

IMPACT OF SCHOOL FACILITIES ON THE ACADEMIC PERFORMANCE OF SECONDARY SCHOOL STUDENTS IN KADUNA STATE, NIGERIA

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Abstract: The purpose of this study was to establish the impact of school facilities on the academic performance of secondary students in Kaduna state, Nigeria. The study was guided by two objectives which included: the impact of school facilities on academic performance of students, identification that school building in poor shape lead to reduced learning. Descriptive survey design was used and the sample was 100 students which were selected from the population of 10 secondary schools from Kaduna state Nigeria. A questionnaire was used in the collection of the data for this study and descriptive statistical tool such as frequency, simple percentage and mean was used to process the data. The study found out that the inadequate or poor school facilities affects the academic performance of secondary school students and teachers negatively. The study also revealed that maintenance culture of available facilities is a major problem. Conclusion and Recommendation were also made.

Keywords: school facilities, academic performance, secondary students.

1. INTRODUCTION

The existence of any educational system at whatever level cannot be in isolation of the school plant as this had constituted one of the essential variables instrumental for effective teaching and learning process. 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.

Educationist and other well-meaning people have always maintained that education is the greatest legacy a nation can give to her citizens. There is therefore no better investment a nation could make than that in education, this is why one should not remain indifferent to the lapses on the educational system.

Good school facilities support the educational enterprises. Research has shown that clean air, good light and a small quite comfortable and safe environment are important for academic achievement (Cotton 2001).

While factors such as student socio – economic status and parental involvement are among the most important predictors of students' academic performance so also are school buildings district and state. Hence, improving school facilities offers a feasible opportunity for improving academic performance. This has brought with its attendant problems such as inadequate school facilities and consequently poor academic performance on students. Okeke (2009) acknowledged this situation when he asserted that with expansion of secondary schools in Nigeria, there has been a general cry about the

standard of education in the country as a whole. Over the years, the performance of students has fallen in examination. This is to say that academic performance of most students were very poor. To achieve these goals, a lot needs to be done in the academic performance of school systems.

Students' academic performance appears to have been affected by a myriad of factors; these factors include school facilities and teachers qualification just to mention a few (Steward 2006).

Statement of the problem

Inadequate facilities will surely affect the smooth teaching and learning process in all schools. It is known that academic performance of each student depends to a large extent on the facilities exposed to while learning but, when they are lacking some problems is faced. There are variations in the academic performance of secondary school students in Kaduna state. Researchers have been trying to find out how these variations come about and what are responsible for them. The major factor that seems to contribute to poor academic performance is inadequate provision of educational facilities in schools. The researcher tends to investigate the impact of school facilities on academic performance of students in Kaduna state, Nigeria.

Purpose of the study

In view of the problem formulated above, the general aim of the research is to determine the impact of school facilities on academic performance on secondary school students in Kaduna state. In order to realize the aim of the study, the following objectives are set namely

- The impact of school facilities on academic performance on students in Kaduna state.
- How school buildings in poor shape lead to reduced learning among students in Kaduna state.

Research Questions:

The following questions were raised?

1. Is there a relative difference in academic performance between schools with adequate teaching facilities and schools without teaching facilities?
2. What are the problems encountered by schools without school facilities?

IMPACT OF SCHOOL FACILITIES ON STUDENTS' ACADEMIC PERFORMANCE

Jacoby (2004) stated that School facilities plays a vital role in the actualization of educational goals and objectives by satisfying the physical and emotional needs of the staff and students of the school. Henceforth, school plant can be regarded to as everything within the school premises which include the site, buildings, equipment and all essential structures. In other words school plant is the sum total of building, equipment, textbooks including the surrounding where teaching and learning takes place. By human resources, we mean the personnel employed in the school to ensure the learning. They include the principals, the headmistress, the teachers and the administration staff. The human resources can also be seen as the greatest and most useful facilities a school can ever have, the reason being that no matter how a school is physically facilitated, if there are no human resources in it, there can be no learning invariably, there will be no school. While physical resources can be seen as those materials which can give help or comfort to school, organization, country or an individual. For example, the buildings, the libraries, chairs, books, chalkboards, sports field environment etc.

According to Smith (2000), he emphasized that the physical needs are met through provision of safe structures adequate sanitary facilities, a balanced visual environment, appropriate thermal environment and sufficient shelter space for his work and play. His emotional needs are met by creating pleasant surroundings, a friendly atmosphere and an inspiring environment for teaching and learning process.

The subject of school facilities had received great attention from the public as well as educators in recent times. According to building educational success together (BEST 2005), it was reported that the responsibility of every administrator is to ensure that every child had access to quality education with the presence of school plant that provides an educational setting that was suited for teaching, learning and effective management of facilities in schools. A study carried out by Hale (2002) revealed that students in classrooms with large windows, natural lightening and well -designed skylight were found to perform well from 19% to 25% better than their peers in classrooms without proper facilities. Not

only environmental conditions in schools affect students, but also the staff as observed by (Hunter, 2006) and this includes the inoperative heating system. The overall building condition, the age of the buildings and the windows in the instructional areas were positively related to students achievement in learning (Bullock, 2007).

It is evident in their contribution (Brome, 2005) that students' achievement depended upon the physical school facilities, its age, the design and the conditions of the school. School plant played a significant role in directing the task of teaching and learning and that of shaping students' learning process in and out of school. No doubt, school buildings as a tool for

Instituting an effective teaching and learning, constituted sizeable investment of public funds over its development and maintenance 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.

COMPONENETS OF SCHOOL FACILITIES

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

1. Infrastructural facilities
2. Instructional facilities
3. School physical environmental

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).

FACETS OF INFRASTRUCTURAL FACILITIES

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

i. ACCOUSTIC AND NOISE

Noise levels greatly affect teachers' and students' performance. In fact, excessive noise causes dissatisfaction and stress to both teachers and students. Research has shown that schools that have classrooms with less external noise are positively associated with greater student engagement and achievement compared to schools with classrooms that have noisier environment. Thus, building schools that buffer external noise from classroom can improve students' outcomes.

ii. AIR QUALITY

Indoor air quality is also a concern. Poor air quality is a major contributor to absenteeism for students with asthma and other respiratory diseases.

Research also indicates that many schools suffer from “Sick Building syndrome” which causes absenteeism and affects academic performance of students in schools. Moreover, bacteria, viruses and allergens affect childhood ventilation system as a result of poor ventilation. Classes with poor ventilation discourage teaching and learning processes, which results to students’ poor performance in academics.

iii. CLASSROOM SIZE AND SPACE

Over- crowded classrooms and schools have consistently been linked to increased level of aggression in students. Over-crowded classroom are also associated with decreased level of students engagement and therefore decreased level of learning. 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.

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. 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 includes mechanical material like technological machines, generators, photocopiers, computers, plumbing materials like water taps, electrical telecommunication like speakers, security network and fire suppression system.

IMPORTANCE OF SCHOOL FACILITIES

Toria (2003) School facilities have a profound impact on both teachers and students’ outcome. With respect to teachers, school facilities affect teachers’ recruitment, retention, commitment and effort. In respect to students, school facilities affect health behavior, engagement, learning and growth in achievement. Thus, researchers generally conclude that without adequate facilities and resources, it is extremely difficult to serve a large number of children with complex needs.

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;

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

2. THEORITICAL FRAMEWORK

The Environmentalist learning Theory (Albert Bandura)

Environmental learning theory is the understanding that the child's environment shapes learning and behavior. It is also thought that behavior and learning are reaction to the environment. This perspective encourages families and schools and educators to understand the child develops and learns new skills in reaction to items she finds around her. Albert Bandura (2000) found through observation learning, that the young child will observe and copy behaviors of others, leading to decision making skills and development.

Another that finds the environment as an important factor in learning and development of the young mind includes Julian B. (2003). His social learning concept focused on the idea that personality represents an interaction of the individual with his or her environment. Along with taking into consideration the individual's reaction to the environment, the individual's experience plays a role, too. The combination of the environment, the individual, and her reaction encourages behavior and the learning.

When the child is in an environment not conducive to learning, she will not learn to her best abilities. When the environment is altered to encourage greater learning, her educational opportunities increase. Whether in the home or classroom, creating an environment conducive and supportive of learning aids in the young mind's evolution to greater knowledge.

According to Julian (2003) simple things can be adjusted to motivate learning in your environment which include;

- **Lighting:** Dimly lit areas make reading or studying challenging for young learners. Keeping areas that are designated for play or learning well lit encourages positive learning skills and habits. Light deprivation not only affects learning but can also lead to depression in children.
- **Furniture Arrangement:** The way a space is arranged and created for learning affects those within it. In the classroom, the furniture arrangement not only reflects the teacher's style but also encourages the child to explore and react to her environment causing learning. Creating an arrangement, which offers eye contact with children is beneficial as well as creating quiet corners and work areas.
- **Temperature:** When a child too warm or cold, they may not feel motivated to learn. Keeping the learning environment at a base temperature offers the child the ability to learn what her internal temperature is, and how to compensate.

3. METHODOLOGY

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.

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.

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.

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.

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.

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 $(\sum x^2 - (\sum x)^2/n)$ $(\sum y^2 - (\sum y)^2/n)$ the pilot study results, rectification were 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.

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.

$$r = \frac{\sum xy - (\sum x)(\sum y)/N}{\sqrt{(\sum x^2 - (\sum x)^2/N)(\sum y^2 - (\sum y)^2/N)}}$$

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%

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.

Table 2: ages of students

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

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.

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.

Impact of school facilities on the academic performance of secondary school students

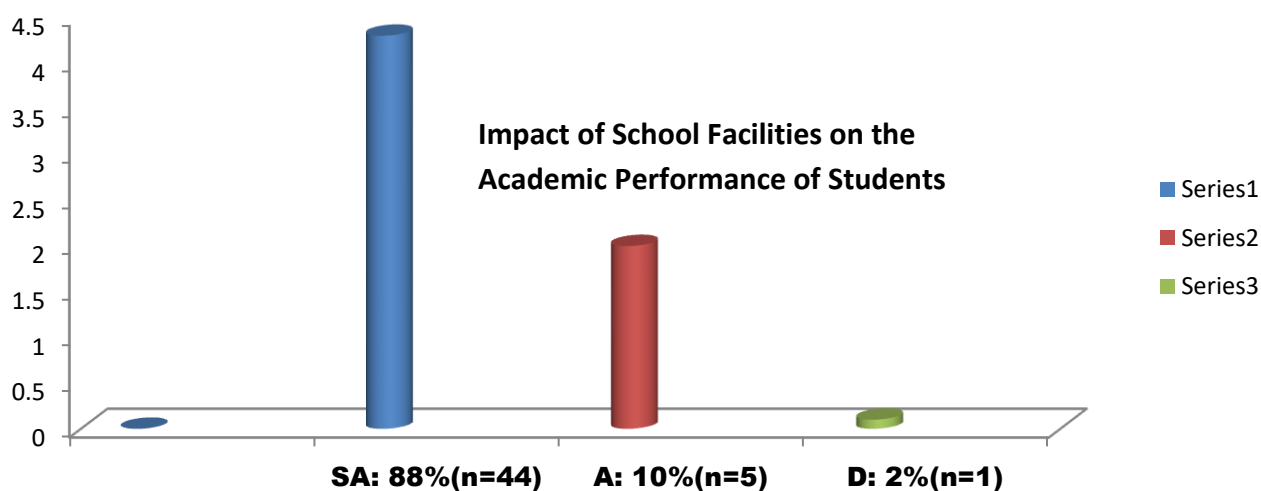
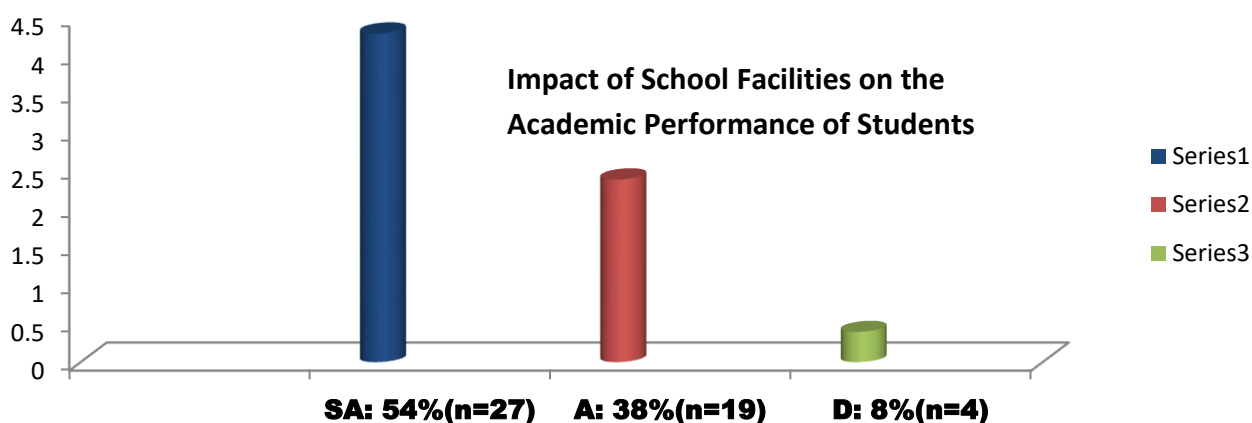
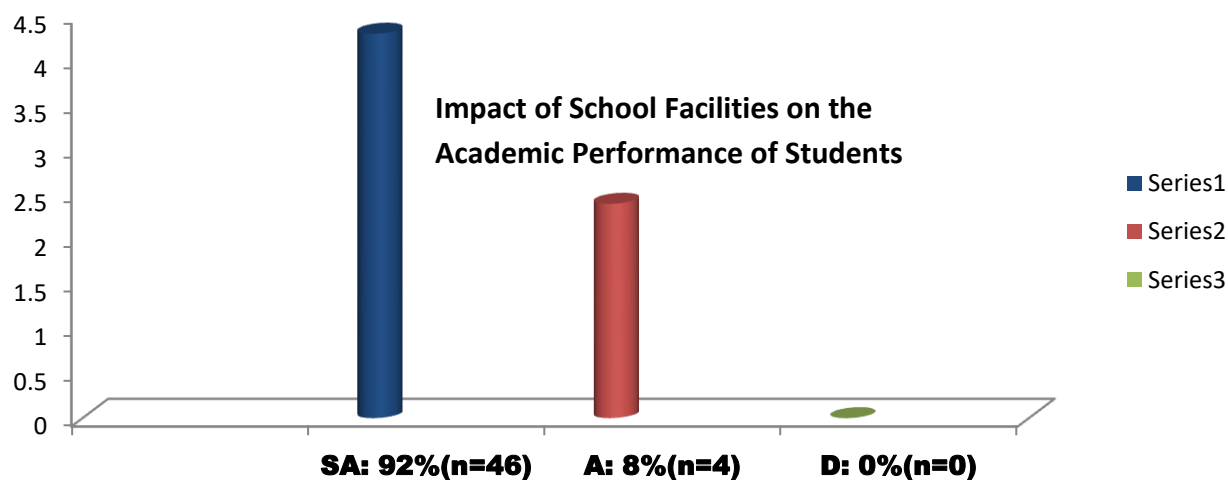
ITEMS	SA	A	D	TOTAL
Proper school facilities promotes discipline in schools	92% (n=46)	8% (n=4)	0% (n=0)	100%
Proper school facilities creates conducive learning atmosphere	54% (n=27)	38% (n=19)	8% (n=4)	100%
School facilities allow for greater academic performance	88%(n=44)	10% (n=5)	2% (n=1)	100%

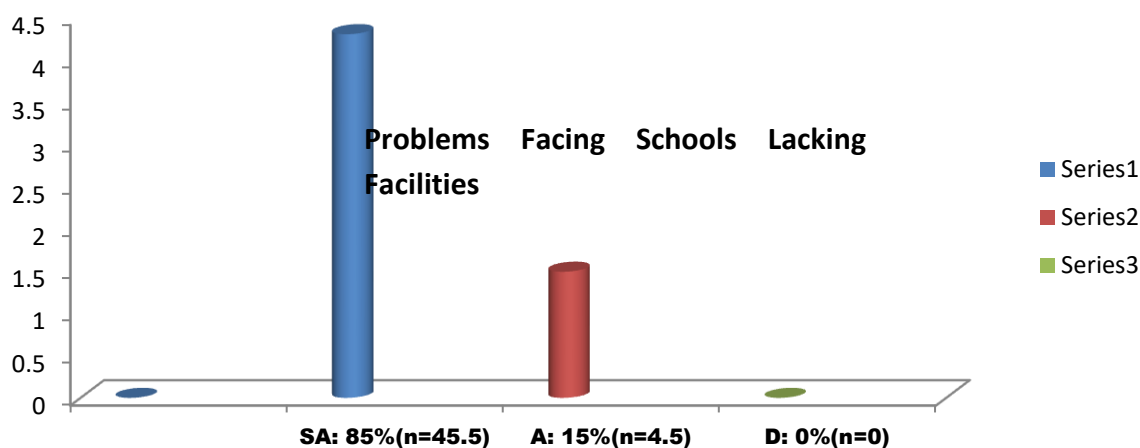
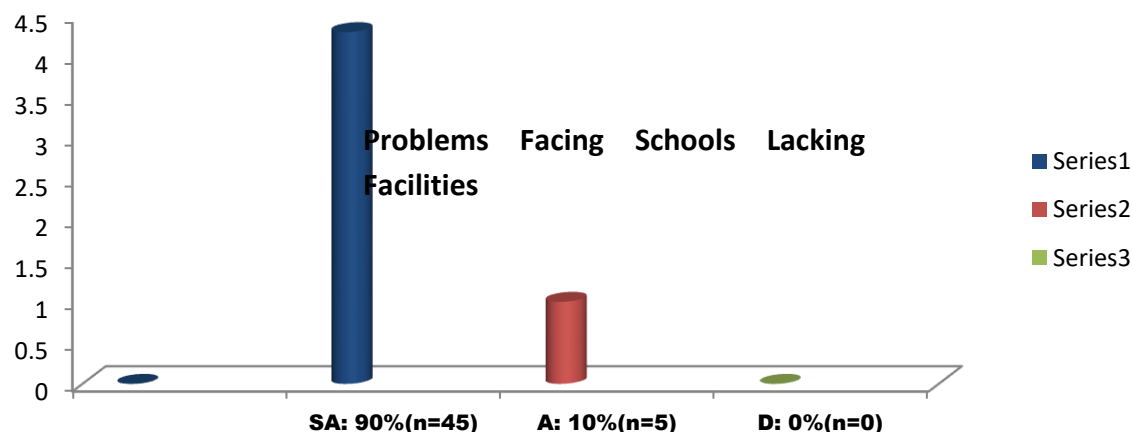
The data shows that 92% of the students strongly agreed that school facilities promote discipline, 8% agreed and 0% disagreed. 54% strongly agreed that school facilities promotes conducive atmosphere, 38% agreed and 8% disagreed. 88% strongly agreed that school facilities allow for greater academic performance,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

Problems facing schools lacking facilities

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%

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.





4. 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.

5. 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.

6. RECOMMENDATION

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

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

Suggestion for further research

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

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

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