

PRINCIPALS ADMINISTRATIVE STRATEGIES FOR SCHOOL PLANT MAINTENANCE IN SECONDARY SCHOOLS

GINGER EHIS EGHOSA-AGHIMIEN

ehizogie.eghosa@gmail.com

+2348027654086

ABSTRACT

The study investigated administrative strategies for school plants maintenance in secondary schools. The population for the study was one hundred and ninety (190) principals and the sample was fifty-six (56) principals from public secondary schools in Okpe LGA, Uvwie LGA and Ethiope East LGA in Delta Central Senatorial District. The main instrument for data collection is questionnaire. Cronbach's Alpha was used to determine the reliability of the study. The reliability coefficient was computed as 0.77. The study employed Mean and Standard Deviation to answer the research questions while hypotheses were tested using Statistical T-test. The conclusion shows that planning, organizing, budgeting, controlling, leadership and decision-making strategies have positive influence on school plant maintenance. It was recommended that the government and other stakeholders in charge of secondary education in Delta State should lay more emphasis on school plant maintenance. It was also discovered that many secondary school principals most especially, those in private schools do not have requisite qualification and this to a greater extent affects school plant maintenance. Going forward, principals' administrative strategies should be given first hand attention during recruitment of secondary school teachers and administrative position and Non-Governmental Organizations (NGOs) should come to the aid of communities and public secondary schools.

Keywords: *Academic performance, Principals' administrative strategies, principal and school plants maintenance*

INTRODUCTION

Education is one of the basic instruments used to determine the level of economic development of a country. As it were, Education involves the transfer of knowledge, skills, values, attitude or behaviour from the teacher to the students. Secondary school education is an important level of education in Nigeria where solid foundation for higher education and useful living are laid. The objective of secondary schools outlined among others was to give students the opportunity for quality higher education irrespective of sex, social, religious and ethnic background. An effective educational system would be hard to achieve without proper administrative strategies being put in place by the school manager, who is the principal. The principal is in charge of the management and administration of secondary schools.

School plants have been conceptualized in different ways by different authors. School plant refers to all non-consumable and durable physical and infrastructural facilities available in the school for teachers and students' use in order to make teaching and learning effective. They include lighting, security, transportation, furniture, toilet, storage facilities, parking lot, ICT, food, services, cleaning materials and special facilities for the physically challenged. School plants are educational facilities which include permanent and semi-permanent structures such as machinery, school buildings (classrooms, assembly halls, laboratory, black board), teachers' tools, workshops, libraries, teaching aids and other equipment, as well as consumable (Oyesola, 2018). The main aims of principals adopting administrative strategies in the maintenance of school plant were to be able meet educational requirements and also to be able to compete favourably.

School plant maintenance is a process which ensures that buildings and other facilities are put in proper shape for the operation of an organization, especially to assist in actualizing educational goals. School plant maintenance involves the keeping of the building, equipment and other resources at their best condition of completeness and efficiency, either through repairs or replacement (Bawai, 2013). School plant maintenance has been influenced by some factors, these factors include planning strategies and coordinating strategies.

Administrative function of the principal is to oversee all activities in the school, and in doing this, the principal provides the enabling school environment to make the teaching and non-teaching staff committed towards the achievement of the school goals. Uko (2015) asserts that effective administration of school plant is important in creating the enabling environment. It was suggested that qualified and competent professionals should be appointed as principals. In the views of Amanchukwu & Ololube (2015), administration of school plants requires good leadership, effective monitoring, preventive and predictive maintenance; and the problems of administration were viewed to include lack of proper planning and poor coordination of the school plant facilities.

Administrative strategies can be described as well-planned series of actions or ways through which the available resources are managed and utilized for the achievement of stated objectives (Amanchukwu & Ololube, 2015). Administrative strategies can also be seen as those procedures adopted by administrators or heads of organization for managing and reorganizing human and material resources to attain the stated goals of the organization. Enyi (2013) assert that administrative strategies can therefore be regarded as the sum total of the various processes of planning, organizing, stimulating, coordinating, staffing, budgeting, communicating and evaluating. These processes can be described as the basic elements for administrative strategies

adopted by school principals in school plant maintenance. These strategies or principles according to Peretomode (2019) are represented in an acronym called POSDCORB (planning, organizing, staffing, directing, coordinating, reporting and budgeting). Administration is seen as the everyday job of a secondary school and for the principals' administration to be effective and efficient, the maintenance of school plant is very crucial. The strategies to be investigated are planning and coordinating.

Planning, according to Abah and Odeh (2012) is the process of deciding in advance the method and process which an individual, group or an organization intends to follow in order to accomplish its outlined objectives. Planning is a very crucial stage for the success or failure of organizational goals, and proper planning leads to a very good decision. Planning is the most significant management device for performance and for organizations to perform well, resources must be well utilized and customers well served. To achieve such ends, all organization's human and materials resources must be well utilized in the right way and at the right time to create high quality products at minimal cost.

Another vital component of principals' administrative strategy of school plant is coordination. Coordination refers to the process of bringing related activities together and it entails the careful arrangement of activities in order to obtain a smooth flow of work in the organization. The school administration requires some top-level coordination for the school plant maintenance (Kumar, 2017).

Principals' budgeting strategies is an educational plan with an estimated receipts and expenditures necessary to finance it for a defined period of time. It is a technique used by school administrators to help determine how many financial resources will be needed and how they will be used. Although the budget controller (principal) is responsible for planning and coordinating

the budget, full and meaningful participation of managers and their subordinates should be sought in budget planning. Principals should not take budgeting strategies with levity as it could make or mar effective administration and management of the school system. In view of this, Amuseghan (2020) regretted that it is quite unfortunate that the little resources available are not effectively managed in Nigerian schools. One thing is to raise fund, but the other is to ensure that the fund raised is well utilized by the school managers. However, to ensure judicious spending of funds and accountability, school administrators (principals) plan and prepare budget for their schools. Budgeting according to Olufidipe (2000) cited in Oboegbulem and Kalu (2023), is a process of preparing and using budgets to achieve management objectives. Budget on the other hand, is a comprehensive and coordinated plan, expressed in financial terms, for the future. Oboegbulem and Kalu (2023) regarded budget as a plan quantified in monetary terms, prepared and approved prior to a defined period of time, usually showing planned income to be generated and expenditure to be incurred during that period.

Principals' leadership strategies are demand for leaders to be flexible in overcoming unexpected and demands for those who have a "helicopter vision" that is a far-sighted ability. Based on the above understanding can be concluded that the leadership strategy is a plan or the way that leaders do to achieve a certain goal. The purpose in relation to the principals' leadership strategy, then the goal to be achieved for the advancement of an educational institution. Several other authors also propose leadership strategies. Farkas and Backer (1996) in Uche (2023) developed the idea of maximum leadership that includes five approaches: strategic approach, human asset approach, expertise approach, control approach, and change agent approach. Covey (1989) in Ola (2022) also developed a leadership strategy called principled leadership whose one strategy is customer orientation.

Principals' decision-making strategies is a process of thought and deliberation that results in individuals and members of an organization choosing from among alternative ways of achieving an objective which includes enhancing school plant maintenance (Peretomode, 2020). A plan cannot be said to exist unless a decision has been taken. A decision is simply the logical choice from between two or more alternative courses of action. Morell (1960) and Stoner (1978) in Oghenevwede (2021) positioned that school managers have a purpose in mind when they made a decision. Decisions are aimed at bring school managers closer to their goals. In the light of the above, school plant maintenance which is one of the central goals of school managers/principal must not be treated with levity hence must be embellished in school managers' decisions in order to ensure that they are not relegated to the background. For effective management of school plant, these administrative strategies need to be applied for proper maintenance of school plant. From the foregoing, the importance of administrative strategies is of utmost importance if educational objectives would be actualized. This study therefore, intends to investigate the administrative strategies for school plants maintenance in secondary schools in Delta Central Senatorial District.

REVIEW OF RELATED LITERATURE

Conceptual Framework

The concept of school head/principal

School heads like principals and head teachers are faced with lots of problems in handling school plants maintenance in these schools either by teachers, student, parents and even the community. Good administration strategies of secondary school principals have been tested to be effective

against the cankerworm of school plants maintenance problems in our educational system. In Delta Central Senatorial District, Delta state; there have been evidences of the application of a number of administrative strategies, such as establishing and communicating high expectations for students; behaviour, developing clear behavioural rules, procedures and making these expectations for stakeholders, parents and community, engaging school and community wide commitment to establishing and maintaining appropriate students' behaviour in school and at school sponsored events, encouraging teachers to handle all school plants maintenance problems that they can, increasing visibility and informal involvement in everyday life of the school, increasing personal interactions with students by taking interest in their plans and activities and arranging for appropriate staff development activities. Does it mean that the strategies are obsolete as regards individuals and setting (environment or ineffective school plants maintenance practices? Therefore the problem put in a question form is, 'what is the relationship between principals' administrative strategies and school plant maintenance in Delta Central Senatorial District?

Concept of Administrative Strategies

Administration is essential in every human organisation ranging from industrial firms, hospital, organisations, business enterprises, churches and educational institutions for the achievement of stated objectives. In the views of Amanchukwu and Ololube (2015), administration of school plants requires good leadership, effective monitoring, preventive and predictive maintenance; and the problems of administration were viewed to include lack of proper planning and poor coordination of the school plant facilities. A school as an organisation may find it uneasy to achieve its goals without the proper and effective administration of its human and material resources Akpakwu (2012). Agoha (2018) sees administration as a component part of

management concerned with facilitating the accomplishment of the objectives of an organization through systematic management of constraints and careful utilisation of the available limited resources. Principals perform the administrative functions and the day-to-day activities of the schools. These administrative functions or activities depend on the principals' administrative, supervisory, and organisational strategies, since he bears the general responsibility of clarifying the school purpose and philosophy.

Administrative strategy is concerned with shaping an organization in the right path towards the achievement of its goal. Some of the administrative process strategies of the principals include: planning strategy, organizing strategy, staff personnel strategy, coordinating strategy and decision making strategy. These administrative strategies are pertinent in school plants maintenance in secondary schools in Delta Central Senatorial District.

Administrative strategies can be described as well-planned series of actions or ways through which the available resources are managed and utilized for the achievement of stated objectives (Amanchukwu & Ololube, 2015).

Administrative strategies can also be seen as those procedures adopted by administrators or heads of organization for managing and reorganizing human and material resources to attain the stated goals of the organization. Enyi in Ogbonnaya, Oboegbulem, Onwura, and Enyi (2013) assert that administrative strategies can therefore be regarded as the sum total of the various processes of planning, organizing, stimulating, coordinating, staffing, budgeting, communicating and evaluating. These processes can be described as the basic elements for administrative strategies adopted by school principals in school plant maintenance.

Concept of School Plants Maintenance

School plant has been conceptualized in different ways by different authors. School plant refers to all non-consumable and durable physical and infrastructural facilities available in the school for teachers and students' use in order to make teaching and learning effective. They include lighting, security, transportation, furniture, toilet, storage facilities, parking lot, ICT, food, services, cleaning materials and special facilities for the physically challenged. Asiabaka, (2018) views school plant as physical facilities which include all types of buildings and equipment for teaching and non-teaching activities, areas for sports and games, farms and gardens, landscape, trees, roads and paths. School plants are educational facilities which include permanent and semi-permanent structures such as machinery, school buildings (classrooms, assembly halls, laboratory, black board), teachers' tools, workshops, libraries, teaching aids and other equipment, as well as consumable (Oyesola, 2018). Ibrahim (2018) considers school plant as the totality that makes up a school system. The main aims of principals adopting administrative strategies in the maintenance of school plant were to be able meet educational requirements and also to be able to compete favourably. Obi (2019) was of the views that school plant maintenance should be part of regular administration of the school and to achieve this, administrative strategies have to be put in place.

Aloga (2014) and Ezeocha (2015) report that the state of school plant in Nigeria was unsatisfactory and that the facilities were inadequate. Similarly, Ekpoh (2018) maintains that school plant incorporates operational resources in the school system. It comprises buildings, ground, facilities and equipment which are essential in the implementation of educational programmes, as well as attainment of school goals. School plant maintenance is a process which ensures that buildings and other facilities are put in proper shape for the operation of an

organization, especially to assist in actualizing educational goals. School plant maintenance involves the keeping of the building, equipment and other resources at their best condition of completeness and efficiency, either through repairs or replacement (Bawai, 2013). School plant maintenance has been influenced by some factors' these factors include planning strategies and coordinating strategies.

METHODOLOGY

Research Design

The research design for the study will be Ex-post facto or Causal Comparative design (also known as Contrast design). The study will be aimed at ascertaining whether there is a significant difference between principals' administrative skills and school plant maintenance in Delta central senatorial district.

Area of the Study

The study will be conducted in Delta central senatorial district of Delta State. The target population has its emphasis on public secondary School students in Delta Central Senatorial District in Delta State. Delta Central Senatorial District covers eight (8) local governments which include Ethiope East, Ethiope West, Sapele, Uvwie, Okpe, Ughelli North, Ughelli South and Udu.

Population of the Study

The population for this study is one hundred and ninety (190) principals from one hundred and ninety (190) public secondary schools in eight Local Government Areas (Ethiope East, Ethiope

West, Sapele, Uvwie, Okpe, Ughelli North, Ughelli South and Udu) in Delta central senatorial district

Sample and Sampling Technique

A Simple random sampling technique was adopted. This is because, this is a type of probabilistic sampling technique in which all the members of the population has equal chance of being selected (Cochran, 1977 in Orvie, 2023). The sample for this study will be fifty seven (57) principals from all the public secondary schools in Okpe LGA, Uvwie LGA and Ethiope East LGA in Delta Central Senatorial District. Okpe LGA has seventeen (17) public secondary schools, Uvwie LGA has sixteen (16) public secondary schools and Ethiope East has twenty-four (24) public secondary schools. Every constituency that produces House of Representative member is well encapsulated in this study.

Instruments for Data Collection

The researcher will use questionnaire as the major source of data collection. The questionnaire that will be used to gather data for the study will be tagged, 'Principals Administrative Strategies For School Plant Maintenance In Delta Central Senatorial District' (PASFSPMIDCSD) Questionnaire. The questionnaires were constructed using the modified likert type of four response options of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The questionnaires were divided into two (2) sections. 2.5 will be used as the critical point. Any item with more than 2.5 will be accepted while any item with less than 2.5 will be rejected. The first section of each questionnaire consisted of items which were used to generate the biographic

data of the respondents. The second section of the questionnaire was made up of questions that the respondents were expected to give honest response.

Validity of the Instruments

The instrument of the study will be subjected to thorough screening by the researcher's supervisor and two other experts in the Department of Educational Management. They restructured the questions and pointed out very clearly where amendments and corrections need to be made to establish face and content validity.

Reliability of the Instruments

The reliability of the instrument was determined using Cronbach's Alpha reliability method of IBM SPSS version 26 for its computation. The computation shows 0.77 indexes of correlations, an indication of high positive reliability.

Administration of the Instruments

The questionnaire will be the main research instrument used for collection of data. The researcher will administer the questionnaire to the respondents in the company of two other research assistants.

Methods of Data Analysis

The study will employ Mean and Standard Deviation to answer the research questions. 2.5 will be used as the critical point. Any item with more than 2.5 will be accepted while any item with less than 2.5 will be rejected. The first section of each questionnaire consisted of items which were used to generate the biographic data of the respondents. The second section of the

questionnaire was made up of questions that the respondents were expected to give honest response.

Decision rule

If the calculated t-value is greater than the tabulated t-value, the researcher will reject the null hypotheses and conclude that the test is significant while if the tabulated t-value is greater than the calculated t-value, the researcher will accept the null hypotheses and conclude that the test is insignificant. The hypotheses were tested at $p < 0.05$ level of significance.

PRESENTATION OF RESULTS AND DISCUSSION OF FINDINGS

Data Analysis

The Data Analysis/summary of findings for this study will be shown thus:

H₀ 1: There is no significant improvement on school plant maintenance when principals' planning strategy were in use in secondary schools than when it was not in use

Table 4.7: Significant improvement on school plant maintenance when principals' planning strategy were in use in secondary schools than when it was not in use (n= 56)

Groups	n	Mean (X)	SD	Standard Error	T-cal	T-Tab	Decision
School plant maintenance when principals' planning strategy was in use	28	3.46	0.06	0.12	9.10	2.02	Reject Ho
School plant maintenance when principals' planning strategy was in use	28	1.25	0.35				

Significant at 0.05 level of significance

Degree of freedom, $df = 28+28-2$; $df = 54$

Recall that the decision rule is that if the calculated t-value is greater than the tabulated t-value, the researcher will reject the null hypotheses and conclude that the test is significant while if the tabulated t-value is greater than the calculated t-value, the researcher will accept the null hypotheses and conclude that the test is insignificant.

Here, the study tested a non-directional hypothesis (null hypotheses) which indicates that no group is better than the other. Therefore, the true $(\alpha) = 0.05/2 = 0.025$. The t-calculated value was found to be 9.10. Now, from the t-distribution table, using $df = 55$ and the true $(\alpha) = 0.025$ (t-tabled) was found to be 2.02. The result indicates that school plant maintenance when principals' planning strategy were in use in secondary schools has a mean score of 3.46 and this is significantly better than school plant maintenance when principals' planning strategy were not in use in secondary schools with a mean score of 1.25. The result indicates that we reject null hypothesis which states that there is no significant improvement on school plant maintenance when principals' planning strategy were in use in secondary schools than when it was not in use. The test is therefore statistically significant.

H₀ 2: There is no significant improvement on school plant maintenance when principals' organizing strategy were in use in secondary schools than when it was not in use

Table 4.7: Significant improvement on school plant maintenance when principals' organizing strategy were in use in secondary schools than when it was not in use ($n= 56$)

Group	n	Mean (X)	SD	Standard Error	T-cal	T-Tab	Decision
School plant maintenance when principals' organizing strategy was in use	28	3.09	0.30	0.14	11.00	2.02	Reject Ho
School plant maintenance when principals' organizing strategy was in use	28	1.67	0.52				

Significant at 0.05 level of significance

Degree of freedom, $df = 28+28-2$; $df = 54$

Recall that the decision rule is that if the calculated t-value is greater than the tabulated t-value, the researcher will reject the null hypotheses and conclude that the test is significant while if the tabulated t-value is greater than the calculated t-value, the researcher will accept the null hypotheses and conclude that the test is insignificant.

Here, the study tested a non-directional hypothesis (null hypotheses) which indicates that no group is better than the other. Therefore, the true $(\alpha) = 0.05/2 = 0.025$. The t-calculated value was found to be 11.00. Now, from the t-distribution table, using $df = 55$ and the true $(\alpha) = 0.025$ (t-tabled) was found to be 2.02. The result indicates that school plant maintenance when principals' organizing strategy were in use in secondary schools has a mean score of 3.09 and this is significantly better than school plant maintenance when principals' organizing strategy were not in use in secondary schools with a mean score of 1.67. The result indicates that we reject null hypothesis which states that there is no significant improvement on school plant maintenance when principals' organizing strategy were in use in secondary schools than when it was not in use. The test is therefore statistically significant.

H₀ 3: There is no significant improvement on school plant maintenance when principals' budgeting strategy were in use in secondary schools than when it was not in use

Table 4.9: Significant improvement on school plant maintenance when principals' budgeting strategy were in use in secondary schools than when it was not in use (n = 56)

Group	n	Mean (X)	SD	Standard Error	T-cal	T-Tab	Decision
School plant maintenance when principals' budgeting strategy was in use	28	2.89	0.40	0.15	9.00	2.02	Reject Ho
School plant maintenance when principals' budgeting strategy was in use	28	1.80	0.68				

Significant at 0.05 level of significance

Degree of freedom, $df = 28+28-2$; $df = 54$

Recall that the decision rule is that if the calculated t-value is greater than the tabulated t-value, the researcher will reject the null hypotheses and conclude that the test is significant while if the tabulated t-value is greater than the calculated t-value, the researcher will accept the null hypotheses and conclude that the test is insignificant.

Here, the study tested a non directional hypothesis (null hypotheses) which indicates that no group is better than the other. Therefore, the true $(\alpha) = 0.05/2 = 0.025$. The t-calculated value was found to be 9.00. Now, from the t-distribution table, using $df = 55$ and the true $(\alpha) = 0.025$ (t-tabled) was found to be 2.02. The result indicates that school plant maintenance when principals' budgeting strategy were in use in secondary schools has a mean score of 3.23 and this is significantly better than school plant maintenance when principals' budgeting strategy were

not in use in secondary schools with a mean score of 1.55. The result indicates that we reject null hypothesis which states that there is no significant improvement on school plant maintenance when principals' budgeting strategy were in use in secondary schools than when it was not in use. The test is therefore statistically significant.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary of the study

The following are the summary for the study:

1. Null hypothesis which states that there is no significant improvement on school plant maintenance when principals' planning strategy were in use in secondary schools than when it was not in use is rejected.
2. Null hypothesis which states that there is no significant improvement on school plant maintenance when principals' organizing strategy were in use in secondary schools than when it was not in use is rejected
3. Null hypothesis which states that there is no improvement on school plant maintenance when principals' budgeting strategy were in use in secondary schools than when it was not in use is rejected
4. Null hypothesis which states that there is no significant improvement on school plant maintenance when principals' controlling strategy were in use in secondary schools than when it was not in use is rejected.

Conclusions

This study explained principals' administrative strategies for school plants maintenance in secondary schools in Delta Central Senatorial District. It was successful in demonstrating a clear

relationship between principals' administrative strategies and school plants maintenance. Thus, the following conclusions were made from the study:

- 5.2.1 In an extensive way, final data results demonstrated that planning, organizing, budgeting, controlling, leadership and decision-making strategies have positive influence on school plant maintenance.
- 5.2.2 In a particular way, it was concluded that principals disagree on the best strategies for school plant maintenance in secondary schools. They are of the opinion that all the strategies should be applied simultaneously if any school wants to achieve effective school plant maintenance culture.
- 5.2.3 Since this study's results provide consistent information that can be used in further investigations in similar topics, its conclusions can be incorporated into the existing knowledge base of school plant maintenance to both complement existing theory and advance the existing understanding to analyze scientifically related issues.

Recommendations

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

- 1. The government and other stakeholders in charge of secondary education in Delta State should lay more emphasis on school plant maintenance
- 2. It was also discovered that many secondary school principals most especially, those in private schools do not have requisite qualification and this to a greater extent affects school plant maintenance. Going forward, principals' administrative strategies should be given first hand attention during recruitment of secondary school teachers and administrative positions.

3. Non-Governmental Organizations (NGOs) should come to the aid of communities and public secondary schools by engaging in school plant maintenance to add to the ones already done by the government to enhance effective teaching and learning.
4. Also, well-to-do individuals in the society should help schools in the community to improve infrastructural wise by giving them aids, grants and subsidies to improve their school plant maintenance.

REFERENCES

- Abah, C. and Odeh, P. (2012). Achimugu, L. (2008). Agencies of Nigerian teachers. NUT, friend or foe? Port Harcourt: Baron Press Ltd.
- Adelabu, A. (2015). The relationship between university plant planning and effectiveness in North-central Nigeria. Unpublished Thesis, University of Ilorin.
- Agoha R.C. (2018). Administrative Strategies for School Plant Maintenance in Secondary Schools in Okigwe Education Zone. Unpublished master's project presented to the department of Educational Foundations University of Nigeria, Nsukka.
- Akpakwu, C. (2012). Principal's Administrative Strategies And Teacher Job Performances In Secondary Schools In Onitsha North L.G.A. *International Journal of Innovative Psychology & Social Development* 9(1), 52-63.
- Agabi A.O.C. (2015). The strategies in maintenance of physical facilities in secondary schools in Okigwe education zone of Imo state Nigeria. Unpublished M.Ed dissertation University of Nigeria Nsukka, Nigeria.

- Aloga, S. (2014) and Ezeocha, P (2015). Influence of School Plant Management on Principals' Administrative Effectiveness in Senior Secondary Schools in Rivers State, Nigeria.
- Amuseghan, I. (2020). Maintenance Strategies and Condition of Public Secondary School Buildings in Ado-Odo/Ota Local Government Area Ogun State, Nigeria (Doctoral dissertation, Covenant University, Ota Nigeria).
- Amanchukwu, R. N., and Olulube, 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.
- Asiegbu and Onyali (2019). *The scope of educational administration*. Makurdi: Success World Publications.
- Bayero, C. (2013). School plant planning and maintenance as management practices for effective teaching and learning in public secondary schools in Rivers State, Nigeria. *Nigerian Academic Forum*, 26(1), 40-47.
- Bawai, W. (2013). School plant Maintenance Culture and Utilization. Handbook of Research on Educational Planning and Policy Analysis. pp 138-155.
- Businge, D. (2014). *Administrative strategies for school plant maintenance in secondary schools in Okigwe zone*. Retrieved 11th July, 2014, from www.unn.edu.ng/.../...(unpublished UNN m.ed.thesis)
- Davidson (2015). *School plant management*. Retrieved 11th July, 2015, from Olga-schoolplantmgt.blogspot.com. Google.

- Davies (2013). *The need for effective facility management in schools in Nigeria*. New York Science Journal. 1(2) 10-21. Retrieved 26TH February, 2013, from <http://www.science Pub. Org>. ISSN 1554-0200.
- Deci, D. (2019). *The need for effective facility management in schools in Nigeria*. New York Science Journal. 1(2) 10-21. Retrieved 26TH February, 2019, from <http://www.science Pub. Org>. ISSN 1554-0200.
- Ekpoh, I. (2018). *Key note- address delivered at Government Secondary Technical School Owerri to Scholarship Awardees by P.T.A. in Asodike*.
- Enyi, A. (2013). *Contemporary administration and teaching issues in Nigeria schools*. Owerri. Alphabet Nigerian Pubs.(p.291).
- Esther N. Ogli et al (2024). *Contribution of Parent-Teachers Association to secondary school management: Principals' perception*. Journal of Emerging Trends in Educational Research and Policy- Studies (JETERAPS), 4(6),(p. 835-841).
- Ibrahim, M. (2018). *Understanding School Management*. Markurdi: Ugo Printing Press.
- Ijekpa, B.A. And Mkpa, A.M (2015). *The Influence of school physical environment of secondary school student's academic performance in Bayelsa State*. Asian Journal of Educational Research.4, (.2).(p.17-24).
- Hall, H.G. (2012). *Strategies for involving communities in funding of computer education in schools in Anambra State*. Africa Research on Computer Participation. An International Multidisciplinary Journal, Ethiopia: 8 (1) serial no. 32,(p.64-82)

- Ibukun (2018). Principals' school plant management strategies, as perceived by parent-teacher-association executives in Nigerian public schools. *International Journal of Research Publications (IJRP.ORG)*, 55(1), 68-86.
- Igoni, E. (2020). *Community development for new Africa*. In T. Koroye(ed), *The influence of school physical environment of secondary school student's academic performance in Bayelsa State*. *Asian Journal of Educational Research* .4.(.2).(p.1-5).
- Junega, W. (2015). *Evaluation of school plant adequacy, usage and maintenance in secondary*
- Nachmias, G. (2018). *Introduction to educational management in Nigeria*. Ibadan: Daily Graphics.
- Obi, Z.C. (2019). Management and maintenance of secondary school facilities in Anambra State, Nigeria: Challenges and way forward. *Global Journal of Education, Humanities and Management Sciences*,1(1),165-171.
- Oboegbulem and Kalu (2023). *The scope of educational administration*. Makurdi: Success Word Publication.
- Ogbonnaya, N.O, Oboegbulem, A.I., Onwura, C.U, &Enyi, D. (2013). *Fundamentals in educational administration and planning*. Nsukka: Chuka Educational Publishers.
- Ojeje & Imoniyovwe (2023)
- Oyekan, S.O. (2018). Essence of teaching practice to professional development of quality teachers for nation building. *International Journal for Cross-Disciplinary Subjects in Education*, 9(4), 3938-3947.

Oyesola, G.O. (2018). Planning educational building and facilities. *Alphabetic list of Journal articles*, Ilorin.