

INFLUENCE OF SCHOOL FACILITIES AND TEACHER EFFECTIVENESS ON STUDENTS' ACADEMIC ACHIEVEMENT IN SENIOR SECONDARY SCHOOLS IN BENUE STATE, NIGERIA

James Sarwuan Uveryol

Community Secondary School,
Makurdi, Benue State, Nigeria

Nyishima Demvihin Abachi

School for the Gifted and Talented,
Makurdi, Benue State, Nigeria

Rose Uregwu Ominyi

Department of Educational Foundations,
Benue State University, Makurdi.

James Shir

University of Mkar, Business School,
Makurdi.

Abstract

The study investigated influence of school facilities and Teacher Effectiveness on Students' Academic Achievement in Senior Secondary Schools in Benue State. The study adopted the survey design specifically of the descriptive type. The population of the study covered all public Secondary Schools in Benue State. The sample was made of 126 public Secondary Schools in Benue State. Two research questions were answered and two hypotheses were tested in the study. Three instruments were used for data collection titled School Facility Descriptive and Teacher Effectiveness Questionnaire for Teachers (SFDTEQ), School Facility Descriptive and Students' Academic Achievement Questionnaire for Principals (SFDSAAQ) and Document Analysis Proforma. Simple percentage was used for answering research questions while hypothesis one was analyzed using Pearson's Product Moment Correlation Coefficient Statistical tool and hypothesis two was analyzed using chi square statistics at 0.05 level of significance. Findings of the study revealed that school facilities were lacking in Senior Secondary Schools in Benue State. This finding has implications for the Government of Benue State, to equipped Senior Secondary Schools with functional facilities to enhance effectiveness of Teachers and Students' Academic Achievement. Based on the findings, the study recommended that facilities such as laboratories and equipment, libraries, visual aids and workshops should be provided in Senior Secondary Schools in Benue State for effective teaching and learning.

Key words: School Facilities, Teacher Effectiveness, Students' Academic Achievement, Senior Secondary Schools,

Introduction

Education is a veritable instrument for the development of any nation. Secondary education in particular is universally acknowledged as a fundamental stage for progression to higher education. The quality of higher education depends upon the quality achieved at the secondary school level. Therefore, it is imperative to pay proper attention toward secondary education and revolutionary steps should be taken to make it more effective, successful and productive.

In Nigeria at large and Benue State in particular, secondary schools are expected to function in compliance with the achievement of the national education objectives. To this end, students are expected to achieve high performance in the final examination as this determines the quality of output of secondary schools. This is one of the parameters used to measure the effectiveness of the school system. The better the achievement of the students; the more effective the system is assumed to be (Philiat & Wanjobi 2011).

School facilities provided in a school to properly accommodate teachers and learners facilitate the teaching and learning that go on there (Alimi 2007). Therefore, school facilities are the space interpretation and physical expression of the school curriculum. In a related study Cynthia and Megan (2008) confirmed a strong and positive relationship between quality of school facilities and students' achievement in English Language and Mathematics.

The rate of poor academic performance of students in Nigeria had resulted to economic and social wastages and this has become a great concern to all stakeholders in education. According to Okpala (2010), at the national level, the percentage of candidates that had credits in English Language and Mathematics between 2013 and 2016 are as follows: 38.30% in the year 2013, 31.28% in 2014, 38.68% in 2015 and 52.97% in 2016. The situation in Benue State, which is the focus of this study is not different as the percentage did not exceed 34% between 2015 and 2016. This is a pointer to the fact that all is not well with the students attainment in the cognitive domain.

The consequence of mass failure in public examination is the inability of learners to proceed to higher educational institutions. As a result of this poor performance, stakeholders in education are curious to know the causal factors associated with the problem. The causes of poor academic performance could include inadequate facilities which result into poor teaching. School facilities can be categorized into two types: Permanent and semi-permanent structures, for example laboratory equipment, teachers' tools, machinery, teaching aids and consumables (Oduyemi 2000). Akomolafe and Adesua (2016) stated that school facilities range from blocks of classrooms, libraries, workshops, laboratories, equipment, electricity, water, desks, chairs, audio-visual and visual aids, toilets and storage space that would likely motivate students toward learning. Asiabaka (2008) on his part classified school facilities into two types namely facilities for academic and non-academic. Examples of non-academic facilities are games and sports, farms and gardens. Other non-academic facilities according to Asiabaka include information and Communication Technologies (ICT), Toilets, transportation and securities. He further stated that the purpose of providing a decent facility at school is to enhance the learning activity and it is a booster to increase students' achievement.

On the contrary, experience shows that insufficient physical facilities lead to some negative effect on students' interest to learn hence their academic achievement is adversely affected. It is observed that students have low achievement when they are not having access

to standard facilities such as library equipment and inadequate seats in the classrooms (Akomolafe & Adesua 2016). Therefore, all of these physical facilities would have influence on the effectiveness of teaching and learning process.

School facilities are very important in the development and improvement of education in Nigeria. A school without good facilities may not be able to achieve the stated goals and objectives of the system. When facilities are available and skillfully utilized, they influence learning and make it more meaningful. Facilities in education are very vital because they aid teaching and learning. To this end, the purpose of this study is to determine the influence of school facilities and teacher effectiveness on students' academic achievement in Senior Secondary Schools in Benue State. The study was delimited to public Senior Secondary Schools in Benue State and school facilities as they influence teacher effectiveness and students' academic achievement in Senior Secondary School Certificate Examination conducted by West African Examination Council (WAEC) and National Examination Council (NECO) respectively.

Statement of the Problem

Stakeholders in education including parents have condemned the poor academic achievement of students in external examinations (WAEC & NECO) respectively. Analysis of May/June West African Senior School Certificate Examination in 2015 and 2016 in Benue State revealed that the total number of candidates that obtained credits in five (5) subjects including English Language and Mathematics was 34%.

The implication of this is that the students who drop out of these schools due to inability to obtain the prerequisite five (5) credits and above including English Language and Mathematics to gain admission into tertiary institutions could easily become societal vices such as banditry, cultist, drug addicts, kidnappers and prostitutes which are detrimental to societal well being.

The reasons for poor achievement range from non-availability of school facilities to poor teaching. Therefore, the problem to which attention would be directed in this study is to what extent school facilities influence teacher effectiveness and academic achievement of students in senior Secondary Schools in Benue State. In view of the background and statement of the problem, two research questions and two hypotheses were generated for the study.

Research Questions

The following research questions have been asked to guide the study.

1. What is the influence of school facilities on teacher effectiveness in Senior Secondary Schools in Benue State?
2. What is the influence of School facilities on Students' academic achievement in Senior Secondary Schools in Benue State?

Hypotheses

The following hypotheses have been tested in the study.

1. There is no significant relationship between school facilities and teacher effectiveness in senior secondary schools in Benue State.
2. There is no significant relationship between school facilities and students' academic achievement in senior secondary schools in Benue State.

Research Method

The survey design of the descriptive type was used for the study. The researcher collected information that described the level of school facilities and teaching situation in public Secondary Schools in Benue State.

The population consisted of all the 314 public Senior Secondary Schools and 5444 Teachers in Benue State. The sample was made up of 126 public Senior Secondary Schools with 2178 Teachers. The sampling technique used to select the sample was proportionate stratified sampling technique. Three instruments namely School Facility Descriptive and Teacher Effectiveness Questionnaire for Teachers (SFDTEQ), School Facility Descriptive and Students' Academic Achievement Questionnaire for Principals (SFDSAAQ) and Document Analysis proforma were used.

The questionnaire items were face validated to ascertain its suitability for use in data collection by one expert in the field of test and measurement. The language, content and structure of the items were critically examined and possible corrections were made. The reliability of instruments were computed using CronbachAlpha reliability statistics which stood at 0.88 for SFDTEQ and 0.85 for SFDSAAQ respectively. The completed questionnaire were decoded into statistical data and analyzed using simple percentages while hypothesis one was analyzed using pearson's product moment correlation coefficient statistical tool and hypothesis two was analyzed using chi-square (x²) statistics at 0.05 level of significance.

Results

Research Question 1:

What is the influence of school facilities on Teacher Effectiveness in Senior Secondary Schools in Benue State?

Table 1
Influence of School Facilities on Teacher Effectiveness

S/N	Item Statement	SA	A	D	SD	Decision.
1	Teachers in Senior Secondary schools lack chairs and tables to Prepare lessons	142(6.5%)	467(21.4%)	724(33.2%)	726(33.3%)	SD
2	Senior secondary schools in Benue State lack adequate laboratories and equipment for the teaching of science subjects	640 (29.5%)	846(38.8%)	404(18.5%)	169(7.8%)	A
3	Senior secondary schools in Benue State lack functional libraries for effective teaching and learning	643(29.5%)	859(39.4%)	341(15.7%)	216(9.9%)	A
4	Senior secondary schools in Benue State lack adequate workshops for the teaching of trade subjects	949(43.5%)	725(33.3%)	263(12.1%)	94(4.3%)	SA
5	Teachers in senior					

	secondary schools in Benue State lack adequate textbooks to prepare lessons	404 (18.5%)	684(31.4%)	718(33.0%)	253(11.6%)	D
6	Teachers in senior secondary schools in Benue State lack adequate visual aids to illustrate their lessons	846(38.8%)	755(34.7%)	103(4.7%)	355(16.3%)	SA

Findings in Table 1 revealed that 726 respondents representing 33.3% disagreed strongly that chairs and tables were lacking in Senior Secondary Schools in Benue State. However, 846 respondents, representing 38.8% agreed that laboratories and equipment were lacking in Senior Secondary Schools in Benue State. 859 respondents, representing 39.4% also affirmed that functional libraries were also lacking in Senior Secondary schools in Benue State. In the same vein 949 respondents representing 43.6% strongly agree that Senior Secondary Schools in Benue State lack adequate workshops for the teaching of trade subjects. Similarly, 846 respondents, representing 38.8% strongly agree that visual Aids to illustrate lessons were also lacking in Senior Secondary Schools in Benue State. These facilities are crucial to effectiveness of teachers in the teaching and learning process. Therefore, their lacking would impact negatively on Teachers effectiveness in the teaching and learning process in Senior Secondary schools.

Research Question 2

What is the influence of school facilities on students' academic achievement in senior secondary schools in Benue State?

Table 2 A
Influence of School Facilities on Students' Academic Achievement.

Years	Total Sat	Total passed with five(5) Credits including English and Mathematics	Percentage (%) Scores
2014	12590	4680	37.17
2015	11620	3140	27.02
2016	13740	5260	38.28
2017	11140	3170	28.46
2018	10660	3550	33.30

Table 2A showed the influence of School Facilities on Students' Academic Achievement in west African Examination Council (WAEC,2014-2018), in senior Secondary schools in Benue State (Researchers' Field Study, 2018). In 2014, the total number of 12590 candidates sat for WAEC and 4680 candidates obtained credit passes in five (5) subjects including English Language and Mathematics, which represents percentage score of 37.17. In 2015, the total number of 11620 candidates sat for WAEC and only 3140 candidates obtained credit passes in five (5) subjects including English Language and Mathematics which represents percentage score of 27.02. In 2016, the total number of 13740 candidates sat for WAEC and only 5260 candidates obtained credit passes in five (5) subjects including Language and Mathematics which represents percentage score of 38.28. In 2017, the total

number of 11140 candidates sat for WAEC and 3170 candidates obtained credit passes in five (5) subjects including English Language and mathematics which represents percentage score of 28.46. In 2018, the total number of 10660 candidates sat for WAEC and only 3550 candidates obtained credit passes in five (5) subjects including English Language and Mathematics which represents percentage score of 33.30. Generally, the percentage score of students was low, which implied that the influence was negative.

Table 2B
Influence of School Facilities on Students' Academic Achievement in NECO, 2014-2018 in Benue State.

Years	Total Sat	Total passed with five(5) Credits including English and Mathematics	Percentage (%) Scores
2014	10930	2900	26.53
2015	9080	500	5.51
2016	8840	2430	27.49
2017	10900	3070	28.17
2018	8180	3020	36.92

Table 2B showed influence of school facilities on students' Academic Achievement in National Examination Council (NECO, 2014-2018) in senior Secondary Schools in Benue State (Researchers' Field Study, 2018). In 2014, the total number of 10930 candidates sat for NECO examination. Out of this number, only 2900 candidates obtained credit passes in five (5) subjects including English Language and Mathematics, which represents percentage score of 26.53. In 2015, the total number of 9080 candidates sat for NECO Examination. Out of this number, only 500 candidates obtained credit passes in five (5) subjects including English Language and Mathematics which represents percentage score of 5.51. In 2016, the total number of 8840 candidates sat for NECO examination. Out of this number, only 2430 candidates obtained credit passes in five (5) subjects including English Language and Mathematics, which represents percentage score of 27.49. In 2017, the total number of 10900 candidates sat for NECO examination. Out of this number, only 3070 candidates obtained credit passes in five (5) subjects including English language and Mathematics, which represents percentage score of 28.17. In 2018, the total number of 8180 sat for NECO examination. Out of this number, only 3020 candidates obtained credit passes in five subjects including English and Mathematics which represents percentage score of 36.92. In National Examination Council (NECO) too, the percentage score of students was low, which implied that the influence of school facilities on students' academic achievement was negative.

Hypothesis 1

There is no significant relationship between school facilities and Teacher Effectiveness in Senior Secondary Schools in Benue State.

Table 3
Pearson’s Product Moment Correlation Coefficient Test of School Facilities and Teacher Effectiveness

		Teachers Effectiveness		
		Very low	Low	High
School Facilities	Very low	12(48.0%)	12 (48.0%)	1(4.0%)
	Low	22(44.0%)	24 (48.0%)	4(8.0%)
	High	11(27.5%)	16(40.0%)	13(32.5%)
	Very high	0(0.0%)	5(45.5%)	6(54.5%)

R = 0.389, P= 0.00(significant)

Table 3 showed that there was significant relationship between School Facilities and Teacher Effectiveness in Senior Secondary Schools in Benue State. From the table, R= 0.389 and p=0.00. Since p was less than 0.05, the relationship was significant. The null hypothesis was therefore rejected implying that the alternate hypothesis was accepted.

Table 4
Chi - Square Test of School Facilities and Academic Achievement of Students.

			Academic Achievement		
			Low	Moderate	High
School Facilities	Never	Observed	14(43.8%)	14(43.8%)	4(21.9%)
		Frequency	11.4	14.5	6.1
		Expected Frequency			
	Rarely	Observed	28(44.4%)	29(46.0%)	6(9.5%)
		Frequency	22.5	28.5	12.0
		Expected Frequency			
	Most of the Time	Observed	2(8.0%)	12(48.0%)	11(44.0%)
		Frequency	8.9	11.3	4.8
		Expected Frequency			
	Always	Observed	1(16.7%)	2(33.3%)	3(50.0%)
		Frequency	2.1	2.7	1.1
		Expected Frequency			

$X^2_{cal.} = 23.074, X^2_{tab} = 12.592, df = 6, p = 0.001$ (significant).

Table 4 Showed that there was significant relationship between School Facilities and Academic Achievement of Students’ in Senior Secondary Schools in Benue State. The relationship was significant since $p=0.001$ ($p < 0.05$) was less than 0.05 at two tailed test of significance. The null hypothesis was therefore rejected implying that the alternate hypothesis was accepted.

Discussion of Findings

The result of this study showed that laboratories and equipment, functional libraries, workshops and visual aids were lacking in Senior Secondary Schools in Benue State.

Inadequate provision of these facilities is at variance with Alimi (2007) who stated that provision of facilities enhanced teaching and learning. Cynthia and Megan (2008) also confirmed a strong and positive relationship between quality of school facilities and students' academic achievement. Asiabaka (2008) on his part stated that the purpose of providing decent facilities in schools is to enhance teaching and learning activity and it is a booster to increase students' achievement. This invariably implied that lack of adequate provision of these facilities would hinder teacher effectiveness and students' academic achievement.

The result again showed that the influence of school facilities on students' academic achievement was negative. This finding is in agreement with Akomolafe and Adesua (2016) who reported that lack of access to standard facilities such as library and inadequate seats in the classrooms leads to low academic achievement of students.

Finally, the result showed that there was significant relationship between School Facilities and Teacher Effectiveness as well as Students Academic Achievement in Senior Secondary Schools in Benue State. This finding corroborates the opinion of Asiabaka (2008) who stated that decent facilities at school enhanced learning activity as well as increase students academic achievement. However, where these facilities are not adequately provided, the impact would be negative.

Implications of the Findings

The findings of this study have some implications to the Government of Benue State. One of such implications is that, Senior Secondary School Teachers cannot impact knowledge effectively to students without adequate school facilities like laboratories and equipment, functional libraries, instructional aids and workshops for the teaching of trade subjects. Now that the country is emphasizing entrepreneurship development, trade subjects can go a long way in helping the students to be self employed.

Again, if the teachers are not effective in carrying out their duties of teaching effectively due to lack of facilities in schools, it implied that the students' academic achievement would be low. This means, students who would not be able to attain five credits and above to gain admission into higher institutions would become societal vices.

Conclusion

Education is imperative to the development of any nation. Secondary education in particular is fundamental to progression to higher education. School facilities adequately provided and skillfully utilized would influence Teacher Effectiveness and Students' Academic Achievement. However, insufficient school facilities would lead to negative effect on Teacher Effectiveness and students' interest to learn.

Recommendations

Based on the findings of this study, the paper recommends the following:

1. Senior Secondary Schools in Benue State should be equipped with functional laboratories and equipment, libraries and visual aids, for effective teaching and learning.
2. There should be provision of workshops for the teaching of trade subjects.
3. Teachers should be provided with relevant textbooks, teachers guide and other necessary facilities to enable them perform their duties effectively.

References

- Adeboyeje, R.A (2000) Management of School Physical Facilities. Ibadan Foundation Publications.
- Akomolafe, C.O and Adesua, V.O (2016) The impact of physical facilities on students' level of motivation and academic performance in senior secondary schools in South West Nigeria. *Journal of Education and Practice*.7(4), 38-42
- Alimi, O.S (2007) Physical plant maintenance practice in public secondary schools in Akoko Zonal Education Area of Ondo State. *Ife Journal of Education Studies* (1), 73-78.
- Asiabaka, I.P (2008) The need for effective facility management in schools in Nigeria. *New York Science Journal*. 1(2), 10-21.
- Cynthia, U and Megan, T. (2008) The walls speak: the interplay of quality facilities, school climate and student achievement. *Journal of Educational Administration*. 46(1), 55-73
- Earthman, G.I. (2002) School Facility conditions and students' Academic Achievement. Williams Watch Series: Investigating the claims of William V. State of California (Document wws-rr008-1002).
- Oduyemi, O. (2000) Meeting the challenges of the 21st century in Technical and Vocational Education, Presented at a National Seminar on Technical and Vocational Education in Nigeria. Abuja; Nigeria.
- Okpala, P. (2010) Season of Mass Failure. The Nation. April 15, 2010
- Philius, O.Y and Wanjobi, W.C (2011) Performance determinants of Kenya Certificate of Secondary Education (KCSE) in Mathematics of Secondary Schools in Nyamaiya Division, Kenya. *Asian Social Science*. 7(2), 107-112.