

## IMPACT OF SCHOOL PLANTS PLANNING ON PRIMARY SCHOOL PUPILS' ACADEMIC PERFORMANCE

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### Abstract

*Primary schools in the rural areas and some urban cities in Nigeria are faced with poor school plant planning that adversely affects the academic performance of pupils. Notwithstanding, primary school age is known as a period of important cognitive and behavioural development. Since many authors have reported positive relationships with adequate school plant and quality academic performance. Literature review was carried out to investigate the relationship between school plant and academic outcomes. The investigation identified instructional and circulation spaces to have direct links to quality academic performance and academic service delivery. Further investigations revealed that lack of school plant maintenance could hamper the good result of effective school plant which has placed it at a pivotal point in the maximization of the quality results of good school plant especially in the primary schools.*

**Keywords:** School plants, Primary school, Cognitive development, Academic performance, Teaching facilities.

## **Introduction**

Children undergo important developmental changes at elementary school years. This is a period of logical reasoning, adaptable attention, sophisticated perspective growth and blossoming of linguistic skills. It coincides with the development of mental stress and process understanding (Patnaik, 2008).

School plants are institutional means to achieving any educational goal. Many public schools in Nigeria are deficient of adequate school plants which mostly result to poor academic performance. Recently, a face-lift experience has begun to be gradually witnessed in the improvement of academic performance as a result of some intervention projects such as Millennium Development Goals (MDGs) which has metamorphosed into Sustainable Development Goals (SDGs), and higher institutions of learning are being rescued by Tertiary Education Trust Fund (TetFUND) interventions.

Despite the above mentioned special intervention projects, Adebayo (2009) stated that “a casual visit to any public school in Nigeria would reveal the extent to which these educational institutions have decayed”. Educational facilities at all levels are in a terrible shape; schools are littered with battered structures; worn out equipment (where they are available at all); overcrowded classrooms; inadequate manpower in quantity and quality; instability in the academic calendar owing to strikes; very low teacher (staff) morale due to poor remuneration and working conditions”.

In Nigeria, some state governments in the South-Western region such as Lagos, Ogun and Oyo have made primary school education free. According to Ololube (2009), the main objective is not just to create availability of fund for education need catering, but as for modalities to be put in place in ensuring effective utilization of the funds in running the educational system for the purpose of meeting the proposed goal.

Before going into the concepts of school plant planning, I will like to borrow leaf from Professor Gardner in Rinaldi (2013); with community involvement in effective school plant, children grow to be loved and feel cared for by the community such that when they grow up, they become humane citizens. This is in line with the opinion of Professor Carla Rinaldi that to educate implies building of identity and future which makes children to learn how to become better citizens of their communities and of the world (Rinaldi, 2013). That should be a conscious part purpose of education.

## **School plant concept**

Alimi *et al.* (2012) defined school plants as systems and structures that are put in place to enable educational institution function effectively and achieve its establishment objectives. Simply put, they are physical and spatial facilities that enable effective teaching, learning and in turn lead to the production of desirable results; an evidence of good academic performance. Nigerian educational system is still many decades behind to what is obtainable in a developed

nation. Based on the opinion of Maicibi (2003), institutions are made up of both human and non-human resources. An effective integration and utilization of these two resources will result to the achievement of institutional goals and objectives. An excerpt from Scales and Leffert (1999) in Olaniyan and Anthony (2013) on the effect of school plant on students has it that “adequate school plant is a sine qua non for higher grades, punctuality, higher attendance, scholastic competence, low disruption of school activities, fewer suspension rate of students, timely progression of students through grades, improved self-esteem and self-concept by students, reduction of students’ anxiety, depression and loneliness as well as reduced substance abuse”. School plants have shown to have a positive effect in improving the standard and quality of education (Ojedele, 2000).

Ideally, school plant is grouped into two types;

1. Direct teaching facilities
2. Non-teaching facilities (Ogunu, 2000)

Direct teaching facilities refer to academic instructional materials that have a direct link to teaching and learning while non-teaching facilities are non-instructional materials, that do not have a direct link to teaching and learning but could enhance quality service delivery.

From the view point of Odunfowokan (2011), school plant refers to the following: (i) Instructional Spaces: These include classrooms, auditorium, gymnasium, library, workshops, laboratory, arts room, home economics rooms, multipurpose rooms/halls, music area and any other space where students receive instruction. (ii) Administrative Spaces: These comprise principal’s office, clerk’s office, staff room, Guidance Counselors’ office and Health clinics. (iii) Circulation Spaces: These include corridors, lobby, staircases and other spaces where students recreate. (iv) Spaces for conveniences: These consist of toilets, cafeteria, kitchen, dormitories, custodian sheds and stores, and (v) Accessories: These include parks, garden, fields, courts and lawns.

Yusuf (2008) categorized school plant into subgroups namely: (i) landscape consisting of trees, grasses, lawns, hedges and accompanying paths, (ii) security facilities such as walls, gates, alarm system, phones, visitors’ books, (iii) utilities such as electricity, pipe-borne water/borehole and transport facilities, (iv) educational equipment such as computers, chalkboard, chalk, chart, flannel graph, beakers, burette, pipettes, test tubes, thermometers, weighing balances, map, glass jars, globes, (v) office equipment such as cupboards, generator, typewriter, photocopying machines, (vi) sports facilities like football, table tennis, basketball, (vii) classroom/educational equipment such as chairs, desks, tables, chalkboards, dusters, wash-hand basin, napkins, chalk (viii) buildings like classrooms, administrative blocks, library, laboratories, health blocks, kitchen, examination hall, dining hall, assembly hall, clinics, rest rooms, toilets, hostels, store, staff rooms, workshops, and (ix) play grounds including football, volley ball, basketball and badminton, tennis court, swing slide ground. With these, there will be a proper implementation of curriculum for effective classroom instruction delivery. A study carried out by Wordu and

Oneobari (2019) revealed that academic performance has positive relationship with each aspect of school plant such as instructional materials, library facilities, school building design and science laboratory provision.

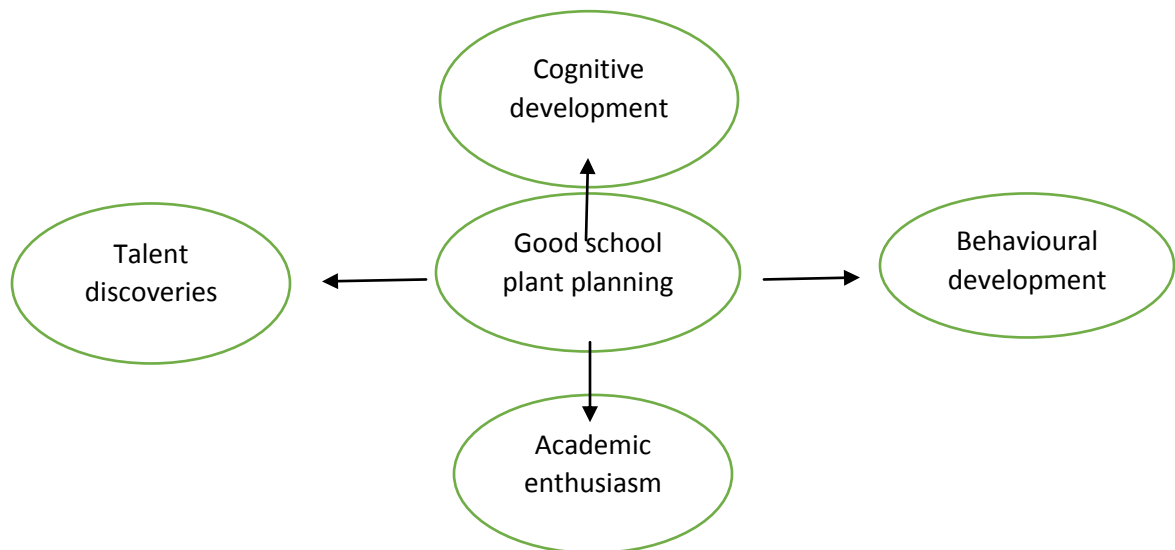
### **School plant and pupils' academic performance**

The extent and quality of the plant planning such as site selection, size of classrooms, quality and size of library, types of sporting facilities, electrification etc. will determine the quality of education that will be provided by the proposed school. Asiabaka, (2008) opined that the level of education planned for will determine the nature and types of the school plant to be provided.

In selecting a school site, accessibility and proximity is a vital factor to be put into consideration. From my observation and personal communications, many pupils in public schools trek daily to school; some cover up to 2 km. This is in line with the observations of Arubayi (2005) and Duze (2005) that a majority of pupils in Nigerian schools especially in the rural areas, walk long distance to and from school on daily basis. This definitely has a negative impact in their academic performance as it could promote absenteeism, fatigue leading to loss of concentration and interest in school activities, with indirect negative effects on delinquency and indiscipline. Therefore, schools should be sited in close proximity to pupils with good road networks to enhance its accessibility. Another important factor to consider should be the geographical location of the school. The location of a school has impacts on the conduciveness of learning, teaching and also on the average academic performance obtained of the pupils. School should not be sited near markets, hospitals, highways, railway stations, refineries, churches that conduct services during school hours, campaign grounds, industries, or close to hazardous environments like rivers, steep hilltops, high tension electric lines, or close to dreaded or bizarre environments like mortuaries, burial grounds, and ritual shrines (Ebinum *et al.*, 2017). Unconducive learning environment has been implicated to lower academic performance among pupils and students such that they breed distractions of different sorts. On that note, Ajayi and Yusuf (2010) indicated poor learning outcomes to manifest in poor students' academic performance in both internal and external examinations. Primary schools should be sited on plain grounds and not on unfavourable topographies such as slopes, rocks, and swampy area as they can be source of accidents for pupils especially during their play time. Some of these accidents could be casual or fatal; a situation that can hamper academic performance. Bakare (2004) reported that school topography could affect the academic performance of the learners. There are conflicting views about effect of school site on academic performance. Bankole (2003) and Osiki (2004) in their different studies found out that there was no significant relationship between school site and learning outcomes while Ajayi and Yusuf (2010) reported the outcome of their study, that there is a significant relationship between school site planning and learning outcomes. This report further stated that even in the midst of better job commitment, administrative effectiveness, appreciable incentives for teachers and pupils, wrong school siting will not guarantee effective learning outcome. That in fact will lead to negative academic performance.

Classroom and other instructional spaces should be planned in such a way that allows for cross-ventilation and other conducive learning environment. Classroom and its facilities assist learning process especially in primary schools where audio, visual and audio-visuals aid in effective subject delivery and enhance pupils' understanding and retention. Since instructional space is directly linked with teaching and learning activities, it has a positive relationship with academic performance which is in tandem with the result of the findings of Ajayi and Yusuf (2010). Moreover, a well-equipped administrative space can be linked to quality service delivery. Conversely, a study conducted by Ajayi and Yusuf (2010) revealed that there is non-significant relationship between administrative space planning and students' learning outcomes, an implication that better administrative space planning may not warrant better learning outcome.

Good recreational facilities will invariably enhance body and mind development of pupils. The primary school age is known for cognitive development. Indoor games such as chess and ludo will enhance cognitive and behavioural development as they require brain tasking and also expose the pupils involved to the concept of thinking outside the box. This will invariably boom their academic performance especially in sciences, verbal and quantitative reasoning. There exists a direct relationship between recreational facilities including its use in learning outcome (PEB Exchange, 1998).



**Figure 1: Direct effects of effective school plant on primary school pupils**

### **School plant maintenance**

Having known some importance of school plant in primary school pupils' academic performance, it has become pertinent to look inward on maintenance of school plant for effective service delivery. Facilities used daily are prone to ageing, extreme weather conditions and some many other ill effects. Nigeria has a poor maintenance culture as a result of which many facilities are underutilized. Otu (2002) and Asiegbu (2014) have admitted that school plant is poorly maintained at all levels of education. Studies have revealed the importance of school plant to academic performance. Sani (2007) reported a significant positive and high relationship exist between school plant maintenance and student academic performance.

In conclusion, effective school plant planning has been implicated to have a positive effect on academic performance of pupils. Therefore, cautions should be taken in planning and development of school plant for efficient academic service delivery.

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