

Effect of School Facilities Utilization on the Academic Performance of Secondary School Students in Wukari Metropolis, Taraba State, Nigeria

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Abstract. This paper investigated the utilization of school facilities as they affect students' academic performance in Wukari metropolis of Taraba State. An ex-post facto research design was adopted for the study. The population of students comprise those who completed JSS3 between 2014-2017. Data for the study were collected using a School Facility Utilization Questionnaire (SFUQ) and School Facility Provision Checklist (SFPC). The results of the student were obtained from the State Ministry of Education. The data obtained were analyzed using descriptive analysis while t-test was used to test the hypothesis. The findings revealed that 17 out of the 25 schools are inadequately equipped. The finding also revealed that there is sufficient utilization of facilities by teachers and students. It recommended that government and relevant stakeholders should ensure adequate provision of school facilities and put in place supervisory measures for their utilization.

Keywords: school facilities, utilization, academic performance, secondary school

1 Introduction

Education is an essential tool for effective and progressive changes in the society and the nation. It is also seen as an instrument par excellence that is geared toward the realization of human aspiration which is expected to lead to better human relationship, effective citizenship, national consciousness and development. The quality of education that learners received is said to depend largely on the availability of an overall school facilities in which teaching and learning takes place without which students academic performance will be in great jeopardy (Ogunsaju, 1990). School facilities are described as resources that are available to facilitate students learning outcome which comprise of books, audio-visual, software and hardware of educational technology, they also include size of classroom, furniture, libraries, chalkboards, and other instructional materials (Ajayi, 1999). This therefore highlighted school facilities as one of the cardinal aspect that influences success in the school system without which no meaningful academic achievement can be realized.

The standard of Nigerian educational system is increasingly challenged with many complex problems which seem to defy solution over the years and more serious among such problem is the gross inadequacy of quality school facilities which has contributed immensely to poor learning outcome and the issue of poor academic performance of students in Nigeria has been of much concern to the government, parents, teachers and even student themselves. In the last decade, growing numbers of studies have emerged indicating that, the school building which learners attends can positively or negatively affect their educational attainment. And one of such is Odufowokan (2011) who identified the school size, the physical environment of the facility, the age of the building, availability of laboratory, library, and aesthetics as key impacting factors on the learning and teaching process. On the other hand, many educational stakeholders have not yet realized that the surroundings and environments in which students find themselves may influence their learning process and growth in the affective, behavioural and cognitive development.

A visit to some schools in Wukari metropolis revealed that in most of the secondary schools, teaching and learning take place under an uncondusive environment lacking basic learning materials because in

some cases, students sit either on the floor or on stones to receive lessons and these deteriorating conditions might have contributed to the poor academic performance of secondary school students in Taraba State. As good as school facilities are, their adequacy alone do not guarantee high student's academic performance except where they are properly utilized. Akinsolu (2010) asserted that educational curriculum cannot be sound and well operated with poor provision, utilization and maintenance of school facilities. Olatunji, (2012) stressed that effective learning can only be achieved when the available facilities are judiciously put to use.

In a similar development, Adesina (1999) confirmed this by stressing that the utilization of quality and quantity of available educational facilities within an educational system positively correlates with the quality and standard of the educational output. He further maintained that the bridge between the utilization of good physical environment and effective student learning is quite important. Similarly, a good quality and standard of school depend largely on the provision, adequacy, utilization and management of educational facilities.

The major tasks of educational administrators include maximal utilization of the available resources in an effort to achieve the objective for which schools are established. When facilities such as classrooms, library, laboratory, teaching aids etc are available, they need to be skilfully and adequately utilized in order to influence learning and making it more meaningful. Lackney and Pious (2009) opined that the effective use of school buildings and other facilities needs careful planning and supervision

It is quite worrisome that in recent time stakeholders in the educational sector of the state and the nation at large are decrying the persistent and alarming failure in the system. Adebayo (2009) stated that the situation in the educational sector seems not to be making any headway in spite of the effort by successive government to revamp the glory of the educational system. He further captured that the level of decline in Nigerian education system by stating that "a casual visit to any public secondary school in Nigeria would reveal the extent to which the schools have decayed".

Secondary school, being a bridge between the primary and tertiary level of education is perceived as one of the main vehicle for promoting economic growth and improving living standards in developing countries. But unfortunately, the educational facilities at this level in most parts of Nigeria are in deplorable condition despite government huge allocation of funds to the educational sector. Asiyai (2012) postulated that school facilities occupies a premium place in school organization such that its impact on students achievement in any school system cannot be underrated. He further maintained that students who attend school that adequately equipped with facilities will outperformed their counterpart who attends schools that are inadequately equipped provided the available school facilities are maximally utilized.

School facilities refers to classrooms, libraries, workshops, offices, play-ground, furniture, laboratory, hostels and instructional materials which are essential for teaching and learning process that will enhance student's performance (Olagboye, 2004). Student's academic performance is seen the outcome or the extent to which school learners has achieve their educational goals. Damilola (2013) defines academic performance as student's success or failure in short or long term goals in education as determined by teachers. He further asserted that student's academic performance is said to be dependent on many variables such as the type of school, the quality of school facilities, family background, the type of leadership provided by head teachers and their qualifications. Odufowokan (2011) opined that school facilities is an important aspect of educational planning and unless schools are well built and equipment adequately provided, utilized and maintained, teaching and learning cannot be effective. He further stressed that a situation in which facilities are grossly underutilized would likely lead to mass failure in external examinations. It is therefore apparent that a high level of academic performance cannot be guaranteed where instructional spaces such as classrooms, laboratories, libraries etc. are structurally defective. Schools are therefore supposed to provide adequate learning facilities such as quality school building, and classroom size, quality furniture and instructional materials without which a potential threat may be posed on effective teaching and learning process.

Looking at the foregoing, it is obvious that the place of school facilities in bringing about quality academic achievement cannot be undermined. It is on this premise that the researcher decided to carry out this research in a bid to proffer solutions to the menace of declining quality of the educational system in the state and Nation at large. In this study the facilities that will be discussed will only include: classrooms, ICT facilities, libraries, furniture, laboratories, and instructional materials which appear to have more direct influence on learner's performance.

2 Statement of the Problem

The deteriorating academic performance of the students in Wukari metropolis is revealed in their poor performance particularly in Basic Education Certificate Examination (BECE) and other external examinations between 2014-2017. Despite of the effort by successive government to arrest the situation by investing greatly in terms of funding, teachers recruitment and development as well as improved condition of service. This is of great concern to the researcher because this may be linked to the absence and poor utilization of the required school facilities in most secondary school of the state.

Regrettably, there are situation where facilities are provided in schools but are not put to use by students simply because they are either locked up in a store, in the principal's office or kept in a teacher's house. The poor academic performance and mass failure in secondary schools examination may not be unconnected with poor school facilities in the school and under-utilization of the facilities. The situation in Wukari metropolis is highly regrettable as it denotes an enormous set back to the secondary schools and formed the basis for this study.

3 Research Questions

This research is guided by the following research questions.

1. To what extent is the level of availability and adequacy of classrooms, libraries, laboratories, ICT facilities, furniture, and instructional facilities in the secondary schools of Wukari metropolis?
2. To what extent is the level of utilizations of classrooms, libraries, laboratories, ICT facilities, furniture, and instructional facilities in the secondary schools of Wukari metropolis?
3. To what extents will the performances of students who attended schools where facilities are well utilized differs from those who attended schools facilities are not well utilized?

4 Hypotheses

In other to achieve the objective of this research the following Research Hypotheses have been raised to guide study.

1. There is no significant difference between the mean scores of the performance of students who attended schools where facilities are well utilized and those who attended schools facilities are poorly utilized
2. There is no significant difference between the mean scores of the performance of students who attended Private school and those who attended Public school in Wukari metropolis.

5 Theoretical Framework

This study is based on Systems theory of Ludwig Von Bertalanffy (1946) which provides an analytical framework for viewing an organization in general description of an organism and holds that living organisms such as animals are affected by their environment. According to him, a workplace environment (an organization) receives resources such as equipment (facilities), natural resources, and the work of employees known as inputs. These inputs are therefore processed /transformed in the course of interaction, and then yield products or services called outputs which are released into the society. This theory is underpinned by the idea that a school facility (a component of school system) is indispensable to educational success and quality performance. Hence it also facilitate the synergy between the various school components in providing conducive learning environment that serves as a motivating tool through which quality academic performance of students will be achieved.

The theory is therefore relevant to this study because no society is void of interdependency and environmental influence. The interaction between the utilization of school facilities such as the classrooms, libraries, laboratories, ICT facilities, furniture, and instructional facilities with other school environmental variables like the school leadership style, student's home background, teachers qualification and competency will play a vital role in determining students change in behaviour and as well their academic achievement.

6 Methodology of the Study

The study adopted the use of ex-post facto design also known as causal comparative design. This design is put to use when the phenomenon under investigation have exerted its effect on another variable. The population for the study is 5,272 comprising of all the JS3 students that graduated between the years 2014-2017 in all the secondary schools of Wukari Metropolis. The 2017 statistics available at the State Ministry of Education has it that 25 schools have graduated JSS3 students as from the year 2014. The total number of public and private schools are 9 and 16 respectively. The sample for the study consists of 10 secondary schools as proportional stratified. Six (3) and fourteen (7) schools were selected by random sampling from adequately equipped and inadequately equipped schools respectively. This grouping was determined by the use of observational tool (Checklist) developed by the researcher.

The study adopted stratified sampling techniques as a means of obtaining a sample by dividing the population of the sample unit into groups and then selecting a sample randomly from each stratum. The teacher and their students were randomly selected to give their response on the questionnaire of facilities utilization. A structured observational tool (known as School Facility Provision Checklist-SFPC) was developed by the researcher to determine the level of facility availability of in the sampled schools. A School Facilities Utilization Questionnaire (SFUQ) was used to elicit response from teachers and students who belonged to schools that are adequately equipped in order to determine the extent of utilization of the observed available facilities. Two statistical techniques of analyses were used in this study; Mean was used to analyze the research questions where the mean midpoint of 2.5 was used to determine the outline of responses of the respondents on facilities utilization while T-test was used to test the hypotheses at 0.05 level of significance.

7 Results and Discussions

Research question 1: To what extent is the level of availability/adequacy of classrooms, libraries, laboratories, ICT facilities, furniture, instructional facilities, school halls, in the secondary schools of Wukari metropolis?

Table 1. Percentage response on the extent of facilities Provision/availability

Category of facility	No of school	Percentage of availability
Adequate facilities	8	32%
Inadequate facilities	17	68%
TOTAL	25	100%

Table 1 shows the percentage of the information gathered by observing the level of availability and adequacy of school facilities such as the classrooms, libraries, laboratories, ICT facilities, furniture, instructional facilities, school halls, and the Health facilities in the secondary schools of Jalingo metropolis. The observation and rating revealed that 8 schools out of 25 are adequately equipped with facilities which represent 32% while 17 schools out of 25 were observed to be inadequately equipped which represent 68%. This means that the level of the availability and adequacy of school facilities in Jalingo metropolis is very poor.

Research question 2: To what extent is the level of utilizations of classrooms, libraries, laboratories, ICT facilities, furniture, and instructional facilities in the secondary schools of Wukari metropolis?

Table 2 shows the mean score of the information gathered on the extent which classrooms are utilized by teachers and students. The Cluster mean of the entire four items shows 3.13 which implies that there is effective utilization of classrooms by teachers and students.

Table 3 shows the mean score of the information gathered on the extent which laboratories are utilized by teachers and students. The Cluster mean of the entire four items shows 2.72 meaning that there is effective utilization of laboratories by teachers and students.

Table 2. Mean \bar{X} response on Extent of utilizations of classrooms

Statement	Rating				\bar{X}	Decision
	SA	A	D	SD		
1 Classrooms are always used for lesson delivery by teachers	82	68	23	17	3.13	Agreed
2 Teachers are always available in class to teach guide the students on how to use and maintain the floor, doors, etc.	72	74	29	15	3.08	Agreed
3 Classrooms are available for teachers and students use even after school hours.	90	65	18	16	3.20	Agreed
Cluster mean					3.13	

Table 3. Mean \bar{X} response on Extent of utilizations of Laboratory

Statement	Rating				\bar{X}	Decision
	SA	A	D	SD		
1 There is time for the use of the laboratory for science practical on the school time table	62	73	34	21	2.93	Agreed
2 Students are allowed to use the laboratory only prior to examination	31	16	89	54	1.79	Disagreed
3 The laboratory facilities are always available for teachers and students use even after school hours.	73	87	42	13	3.44	Agreed
Cluster mean					2.72	

Table 4. Mean \bar{X} response on Extent of utilizations of Library

Statement	Rating				\bar{X}	Decision
	SA	A	D	SD		
1 School librarian are always available guide the students on how to use of the Library materials.	72	65	37	16	3.02	Agreed
2 Library facilities are available for teachers and students use even after school hours.	32	95	34	29	2.68	Agreed
3 Students are allowed to borrow library books/materials for their personal use.	54	59	38	36	2.66	Agreed
Cluster mean					2.79	

Table 4 shows the mean score of the information gathered on the extent which libraries are utilized by teachers and students. The Cluster mean of the entire four items shows 2.79 which implies that there is effective utilization of libraries by teachers and students.

Table 5. Mean \bar{X} response on extent of utilizations of furniture

Statement	Rating				\bar{X}	Decision
	SA	A	D	SD		
1 Furniture such as tables, chairs, desks are adequately provided for students use in school halls classrooms, library etc.	47	79	38	26	2.77	Agreed
2 Students are allowed to use furniture after school hour for personal studies and extra lessons as need arise.	41	94	29	26	2.81	Agreed
3 The number of students in each class is are commensurate to the available furniture	39	66	39	47	2.52	Agreed
Cluster mean					2.70	

Table 5 shows the mean score of the information gathered on the extent which furniture are utilized

by teachers and students. The Cluster mean of the entire four items shows 2.70 which implies that there is effective utilization of furniture by teachers and students.

Table 6. Mean \bar{X} response on extent of utilizations of ICT facilities

Statement	Rating				\bar{X}	Decision
	SA	A	D	SD		
1 ICT facilities such as computer hardware devices e.g. desktop, laptops, etc. are available in the school.	63	85	23	19	3.01	Agreed
2 Students are allowed to use ICT facilities only prior to examination.	24	27	96	43	2.20	Disagreed
3 ICT Instructors are always available to guide the students on how to use of ICT facilities.	43	89	38	20	2.82	Agreed
Cluster mean					2.68	

Table 6 shows the mean score of the information gathered on the extent which ICT facilities are utilized by teachers and students. The Cluster mean of the entire four items shows 2.68 which implies that there is effective utilization of ICT facilities by teachers and students.

Table 7. Mean \bar{X} response on extent of utilizations of Instructional facilities

Statement	Rating				\bar{X}	Decision
	SA	A	D	SD		
1 Instructional aids such as textbooks, pictorial, diagrams, flip chart, are not adequate for effective teaching and learning	12	26	90	62	1.93	Disagreed
2 Teachers usually create time for the use of Instructional aids during lesson delivery	54	84	36	16	2.68	Agreed
3 Students are allowed to make use instructional facilities for personal studies after school as need arises.	75	63	29	23	3.00	Agreed
Cluster mean					2.53	

Table 7 shows the mean score of the information gathered on the extent which Instructional facilities are utilized by teachers and students for effective learning in school. Four items were also generated to obtain the views of the respondents on the research question. The Cluster mean of the entire four items shows 2.53 which implies that there is effective utilization of instructional facilities such as, textbooks, chalk, pictorial diagrams, flip chart etc.

Hypotheses One:

There is no significant difference in the mean scores of the performance of students who attended institution where facilities were adequately utilized and those who attended school facilities where facilities were poorly utilized.

Table 8. T-test of performance of students where facilities are adequately and Poorly utilized

Group	N	X	SD	df	t	p-value
Adequate Utilization Performance	12	85.71	5.94	18	10.96	0.00
Poor Utilization performance	8	87.00	6.15			

$P=0.00 < 0.05$. Reject Ho1

Since the *p-value* (0.00) is less than the level of significance(≤ 0.05), reject Ho1: Hence the null hypothesis is rejected and therefore concluded that there is significant differences between the performance mean score of the students schools where facilities are adequately utilized and where facilities are poorly utilized.

Hypotheses two:

There is no significant difference between the mean scores of the performance of students who attended Private school and those who attended Public school in Wukari metropolis.

Table 9. T-test of performance of those who attended Private school and Public school

Group	N	X	SD	df	t	p-value
Private School Performance	12	85.71	5.94	18	-312	0.763
Public School Performance	8	87.00	6.15			

$P=0.00 < 0.763$. Accept Ho2

Since the *p-value* (0.763) is greater than the level of significance (≥ 0.05), accept Ho2. Hence the null hypothesis is accepted and therefore concluded that there is no significant differences between the performance mean score of the students from private schools and public schools that are adequately utilized.

Implications of the Results of the Study

The results of the findings from table 1 revealed that the level of adequacy of school facilities such as the classrooms, libraries, laboratories, ICT facilities, furniture, and instructional facilities in the secondary schools of Wukari metropolis. The observational and rating scheduled revealed that 8 schools out of 25 are adequately equipped with facilities which represent 32% while 17 schools out of 25 were observed to be inadequately equipped which represent 68%. This means that the level of the availability/adequacy of school facilities in Wukari metropolis is very poor. It also implies that most of the secondary schools are inadequately equipped.

The findings from table 8 which is t-test revealed that since the *p-value* (0.00) is less than the level of significance (≤ 0.05), reject Ho1: Hence the null hypothesis is rejected and therefore concluded that there is significant differences between the performance of the students from schools where facilities are adequately utilized and those from schools where they poor utilized. This is in agreement with the view of Asiyai, (2012) which holds that Students who attend school that adequately equipped with facilities will outperformed their counterpart who attend schools that are inadequately equipped provided the available facilities are maximally utilized.

The findings from table 9 shows that since the *p-value* (0.763) is greater than the level of significance (≥ 0.05), the null hypothesis is accepted and therefore concluded that there is no significant difference between the mean scores of the performance of students who attended Private school and those who attended Public school in Wukari metropolis. This agrees with the view of Marc, Ping and Winnie (2015) which affirmed that private high school students will not outperform their public school counterparts in the academic arena if they are exposed to the same kinds of learning environment.

8 Conclusion

Based on the findings of the study, the following conclusions were made:

- i. There is a positive relationship between the school facilities provision and students achievement in Wukari metropolis of Taraba state and is responsible for the increase in poor academic performance of students over the years.
- ii. There is sufficient utilization of classroom, ICT facilities, health care facilities, laboratories, instructional and library facilities by teachers and students and have positively influenced the performance of students of secondary students Wukari metropolis.
- iii. Most schools in Wukari metropolis are in a poor state of disrepair and lacked facilities that help to effectively run teaching and learning activities. as information obtained from the data gathered showed school facilities such as: classrooms ICT facilities, library, laboratory services, instructional materials, and others are grossly inadequate and this in turn have a negative impact on teaching learning activities.
- iv. The poor utilization of school facilities and other instructional materials has exceedingly affected the teaching learning process in Wukari metropolis.

9 Recommendations

Based on the findings of the study, the following recommendations were made:

- i. One the issue of the level of availability of classrooms, libraries, laboratories, ICT facilities, furniture, and instructional facilities in the secondary schools. It was observed that there is positive relationship between the school facilities utilization and students achievement. It is therefore recommended that government should ensure that available facilities are adequately utilised in schools in order to offers a practical opportunity for improving academic performance since it has direct bearing on teaching-learning process.
- ii. Government and other relevant stakeholders should therefore put in place all required supervisory measures to ensure there is maximum utilization of the available school facilities.
- iii. Furthermore, In-service training should be provided so that teachers can have the knowledge to operate and utilize the modern instructional facilities.
- iv. On the issue of whether there are differences in the academic the performances of students who attend schools where facilities are adequately utilised and those who attended schools where facilities poorly utilised. The results obtained from the Ministry of Education revealed that students from schools where facilities are adequately provided and utilised have better academic performance than those who attended schools facilities are poorly utilised. It is therefore recommended that the available facilities should be maximally utilised in all public schools and grants should be given annually to private schools to aid in funding there programs.
- v. It was observed that students performance will greatly improve whether in Private or Public schools provided facilities are well maintained and adequately and maximally utilized.

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