

Planning, Allocative and Administrative Efficiency of School Facilities Management as Correlates of Academic Performance of Senior Secondary School Students in Adamawa State, Nigeria

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Abstract: *This study investigated the planning, allocative and administrative efficiency of school facilities as correlates of academic performance of Senior Secondary School (SSS) students in Adamawa State, Nigeria. Correlational research design was adopted for the study. A sample of 153 school principals, 377 teachers and 19 staff of Adamawa State Ministry of Education Planning Division was randomly drawn from 248 SSS principals and 6,450 teachers using Proportionate sampling technique from five education zones of Adamawa State. School Facilities Planning and Allocation Questionnaire (SFPAQ) and Management of School Facilities Questionnaire (MSFQ), Students' Academic Performance Proforma and Checklist were used for data collection. The reliability coefficients for SFPAQ and MSFQ were 0.82 and 0.74 respectively using Cronbach alpha. Four research questions and three null hypotheses were answered and tested at 0.05 levels of significance using mean, standard deviation and Pearson Product Moment Correlation Coefficient. From the analysis, the study revealed efficient level of school facilities planning in Adamawa State, while level of school facilities allocative and administration efficiency were not efficient. The level of students' academic performance in WAEC/SSCE May/June 2013 – 2015 was found to be poor. The study equally revealed a significant relationship between school facilities planning efficiency, allocative efficiency, administrative efficiency and students' academic performance in Adamawa State, Nigeria. The study recommended that adequate equipping of all Senior SSS in the State should be done using appropriate and efficient procedures for allocation by government, and school principals should frequently carry out comprehensive assessment of facilities in their schools to determine areas of need.*

Keywords: *Administrative, Academic, Allocative, Correlate, Efficiency, performance, Planning*

I. Introduction

Stakeholders in the Nigerian education system have been agitated as a result of persistent and alarming slide being experienced in the system in spite of efforts by successive governments which have sought to improve the system but to no avail. Different kinds of problems ranging from inefficient planning, mismanagement of allocated resources to declining standard of education are being experienced (Olaniyan & Anthony, 2013). The foregoing according to Amuche, Amuche, Bello and Marwan (2014) result in dwindling performance of students in external examinations such as the Senior School Certificate Examination (SSCE) organized by West African Examination Council (WAEC).

Public outcries about the dilapidated nature and poor planning of school facilities in Nigeria have yielded little or no result. School administrators seem not to show much effort in tackling the problems as evidenced by their poor handling of the school facilities (Danjuma & Adeleye, 2015). This is why a casual visit to any public secondary school in Nigeriareveals the extent to which these educational institutions have decayed. School facilities are in a terrible shape (where they are available at all) and over-used (Okoroma & Enyoghasim, 2012).

Several studies (Sa'ad, 2010; Owoeye & Yara, 2011; Jackline & John, 2014), have attempted to examine the relationship between school facilities planning and students' academic performance. The results reveal rather good relationship. Though the effectiveness of school facilities planning and administrative efficiency are judged by the extent to which schools generally meet the expectations of the society within which they are established (United Nations Educational, Scientific and Cultural Organization, UNESCO, 2006). These expectations are better seen in students' academic performance.

According to Saad (2010), inefficient planning of basic facilities and mismanagement of available school facilities have been noted as factors that causes poor students' academic performance in Nigeria and Adamawa State in Particular. The academic performance of Senior Secondary School students in SSCE organized by WAEC in Adamawa State compared to other States in Nigeria has been very poor during the years under review (2013 – 2015) (Collins, 2015; Abah, 2016). The poor performance has made it difficult for majority of students to gain admission into higher institutions of learning in recent times. For instance, Collins (2015) found that about 93% of senior secondary school leavers in any given year fail to qualify for university education in Adamawa State. The study reported that only 7.87% had 5 credits including English Language and Mathematics in 2013. Adamawa State was ranked 27th and 28th in 2014 and 2015 respectively, with 8.75% and 18.08% performance in WAEC, ranking least among other States whose students obtained 5 credit passes including English Language and Mathematics in Nigeria compared to Anambra State which ranked highest with 65.92% in 2014 (Abah, 2016).

It is clear that various intertwined factors could be responsible for this poor students' academic performance in Adamawa State. Udonsa and Udonsa (2015) revealed that poor planning and facilities handling are severe in Adamawa State and these affect students' academic performance. Saad (2014) earlier reported the situation to be so in Adamawa State that, facilities are inefficiently planned and managed by school principals.

In view of these few observations however, school facilities which could facilitate learning are not adequately managed in Adamawa State and where they are available probably their conditions are not satisfactory for learning due to poor planning and administrative inefficiency. It is on this premise that this work investigated school facilities planning and administrative efficiency as correlate of senior secondary school students' academic performance in Adamawa State, Nigeria.

1.1 Research Questions

The study answered the following research questions:

1. What is the level of school facilities planning efficiency in Senior Secondary Schools of Adamawa State, Nigeria?

2. What is the level of school facilities allocative efficiency in Senior Secondary Schools of Adamawa State, Nigeria?
3. What is the level of school facilities administrative efficiency in Senior Secondary Schools of Adamawa State, Nigeria?
4. What is the level senior secondary school students' academic performance in Adamawa State, Nigeria?

1.2 Research Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance:

Ho1: There is no significant relationship between the level of school facilities planning efficiency and senior secondary school students' academic performance in Adamawa State, Nigeria.

Ho2: There is no significant relationship between the level of school facilities allocative efficiency and senior secondary school students' academic performance in Adamawa State, Nigeria.

Ho3: There is no significant relationship between the level of school facilities administrative efficiency put into the use of school facilities and senior secondary school students' in Adamawa State, Nigeria.

II. Methodology

Correlational research design was adopted for the study. The study was carried out using all the public Senior Secondary Schools in Adamawa State, Nigeria. The target population for the study was 6,717 consisting of 19 staff of Adamawa State Ministry of Education Planning Division, 248 school principals and 6,450 teachers of all the Senior Secondary Schools in the five education zones out of which 549 were sampled using Proportionate sampling technique. School Facilities Planning and Allocation Questionnaire (SFPAQ), School Facilities Administration Questionnaire (SFAQ) - (VE - Very Efficient, E - Efficient, ME - Moderately Efficient, NE - Not Efficient) and Students' Academic Performance Pro-forma - A1 - B3 were rated four points, C4 - C6 were rated three points, those who obtained P7 - P8 were used for data collection. The reliability tests for the two questionnaires are 0.82 and 0.76 respectively using Cronbach alpha. Mean scores and standard deviation were used to answer the research questions while Pearson Product Moment Correlation Coefficient (r) was used to test the null hypotheses. For this study 2.50 was the decision point for research questions. This implies that any grand mean above or equal to 2.50 was accepted to indicate that the level of school facilities planning, allocation and administration is efficient in Adamawa State while any grand mean less than 2.50 indicates that school facilities are inefficiency. Also any grand mean above or equal to 2.50 was accepted to indicate pass mark for students' academic performance and any grand mean less than 2.50 indicate poor students' academic performance in Adamawa State senior secondary schools. The decision taken on the null hypotheses was based on comparing the computed p-values against 0.05 levels of significance. A null hypothesis was rejected when the computed p-value is less than 0.05 levels of significance otherwise the null hypothesis was retained.

III. Results

3.1 Research Question One

What is the level of efficiency of school facilities planning in Adamawa State Senior Secondary Schools? Results as shown in Table 1:

Table 1. Summary of Means and Standard Deviations of Level School Facilities Planning Efficiency in Senior Secondary Schools of Adamawa State, Nigeria

S/N	ITEMS	n	VE	E	ME	NE	\bar{x}	s	Remark
1	Modern school facilities are considered when planning facilities for schools in Adamawa state	172	33	109	25	5	2.17	0.77	NE
2	Schools are not located close to noisy places	172	23	117	27	5	2.08	0.64	NE
3	Considerable time is given to planning of facilities for the school	172	30	52	90	0	2.50	0.78	E
4	Planning of school facilities are not exclusively carried out by the government	172	20	120	23	9	2.20	0.71	NE
5	School enrolment is considered when planning school facilities	172	19	118	35	0	2.25	0.64	NE
6	School principals are allowed to be part of school facilities planning	172	12	104	32	24	2.51	0.82	E
7	Classrooms are not located near other buildings that are noisy	172	22	121	22	6	2.07	0.63	NE
8	Schools are entirely fenced	172	15	35	29	93	3.23	0.99	E
9	All classrooms in our schools are well furnished with equipment	172	5	18	44	105	3.47	0.78	E
10	There is a separate room for Guidance and Counseling in the schools	172	12	33	106	21	2.86	0.72	E
Grand Mean							2.53	0.75	E

n-Total Number of Respondents, *VE*-Very Efficient, *E*-Efficient, *ME*-Moderately Efficient, *NE*=Not Efficient, \bar{x} - Mean, *s*- Standard Deviation

Table 1 shows the mean and standard deviation of items on level of efficiency of school facilities planning in Adamawa State. The means for most of the items indicate efficient planning of school facilities. The grand mean and standard deviation 2.53 ± 0.75 respectively indicates that there is efficient planning of school facilities in Adamawa State.

3.2 Research Question Two

What is the level of efficiency of the bases for allocating school facilities to Senior Secondary Schools in Adamawa State?The results are as shown in Table 2.

Table 2. Summary of Means and Standard Deviations of Level School Facilities Allocative Efficiency in Senior Secondary Schools of Adamawa State, Nigeria

S/N	ITEMS	n	VE	E	ME	NE	\bar{x}	S	Remark
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11	Collective decision of the stakeholders in the school community	172	32	56	77	07	2.47	0.84	NE
12	School's enrolment	172	19	112	34	07	2.30	0.72	NE
13	Critical needs of the schools	172	41	63	61	07	2.42	0.90	NE
14	School location	172	08	102	53	09	2.44	0.67	NE
15	The school's performance in Senior School Certificate Examination (SSCE)	172	25	36	103	08	2.63	0.79	E
16	Number of subjects offered by students in the school	172	36	53	81	02	2.45	0.83	NE
17	Number of teachers in the school	172	22	30	113	07	2.74	0.73	E
18	Status of the school	172	24	96	52	00	2.13	0.63	NE
19	Schools' supervision report	172	19	99	39	15	2.44	0.80	NE
Grand Mean							2.45	0.77	NE

Result of analysis in Table 2 shows the mean and standard deviation of items on bases for allocating school facilities to senior secondary schools in Adamawa State. The grand mean of 2.45 and standard deviation 0.77 indicates that the basis used for allocating school facilities to senior secondary schools in Adamawa State is not efficient.

1.3 Research Question Three

What is the level of school facilities administrative efficiency in Adamawa State Senior Secondary Schools? The results are as shown in Table 3.

Table 3. Summary of Means and Standard Deviations of Level School Facilities Administrative Efficiency in Senior Secondary Schools of Adamawa State, Nigeria

s/n	Question Items	n	VE	E	ME	NE	\bar{x}	s	Remark
1	The principal identifies facilities problems promptly	530	175	254	69	32	1.92	0.84	NE
2	The principal reports facilities problems to appropriate authorities promptly	530	176	232	80	42	1.98	0.90	NE
3	The principals keeps adequate records of facilities in the school	530	281	144	75	30	1.73	0.91	NE
4	The principal ensures school facilities are properly maintained to prevent unnecessary interruptions of school activities	530	117	168	221	24	1.29	0.86	NE
5	The principal offers incentives to staff to encourage them take good care of facilities in the school	530	45	161	210	114	1.74	0.90	NE
6	The principal maintain a timetable for maintenance of school facilities	530	41	132	86	271	3.11	1.03	E
7	The principal often develops action plan to get sufficient supply of facilities for our school from the government	530	66	165	147	152	2.73	1.01	E

8	The principal often reports facility needs of our school to the government for immediate action	530	203	174	67	86	2.07	1.08	NE
9	The principal always make sure that facilities are handled by experts during usage in the school	530	142	117	90	181	2.59	1.21	E
Grand Mean							2.35	0.97	NE

Result of analysis in Table 3 shows the mean and standard deviation of items on level of school facilities administrative efficiency in senior secondary schools in Adamawa State. The grand mean 2.35 and standard deviation 0.97 indicates that school facilities are not efficiently administered by school administrators.

3.4 Research Question Four

What is the level of students' academic performance in Adamawa State senior secondary schools? Results as shown in Table 4:

Table 4. Summary of Means and Standard Deviations of Students' Academic Performance in WAEC/SSCE May/June 2013 – 2015 in Adamawa State Senior Secondary Schools

Year	N	A1 – B3	C4 – C6	P7 – P8	F9	\bar{x}	s	Remark
2013	5,935	351	1,754	1,565	2,265	2.27	0.64	Poor
2014	6,626	708	3,067	921	1,930	1.93	0.72	Poor
2015	4,435	844	408	862	2,321	2.32	0.89	Poor
Grand Mean						2.12	0.75	Poor

N = Number of candidates, A1 – B3 = 4 points, C4 – C6 = 3 points, P7 – P8 = 2 points, F9 = 1 point, \bar{x} = Mean, s = Standard Deviation

Table 4 shows the means and standard deviations of students' academic performance in 2013 – 2015 WAEC/SSCE in Adamawa State senior secondary schools. The grand mean of 2.12 and standard deviation of 0.75 indicates that students' academic performance was poor.

II. Testing of Hypotheses

4.1 Hypothesis One

There is no significant relationship between level of school facilities planning efficiency and students' academic performance in Adamawa State senior secondary schools.

Table 5. Summary of Pearson Product Moment Correlation Coefficient Level of School Facilities Planning Efficiency and Students' Academic Performance

Variables	N	\bar{x}	r	p-value	Relationship	Remark
LSFPE	172	2.53	0.221	0.000	Low	Significant
LSAP	172	2.12				

LSFPE – Level of School Facilities Planning Efficiency, LSAP – Level of Students' Academic Performance, N – Number of Respondents, \bar{x} – Mean, r – Computed r-value

The relationship between the level of school facilities planning efficiency and level of students' academic performance was tested using Pearson Product Moment Correlation Coefficient. The result in Table 5 shows that there was a low positive correlation between the two variables. Since the p-value (0.000) is less than 0.05, the null hypothesis was rejected. The computed r-value = 0.221 indicates that there is low positive relationship between level of school facilities planning efficiency and level of students' academic performance in Adamawa State senior secondary schools.

4.2 Hypothesis Two

There is no significant relationship between school facilities allocative efficiency and students' academic performance in Adamawa State senior secondary schools.

Table 6. Summary of Pearson Product Moment Correlation Coefficient Level of School Facilities Allocative Efficiency and Students' Academic Performance

Variables	N	\bar{x}	r	p-value	Relationship	Remark
LSFAE	172	2.45	0.195	0.000	Low	Significant
LSAP	172	2.12				

LSFAE – Level of School Facilities Allocative Efficiency, LSAP – Level of Students' Academic Performance, N – Number of Respondents, \bar{x} – Mean, r – Computed r-value

Analysis in Table 6 shows the result of Pearson Product Moment Correlation Coefficient which was used to determine the relationship between level of school facilities allocative efficiency and students' academic performance in Adamawa State senior secondary schools. The result shows that there was a significant low positive relationship between the variable. As the P-value (0.000) is less than 0.05 the null hypotheses was rejected. The computed r-value = 0.195, N=530 and $p < 0.05$ in Table 8 indicates a significant relationship between school facilities allocative efficiency and students' academic performance in Adamawa State senior secondary schools.

4.3 Hypothesis Three

There is no significant relationship between level of school facilities administrative efficiency and students' academic performance in Adamawa State senior secondary schools.

Table 7. Summary of Pearson Product Moment Correlation Coefficient level of school facilities administrative efficiency and students' academic performance

Variables	N	\bar{x}	r	p-value	Relationship	Remark
LSFADE	530	2.35	0.205	0.000	Low	Significant
LSAP	530	2.12				

LSFADE – Level of School Facilities Administrative Efficiency, LSAP – Level of Students' Academic Performance, N – Number of Respondents, \bar{x} – Mean, r – Computed r-value

The relationship between level of school facilities administrative efficiency and students' academic performance was tested using Pearson Product Moment Correlation Coefficients. As the p-value (0.000) is less than 0.05 level of significance, the null hypothesis was rejected. The computed r-value = 0.205 indicates that there was a low positive correlation

between school facilities administrative efficiency and students' academic performance in Adamawa State senior secondary schools.

III. Discussion of Findings

The findings of this study were discussed in relation to planning efficiency, allocative efficiency, administrative efficiency and students' academic performance. The finding from Table 1 revealed that the level of school facilities planning efficiency in Adamawa State Senior Secondary Schools is efficient. This finding is consistent with Odufowokan (2011) and Ofojebe (2011) studies which revealed among others that judicious planning of school facilities requires the combined talents and creativeness of educational administrators, an architect, an engineer, and hygiene specialist. Involvement of stakeholders in school facilities planning is very important as revealed by Lunenburg (2010) to enable education planners tap the creative potentials of teachers, school administrators, professional and non-professional groups of people. This mean, for school facilities to be efficient it requires the cooperation and collective efforts of all stakeholders to avoid wastes and lopsided planning.

The findings from Table 2 revealed that the bases for allocating school facilities to Senior Secondary Schools were not efficient in Adamawa State as indicated by the grand mean (2.45) and standard deviation (0.77). This finding contrast Alabi (2014), Neji, Ukwetang and Nja (2014) and World Bank (2016) report, which suggested that school facilities should be allocated to schools based on the effectiveness of public programs in schools that meet strategic educational objectives. It entails the capacity of authorities concern to shift scarce resources from old priorities to new ones, and from less to more effective school programs. In support of this finding, Ajayi and Yusuf (2009) revealed that learning facilities and sites must be accessible to all regardless of any criterion and whatever the case might be, education facilities must be made available to the physical and emotional well being of all learners. This study (Table 2) therefore has revealed that school facilities are evenly distributed to senior secondary schools in Adamawa State regardless of school enrolment, location, status or performance in external examination among others.

The findings of this study with regard to level of school facilities administrative efficiency put into the management of school facilities by school administrators was not efficient (Table 3) in Adamawa State Senior Secondary Schools as revealed by the grand mean (2.35) and standard deviation (0.97) of items 1 – 9. This is in consideration of the fact that school principals do not identify, keep adequate records or report school facilities problems promptly to the responsible authorities for proper action in Adamawa State. Notwithstanding the study has revealed (Table 3) that school administrators in Adamawa State offer incentives to staff, maintain time-table for facilities maintenance and they ensure that school facilities are handled by experts. Supporting this finding, Amanchukwu and Ololube (2015) concluded that since Ministry workers do not stay in schools on a daily basis in order to dictate what is going wrong or right with the school facilities, it is the responsibility of school principals as the custodians of school facilities to ensure that all components of school facilities are in good working condition so as to create conducive teaching/learning environment which they do not take seriously. Similarly, Allen (2015) supported this finding (Table 3) that, inefficient school facilities administration is bound to happen in schools when school administrators do not delegate authorities to their subordinates

because they want to have eye on everything that is being done thereby delaying other areas that needed urgent attention.

The level of students' academic performance in WAEC/SSCE May/June (2013 – 2015) in Adamawa State Senior Secondary Schools (Table 4) was poor as indicated by the grand mean and standard deviation 2.12 ± 0.75 respectively. This finding is consistent with Anaba (2013) and Collins (2015) conclusions that the level students' academic performance in Adamawa State senior secondary school was poor. Collins (2015) revealed that about 93% of senior secondary school leavers in any given year have fail to qualify for tertiary education in Adamawa State. Collins reported that only 7.87% had 5 credit in 2013. Adamawa State was ranked 27th and 28th in 2014 and 2015 respectively, with 8.75% and 18.08% performance in WAEC, ranking least among other States whose students obtained 5 credit passes in Nigeria compared to Anambra State who ranked highest with 65.92% in 2014 (Abah, 2016).

Table 5 (Hypothesis One) shows a significant low positive relationship between level of school facilities planning efficiency and students' academic performance in Adamawa State Senior Secondary Schools ($r = 0.221$, $n = 172$, $p < 0.05$). This shows that other factors like considerable time given to planning, participation of stakeholders in planning, fencing and furnishing of schools and classrooms and, provision of separate room for guidance and counselor are related to the academic performance of students in the schools sampled. This result agreed with the findings of Oluchukwu (2000), Adesina (2011) and Aworanti (2016) who found that efficient school facilities planning and students' academic performance were relatively close, and as such students' academic performance was significantly related to instructional space planning, administrative space planning and space for convenience planning in Senior Secondary Schools. Equally supporting this finding Lackney and Jacob (2002) asserted that, it is difficult, if not impossible, to separate students' academic performance from the physical environment planning within which it occurs because they are closely related. In contrast to the finding of this study, Ekundayo and Alonge (2010) and Ajayi and Yusuf (2010) found no significant relationship between school facilities planning and students' learning outcomes in Ondo and Ekiti State, South-western Nigeria respectively.

The findings of hypothesis two (Table 6) indicates that there was a statistical significant relationship between level of school facilities allocative efficiency and students' academic performance in Adamawa State Senior Secondary Schools. This shows that allocating school facilities to senior secondary schools in Adamawa State based on some criteria like students' performance external examinations (WAEC/SSCE), number of teachers and/or school's enrolment are fairly related to students' academic performance. This consonance with the findings of Okafor (2000) and Duran-Naruck (2008) that efficient allocation of school facilities is closely related to students' academic performance. This is because, enough and equal allocation of facilities in form of classrooms, tables, chairs, laboratories, library etc to schools are closely related to both students' school attendance and academic achievement after controlling other possible factors such as school size, and teachers' quality. Supporting this finding Okoroma and Enyoghasim (2012) revealed that inefficient distribution of school facilities to schools results in either under-utilization or over-utilization which does not enhance effective academic performance.

Table 7 revealed significantly low positive relationship between level of school facilities administrative efficiency and students' academic performance in Adamawa State Senior Secondary Schools ($r = 0.205$, $p < 0.05$). This finding was consistent with the findings

of previous researchers (Olalube, 2006; Eddy & Akpan, 2009; Muraina & Muraina, 2014) who established significant relationship between school facilities administration (supervision and coordination) and students' academic performance in Nigeria. Uko, Umosen and Caleb (2015) supporting the finding also revealed that poor facilities administration have negative effect on teachers' job performance which is reflected in poor academic performance of students in public examinations. It has however been observed that the poor quality of some teachers who are currently school principals arose from people who were recruited and appointed based on political affiliation and considerations (Ali & Sunday, 2013). This does not allow for fairness and prompt identification and reporting of facilities problems to appropriate authorities but rather poor students' academic performance in external examinations.

References

- Abah, D. (2016). Accessibility and utilization of school infrastructure secondary schools students' performance in SSCE in Calabar education zone of Cross River State, Nigeria. *Global Journal of Human Social Science*, 15(8), 1 – 13.
- Adesina, O. B. (2011). School plant planning as correlate of students' academic performance in Southwest Nigeria secondary schools. *International Journal of Business Administration*, 2(2), 41 – 47.
- Ajayi, I. A. & Yusuf, M. A. (2009). Instructional space planning and students' academic performance in South West Nigeria secondary schools. *International Journal of Education Science*, 1(2), 73 – 77.
- Alabi, B. O. (2014). Quality assessment of school facilities in Lagos State. Retrieved from lasusterg.okebsf.org/author/admin/.../2/ on 19th April, 2016.
- Allen, A. A. (2015). Effective school management and supervision: Imperative for quality education service delivery. *African education Review*, 9(3), 62-74
- Ali, H. & Sunday, O. (2013). Provision and management of school plant as a correlate of science students academic performance. *Journal of Education and Practice*, 4(14), 102-111.
- Amanchukwu, R. N. & Ololube, N. P. (2015). Managing school plant for effective service delivery in public secondary schools in Rivers State of Nigeria. *Human Resource Management Research*, 5(4), 95 - 102.
- Amuche, C. I., Amuche, B., Bello, A. & Marwan, M. B. (2014). A correlational analysis of private and public secondary school students' performance in WAEC and NECO conducted physics examinations. *International Journal of Education and Research*, 2(10), 407 – 416.
- Anaba, A. (2013). Special Report: 64.26% credit pass in WAEC? Madam Minister, we need to reconsider this 'miracle'. Retrieved on 3rd/01/2017 from www.thescoopng.com/.../special-report-6...
- Aworanti, B. N. (2016). The quality of Learning environment and academic performance from a student's perception. *International Journal of Business and Management*, 4(6), 171– 175.
- Collins, S. D. (2015). School size and facilities as a correlate of secondary school students' performance in Adamawa State, Nigeria. *Pakistan Journal of Social Sciences*, 5(9), 836 – 840.

- Danjuma, T. T. & Adeleye, M. O. (2015). The effect of the availability and utilization of laboratory apparatus in the teaching of physics: A case study of secondary schools in Karu LGA. *Nigeria Research Journal of Educational Studies and Review*, 1(5), 118 – 122.
- Duran-Narucki, V. (2008). School building condition, school attendance, and academic achievement in New York City public schools: A mediation model. *Journal of Environmental Psychology*, 28(3), 278 - 286.
- Eddy, E. N. & Akpan, M. E. (2009). The prospect of UBE programme in AkwaIbom State, South, Nigeria. *International NGO Journal*, 4(2), 46 – 49.
- Jackline T. N. & John, A. O. (2014). School management and students' academic performance: How effective are strategies being employed by school managers in secondary schools in Embu North District, Embu County, Kenya? *International Journal of Humanities and Social Science*, 4(9), 86 – 99.
- Lackney, H. G. & Jacob, D. (2002). The effect of physical learning environment on teaching and learning. P.1. Retrieved on 20th April, 2016 from <https://d2ct263enury6r.cloud.net/...>
- Lunenburg, F.C. (2010). School facilities management. *National Forum of Educational Administration and Supervision Journal*. 27(4), 104 – 113.
- Muraina, M. B. & Muraina, K. O. (2014). School environment and teacher characteristics as factors predicting job performance among secondary school teachers in South-Western, Nigeria. *Journal of Research and Development in Education*, 5(1), 92 – 101.
- Neji, H. A., Ukwetang, J. O. & Nja, C. O. (2014). Evaluating the Adequacy of laboratory facilities on students' academic Performance in Secondary School in Calabar, Nigeria. *Journal of Research and Method in Education*, 4(3), 11 – 14.
- Odufowokan, B. A. (2011). School plant planning as a correlate of student's academic performance in South West Nigeria secondary schools. *International Journal of Business Administration*, 2(2), 41 – 47.
- Ofojebe, A. E. (2011). *State of school plant and strategies to improve its management in secondary schools in Anambra State*. Unpublished Ph.D Dissertation. NnamdiAzikiwe University, Awka, Anambra State. P. 44.
- Okafor, P. N. (2000). Difficult concepts in physics as experienced by senior secondary students in Akwa-Ibom State. *Journal of Research Information in Education*, 1(1), 114 – 121.
- Okoroma, S. & Enyoghasim, M. (2012). Urban and rural areas distribution of facilities And teachers of secondary schools: Implications for students' academic performance. *International Journal of Research and Advancement in Educational Methods*, 9(1), 97 – 107.
- Olalube, N. P. (2006). Teacher education, school effectiveness and improvement: A study of academic and professional qualification of teachers' job effectiveness in Nigeria secondary schools. *The African Symposium*, 5(3), 17 – 37.

- Olaniyan, O. D. & Anthony, K. I. (2013). Effect of inadequate school plant on academic performance of Nigerian secondary school students. *International Journal of Humanities and Management Sciences*, 1(3), 198 – 200.
- Oluchukwu, E. E. (2000). *School plant planning and implementation*. Nigerian Educational Administration and Planning. Ile Ife: University of Ife Press.
- Owoeye, J. S & Yara, P. O. (2011). School facilities and academic achievement of secondary school agricultural science in Ekiti State, Nigeria. *Asian Social Science*, 7(7), 64 – 74.
- Saad, A. R. (2010). Educational quality differences in Adamawa State: The urban-rural gap in secondary schools. *International Journal of Research and Practice*, 24(1), 1 – 18.
- Saad, A. R. (2014). Evaluation of provision and maintenance of infrastructural facilities in boarding secondary schools in Yola metropolis Adamawa State, Nigeria. An Unpublished M.Ed. Thesis, Ahmadu Bello University, Zaria. P. 12.
- Uko, E. S., Umosen, A. O. & Caleb, E. E. (2015). Administrators' resource management practices and teachers' job performance in secondary schools in Eket education zone of Akwa Ibom State, Nigeria. *International Journal of Innovative Education Research*, 3 (2), 13 – 20.
- United Nations Educational, Scientific and Cultural Organization (UNESCO, 2006). *EFA global monitoring report: Strong foundations. Early childhood care and education*. Paris: UNESCO Publishing.
- World Bank (2016). Chapter 4 Allocative Efficiency. Retrieved on 22nd/12/2016 from siteresources.worldbank.org/INTPEAM/Resources/Chapter4.pdf