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RE-BUILDING THE CULTURE OF SCHOOL-PLANT PLANNING IN NIGERIAN SECONDARY SCHOOLS

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Abstract

This research article investigated on Re-building the Culture of School-Plant Planning in Nigerian Secondary Schools. School plant is an integral part of school life, and it played a leading role in teaching- learning process in school. For effective administration of schools, these roles are considered to stems from buildings, libraries, chairs, machines, technical workshops, play-ground human resource and so on. School plant are durable facilities which anchor on orderly and smooth learning objectives to be achieved, thereby increase students' academic performance. The school plant is classified into: teaching and non-teaching facilities. These facilities played distinctive roles so as to bring about high-rate of students' achievement at all levels and types of education in Nigeria. School Plant maintenance means regular repairs and proper up-keep of the school physical facilities and equipment in order to provide future uses to the school. Its role in the delivery process cannot be over emphasized, for instance, [redacted]

Key words: Re-building, Culture, School-Plant and Planning in Schools.

classroom is where learning experiences take place with all the teaching materials supportive for easy instructional delivery. The rebuilding of school plant planning relates to modernized techniques in the 21st century. That is, the used of audio-visual, artifacts, tele-conference, radio, audio, air conditioners and a lot more others. In line with the above, that the system theory upheld that,

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organization as a system is structure with independent components that works symbiotically for the common goals of the organization. The dysfunctional parts are identified and rectified for the system to gain normalcy. The article also considered school culture and approaches in School Plant Planning, which includes; school plant procurement, instructional space planning, team teaching of instruction and few others. The recommendations stated to guide the study are: The Government should provide trained personnel on maintenance of school facilities, as this will help for regular maintenance of facilities in school, and School Heads should monitor facilities of the school on routine basis to know those that break-down for immediate/adequate maintenance, and many more.

Introduction

School plant planning is very key to the life of the school education as its make teaching and learning process easier, enjoyable, and stimulating both teacher and learner activities in school system. Attesting to the above that Olaniyan and Anthony (2013) up-held school plant planning as facilities which are physically and spatially helps teaching and learning to take place in school. School plant are permanent facilities in school, which exists as: buildings, libraries, chairs, machines, technical workshops, play-ground and others non-human resources that aid the actualization of teaching and learning objectives. There is a clear indication that, if those resources are well planned and maintained there will improve overall school performance of students.

School plant can be classified as teaching facilities and non-teaching facilities. Teaching facilities are seen as having direct relevance on educative process, while non-teaching facilities in the other hands have indirect relevance on educative process (Ogunu, 2000). Importance of school plant are numerous to mention, for instance it helps to protect teachers and students from the sun, heat, rain and cold. It enhances the comfort and safety of teachers and students thereby increasing their performances. Onyedeji (2002), posits that the quality of education that people received have direct relevance to the planned curriculum. Mogbodile (1986) described the school plant as the space interpretation of the school curriculum. The programmes of the school are expressed as it where through the school site, the buildings, play-grounds, the arrangement and design

of the buildings, et cetera. To this respect, no school can function effectively without adequate school plant.

School plant maintenance is the repair and upkeep of the school physical facilities and equipment in order to provide efficient services to school. Onwurah cited in Peretomode (2004) points out that school plant maintenance is all the activities which entail repairs and replacement of school buildings and equipment in order to keep them in as near their original conditions as possible. Its' also concerned important resources for the implementation of educational programme in Nigeria. Its role in the teaching process cannot be over emphasized, for instance, classroom constitute a common ground for sharing learning experiences.

The poor performance of secondary school students has persevered for a long time despite efforts by stakeholders to reverse it. It is worrisome to note that secondary schools in Nigeria are not meeting the expected requirement of producing quality students who can gain admission higher institutions of learning.

Re-Building the Culture of School Plant Planning in Nigerian Secondary Schools.

The task of maintaining school culture is collaborative efforts of the government, school administrators, educational guidance and counsellors, educational policy makers, communities, stake-holders, interest groups and staff and students. The success or failure to re-build school culture rest squarely on school administrators. This is so because needs requirements that are provided goes directly to school administrators. It becomes his responsibility to decide where, when, how and why should the facilities be used.

Some of the steps for re-building school plant planning in Nigerian secondary schools are, though not exhaustible in their numbers:

- The community should hold meeting regularly with schools around their locality so as to know areas of shortfall to help strengthen the school. Such as providing funding, securing the school, carry-out awareness campaign to members for good human-relations among staff and students, school and community members etc.
- Constituting school prefects to monitor movement, check sanitation, students' punctuality, school facilities and report matters above them to teachers can serve as a welcome culture to save image of the school.
- Frequent visitation to classroom by school principals to inspect and/or supervised teachers' instructional delivery, students assigned task, school

properties and to observed the clearness of the environment helps to re-awaken spirit.

- Given adequate punishment to students who goes against the established school rules and regulations. This effort will help to instill discipline amongst students who wish to engulf on indiscipline behaviour.
- Introducing rewards to well behave students in school especially for keeping classes clean, maintaining both laboratory and library among others.
- If a blue-print is issued to the three tiers of government, e.g Local, State and Federal Government of Nigeria to regulate schools conduct, it will help in school plant planning.
- Modernization according to Castaldi (1977) believed that is a process whereby an existing school building is brought up-to date structurally and educationally. Modernization is more extensive and comprehensive than either rehabilitation or remodeling. In the process of modernization, spaces within a school building may be reshape including other facilities to their original state. In rebuilding, reshaping, rehabilitating, remodeling and modernizing is all about given the school a new look to stand the taste of time.

Concepts of Organizational Culture and School Plant Planning.

Organizational culture means shared values, rules, belief patterns, teaching and learning approaches, behaviors, and relationships among or across the individuals in a school (Çakiroğlu, Akkan, and Guven, 2012). Organizational culture could be seen from many precise definitions. It has chronological (ethical) as well as anthropological basis which deals with life, people and character of members of the organization. The ideal culture requirements of organizational workers are looked back to the 18 century. Mary packer and Elton Mayo emphasized equal treatment of norms, values, healthy living and good virtues for objectives accomplishment.

"Culture is the shared knowledge and schemes created by a set of people for perceiving, interpreting, expressing, and responding to social realities around them," (Lederach, 1995). Culture has to do with "learned and shared human patterns or models for living so as to meet day-to-day living patterns; these patterns and models pervade all aspects of human-social interaction (Damen,

1987). Most of these definitions justified the observation that culture, generally, refers to a group of people and their ways of living. It is the foundation based in organization for harmonious living. It is a standard to sustain environmental atmosphere. Its measure behaviours control in the organization. Griffin in Peretomode (1991), it determines the 'feel' of the organization, regardless of its nature; it is a powerful force that can shape the firm's overall effectiveness and long-term success.

Concepts of School Plant Planning.

Whereas, a functional School Plant Planning is a complex task. It involves putting up functional buildings, materials and facilities in adequate numbers for immediate and future uses. This could also provide active and conducive environment for teaching-learning process in school. School plant planning by: Ndu, Ocho and Okeke (1997), is a process of selecting a suitable site for the school buildings and procuring materials to equip the buildings. It also involves decision making on the size, accommodation and spacing distance of all learning activities. Peretomode (2004) agrees with Ndu and Ocho that no architect can design functional school buildings for a given educational need without a clear description of educational programme. Adding that architect should not only know what subject would be taught but enhance with the basic educational concepts, student experiences, equipment needed and how much space the teacher feels a student needs to perform each type of educational experience. It is pertinent to note that lack of such vital information which should be the appropriate starting point of school plant planning often results in the design and construction of school buildings that do not meet the specific needs of students who would use them or the community in which the school is located. The aim of planning school plant is to ensure that favourable environment for learning is provided and this can only be done through careful choice of school site, adequate provision of buildings and facilities. The considerations for effective planning are not necessarily limited to the following approaches:

Approaches to School Plant Planning.

Brubaker (2008) in Abutu (2021), suggests that there should be team or group of experts in design and construction industry as well as facility planners, educational planners, members of the board of Ministry of Education, Principals and teachers,

community among others for frequent checked of school facilities. Approaches to be adopted are seen as:

i. **School Plant Procurement**

An essential part of school plant management is its furniture and equipment for functional operation of educational programme. The planning for and purchasing of these furniture and equipment is referred to as procurement. Ejieh (2010) refers to furniture as such items as desks, tables, chairs, seats and benches. They can be made of wood, metals or plastics and are usually easily moveable/ equipment refers to two types of items – those attached to the building, e.g. built-in-lockers, kitchen cabinet and air conditioners; and those not attached to the building e.g. globes, televisions sets, games equipment. These and similar items are essential elements of the school plant without which the school buildings will not be functional.

The presence of school equipment help to serve various purposes in the educational system. Equipment are used in the classrooms, laboratories, offices, workshops, cafeteria, toilets, laundry, library and for sports, among others. Furniture are also available in the classrooms, offices, cafeteria, laboratories and workshops, residential halls, common rooms and those designed for the physically challenged. Onwurah cited in Peretomode (2004) opines that the following points should be taken into consideration while procuring educational facilities; School administrations, supervisors and teachers should be aware of modern trends in equipment. For example, desks and seats tend towards greater comfort and improved posture. There is also improvement in text and reference books, lighting fixtures, charts, audio-visual aids, game equipment. Instructional equipment should be working or functional conditions. Laboratory tables should have comfortable stools of adequate heights. Dormitories should be equipped with box rooms and, if possible, ward-robes: Committees mainly of administrators, supervisors and teachers, with representatives of certain professionals like architects and businessmen may be used for procuring equipment. This serves as aids and safeguards. Sufficient funds should be provided for procuring educational facilities.

It should be noted that, as the school plant is a tool for implementing the school programme, the determination of the requirements for them depends primarily on the nature of the schools programme and the methods of

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delivery and also on the needs of students and staff of the school. Specifically, Ejieh in Awekine (2021) asserts that equipment and furniture requirements are determined by the contents of curriculum and the teaching and learning activities associated with them; the needs of the students and staff for comfortable and recreational activities of students and staff members among others. Procurement of the items should be done according to the appropriate rules and regulations. In some educational systems, the law allows for direct purchase of when the number of items involved is very few or when their total cost does not exceed a specified amount of money. School plants to be purchased by money include; Building materials like sand, roofing sheets, ceilings, win shutters among others. Sports and games equipment for examples lawn tennis board. Laboratory equipment. School plants that cannot be purchased with money include: school fields, trees, school lawn, pathways among others.

Selections come in through procurement which is one of the variables in the management of school plants. According to Ejieh (2010) cited in Awekine (2021) once the furniture and equipment requirements of the school have been determined and the types available in the markets have been identified in one or more ways, the next task is to select the suitable ones. For a new school building to satisfy the needs of conducive learning environment, adequate and comfortable accommodation for the occupants there is need to give considerable attention to the selection of appropriate furniture and equipment.

ii. **Team Approach**:

There is hardly any individual with all the knowledge of, experience on or competence in school plant with all its desirable features and qualities. Planning to meet the essential requirements for a functional and attractive physical plant (buildings) calls for groups and individuals with relevant interest, abilities and experience working together as a team with each person contributing to discussion in relevant areas of competences. Brubaker (2008) cited in Abutu (2021) sees to school plant panning as, a team work or group made up of professionals in design and construction industry, as well as facility planners, educational planners, members of the board of Ministry of Education, Principals and teachers, community among others. From the above suggestion, it is important that the principal and some teachers of the

prospective school where modification of school plant is to take place should participate in the planning process because they will be the end users of the product. For the purpose of effectiveness, proposals on how to meet the physical plant needs of different subject areas should be made by the members with adequate knowledge in those subject areas. Onwurah cited in Peretomode (2004) agrees to the above that, the services of certain professionals should be engaged such as an educationist, an architect etc. because an educationist will help to determine the building and material needs into practical terms through designs and specification. This shows that the objectives to be accomplished by each team or member should be clearly known to the members.

iii. Instructional space planning

In the context of this study, instructional space planning refers to the location, structural design and facilities of places such as classrooms, libraries, technical workshops and laboratories where students received academic instruction. In some of the secondary schools, classrooms are not spacious enough, there are no adequate lighting and ventilation in the classrooms, there are instances where classrooms are located very close to the technical workshops and the main roads, while adequate furniture and fittings are not provided in some of the classrooms. All these may not make such classrooms conducive for teaching and learning process and hence good academic performance of the students may not be guaranteed. Stressing the importance of classroom planning, Philip (2007) maintains that classrooms with adequate lighting and ventilation and properly located within the school, play vital role in students' academic performance.

The importance of school library in teaching and learning cannot be over-emphasized. Fuller (2006) and Popoola (2009) found that school library significantly influences students' academic performance. It appears some of the secondary schools lack adequate library facilities. In some cases, the school library is not spacious enough and poorly located the school premises. In some cases, the libraries do not have adequate lighting and ventilation that could make them comfortable for the students and teachers to use. In such cases, effective teaching and learning may not be enhanced while students' academic performance may be affected.

Physical learning spaces is another instructional space that can foster students' abilities and improve their performances. Therefore, combining redesigns of learning and teaching spaces with students' interest can lead to students' performance and outcome (Brooks, 2011). Baker and Bernstein cited in Awekine (2021) upheld that, physical learning spaces that are remodeled, collaborative and student-centered facilitate learning processes. Earthman and Lemasters stated in Abutu (2021), conduct a study to examine whether physical learning spaces encourage students. This study reveals that students perform better when proper tools such as efficient environmental spaces and inviting learning places are provided. Ojo and Olaniyan (2011), Lyons (2001), and Schneider (2002) note that effect of environmental condition in school facilities has influence on students' academic performance. Schneider (2002), healthy and comfortable learning spaces are strong factors for successful learning. Analysis of Lyons (2001) shows that temperature, heating, air quality, light and acoustics are strong components that may hinder or enhance student performance. Research has proven that school buildings and designs can boost student morale and performance. In fact, student performance is tied up with school design and equitable access to learning tools and spaces enable students to share best practices (Zubrzycki, 2013). Therefore, it is urgent to raise public awareness of school design and student performance.

While emphasizing the importance of instructional spaces to students' academic performance, Mark (2002) maintains that one cannot expect high level of students' academic performance where school buildings such as classrooms, libraries, technical workshops and laboratories are substandard. He emphasized that clean, quiet, safe, comfortable and healthy environment are important components of successful teaching and learning. Similarly, Ajayi (2007) maintains that high level of students' academic performance may not be guaranteed where instructional space such as classrooms, libraries, technical workshops and laboratories are structurally defective, not properly ventilated and not spacious enough for use. He further emphasized that structural effectiveness, proper ventilation and well located instructional space may lead to successful teaching and learning process.

iv. School plant maintenance

School plant is a costly investment in education by the society. It takes a lot of time, material resources and efforts to set up one. It therefore seems obvious

that this investment should not be wasted rather be protected. Maintenance, according to Onwurah in Peretomode (2004), is keeping of the school buildings and equipment in as near their original condition as possible, Idoko (2015) posits that maintenance is the repair and up-keep of the school plant and equipment in order that efficient services can be rendered. Peretomode (2001) believes that, maintenance involves caring for school buildings, furniture and equipment to ensure that they remain in their original conditions.

Based on the above information, it can be deduced that the essence of facility maintenance is to keep the plant functioning uninterruptedly and remains or near the state of their original condition as possible. It seems obvious that the cost of doing this depends mainly on the initial planning and constitution of the facility. The use of good quality building material and competent workmanship during the construction stage most often attracts low maintenance cost. The purpose of school plant maintenance is not only to protect the investment but also to protect the educational value of the facility. Castaldi (1977), educational value of the facility refers to its appearance, usefulness in housing, the educational programme and the learning atmosphere that it creates. Maintenance of school facilities, the delivery of effective and responsive services by the school staff to students, community members and other people and agencies. Also among the purposes of school facility maintenance is to enhance the schools culture and image.

Effectiveness and efficiency of maintenance programme are achieved if the maintenance of school plant is scheduled instead of only responding to emergencies. This means planning the programme in such a way that some maintenance services are performed on a regular basis, some periodically and others as the need arises. Based on this, some writers distinguish five types of maintenance services in some programme - Preventive, Periodic, Replacement, Emergencies and Improvement maintenance. Idoko (2015) identifies three types of maintenance services which include: Regular, Emergency and Preventive maintenance. Ejieh (2010) cited in Awekine (2021) identifies four maintenance services which includes: Preventive, Periodic, Replacement and Emergency

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maintenance, more so, some improvement maintenance service especially those being performed for the first time may constitute capital improvement.

Conclusion

Reviewing literature on school plant planning is very essential in any school that wants to achieve effective teaching and learning. School administrators who choose to adopt appropriate strategies to make sure that school facilities and equipment are in good condition, carefully do so to increase for better performance, inculcate norms and values as well as ideas of the government.

The school plant planning deals totally of the school setting to the extent to which those activities are manage in the school then become the responsibilities of the school administrator. It is worth to note that, the roles played by the school administrators (Head-Teachers, Principals, Rectors etc) are geared towards developing and sustaining the culture of the school.

Recommendations.

Based on the discussion on this article, the following recommendations are provided to guide the study:

- The Government should provide trained personnel on maintenance of school facilities, as this will help for regular maintenance of facilities in school.
- School heads should monitor facilities of the school on routine basis to know those that break-down for immediate/adequate maintenance.
- Immediate members of the school community should also provide security to safeguard the school facilities and equipment.
- Government should provide finance adequately and on time for maintenance of the school facilities

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