mean of 2.5. The aggregate mean scores of 3.16 (teachers) and 3.19 (students) showed that the respondents accepted the items on the table as how instructional materials enhance academic achievement of students in secondary schools.

**Research question 3:** How do a recreational facilities promote academic achievement of students in secondary schools?

**Table 1.3: weighted responses on recreational facilities and academic achievement of students**

<table>
<thead>
<tr>
<th>S/No</th>
<th>ITEMS</th>
<th>Teachers (N=129)</th>
<th>Students (N=309)</th>
<th>Mean set</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>X</td>
<td>ST D</td>
<td>X</td>
<td>STD</td>
</tr>
<tr>
<td>1</td>
<td>Experiences from athletics, academic clubs and service organizations enhance students’ academic achievement.</td>
<td>3.20 0.81</td>
<td>3.22 0.799</td>
<td>3.21</td>
<td>Agreed</td>
</tr>
<tr>
<td>2</td>
<td>Development of supplementary skills and knowledge.</td>
<td>3.29 0.75</td>
<td>3.28 0.81</td>
<td>3.29</td>
<td>Agreed</td>
</tr>
<tr>
<td>3</td>
<td>Validation of students’ sense of self-efficacy, concept and esteem.</td>
<td>3.29 0.80</td>
<td>3.23 0.77</td>
<td>3.26</td>
<td>Agreed</td>
</tr>
<tr>
<td>4</td>
<td>Infused creativity or innovation into students learning activities.</td>
<td>3.19 0.77</td>
<td>3.24 0.77</td>
<td>3.21</td>
<td>Agreed</td>
</tr>
<tr>
<td>5</td>
<td>Networking of opportunities for varieties for learning skills.</td>
<td>3.26 0.77</td>
<td>3.18 0.76</td>
<td>3.22</td>
<td>Agreed</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.25 0.78</td>
<td>3.23 0.78</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The result of table 1.3 indicated the means score on recreational facilities promote academic performance of students in secondary schools. Teachers and students agreed to items 1-5 with mean scores of 3.21, 3.29, 3.26, 3.21 and 3.22 which are greater than the criterion mean of 2.5. The aggregate mean scores of 3.25 (teachers) and 3.23 (students) showed that the respondents accepted the items on the table as how recreational facilities and academic achievement of students.

**Ho1:** There is no significant relationship between physical facilities and academic achievement of students.

**Table 1.4: test of hypothesis using X^2-Chi-Square**

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>X</th>
<th>Std</th>
<th>Df</th>
<th>X^2-Cal</th>
<th>X^2-Crit</th>
<th>Level of Sign</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td>129</td>
<td>2.72</td>
<td>0.94</td>
<td>12</td>
<td>2.7</td>
<td>21.03</td>
<td>0.05</td>
<td>Accepted</td>
</tr>
<tr>
<td>Students</td>
<td>309</td>
<td>2.73</td>
<td>0.78</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The result of table 1.4 above revealed that the X^2-Crit (21.03) exceeded X^2-Cal (2.7) at degree of freedom (12) with significance level of (0.05). Hence, the null hypothesis was accepted.

**Ho2:** There is no significant relationship between library materials and academic achievement of students.
The result of table 1.4 above revealed that the $X^{2}$-Crit (21.03) exceeded $X^{2}$-Cal (2.7) at degree of freedom (12) with significance level of (0.05). Hence, the null hypothesis was accepted.

**Hypothesis:**

**H$_{0}$:** There is no significant relationship between recreational facilities and academic achievement of students.

The result of table 1.6 above revealed that the $X^{2}$-Crit (21.03) exceeded $X^{2}$-Cal (3.24) at degree of freedom (12) with significance level of (0.05). Hence, the null hypothesis was accepted.

**DISCUSSION OF FINDINGS**

The result of research question one indicated that there is no significant relationship between physical facilities and academic achievement of students. This may be that most facilities for teaching and learning are not available hence affecting the extent of students’ achievement. Findings revealed that availability of physical facilities enhance increased in learners’ performance, supports students’ achievement in all subjects, concretize students learning abilities, create changes and progress in the teaching and learning by improving study skills. This investigation agreed with the view of Akinfolarin (2008) who stated that in the educational system, the values of physical facilities have remained predominant in the achievement of the predetermined objectives of teaching and learning. Thus, for the educational system to acquire the expected goals and objectives there is need for sufficient provision of the necessary facilities that will enhance effective teaching and learning among the students.

Findings on hypothesis two revealed no significant relationship between instructional materials and academic achievement of students in secondary schools. It was further indicated that learning activities are retained longer in the memory, increase the amount and quality of learning that takes place, students’ interests are stimulating in independent learning and efficient evaluation of the content of learning materials before teaching. This view in consonance with observation of Okafor (2003) who stated that use of any instructional materials can positively affect the amount and quality of learning that takes place. Hence, well chosen educational media present concept in such a way as to incite interest and stimulate involvement.

Furthermore, investigation affirmed that there is no significant relationship between recreational facilities and academic achievement of students. This may be because recreational facilities are not actually found in most of the secondary schools. Where it is made available, the extent of utilization is always of low extent. However, the study confirmed that experiences from athletics, academic clubs and service organizations enhance students’ academic performance, developed supplementary skills and knowledge, validation of students’ sense of self-efficacy, concept and esteem, networking of opportunities for varieties for learning skills and infusing creativity or innovation into students learning activities. This agreed with the view of Bong & Skaalvik (2003) who stated that activities aligning with students’ talents validate their sense of self-efficacy, concept and esteem. In other words, these activities energized academic activities as most of the experiences asserted from participation are infused into teaching and
learning programmes. This implies that it provides a setting that maintains students’ involvement and development of supplementary skills that inevitably enhance students learning as well as generating independent learning behavior.

CONCLUSION AND RECOMMENDATIONS
Based on the findings, it was concluded school environment contributes to students’ achievement when there is provision of the relevant facilities that encourage and develop curiosity in the mind of the students. It was therefore recommended that favorable environment should be provided for adequate teaching and learning processes or procedures. More so, recreational facilities should be provided to encourage supplementary skills as well as generating independent learning behavior.

REFERENCES