



SCHOOL PLANT PLANNING AS A DETERMINANT OF TEACHERS' PRODUCTIVITY IN SECONDARY SCHOOLS IN ONDO STATE, NIGERIA

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Abstract

The study investigated school plant planning as a determinant of teachers' productivity in secondary schools in Ondo State. Descriptive research design of the survey type was adopted. The population for the study comprised all secondary schools teachers in Ondo state, Nigeria. The sample for the study consisted of 120 teachers selected from secondary schools in Ondo State. Simple random sampling technique was used to select 20 secondary schools from Ondo west Local Government Areas. 6 teachers were selected from each of the schools using simple random sampling technique. The instrument used for the study was a questionnaire designed by the researchers to sort for school plant planning and teachers productivity. Validity of the instrument was ascertained through face and content validity. Test-re-test method of reliability was obtained for the instrument. Reliability co-efficient of 0.85 was obtained. The data collected were analysed using percentage, mean and standard deviation. Findings from the study established that there are no adequate facilities available to facilitate teaching and learning processes in schools. Recommendations were made based on the findings that the government should assist the schools by making provision of adequate school plant planning. The NGOs as well as the interest members of the community should also ensure to meet the needs of the schools by donating school facilities that are good and qualitative.

Keywords: School, Plant Planning, Determinant, Teachers' Productivity, Secondary Schools.

Introduction

It is not a gainsaying to acclaim that the place of school plant planning in the successful achievement of the school goals and objectives cannot be overlooked. According to Amanchukwu and Ololube (2015), one of the strongest problems with the Nigerian educational system is the inappropriate school plant planning. It is worrisome that most of the schools in cities and towns are not properly planned in terms of school plants. , Students, especially in government-owned secondary schools, sit on floors to receive instruction. They receive instruction in dilapidated classrooms which are similar to death traps due to their poor construction. Most of these schools are sited near market places, highways, rail line, industries, airports, and close to main roads. The unfavorable environment prevent students from paying rapt attention to what is being taught in classes. Most private-owned schools are

sited in either private homes or make shift buildings and do not have capacity for further expansion in the nearest future (Agi, 2013). This ugly situation poses a serious concern to as many that have stake in educational sector of the nation.

The school plant planning is a process of identifying, selecting and acquiring a suitable site for the school, putting up appropriate physical structures that help in meeting the educational needs of the students (Afolabi, 2002). This is an energy sapping process which often takes an appreciable time to complete, as it involves a number of steps such as school survey, educational specification, school site selection, employing architectural services, selecting bids, letting contracts and erecting the school buildings.

Again, Afolabi and Loto, (2017) defined school plant planning as a process in which a congenial site is



selected and appropriate structures (buildings) designed and constructed to satisfy the identified educational needs of the students. School plant planning means considering various ways to put up the structured features to suit the instructional and learning processes. The goals of Nigerian education and that of schools in particular could not be achieved if there is faulty school plant in place (Odufowokan, 2011). However, the realization of educational goals is attainable through appropriate school plant planning. Corroborating this,

Oyesola (2007) stated that the main objective of school plant planning is to satisfy educational goals which have been predetermined by educational planner. He explained that better planned school plants could enhance better school programmes and the community needs by providing a place for psychological and physical safety for students and teachers and enhancing the good, quality and quantity of instruction. School plant planning is often considered an essential aspect of educational planning (Oluchukwu, 2000). It therefore behoves that school plant is appropriately planned to facilitate the effectiveness of school system so as to bring about the achievement of educational goals. In spite of the importance accorded school plant planning in realizing educational goals, this paper investigated school plant planning as a determinant of teachers' productivity in secondary schools in Ondo State.

Purpose of the Study

The purpose of this study was to find out the level of availability and practices of school plant planning in secondary schools in Ondo State. The study also aims to find out the level of utilization and maintenance of school plants in secondary schools in Ondo State, and find out the rate of provision of school plants and its effects on teachers' productivity in secondary schools in Ondo State.

Research Questions

The following research questions were raised to guide the study:

- i. What is the level of availability and practices of school plants planning in secondary schools in Ondo State?
- ii. What is the level of utilization and maintenance of school plants in secondary schools in Ondo State?
- iii. What is the rate of provision of School Plants and its effects on teachers' productivity in secondary schools in Ondo State?

Literature Review

Concept of School Plant

The concept of School Plant had being copiously defined to some extent. Over the years, authorities like Afolabi (2002), Ajayi (2007), Yusuf, (2008), Akinniranye (2015), Afolabi and Loto (2017), among others. According to Yusuf (2008), the concept of school plant was defined as space interpretation of the school curriculum. It will be impossible for the curriculum to be implemented if the physical facilities required for teaching and learning are not available. Absence of school plant makes teaching ineffective and desired learning will not take place. It becomes necessary to ensure that such plant is properly planned and maintained to facilitate the effectiveness of school system. Ajayi (2007) and Yusuf (2008) maintained that school plants comprise the machinery which in turn includes machines and tools used in the workshop, in addition to duplicating machines.

School plant planning is an integral part of the overall educational planning. According to Ajayi and Yusuf (2010), school plant planning is a process in which a suitable site is selected and instructional space, administrative space, circulation space, and spaces of convenience are designed to facilitate the teaching and learning process in the school system. A broader definition comes from Odufowokan (2011) who said that school plant planning refers to the following:

- (i) Instructional Spaces: These include classrooms, auditorium, gymnasium, library, workshops, laboratory, arts room, home economics rooms, multipurpose rooms/halls, music area and any other space where students receive instruction.
- (ii) Administrative Spaces: These comprise principal's office, clerk's office, staff room, Guidance Counselors' office and Health clinics.
- (iii) Circulation Spaces: These include corridors, lobby, staircases and other spaces where students recreate.
- (iv) Spaces for conveniences: These consist of toilets, cafeteria, kitchen dormitories custodian sheds and stores, and
- (v) Accessories: These include parks, garden, fields, courts and lawns.

Principle for School Plant Planning

According to Akinniranye, (2015), the school plants are the physical and spatial enablers of teaching and learning which will increase the production of results.



These are the school facilities which serve as pillars of support for effective teaching and learning process, making it productive. The school plant includes all of the infrastructure and material resources that are used to support the delivery of quality education. Infrastructure refers to basic physical and organisational structures needed for the successful running of the institution, (Nweneka, 2016). Other relevant facilities in the school environment include text books, laboratory equipment, computer machines, seating facilities, supply of electricity and other technical and vocational facilities which are all paramount to the provision of qualitative education, (Nweneka, 2016).

School Plant Maintenance and Utilization in Secondary Schools

School plant, as was already mentioned, involves every single thing within the school premises which should be taken care of in order for efficient services to be realized in the school system. Maintenance of school plant is an attribute of good leadership. It entails effective monitoring of both the users and the plant itself; applying sound maintenance culture of those facilities and other things required for the school plant to give maximum services (Allen, 2015). In the works of Asiabaka (2008), the fundamental purpose of teaching and learning practice is to bring about in the learner desirable transformation in behaviour through critical thinking. The process does not take place in a vacuum but rather in an environment set aside to facilitate learning.

Xaba (2012) In addition, agreed that facilitation of learning ushers in a new dawn in the lives of a learner and the entire community, making it possible for them to be enlisted among those who would develop a nation. Lack of maintenance of school plant in the Nigerian education institutions is a recurring decimal and the sooner attention is paid in that area the better for the managers of education. It is always better to carry out maintenance as the structure starts wearing off or the signs appear in any aspect of the building or grounds as a whole; leaving it for too long escalates the faults thereby causing more repairs.

Amanchukwu and Olobube, (2015) said that the principals of schools should be thinking of the best interest of the learners under their care and one way of showing this interest is maintaining of the school plant. The minds of staff and students should be

prepared by making them understand that they are one family and that the structures in the school premises belong to them and it is their duty to keep them in good condition after each use. Principals should not give out any part of the school plant for commercial use since the users are likely to cause some damages which will take a lot to repair.

The school managers should form committee to take care of school plant on a regular basis and present a written report to the school principal. The community stake holders, if approached, will participate in maintaining the school plant.

The Parent-teachers-Association also is a very powerful organ to use to ensure that school plant is maintained regularly by making funds available. As we all know, lack of funds causes delay of any project. When funds are provided, the skilled men/women should be employed to swing into action for results to be achieved.

Availability of School Plant in Secondary Schools

School plant refers to infrastructural facilities of education that includes school buildings (classrooms, assembly halls, laboratories and workshops, libraries and others. They are therefore, structures that facilitate teaching and learning processes in the school. School plant, refers to education facilities both human and materials resources which help to facilitate education program (Nweneka, 2016).

Amanchukwu and Ololube (2015), says that since the school plant are space interpretation of the school Curriculum. It will be impossible for the curriculum to be implemented if the physical facilities required for teaching and learning are not available.

Amanchukwu and Ololube (2015), maintained that school plants comprise the machinery which in turn includes machines and tools used in the workshop, in addition to duplicating machines. They also pointed out that school site, which is the landscape on which the school's permanent and non-permanent structures are built, are part of school plant. They also included buildings, equipment, furniture, vehicles of various types, electrical fittings, books, water supply infrastructure, and accessories like playgrounds, lawns, parks and farm, as part of school plant.

Nweneka (2016), posited that in any institution, the basic focus is on plant and administration of facilities. This is so because effective and efficient running of the system, proper maintenance and use of the



structural units and facilities are quite accurate and imperative. The quality of education received by the students bears direct relevance to the availability or lack of physical facilities and the overall environment in which learning takes place. Availability of adequate and sufficient school plant, when properly planned and maintained is thus expected to reflect positively in the academic performances of students.

In this emphasis on the importance of school plant facilities maintenance, Nweneka (2016), noted that maintenance could be categorized into Emergency and Periodic. Emergency maintenance is called for by the situation of events, and areas such as: structural problem, equipment amendable to periodic inspections, plumbing facilities sanitary accessories. repair of doors, windows, louvers, cracked walls, and leaking roof, etc. The maintenance of these facilities is gravely necessary in order to avert colossal wastage or their total loss Nweneka, (2016).

Wordu and Wehuizo (2018) mentioned that proper management of human and material resources enhances teaching and learning in secondary schools. Wordu and Wehuizo (2018) clearly puts it that the key to protecting the investment of billions of Dollars committed to education facilities each is proper planning today and the commitment to maintenance and operations thereafter. The necessity of this maintenance culture is succinctly reiterated by Nweneka (2016) that maintenance programmes must satisfy two objectives: The first and most expensive is that of the prevention and deterioration of school buildings furniture executed at predetermined intervals in the life of every school and deals at each stage, and with specific components of the building. The second, less costly, but in many ways more difficult programmes is that to deal with contingencies, such broken windows, the roof, which leaks, and the drains that block and suddenly overflow.

In collaboration, Ajayi (2007) and Yusuf (2008) maintained that school plants comprise the machinery which in turn includes machines and tools used in the workshop, in addition to duplicating machines. They also pointed out that school site, which is the landscape on which the school's permanent and non-permanent structures are built, are part of school plant. They also included buildings, equipment, furniture, vehicles of various types, electrical fittings, books, water supply infrastructure, and accessories like playgrounds, lawns, parks and farm, as part of school plant.

School plant management is an essential tool in the achievement of secondary school objectives. The effective and efficient management of school plant contributes immensely to high quality development in education. Odunfowokan (2011) stated that "the attainment of good school plant management requires committed and qualified principals".

School plants are made up of the school land and all the physical structures on it. It also includes the site, buildings, physical equipment, recreational spaces and books used for the achievement of educational objectives, Wordu and Wehuizo (2018). From these views, school plant simply means the location, fixed structures and movable materials in school.

Effects of School Plant Planning on Teachers' Productivity in Secondary Schools

High level of students' academic performance may not be guaranteed where instructional space such as classrooms, libraries, technical workshops and laboratories are lacking (Ajayi 2007). Unfortunately, it has been observed that some public secondary schools in Port Harcourt metropolis have leaking roofs, broken windows, poor equipped laboratories and libraries, dilapidated buildings, blown off roofs, cracked decaying walls, sagging roofs and some teaching equipment in short supply. Situations such as these cannot be seen as appropriate for effective instructional delivery in secondary school environment, (Amanchuckwu and Olobube, 2015). Corroborating these, Ajayi (2007) lamented that "most secondary schools have poor school buildings structure, classes extremely hot in hot weather and very damp during the raining season, teaching equipment of all sorts in short supply".

Recently some public secondary schools in Port Harcourt Metropolis were flooded during the resumption period of September 2017/2018 academic session. Effective instructional delivery in school under such conditions cannot be guaranteed. Amanchuckwu and Olobube (2015) referred the principal as "the Chief Executive of secondary schools in Nigeria". This simply means that the principal has the responsibility of ensuring that school buildings, facilities and total school environment are properly managed in order to ensure effective instructional delivery in the school. The management of school plant rests squarely on the principal who is an administrator and instructional leader of the school. His duties among others cover the procurement, maintenance, utilization and safety of the school



plant so as to achieve the goals and objectives of secondary education system.

Methodology

A descriptive research design of the survey typed was adopted for this study. The population comprised all secondary schools teachers in Ondo State, Nigeria. This method paved way for self-structured questionnaire which was used as an instrument for data collection. The instrument for the study was a questionnaire titled "Teachers' Questionnaire on School Plant Planning as a Determinant of Teachers' Productivity" (TQSPDTP)" was used for the study. It consisted of 15 items drawn on school plant planning as a determinant of teachers' productivity. The Sample for the study consisted of 120 teachers selected from secondary schools in Ondo State. One hundred and twenty copies of the questionnaires were administered on 20 teachers which was randomly selected from 20 secondary schools. Simple random sampling technique was used to select 6 teachers from each of the secondary schools. The face and content validity of the instrument was ensured by experts in Educational Management and other expert in Test and Measurement. Test-re-test method of reliability was adopted. The reliability co-efficient 0.85 was obtained. The data collected were analysed using frequency counts, percentage scores and standard deviation.

Results

This study predominantly involved the survey of one hundred and twenty secondary school teachers.

	Category	Frequency	Percentage (%)
Sex	Male	40	33.3%
	Female	80	66.7%
Age	Below 30 Years	6	5%
	30-34 Years	8	6.7%
	35-39 Years	26	21.7%
	40-44 Years	30	25.0%

	45-49 Years	22	18.3%
	50-54 Years	14	11.7%
	55 Years and above	14	11.7%
Religion	Christianity	90	75%
	Islam	30	25%
Marital Status	Single	50	41.7%
	Married	65	54.2%
	Divorced	2	1.7%
	Widowed	3	2.5%
Academic Qualification	P.G.D.E	8	6.7%
	B.Sc. (ed)	60	50%
	B.A. (ed)	25	20.8%
	H.N.D	7	5.8%
	N.C.E	30	25%

The result findings from the demographic analysis reveal that 66.7% of the respondents were female while the remaining 33.3% were male teachers. Results from the age-group of the respondents shows that 5% were below the age of 30 years, 6.7% were between the age-group of 30-34 years, 21.7% of the respondents were between age 35-39 years old, 25.0% were between ages 40-44 years, 18.3% were between ages 45-49 years, 11.7% were between ages 50-54 years, while the remaining 11.7% were between 55 years and above. The results of the religion of the respondent shows that 75% were Christians while the remaining 25% were Islam. The results of the respondents' marital status reveals that 41.7% of the respondents were single, 54.2% were married, 1.7% of the respondents were divorced, while the remaining 2.5% were widowed. The results of the academic qualification reveals that 6.7% of the respondents were (P.G.D.E) post-graduate degree holders, 50% were B.Sc. (ed) holders, 20.8% were B.A. (ed) holders, 5.8% were H.N.D holders, while the remaining 25% were N.C.E holders.

Availability and Practices of School Plant

S/NO	Statement	Response Categories				Mean	Standard Deviation
		S. A.	A.	D	S.D		
1.	School location determines the level of school plant practices.	45	49	15	11	30	17.17
2.	Urban schools take school plants planning into cognizance than rural schools.	38	31	22	29	30	5.70
3.	There are no adequate school plant facilities in most schools.	53	39	19	9	30	17.11
4.	Private schools take school plant into cognizance than						



	public schools.	21	17	43	39	30	11.18
5.	Some school administrators do not take proper care of their school plants.	38	39	23	20	30	8.57

Figure 2 above shows results of five items. In item 1, majority of the respondents agreed that school location determines the level of school plants, while the remaining few respondents disagreed to the item. This result implies that school location determines the level of school plant practices. In item 2, majority of the respondents agreed that urban schools take school plants planning into cognizance than rural schools, while the remaining few respondents disagreed to the item. This result reveals that urban schools take school plants planning into cognizance than rural schools. In item 3, majority of the respondents agreed that there are no adequate school plant facilities in most schools, while the

remaining few respondents disagreed to the item. This results shows that urban schools take school plants planning into cognizance than rural schools. In item 4, majority of the respondents disagreed that private schools take school plant into cognizance than public schools, while the remaining few respondents agreed to the item. This result implies that private schools take school plant into cognizance than public schools. In item 5, majority of the respondents agreed that some school administrators do not take proper care of their school plants, while the remaining few respondents disagreed to the item. This result reveals that some school administrators do not take proper care of their school plants.

Utilization and Maintenance of School Plants

S/NO	Statement	Response Categories				Mean	Standard Deviation
		S. A.	A.	D	S.D		
1.	School administrators' interest determines the level of plant planning and maintenance in their schools.	43	45	23	9	30	13.29
2.	School location determines the utilization of school plant facilities in secondary schools.	19	24	37	40	30	7.82
3.	School finance serves as a factor that influence school plant planning.	50	43	18	9	30	15.19
4.	School plant maintenance is costly and time wasting.	22	19	41	38	30	8.60
5.	Government makes adequate provision for school plants in schools.	13	29	38	40	30	9.52

Figure 3 above shows results of five items. In item 1, majority of the respondents agreed that school administrators' interest determines the level of plant planning and maintenance in their schools, while the remaining few respondents disagreed to the item. This result implies that administrators' interest determines the level of plant planning and maintenance in their schools. In item 2, majority of the respondents disagreed that school location determines the utilization of school plant facilities in secondary schools, while the remaining few respondents agreed to the item. This result reveals that school location determines the utilization of school plant facilities in secondary schools. In item 3, majority of the respondents agreed that school

finance serves as a factor that influence school plant planning, while the remaining few respondents disagreed to the item. This results shows that school finance serves as a factor that influence school plant planning. In item 4, majority of the respondents disagreed that school plant maintenance is costly and time wasting, while the remaining few respondents agreed to the item. This implies that school plant maintenance is costly and time wasting. In item 5, majority of the respondents disagreed that government makes adequate provision for school plants in schools, while the remaining few respondents agreed to the item. This result reveals that government makes adequate provision for school plants in schools.



Provision of School Plants and its Impacts to Teachers' Productivity

S/NO	Statement	Response Categories				Mean	Standard Deviation
		S. A.	A.	D	S.D		
1.	Non-Government organization supports schools with physical and materials facilities.	12	17	35	56	30	15.45
2.	School community contributes to school activities by making provisions for materials and school facilities.	46	39	16	19	30	11.43
3.	School plant planning contributes to effective teaching and learning.	43	35	22	20	30	8.46
4.	Schools with well-planned and maintained school plants are more conducive for learning.	49	45	14	12	30	15.27
5.	Students show interest towards learning in a conducive school environment.	45	47	16	12	30	14.38

Figure 4 above shows results of five items. In item 1, majority of the respondents disagreed that Non-Government Organizations support schools with physical and materials facilities, while the remaining few respondents agreed to the item. This result reveals that Non-Government Organization supports schools with physical and materials facilities. In item 2, majority of the respondents agreed that school community contributes to school activities by making

provisions for materials and school facilities, while the remaining few respondents disagreed to the item. This result implies that school community contributes to school activities by making provisions for materials and school facilities. In item 3, majority of the respondents agreed that school plant planning contributes to effective teaching and learning, while the remaining few respondents disagreed to the item. This result emphasizes that school plant planning contributes to effective teaching and learning. In item 4, majority of the respondents agreed that schools with well planned and maintained plants are more conducive for learning, while the remaining few respondents disagreed to the item. This implies that schools with well planned and maintained school plants are more conducive for learning. In item 5, majority of the respondents agreed that students show interest towards learning in a conducive school environment, while the remaining few respondents disagreed to the item. This result reveals that students show interest towards learning in a conducive school environment.

Discussion

Findings revealed that some facilities are lacking in most of the schools. This finding was also supported by (Afolabi, 2002), while reporting on Ondo State in his study, mentioned that the classrooms in most of the schools were inadequate in terms of decency, space, ventilation and insulation from heat; the incinerators and urinal were not conveniently placed, and the school plant was poorly maintained. The study is in line with Afolabi(2002) who observed that at times students and teachers find themselves in a physical environment that adversely affects their morale and in some cases, their health and concentration. Yusuf (2008), noted that the fundamental purpose of teaching and learning practice is to bring about in the learner desirable transformation in behaviour through critical thinking. The process does not take place in a vacuum but rather in an environment set aside to facilitate learning. Therefore, the level at which school plant is available in secondary schools as well as the level at which school plant planning is being practiced is not so encouraging.

The study also revealed that level of utilization and maintenance of School Plant Planning in Secondary Schools in Ondo State usually goes a long way to determine students' academics performances and teachers' productivity as discovered in this study. It was also established that it is the duty of school administrator to see to the effective utilization and proper maintenance of the school plants. The study also agreed with that of Allen, (2015), who stated that maintenance of school plant is an attribute of good leadership. It entails effective monitoring of both the users and the plant itself; applying sound



maintenance culture of those facilities and other things required for the school plant to give maximum services.

Adequate maintenance of school infrastructural facilities helps to elongate its lifespan and effective utilization. The study is in support of Dare (2010) who stated that the time it takes for a building to become physically obsolete depends on the quality of the original construction and materials as well as the quality of facility keeping and maintenance. The constituents of school physical environment include building and scrape parking lot, playground, sport field, agricultural farm, fire extinguisher, school bus, car park and sand bath. Also school facilities include mechanical material like technological machines, generators, photocopier machines, computer machines, plumbing materials like water taps, bore holes, electrical telecommunication like speakers, radios, network system, security and fire suppression systems.

The study also corroborated Xaba (2012) who viewed that facilitation of learning ushers in a new dawn in the lives of a learner

Finally, on the rate of provision of school plants and its effects to teachers' productivity in secondary schools in Ondo State. The findings made in this study established that the level at which the government, Non-Government Organization and the concerned bodies and individual in the host community takes the provision of school plants to schools into cognizance is not encouraging. The study agreed with Ololube, (2010) who both admitted that quality of education is declining as a result of increased enrolment and/or reduced funding. Many science teachers are poorly motivated, some lack the technical skills in the use of these new technological devices, hence are not enthusiastic in their teaching. For the fact that some lack the technical skills in the use of new technological resources, they shy away from using them. It is also in line with Ajayi (2007), who found that the poor academic performance of the secondary school students in Nigeria can be connected with the seemingly poor school plant planning in the schools.

Conclusion

The following conclusions were made in this study that;

It was concluded in the study that there are no adequate facilities available to facilitate teaching and learning process in schools, this is because, there is low funding on education, the government had failed in making provision for the school children, as well as all that of the school planning; It was also discovered that the level at which the availability and practices of school plants planning in secondary schools in Ondo State is highly poor. Not only the level of utilization and maintenance of school plants in secondary schools in Ondo State. Finally, it was concluded that the provision of school plants has a lots of impacts on teachers' productivity in secondary schools in Ondo State.

Recommendations

The following recommendations were made in this study that;

1. The government should assist the schools by making provision of adequate school plant
2. The NGOs as well as the interest members of the community should also ensure to meet the needs of the school by contributing school facilities that are good and qualitative.
3. The school management, especially the school administrators, make adequate support for the school, urban schools especially.
4. The level of utilization and maintenance of school plants in secondary schools in Ondo State therefore, the school administrators should ensure that the school plants be properly maintained, and students should be notified on the rule of wrongs.

References

- Afolabi, F. O. (2002). The school building and its environment. Implication on the achievement of functional Universal Basic Education programme in Ondo State. In T. Ajayi, J. O. Fadipe, P.K. Ojedele, & E. E. Oluchukwu (Eds.), *Planning and Administration of Universal Basic Education in Nigeria* (pp. 101-110). Ondo: National Institute for Education Administration and Planning (NIEPA).
- Afolabi, F. O. (2012). *An Introduction to Educational Administration and Planning*. Ondo: National



- Institute for Education Administration and Planning (NIEPA).
- Afolabi, F. O. and Loto, A. B. (2017). School Management in Adejumo, J. O., et. al.(eds) Fundamentals of Education II. Ondo: Adeyemi College Academic Press.
- Ajayi, J. A. (2007). Issues in School Management, Lagos: Bolabay Publisher.
- Akinniranye, A. (2015). Fundamental of Educational Planning. Ondo: Crofes Prints
- Allen, A. A. (2015). Effective School Management and Supervision: Imperative for Quality Education Service Delivery. *African education Review*, 9(3), 62-74. DOI: <http://dx.doi.org/10.4314/afrev.v9i3.6>.
- Amanchukwu, R. N. and Ololube, N. P. (2015). Managing School Plant for Effective Service Delivery in Public Secondary Schools in Rivers State of Nigeria. *Journal of Human Resource Management Research*. 5(4): 95-102.
- Asiabaka, I. P. (2008). The Need for Effective Facility Management in Schools in Nigeria. *New York Science Journal*, 1(2), 10-21.
- Audu, R., Umar, I. Y. and Idris, A. M. (2013) Facilities Provision and Maintenance: Necessity for Effective Teaching and Learning in Technical Vocational Education. *IOSR Journal of Research & Method in Education (IOSR-JRME)* e-ISSN: 2320-7388,p-ISSN: 2320-737X 3(1): 12-14
- Nweneke, A. O. (2016) Assessment of Availability and maintenance of school plant in secondary schools in Zaria Education Zone, Kaduna State Nigeria. A M.A. Thesis submitted into the Department of Educational Administration and Planning.
- Oluchukwu (2000). Challenges of Educational Planning in the 21st Century: In Olagboye, A.A. Fadipe, J.O. (Eds) Management of Nigerian Education: School Project Monitoring and School Plant Maintenance. NIEPA, Ondo.
- 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): 41-47.
- Oyesola, G. O. (2007). Planning Education Building and facilities. *Alphabetic List of Journal Articles Ilorin*. <http://www.ijeunilorin.net>
- Wordu, H. and Wehiuzo, N. School Plant Management for Effective Instructional Delivery in Public Senior Secondary Schools in Port Harcourt Metropolis Faculty of Education Rivers State University
- Xaba, M. I. (2012). A qualitative analysis of facilities maintenance: A School governance function in South Africa. *South African Journal of Education*, 32(2): 215-226.
- Yusuf, M. A. (2008). School Plant Planning and Secondary School Students' Learning Outcome in South West Nigeria. PhD dissertation. University of Ado Ekiti.