Study to Find Out Influence of School Amenities on the Academic Presentation of Secondary School Students in Kaduna State, Nigeria

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Abstract:
This study aims to find out effect of amenities for measuring performance of secondary students in Kaduna state, Nigeria. It is based on two purposes: 1. Effect of amenities on behavior of school going children and 2. Poor shaped school building leads to less effective learning. From a population of 10 secondary schools, 100 Kaduna state Nigerian students are being selected for this research. Descriptive type of research design has been adopted here. To analyze data, structured data collection tool has been used and descriptive statistics have been calculated. The result indicates that lack of proper facility affects students as well as teachers adversely. It also focuses the need for maintenance of facilities are one of the primary concerns.

Keywords: School facilities, Academic performance, School environment, Instructional materials

1. Introduction
School framework is very important part of education system irrespective of level of education. It makes teaching and learning process successful. Education is noted to be an effective instrument par excellence for affecting national and global development irrespective of the economic sector. It plays a veritable role in the communication process of its norms and values from one generation to another.

Education, whether formal or traditional exist in every society. However, the history of school plant could be traced to the era of formal system of education. It equally changes with the system of education even though such other facilities like money and human resources are required. It is one of the matters of inheritance, which nation can provide to its citizen. Without any doubt it is one of the wise decision or investment for a nation. This is the reason why anyone should not tolerate any violence or loophole of education system. Educational system can be made smooth through proper infrastructure. According to Cotton (2001), fresh air, sufficient light and secure environment facilitates the success of education. There are many factors exists which effect recital of students including social as well as economic status, involvement of parents and school building etc. school activities help to enhance performance of students. Along with increase in number of schools’ quality of education has become a question (Okeke, 2009). As time is going on quality of students has become a question marks as many assessments have resulted as a failure attempt. To meet proper objective of education, standard need to be improved. Steward (2006), has mentioned about many factors like qualification teachers, infrastructure of schools’ which effect performance of students.

1.1. Statement of the Problem
Every school suffers from severe problem without proper infrastructure. It is a well-accepted fact that students’ performance suffers a lot due to improper infrastructure of schools. Kaduna state of Nigeria has many types of variations in case of their students’ recital. Many studies are there to find out factors behind this. One common factor: improper infrastructure has been highlighted in many studies. Here the main focus has been placed to find out factors affecting performance of students in Kaduna state, Nigeria.

1.2. Purpose
To understand the objective of this study following are the main objectives:

- The impression of school amenities on academic recital on schoolchildren in Kaduna state.
- How school constructions in pitiable form lead to abridged education among schoolchildren in Kaduna state.

1.3. Research Questions
Following section represents the major research questions which can be answered from this study:
• Do schools with proper teaching facilities and without proper teaching facilities establish any difference for students in terms of their academic performances?
• What are the different types of constraints a school can face with improper facilities?

2. Influence of School Amenities on Students’ Academic Recital

School facilities play a vital role for achieving goals (Jacoby, 2004). Building, apparatus, textbooks are important component of framework of school. Human resources represent personnel employed in the school including teachers and the administration staffs etc. Without this no school can operate better even if it has best facility. Buildings, the libraries, chairs, books, chalkboards, sports field environment are the physical resources which provide comfort to school, organization, country or an individual.

Safe and secured infrastructure, sanitary facilities, environment including visual, thermal create provision for learning and mental development among students (Smith, 2000). Supportive and friendly environment facilitates teaching and learning process. Nowadays academicians are emphasizing on importance of proper facilities in school. It has been highlighted in many studies that for a school administrator the main responsibility is to look after every child such that they can get proper facilities along with quality education. Proper infrastructure ensures effective learning, teaching and controlling facilities in school premise. It has been observed by Hale (2002) that 19-25% hike in performance can be noticed among students if the teaching-learning process takes place in a classroom with large window. Hunter (2006) mentioned that not only classroom but also the behavior of staff affects students. According to Bullock (2007), age of the building and the window positively affect the achievement of students.

Age, the design and the conditions of the school effect students’ achievement (Brome, 2005). School plant played a noteworthy role in directing the task of teaching and learning Instituting an operative teaching and learning, constituted ample speculation of public funds over its expansion and upkeep by the administrators.

Dare (2010) defined school facilities as all the available assets of a school that can be used to foster and facilitate effective teaching and learning as well as to protect the physical well-being of the occupants. The school plants are the physical expression of the school curriculum. That is, the school curriculum determines to a large extent the nature of school plant to be erected and the purpose it will serve. School facilities are expected to be adequately and carefully planned, developed and maintained in order to ensure their relevance to the school curriculum and towards effective teaching and learning in educational institutions. Well designed and functional school buildings with a wide array of teaching aids therefore provides effective delivery of the school curriculum and are positively related to students’ academic performance.

In Kaduna state and Nigeria, dilapidated blocks of classrooms, inadequate books and furniture in government owned schools and private schools are the order of the day. This have become a source of worry to parents and teachers in Kaduna state and Nigeria as a whole. Students in both primary and secondary schools have to scramble for few school facilities, a development that has often affected the quality of teaching and learning. It was gathered that due to the limited or no school facilities, students perform below expectation in all major examinations, including standardized examination like NECO and WAEC. This was the reason why the Kaduna state government released a “counterpart funding” in 2011-2014. With the full release of counterpart fund, contracts were awarded for the construction, rehabilitation of schools, construction of examination halls, libraries, supply of science laboratories, furniture across the 23 local government areas of Kaduna state (Daily trust, 2014).

It is evident that enthusiasm and demand for quality education is high in the state and country at large but, supply of facilities in schools are grossly inadequate. It is also clear that education in schools presently is under-funded, neglected and characterized by infrastructural decay, shortage of classrooms and toilet facilities, inadequate space, lack of instructional materials, absence of ICT aided facilities and most importantly, inadequate teachers and teaching capacity. This has lowered the performance of both students and teachers, as motivation is absent.

3. Components of School Facilities

According to (Barron, 2000) there are three (3) major components. These are

- Infrastructural facilities
- Instructional facilities
- School physical environmental

3.1. Infrastructural Facilities:

These includes buildings such as administrative block,( which comprises, the principal’s office, vice principal and staff rooms, classroom) laboratory, sick bay, music room, typing pool, school gymnasium, cafeteria, security post, school farm, sport field, school shop, storage house, computer room, language laboratory, constant water supply etc.(Bimler, 2009).

3.2. Facets of Infrastructural Facilities

There are three major facets that buildings in schools should have. They include

3.2.1. Acoustic and Noise

Teachers’ and students’ performance are being greatly affected through noise. Disappointment and strain to both teachers and students are the prominent outcome off this. Studies revealed that classrooms with less external noise leads
to greater student engagement and achievement compared to schools with classrooms having more noise. Students’ outcomes can be improved by school building with less outer noise.

3.3. Air Quality

Indoor Air quality plays a major role when it comes to students who are having asthma or similar pulmonary diseases. It also causes absenteeism among students—which is known as “Sick Building syndrome”. Poor airing system causes bacteria, viruses and allergies. Need not to mention this affect performance.

3.3.1. Classroom Size and Space

Students aggression level gets increased when the school or the classroom is over-crowded, which in turn directly affects the engagement of the students and as a result their level of learning gets decreased. Alternatively, classrooms with ample space are more conducive for providing appropriate learning environment for students. School facilities especially the infrastructural (building) facilities ought to have these facilities to enhance effective teaching and learning among the teachers and students.

3.3.2. Instructional Facilities

These are teaching materials and equipment and comprise of laboratory equipment, introductory technological equipment, wall clocks, televisions, radio, V.C.D plates and players, pianos, flutes, chalkboard, cardboards, apparatus for science practical, models, pictures and charts, etc.

3.4. The Constituent of School Physical Environment

This includes; building and spacious parking lot, playground, sport field, agricultural farm, fire extinguisher, school bus etc. Also, school facilities include mechanical material like technological machines, generators, photocopiers, computers, plumbing materials like water taps, electrical telecommunication like speakers, security network and fire suppression system.

3.5. Importance of School Facilities

How teachers’ and students’ result are being affected by school facilities has been highlighted by a study of Toria (2003). School amenities mark allocation, preservation, vow and exertion. Attitude, commitment and growth are being affected by amenities. This is the logic why improper adequate amenities and resources creates problem for students.

3.6. Needs for Proper School Facilities in Schools

Ariyo (2008) stated that School facilities are designed to serve specific purposes in a school system. There are so many types of facilities which stimulate teaching and learning. They are used to;

- Illustrate concept
- Provide opportunity for the hand experience
- Helpful in better school administration and organization
- Protect the individual and also ensures safety in school and also provide comfort
- Provide diversity of thoughts
- Helpful in the all-round development of the personality of the students
- For scientific investigation and discovery
- For experimentation and demonstration
- Boost the teachers’ morale. Since the facilities they require are available, they would put in their best thereby giving the students the best.
- Beautify the environment thereby encouraging parents to enroll their wards and this increases the desire to learn.

4. Theoretical Framework

4.1. The Environmentalist Learning Theory (Albert Bandura)

Understanding the learning and behavior of students which are getting influenced by environment is the main logic behind environmentalist learning theory. It helps to understand how student develops and how they acquire new skills. Children through observation learning can perceive and copy behaviors of others (Albert Bandura, 2000). Julian B. (2003) also highlighted the importance of environment for development of students. His study mentioned how personality characterizes a communication of the single with his or her atmosphere. Not only environment but experiences also play a very important role for progress and erudition. If environment is not at favorable condition, child cannot learn properly. He/she cannot apply his/her maximum ability. Home or classroom, support learning and helps to acquire knowledge. According to Julian (2003) meek things can be accustomed to stimulate erudition in situation which contains;

4.1.1. Lighting

Lack of proper light creates problem for learners. Proper lighting helps to learn. Even it can create unhappiness among children.
4.1.2. Furniture Arrangement

Furniture arrangement not only affect teacher’s style but also students are suffering from lack of attention. Good layout inspires the child to discover and react to her environment causing learning. An arrangement, which offers eye contact with children is beneficial as well as create ample work place.

4.1.3. Temperature

Fluctuations in temperature disturb the concentration level of students. Care of learning environment at a base temperature offers the child the ability to learn what her internal temperature is, and how to reimburse.

4.2. Methodology

4.2.1. Participants

Participants were 100 children (65 girls and 35 boys) attending various secondary schools in Kaduna state. Participants were recruited via their classroom through partnership between researchers and administrators at the school. We obtained passive consent from parents, and active assent from students. The average age was 16.33 years.

4.2.2. Procedure

Participant completed a series of simple questionnaires during the school day in February of their senior year. Assent forms, instructions, and the questionnaire themselves were all provided and completed on students personal lap tops, which every student in the senior secondary school had.

4.2.3. Target Population

The target for the population for the study was 100 students in 10 different schools across the 23 local government areas in Kaduna state. The respondents were majorly senior secondary students of the selected schools.

4.2.4. Sample Size and Sampling Procedure

Peter (2008) defined sampling as the process of selecting a number of individuals for the study in such a way that the individuals selected represent the large group from which they were selected. This study used different sampling technique for each category of targeted population. Close ended questionnaire for the senior secondary school students from the selected schools.

4.2.5. Research Instrument

The researcher made use of self – administered questionnaire to obtain information from all selected respondents. This is because the instrument can be used for a large population simultaneously and can also provide the investigator with an easy accumulation of data. It also gives respondents freedom to express their views and make suggestions. The questionnaire for the students was in two parts. Part one was used to gather demographic data such as age, sex, and class. Part two was used to gather information on the impact of school facilities on academic performance of secondary school students in Kaduna state, Nigeria.

4.2.6. Validity of the instrument

Validity is the degree to which empirical measure or several measures of concept accurately measured the concept (Rodeo, 2005). In this study piloting was used to validate research instrument to determine accuracy, clarity and suitability of the instrument. The questionnaire was pre-tested using a sample of 8 teachers. Based on the analysis of \( \frac{\sum x^2 - (\sum x)^2/n}{(\sum y^2 - \sum y)^2/n} \) the pilot study results; rectification was made to the research instrument. Schools used for piloting were not included in the main study. Constant validity was established through consultations and discussion with the research supervisors.

4.2.7. Reliability of Instrument

Reliability refers to precision, consistency and accuracy of the research instrument. It is therefore the degree of consistency that the instrument demonstrates (Best and Khan, 2006).

The test cannot be valid if it is not reliable. The split half technique was used to establish the coefficient of internal consistency of the research instrument. (Nachmais, 2006). The method involves splitting the items are correlated using the Pearson’s product moment correlation obtained coefficient obtained between two subsets.

\[ r = \frac{\sum xy - (\sum x)(\sum y)/N}{\sqrt{\left[ \frac{\sum x^2 - (\sum x)^2/N}{\sum x^2 - (\sum x)^2/N}\right]\left[ \frac{\sum y^2 - (\sum y)^2/N}{\sum y^2 - (\sum y)^2/N}\right]}} \]

4.3. Data Analysis

The researcher edited the filled questionnaire first to inspect the data pieces and identify those items wrongly responded too, spelling mistakes in the responses and any blank spaces left unfilled by the respondents. Then the items were classified, scored and totaled. Descriptive statistics were used to analyze the response. Analysis of data was accomplished by use of appropriate tables and figures. The report was then compiled and edited by researcher before the final presentation.
Table 1: Students by Gender

| Male | Female |
|------|--------|
| 35%  | 65%    |

4.3.1. Age of Students

The students were asked to indicate their age in order to investigate their age bracket. The findings are presented in table 2.

| Age  | Frequency | Percentage |
|------|-----------|------------|
| 15 – 16 | 18        | 31         |
| 16 – 17 | 36        | 69         |
| Total   | 54        | 100        |

Table 2: Ages of Students

Data in table 2 shows that majority of the students were aged between 16 and 17 years, while the rest were aged 15-16 years. This indicates that most of the students in ss2 are between the ages of 16 – 17.

4.3.2. Analysis of the Research Questions

Data presented in this section was as a result of analyzing the research question which was set to help attain research objectives, the research questions are restated and evidence linked to their testing as presented in the subsections that follow.

| Items                                                                 | SA      | A        | D        | TOTAL |
|-----------------------------------------------------------------------|---------|----------|----------|-------|
| Proper school facilities discipline in schools                        | 92% (n=46) | 8% (n=4) | 0% (n=0) | 100%  |
| Proper school facilities creates conducive learning atmosphere        | 54% (n=27) | 38% (n=19) | % (n=4) | 100%  |
| School facilities allow for greater academic performance               | 88%(n=44) | 10% (n=5) | 2% (n=1) | 100%  |

Table 3: Impact of School Facilities on the Academic Performance of Secondary School Students

The data shows that 92% of the students strongly agreed that school facilities promote discipline, 8% agreed and 0% disagreed. 54% strongly agreed that school facilities promote conducive atmosphere, 38% agreed and 8% disagreed. 88% strongly agreed that school facilities allow for greater academic performance, 10% agreed and 2% disagreed.

| Items                                                                 | SA      | A        | D        | TOTAL |
|-----------------------------------------------------------------------|---------|----------|----------|-------|
| Students are taught without certain important materials.              | 90% (n=45) | 10% (n=5) | 0% (n=0) | 100%  |
| Lack of facilities allows for truancy in schools                      | 85% (n=45.5) | 15% (n=4.5) | 0% (n=0) | 100%  |

Table 4: Problems Facing Schools Lacking Facilities

The findings showed that 90% of the students strongly agreed that they are taught without materials, 10% agreed and 0% disagreed. 85% of the students also strongly agreed that lack of facilities can bring about truancy, 15% agreed and 0% disagreed.
Figure 1

Figure 2

Figure 3

Figure 4
5. Discussion of the Findings

The findings revealed that schools with proper school facilities provide concrete learning which improve academic performance and also improve the punctuality rate of students. The study also revealed that proper school facilities help to promote discipline among students. There is this believe that when students find themselves in beautiful classrooms with appropriate materials they tend to behave to the standard of the classroom. The findings also revealed that schools having problems with provision of proper school facilities most times have problems with concrete lesson delivery. The study also shows that rough and absence of important facilities exposes students to indiscipline and perpetual truancy.

6. Conclusion

The school facilities are an important aspect of school business and also a valuable aspect of the educational institution because children cannot get desired benefit from the school. When children are not housed properly, if they do not have a playground, if they are taught in an unsafe environment or if the entire equipment provided are obsolete and of poor quality, teaching and learning will be ineffective.

Inadequate or lack of good school facilities can limit educational programmes but when properly planned and made available, it can only enhance day to day learning process at the same time, allow for the introduction of technology in education in any school. Therefore, it promotes effective school climate and management. It enhances quality teaching and learning and boosts teachers’ and students moral. So it is clear to say that school facilities have great impact on the academic performance of secondary school students. Therefore, school administration with the help of parents and the government should ensure that only schools with equipped facilities will be allowed to operate or function.

7. Recommendation

To successfully address the issue of the impact of school facilities on academic performance, the researcher made the following recommendations:

- Government at all levels and private school owners should ensure that modern facilities are available and also ensures the usage to improve academic performance.
- Most of the facilities available are in poor state of disrepair. Hence, educational planners and school leaders should carry out extensive repairs, renovation, retrofitting and replacement of some major component.

8. Suggestion for Further Research

Based on the limitation and delimitations of the study, the researcher makes the following suggestion for further research.

- The role of principals in ensuring the proper use of available materials in schools
- The effect of proper school facilities on students discipline in schools.

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