

**MAINTENANCE OF SCHOOL INFRASTRUCTURE FOR EFFECTIVE  
ACADEMIC PERFORMANCE**

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**Abstract**

Not many schools acknowledge the interdependence and contributions that maintenance of school-infrastructure-(buildings and furniture) could make to the improvement of academic activities in the school. This paper therefore attempts to explain some ways in Which maintenance of school infrastructure could contribute to the realisation of the major educational objectives in schools. -The paper touches the areas of building structures like classroom, libraries, common rooms, as well as areas of furniture like those to be found in offices and classrooms after giving the operational definition of terms. Conclusion and suggestions were made on how to improve infrastructure maintenance culture in our schools.

## INTRODUCTION

One of the prime objectives of educational institutions in Nigeria is to supply the sectors of the national economy with required manpower. Also, the school is to prepare the individuals for useful living in the society as well as producing the inputs in form of graduates from one level of education for the next level. At secondary school level for instance, one of the objectives is to - prepare the individuals for the third level of education. The National Policy on Education - has stated that the government will continue to use education as a tool to achieve its national objective. And that the two broad aims of secondary education within the overall national objectives will be for preparing the students for useful living within the society and preparing them for higher education. It is from this premise that the school is looked upon as a production unit since education itself is an industry.

The school therefore requires a factory model system which receives on a continuous basis the major inputs in form of students and infrastructures for the production of needed output. Hence, the resources earmarked to schools are assumed to be related to the academic utilization in order to achieve the necessary academic output.

Since academic achievement becomes a measure of school output, it becomes necessary therefore, to see to the improvement of academic achievement of students. One way of making this possible is to advance means of proper maintenance of a measure of school inputs which can be classified as school facilities in form-of infrastructure. Putting the school in a factory model therefore, the school facilities make- up for the factors of production while the finished product becomes the academic achievement on part of the students. Thus, the assumption is that, since anything been utilized (under utilization) must depreciate in value with time, but they still continue to function as expected if well maintained, there should be linear relationship between the 'cause' in form of school infrastructure and 'effect' in form of scholarstic performance.

As important as provision of school infrastructure is, of equal importance is their maintenance. It has been suggested that buildings and equipment and other organizational variables have great influence on students' academic achievement. Loo (1972) and

Grovert ( 1 9 7 7 ) as cited by Olutola (1980) said that the teacher as well as his students are certainly influenced by their physical environment, such physical environment includes buildings, desks and tables they work with.

Adesina ( 1 9 8 0 ) also remarked that variations in students' academic performance can be related to availability of physical facilities such as furniture and other related materials' in the school of equal importance is the fact, that whatever impacts that are made in the provision of furniture and building for one purpose of teaching students will equally effect the attitude of teachers in their teaching exercise, no doubt their attitude is capable of affecting the output in the school system in terms of students academic performance. A school that is well equipped with enough furniture has the capacity of encouraging students to engage on a self studying process, hence, it is assumed that school infrastructure; building and furniture have the capacity of affecting scholastic achievement of -students.

Since the school principal wears the crown of educational supervisor at the secondary school level, his role involves periodical supervision of school buildings and furniture in order to identify areas of needed repairs for proper maintenance. Edem, (1982) in Odei, (1991) remarked:

The responsibility of making appropriate material resources available to the secondary schools may devolve on the government. Certainly, to maintain and use them effectively for the accomplishment of the educational purpose rests with the school principal, (p. 34).

The Principal therefore occupies a very important position in the secondary school system as a processor of available inputs to ensure students' maximum academic achievement. And an integral part of school input processing is the maintenance of school building and furniture.

### **Operational Definition of Terms**

The following terms used in the paper are operationally defined thus

- i. Maintenance means any form of repairs, painting patching e.t.c. done on buildings and furniture for the purpose of keeping it on optimum working condition.
- ii. school infrastructure refers to the school components or parts of those components of the school. Those components referred to in this paper are buildings and furniture.
- iii. Buildings are structures construe, bed in form of houses or offices. School buildings therefore include such constructions as classrooms, hostels, offices, libraries, gymnasias, e.t.c. built in the school to aid teaching and learning.
- iv. Furniture, could be referred to as the movable things like chairs, benches, tables e.t.c. that are needed in the school buildings for effective teaching and learning.

The council of Educational Facilities Planners (1969) has defined school furniture as those items associated with the instructional function of the school that are usable by all school personnel and are in all possible instances, movable at will and with ease.

### **School Infrastructure Maintenance Services**

School infrastructure here does not refer to the whole of school facilities. But it refers to only the school buildings and furniture. However, maintenance of school facilities generally begins with building and fixing firmly the idea of high regard for school facilities and discouraging willful destruction of school properties. And once respect for school property has been internalised, then the first and of school infrastructure maintenance major is won (Oyedeji, 1999). The maintenance of school building and furniture is unique as it requires the competent of specially trained and skilled personnels like plumbers, electricians, roofers bricklayers, painters and carpenters. However, due to the complexity and wide range nature of school infrastructure a custodian is often employed to be in charge of maintenance / and to oversee the maintenance crew. In primary and secondary schools, where lesser amount is needed for the little maintenance, permanent staff may not be needed.

Instead they contract for their maintenance Jobs.

The school head and custodian make it a point of duty to periodically move from one building to another inspecting the buildings and the furniture inside and outside them. A checklist should be prepared whereby all the buildings and furniture for inspection, are listed, this becomes necessary in order not to leave any stone unturned during the inspection. A form should be designed by the school head for all members of staff to fill when an area of repairs is discovered, hence, every member of staff should be made to identify and report areas of maintenance to the school head who will collate such reports for further maintenance action. While collating such reports, the head should take note of those that need emergency attention, e.g. leaking roof and electrical repairs. Broken chairs and tables should also be repaired without wasting time. It should be noted that some areas of maintenance need daily attendance, some are attended to weekly, monthly and annually. Those that need daily attention include floor sweeping, lavatory cleaning and table dusting. Mopping and scrubbing of floors may be done weekly. Cleaning of windows and light fixtures may be done monthly and annually respectively. In higher institutions, maintenance areas are usually divided into departments or sections e.g. carpentry section, plumbing, departments, electrical, departments, bricklaying section e.t.c. It should be noted that each of these sections to carry out specific and different maintenance jobs under the supervision of the school custodian. The school head, as the overall supervisor of the school is to supervise on a regular basis the maintenance officer or school custodian. AbdulKareem (1985) asserted that the school head must see that the maintenance officer has necessary equipment and supplies to keep the school facilities in good condition.

The maintenance officer or school custodian has some minor maintenance responsibilities to attend to, these include the repairing of furniture, hardware equipment, plumbing, replacing window, door and cabinet glass, applying seals and varnishes to floors, resurfacing blackboards, replacing light bulbs, switches and fuses, and caring for school grounds through the removal of fallen trees and brush. This is behind the idea that school custodian will normally be able to perform such simple maintenance activities more economically and efficiently than regular maintenance personnel.

Oyedeji (1998) has pointed out the two main types of maintenance, the first according to him, is the individual building maintenance. This type of maintenance is carried out by the school head. Here the head should see to the

maintenance of such areas of school building as broken windows inadequate light fixture, defective wiring, leakages and dilapidated buildings. The second type of maintenance is known as district" wide maintenance which is common in higher educational institutions whereby a central maintenance department will be needed. While Olagboye (1998) has divided maintenance into the following five types:

- i. preventive and Predictive maintenances
- ii. corrective maintenance,
- iii. breakdown maintenance,
- iv. running maintenance, and
- v. shut down maintenance,

### **Maintenance of School Infrastructure for Effective Academic Performance**

Effective teaching/learning encounter in an educational institution is the Joy of an educational administrator. Effectiveness in academic -performance of students/pupils can not be achieved in an educational institution where buildings and furniture are rendered to a state of dysfunctional use due to lack of maintenance. Maintenance of school infrastructure therefore becomes important in order to enhance effective academic performance in educational institutions. Maintenance of school infrastructure can bring about effective academic performance in educational institutions in the sense that students/pupils find it difficult, if not impossible to learn effectively In a classroom where the roofs are leaking or where a considerable or every part of the roof has been blown off. In the, same token, students cannot learn well during evening preparations in classrooms where light, fixtures are defective and non functional due to lack of maintenance. This type of environment can not promote effective academic growth. In line with this, Stones (1983) discovered in a survey of backwardness he carried out that backward children were to be found in greatest numbers in poor environments, as they were closely correlated with school attainment and measured intelligence. If education is to be considered an investment, by being a huge Government Venture . (EGN) (1981). Then there is every need to satisfy . the ambition of learners, that is, to acquire the objective of effective teaching/learning situation. This objective can not be achieved in a situation

where at students' seat are broken or office furniture are damage a without being repaired. Adeyinka (1992) while discussing the problems of Educational development in Nigeria, said: in most cases, the chairs and desks are not enough, you see them (students) sharing chairs, standing up, or sitting on windows or broken desks. A situation that generally militates against effective teaching and intellectual development of the children. (p.8).

This assertion is in support of the fact that effective maintenance of school furniture ensures effective teaching and intellectual development of the children. Adesina (1980) also believed that children will receive high quality, of education if infrastructure are maintained in schools.

Well maintained halls serve as venues of meeting for social and educational activities organised by the school and even the community. for instance, the school may organise inter-school debate or quiz which develop the intellectual capacity of the children while the community may organize adult education programme or any other educative programme. Community in turn pays back through involvement in the education process of their children (Ojedele 1998).

A well maintained school infrastructure provides avenue for students to psychologically and sociologically settle down for academic development instead of embarking on unrest due to poorly maintained infrastructure. Taiwo (1998) discovered that one major reason why students embark on unrest is because of lack of school infrastructure maintenance. and students don't perform well academically when they embark on an incessant unrest.

But maintenance of school infrastructure makes learning to become real to students and also serve as great assistance to the teacher in the school. Well maintained blackboards for instance, make teachers' writing to be clear to students, explanations made on the black-board also become understandable. While the teacher finds joy in a classroom with well maintained teacher's table and chair. But teachers are usually bored in classrooms where they have to stand up throughout the lesson period Abifarin (1995) observed that media (that are maintained) increase learning effectiveness and serve as great assistance to the teacher as they lend support to whatever the teacher says.

A well maintained school library in doubt corroborates classroom activities and add to academic achievement of students. In support of this, Salisu (1989) in Arikewuyo



(1997) said that the library provides a positive and progressive (academic) programme which is meant to integrate library resources into the classroom activities thereby adding to the educational opportunity of every child in the school. Hardly will one see a school without a library, no matter how small, but the academic programme which the school library is designed to provide can only be effective where library seats and book shelves are in good condition and where library seats and book shelves are in good condition and where the building is not dilapidated.

One other important area which should not be forgotten is the maintenance of school Gymnasium and school common rooms. These two places, if properly maintained provide learners with the needed physical/health activities, relaxation and other extra-curricular activities. Such activities apart from enhancing pure practical curricular experience for some sets of students, they also help to foster intellectual and social development of students. Ojedele (1998) in Olagboye and Fadipe (1998) believed that common rooms in schools promote social relaxation and assist the intellectual, social-rapid emotional development of the child.

### **Conclusion and Recommendation**

The current poor economic condition of the country has created the problem of poor school infrastructure maintenance. Durosaro (1998) in Olagboye and Fadipe (1998) observed that the existing school plants cannot be adequately maintained due to lack of funds. Hence, the infrastructure in schools are poorly maintained and to worsen the situation. School population continue to increase yearly. There is need therefore to intensify efforts on school infrastructure maintenance culture. This becomes necessary in order to increase the lifespan of school infrastructure and to achieve the objective of academic improvement in school. In doing this, the following recommendations are made.

The school building should be planned in order to meet the educational demand for students. Here, professional planners as well as practitioners who execute the plans should be involved. Aina (1981) has suggested that planning at this time should be done at both government and school levels. While Olutola (1988) has given the following factors to be considered when planning for school building:

Accessibility, central location with regards to population, availability to municipal amenities such as water, light, sewage and communication facilities, freedom from health

hazards, noise vibration and other distractions (pp.211 - 212).

In the same token, council of Educational facility planners (1969) has analysed the following to be given specific consideration when planning for school infrastructure: appearance, safety, comfort, durability and building codes or standard. The type of infrastructure to be purchased or constructed should be colourful and functional, head of schools should therefore desist from allying with contractors to supply sub-standard and non-functional infrastructure. The same council mentioned above has emphasised that: Comfortable, colourful and functional furniture contributes greatly to the learning environment. Each school and each, classroom should therefore be considered separately when considering (or planning) equipment needs (p. 135).

The various arms of government concerned should make sure that enough fund should be given to schools for maintenance of infrastructure. Without fund, little or nothing could be done on maintenance of infrastructure as no organization can perform well without enough fund. Ozigi(1977) supported this: No organization can survive or carry out its function effectively without adequate financial resources at its disposal. Money is needed to pay staff, maintain the plant and keep services going. (p.78).

Maintenance activities on school infrastructure should not be left in the hands of school heads and maintenance staff alone. Everybody in the school including students should be involved in the maintenance activities. Even, this should extend to the community in general, organizations, and individual philanthropists in particular. Since everybody benefits directly or indirectly from proper maintenance of school infrastructure.

As part of maintenance services, school needs should pay attention to prevention of fire hazards. Hence, it is suggested that fire extinguishers should be provided in every school building. In support of this Abdulkareem (1985) suggested that "Maintenance and insurance services of the school plant should be reinforced by providing sufficient fire arms, hoses, fire extinguishers and "thunder catchers in the school", (p. 67). In order to achieve the broad educational objectives in our schools by improving scholastic performance of students, the school infrastructure should be maintained.

Ogunsaju (1983) maintained that for effective teaching/learning situation, school buildings and educational goals should not be separated

## References

- Abdulkareem, A.Y (1985) School Plans Management Practice A Case Of Secondary School In Ilorin Local Government Area Of Kwara State Of Nigeria. Unpublished M.Ed. Thesis.
- Abdulkareem, A. Y. (1985)• Management Of Higher Institutions Physical Facilities. Paper Presented For Education And . Politics.
- Abifarin, M.S. (1995) Using Educational Media In A Depressed Economy In Oro Journal Of Educational And Technological 7 Studies (Ojet) 11,49.
- Adesina, S. (1980), Some Aspects Of School Management. Ibadan: " Education Industries Nigeria Ltd
- Adeyinka, A. A(1992)Corrent Problem Of Educatonal Development In Nigeria. In Ilorin Journal Of Education, 12, 8.
- Aina, D.T. (1981) The Influence Of School Size On Educational Planning In Nigeria. • In Introduction To Educational Planning. Ile-Lfe, Unife Press.
- Arikewuyo, O. (1997) Students Perceptions And Utilisation Of University Services: The Case Of Ogun State University, In International Journal Of Educational-Management (Item) 2, 1,75
- Council Of Educational Facility Planners (1969).Guide For Planning Educational Facilities. Ohio: Cepp.
- Durosaro, D.O. (1998) School Plant Management Practice In Nigeria.Trends, Issues And problems. In Olagboye & Fadipe (1998).
- Management Of Nigerian Education; Project Monitoring And School Plant Maintenance. Ondo; Nept
- Federal Republic Of Nigeria (1981). National Policy On Education (Revised) Lagos. Nero
- Odei, A.J. (1991) School Facilities And Students,' Academic Pformance In Selected Secondary School In Kwara State Unpublished M.Ed.Thesis
- Ogunsaju, S. (1985) Educational Supervision: Perspectives And , Practices In Nigeria. Lie-Lie:University Of Lie Press.
- Ojedele, P.K. (1998) Maintaining School Plant For Educational Effectiveness And Efficiency In A Depressed Economy, In
- Olagboye (1998)(Eds) Management Of Nigeria Education; Project Monitoring

- And School Plant Maintenance. Ondo; Niepa. ;
- Olagboye, A«A» (3998)• .Promoting School Plant Maintenance Culture In The Nigeria School System. Olagboye Fadipe (1998) (Eds) Management Nigeria Education; Project Monitoring And School Plant Maintenance. Ondo;
- Olutola, A.D (1988). Educational Facilities And Students' Performance In Wasc Examinations. In Journal Or Educational Management, 1, 1, 17,-25
- Oyediji, H.B. (1998) Management In Education. Principles And Pract Ice. Lagos. . Aras Publishers.
- Ozigi, A.O. (1977). A Handbook On School Administration And Management-. Nigeria; Mac Mill An.
- Stones, E. (1985) An Introduction To Educational Psychology. Ib Ad An: Spectrum Books.
- Taiwo, B.M. (199&) Stiudent Perception Of The Causes And Effects Unrest In Nigeria Tertiary Institutions. Unpublished M.Ed.