SCHOOL PLANT ADMINISTRATION: THE CHALLENGES AND TRANSFORMATION IN LEARNING AND TEACHING IN DEVELOPING COUNTRIES (A CASE STUDY OF SECONDARY SCHOOLS IN NIGERIA)

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Abstract
When the school physical plant is well planned it will not only enhance good teaching practice but will also facilitate and stimulate leaning. It will also be correct to assert that school plant represent the empirical relevance of the totality of the school environment for the realization of the school business which apparently is the teaching and learning to realize the social educational goals. When school plant is poorly planned, it hinders good teaching practices and also stagnate students’ activities and interest to learn. It is evident that most Nigeria schools including other less developed countries (LDC'S) of the world are established with little regard, or consideration for the impact of the physical plant on the teaching and learning situation. In view of the above, this paper discusses the challenges created by this disregard or poor situation, the importance and also the transformation in order to develop a motivating teaching and learning environment suitable for academic activities and achievement.

Keyword: Learning and Teaching, School Plant, Developing Countries, Transformation

1. Introduction
Education for any nation is believed to be veritable machinery for the development of a country. This is obvious because of the roles played by educated people in the development of science, social - economic and political structure to improve the individual, families and making the society a batter place to live. In the light of these values, education today must prepare the child to function effectively as an adult in the 21st century. Surprisingly, Nigerian school are the least ready to adapt to the onslaught of new information and practices accumulating on daily basis due to the challenges ranging from industrial actions of academic staff, lack of fund for infrastructural development and a host of others. This is evident in the fact that teachers are handicapped by inadequate training and in facilities which made it difficult for them to prepare students for the new development. The school facilities themselves which provide accommodation for teachers and the learners hinder rather than enhance good teaching practices.

School facilities in most Nigerian schools today are apt to reinforce rote teaching method and further hinder the students’ capacity for independent and creative thinking. The typical school building in Nigeria is usually a simple row of bare classroom structures - often of rectangular shapes walls in which chairs, tables, which students must fight for space. According to Ezeocha (1985), inadequate physical facilities can lead to undesirable personal behaviours, and large group interaction such as sports/games, drama etc. cannot be conducted effectively without adequate physical space and equipment.

This imply that teachers cannot prepare class material without access to adequate work space e.g. well-equipped staff room/offices and it is apparent that students cannot learn effectively sitting on
bear floor as it is evident in most schools in Nigeria today with its attendant avalanche of indiscipline, examination malpractices and other social vices in our school system.

This paper therefore accesses the impact of school plant administration on students' academic achievement with the view of finding solution which will enhance a motivating environment that is conducive for students to maximize their potential through learning.

2. The Concept of School Plant
School plant can be described to mean the site, building, equipment and all the facilities within the school which enhance the teaching and learning activities and at the same time protects the physical well-being of the teachers and the learners. School plants according to Olagboye (1998) consist of the basic system and structures which a viable school or institutions’ needs in order to function effectively and to fulfill the purpose for which it was established. He further says that school plant include the following:
- Building: classroom blocks, libraries, laboratories, workshops, hostels, staff quarters, assembly halls, administrative/office blocks etc;
- Equipments: laboratory/workshop equipments, sporting kits. teaching aids etc.
- Machinery: workshop machines/tools, secretarial machine e.g. computer etc.
- Vehicles
- Furniture: classroom/ office, hostels/staff furniture etc.
- Books: text books, stationary/library books
- Electrical infrastructure: electrical fittings, fans, AC, overhead electrical conductor lines, generator etc.
- Water supply infrastructure: pipe born water, borehole, deep well water; tanks, etc.

The school plant represents the aesthetic picture of the school conveyed by the position of structure in relation to one another (Bosah, 1997). It also represents the empirical relevance of the whole environment for the realization of the school goals and objectives.

3. The Relevance of School Plant
The school plant, particularly building, protects pupils, students and teachers from the sun, the rain, heat, cold, violent storm and insects. It also represents a learning environment which has a tremendous positive impact on the comfort, safety and academic performance of the school child e.g. Walberg and Thomas (1972) in their own contribution reported that children learn best when they can actively explore an environment rich in materials. School plant is also relevant for community activities such as extra-moral classes, adult education and home economic centres, youth clubs, meetings, sports, conference, etc. It is therefore an incontrovertible fact that school plant and its environment are very important factors in the achievement of educational objectives.

4. The Challenges of School Plant:
In developing countries, the school plant lacks some of these basic system and structures which make teaching and learning process effective, for instance, many secondary schools in Nigeria are yet to install their introductory technology equipment and machines in the workshops almost twenty years after they were supplied by the federal and state governments because they were lack of electricity supply. Other challenges were lack of Introductory Technology workshops, laboratories, functional libraries and portable drinking water supply. In supporting this assertion, Ezeocha (1990 p.150) observed that "while the government is encouraging that the country goes technological education, these schools are not equipped with the necessary infrastructure and materials, for example, the 6.3.3.4 system of education provide that students be taught a number of ethical and
vocational subjects. Unfortunately implementation has been a far cry as the problem are compounded by the inability of teachers to involve students in practical works for lack of equipment in the schools.

Even though the teaching and learning conditions for many less developed countries (LDCS) can be described as deplorable, differences still exist in the conditions for the individual countries. In many countries including Nigeria, "it is still common to see classes holding inside uncompleted or dilapidated building and under tree shades and pupils sitting on floors (Agabi 1999 p.226).

Similarly David Molomo in a newspaper report captioned "law maker spend ₦3 million on school project" quoted Hon. Garba of Ussa LGA, of Taraba State who is a member of Taraba State House of Assemble saying "the school within my constituency have been an eye sore as most of them are operating in make-shift structures with the children improvising woods, stones for seats". He further stated that it is embarrassing to see people learning under the sun and in the rains due to inadequate facilities as a result of the poverty level of the people of his community. (Daily Sun Newspaper 9th June 2004). Related to this point is another report captioned "Kings College decays: premier secondary schools live in past glories" Toyin Osawe observed in that report that the facilities in the college are crying for repairs or replacement. The classroom wooden floors now have gaping holes which pose a risk to students learning in such classrooms. He also observed evidence of perennial water scarcity in the college which all constitute academic problem and its entirety, (Daily Sun Feb. 7-2006 p. 15).

Nwuzor (1989) in agreement noted that "the physical conditions under which a very large majority of our children are taught are just dehumanizing". Citing a Newswatch specials report on "Nigeria in the Eyes of the child" he quoted a school child as saying that:

_The classroom are full of gallops ......we need new buildings. If they will provide electricity in the schools, it will be okay. The school is too tight, we need space. The space in our school is not enough for students to play._

He went further to elaborate that the potholes on the floor of the classrooms are very comparable to the series on our roads. The classrooms are not well ventilated, they are very dim for ceilings, classes are extremely hot in hot weather and very damp during the rainy season.

Learning apparently becomes ineffective and practically difficult - when school environmental setting becomes stuffy and smoking and ill-ventilated. "Stuffy and smoking environment reduces the quantity and quality of oxygen intake by students leading to lowered studying and learning symptomized by constant tiredness, yawning and feeling of dizziness or sleeping during studying." (Okoye, Alao, Abosi, Yoloye and Obanya (Eds.) 1997 p.150).

Talking about facilities such as text books which aids students in learning and unraveling the secret of academic wisdom, most school libraries are there in name as the books therein are obsolete and out dated. Toyin Osawe in a Newspaper publication captioned "kings college decays" shares the same views when he observed that the college library, which is almost bare could only boost of a few sacks of warn-out books which are no longer relevant to this generation (Daily Sun Feb. 7th - 2006).

Due to inadequate classroom accommodation, experience of high pupil-teachers ratio with figures in the neighborhood of 120 per class are common in places like Nigeria, Ouagadougou, and most part of Latin America as observed by Cailods and Pestlethwasite (1998) in Agabi, (1999 p.226). When a class is too large, obviously effective teaching and learning is compounded, movement of both
teachers and students are greatly impaired and the possibility of individualize attention becomes difficult to achieve by the teacher.

5. The Steps needed for Transformation

The importance of school plant and the need for improvement for academic development and achievement cannot be over-emphasized. In order to guarantee a sustained interest and a motivating environment for qualitative academic activity that will promote optimum performance and achievement, focus should be directed to the following areas:

- Maintenance Culture: A deliberate culture of maintenance of school plant should be highly esteemed. This will enable rust parts such as leaking and weak roof to be replaced, dilapidated walls to be mended, faded painting resulting from effects of rains, and weather be redecorated to give beauty and standard to the school. In carrying out this job, the services of professional should be employed but in view of high cost contract jobs, it may be advisable if such minor works are done through direct labour to save costs.

- Innovations within the classroom: Today's bare unimaginative classroom design can actually stagnate the child's motivation to learn. Beside the class size, shape and composition, the environment within and outside the classroom must be enriched to stimulate the child's cognitive development. This is why Winkel (1971) has said that "the more a child's experience the more he wants to learn". Classroom can be enriched in the simplest form using bulletin boards with displays imaginatively put up to reinforce the topics being taught at a particular time. Displays such as number charts, letter charts, science charts naming the parts of the body, skeletal system, insects, flowers etc are not only motivating to learning but also serve as aesthetic values to the classroom. Teachers can use a variety of materials and facts that need to be stressed. Researchers on education have found out that children as well as adult comprehend and remember better when instructional materials are employed in teaching. For example, "researches carried out on effectiveness of visual instructional materials (VIM) in teaching subjects reveal that some visual are good when retention of basic concepts understanding is desired of students" (Oyeyemi, 1986). Classroom shape can be changed or modified to provide new possibilities for example, large rooms might house several classes at once with portable or collapsible walls and partitions to divide areas when classes wish to work alone but can be opened when the entire school needs to join together for assemblies or similar activities. Good cross ventilation, enough illumination for clear vision and reading, adequate portable drinking water; wash - hand basin with soap and towels, cubby hole for storing personal item are vital as this will help to inculcate the virtue of self discipline and respect in the students. Storage space is also needed for storage of old and new teaching materials and aids that will accompany any modern teaching practices. Cupboards, counters and shelves are necessary for the teachers to store her books and materials and also display object that will stimulate the students' interest.

- The Administrative Block: The office of principal or head-teacher and the vice principal and teachers should be spacious enough, well decorated for aesthetic impression and should be adequately furnished with shelves, file/book racks, file cabinets with locks, sizeable table with lockable drawers, comfortable padded armed chair and seats for visitors, good window blinds, transistor radio, daily newspapers, magazines, journals and calendars. When office environment becomes cussy, appealing and motivating, high productivity is inevitable.

- The library is an important resources centre for books and non – book material, pictures, charts, slides, filing, filmstrips, slim/slide projector etc. are all classified as non-book materials. These and relevant books should be adequately supplied to the library to meet the academic needs of the students so that they could maximize their potentials in education. Reference guides such as shelf numbering, subject and author catalogues should be provided to give direction to the readers. In the same vein, Reference Books should be
separated from the general ones to ease management and administration. The library should be highly illuminated for reading, adequately ventilated and be noise free.

- Adequate and reliable bathrooms and toilets should be provided to cater for the sanitary needs of both students and visitors.
- Other area that requires serious attention is the landscape of the school. This has to do with beautification of pathways, play grounds etc. A visit to a school with neatly marked pathways and play grounds with heavy ornamentation plays a high value on the landscape of the school that is motivating and attractive for academic activities.

6. Recommendations

High academic achievement can only be attained through a healthy and motivating school environment with adequate learning facilities. In view of this, the following recommendations should be critically considered.

a) Make-shift building structures should be discouraged while standard solid cement or brick structures that will stand the test of time should be encouraged.

b) Standard class size of 35 - 45 students per class should be maintained and adequately equipped to promote discipline and learning.

c) The classroom should be aesthetically decorated with educational charts and illustrations both inside and outside to stimulate academic interest and learning.

d) Both staff and administrative office should be adequately equipped to motivate staff moral towards optimum productivity.

e) Facilities such as toilets, water, clinic etc should be provided to take care of the immediate needs of staff and students.

f) Path ways and playgrounds should be maintained to sustain the aesthetic expression of the school.

g) The library and laboratory should be adequately equipped to stimulate research learning and performance.

h) Multipurpose laboratories, workshops and halls should be built to reduce waste and conserve fund for other viable expenditure.

i) Public Private Partnership (PPP) should be pursued in funding education for effective management and maintenance of structures in view of the heavy financial implication of managing a school. This is in agreement with the UNESCO (1984) recommendation that the financing of secondary education should be both the public and private sectors.

7. Conclusion

The place of school plant in the teaching and learning practices cannot be compromised on the alter of neglect as it is the first step towards the realization of our educational objectives.

It will be noted that the appearance of the school plant both outside and inside has a cumulative effect on the public attitudes towards a school system.

An attractive plant, even though the buildings are old, and located on sites that fall below standards, is generally regarded as an asset to the community and an expression of educational accomplishment. People have a feeling for and a sense of pride in a system that maintains well - kept grounds and buildings. In the same way, with adequate facilities teachers’ productivity will be high, learning will become motivating and interesting, and student’s performance and achievement will become more significant.
References