

SCHOOL PLANT ORGANIZATION AND STUDENTS' ACADEMIC PERFORMANCE IN AKINYELE LOCAL GOVERNMENT AREA SENIOR SECONDARY SCHOOLS, OYO STATE

OYENIRAN, SAHEED (PhD)

*Department of Educational Management, University of Ilorin, Ilorin, Nigeria.
saheed.oyeniran@gmail.com*

ATOLAGBE, ADEDAPO ADETIBA (PhD)

*Department of Educational Management, University of Ilorin, Ilorin, Nigeria.
atolagbeadedapo@gmail.com*

BELLO OLORUNSOLA TAOHEED

Department of Educational Management, University of Ilorin, Ilorin, Nigeria

Abstract

The study was carried out to examine the relationship between school plant organization and students' academic performance in Akinyele Local Government Area, Oyo State. The study adopted a correlational survey research design. Simple random sampling technique was used to select ten public secondary schools and 100 respondents. Two researcher-designed instruments titled "School Plant Organisation Questionnaire" (SPOQ) and "Students' Academic Performance Proforma" (SAPP) were used to collect data for the study. One research question and seven hypotheses were formulated to guide the study. Stepwise multiple regression analysis and Pearson product moment correlation statistical technique were used to analyse the data collected. The findings of the study showed that classroom, laboratory, library, staff common room, workshop and play-ground organization contributed 66.7% to students' academic performance. Workshop organization has the highest contribution to students' academic performance with β -value (.222) representing 22.2% while library organization has the least contribution to students' academic performance with β -value (.069) representing 6.9%. The study showed that classroom organization ($r = .61, p < 0.05$), laboratory organization ($r = .60, p < 0.05$), library organization ($r = .62, p < 0.05$), staff common room organization (r

= .63, $p < .050$) and workshop organization ($r = .52, p < 0.05$) were significantly related to students' academic performance while there is no significant relationship between playground organization and students' academic performance ($r = .063, p > 0.05$). The study recommends that in establishing new schools, master plan and agencies involved in school plant planning should be given due consideration. Proper library organization should be borne in mind so as to contribute positively to students' academic performance. Playgrounds are encouraged to be located close to the school entrance as it has many implications on students' performance and health. Workshops in senior secondary schools should be located far away from classrooms, libraries, and laboratories to avoid distractions.

Keywords: School Plant, School Plant Organisation, Students' Academic Performance

Introduction

Education is the best legacy a nation could give to its youths. One of the objectives of educational institutions in Nigeria is to produce the required manpower for all sectors of the economy. In order to actualize this objective, school plant plays an important role in our educational system. This is why many scholars such as Adeboyeje (2000), Adeogun (2001), Oladejo (2004) have expressed their views from various perspectives. Adeboyeje (2000) describes school plants as the school site, buildings, classrooms, corridors, playgrounds, sanitary facilities, furniture and other equipment minus the consumable materials. It is one of the major aspects of school administration. He also describes it as the space interpretation of the school curriculum, the ways in which curriculum finds its physical expression. The school administrator should consider not the staff and students alone but the suitability of the site, situation, organization and location of the school itself. They should set up appropriate plans for the location of the classrooms, laboratories, conveniences, playgrounds etcetera, each in relation to the other and with consideration for easy access and co-ordination of efforts in the school.

School plant organization involves the arrangement and location of classroom blocks, administrative blocks, hostel blocks, kitchen and dining hall, physics and chemistry laboratories, biology and agricultural science block, technology workshop, Arts and typing rooms, Assembly hall, students' common

room, principal's office, Vice-principal's office, water supply, power supply, Adequate supply of furniture and equipment to include seats and desks, laboratory equipment and audio-visual aids as well as books on every subject and toilets (Oladejo, 2004).

Oladejo (2004) posited that school plant is an integral part of the learning environment which constitute major determinant towards ensuring quality education. It is one of the indices for measuring the level of educational growth and development. The planning, organization and maintenance of school plant cannot be overemphasized in achieving the goals of education. School plants require substantial costs of the school system for its establishment, if not properly organized and maintained, they depreciate and wear out faster than their normal life span. Also, if not used judiciously, the school system would not derive optimum benefits from its use.

School plant is considered as the most prominent indicator that provides shelter, protects school administrators, teachers, students from rain, sun, hot/cold weather and destruction, it represents the location of school environment, educational facilities, organizing blocks and equipments in the proper position which has a tremendous positive impact on the comfort, safety and academic performance of the students. School plants also help to enhance school programmes and the community needs, it also provides security which house other resources as human and material resources towards their effective functioning in the school. School plant provides security service which could last for hundred years. It is required for the survival of the school and if ultimately utilized, it will result to effective teaching and learning outcome (Adeboyeje, 2000).

It is an undisputable fact that the quality of education that students receive bear direct relevance to the availability, good maintenance culture of school buildings and overall atmosphere in which learning takes place (Adeogun, 2001).

Adesina (1990) speaking on the school plant facilities observed that post-independence Nigeria saw most Nigeria's primary and secondary school plants no better than they were during the colonial era. In fact, most of them are worst now having suffered from poor organization, maintenance and weather condition (for example, rain storm) which lead to depreciation or wastage of facilities in all schools.

Ijaiya (2000) observed that it is not uncommon to find students sitting on windows to receive instruction and it is common to find as many as seventy or

more students in a class designed to accommodate forty students. Most schools do not have laboratory blocks for practical works that will aid teaching and learning. The result of this is that there exists little or no experimentation and interaction between the teachers, the learners and the materials. The importance of school plant organization to education should not be underestimated, yet many school buildings are known to have collapsed as a result of poor soil support for the building or that the school premises have become torn into shreds by gully erosion, as a result of wrong location and poor drainage qualities of the soil. It is also pathetic to find students especially in primary schools, sitting on floors without desks or being taught in classrooms which are death traps due to their poor construction or due to locations near market places or busy highways. There has been little or no considerations for the effect the school plant would have on teaching-learning process and for the achievement of educational goals (Ijaiya, 2000).

Aghenta (2001) observed that owing to the current population explosion in Nigeria and the resultant astronomical increase in school enrolment at all levels, school facilities have been subjected to over utilization leading to greater frequency of break down and quality education is no doubt a function of the availability, utilization and maintenance of input resources (both physical and human). However, Aghenta (2001) lamented on the short supply of input resources at all levels of the Nigerian educational system. He observed that there are many primary and secondary schools both in urban and rural areas where facilities are adequate but not effectively positioned and utilized.

Theodore (2010) carried out a study on effects of managing school facilities on students' academic performance in which facilities organization is embedded, that one thing is the availability of facilities and another thing is their arrangement to suit the purpose for which they are designed. School facilities organization has an impact on the academic performance of students, either positively or otherwise. Theodore found out that school building organization accounted for 3.7 percent to 6.3 percent of the variance on 5 of the 9 learning facilities when arrangement is correlated with the composite score of the students in lower test of basic skills. In other words, these percentages represent how much the facilities arrangement account for the difference between the score of students in modern and traditional schools.

Owoeye (2011) found that a difference between the mean test scores of students in traditional and modern school facilities arrangement to be 2.55 point reaching 7.67 point for mathematics. All things being equal, students in modern schools perform better on achievement tests than students in traditional

schools. He developed an instrument to measure the arrangement of school facilities. The instrument had components of school facilities with measurable influence upon students' academic performance. He found that performance scores of students in sub-standard school facilities rose from 3 to 7 percent points below the scores of students in schools with standard facilities.

The report of a research contained in the American School Board Journal on the influence of school environment on learning revealed by Bert (2011) on the impact of school facilities arrangement on the learning environment in two schools under controlled and the other uncontrolled environment conditions showed that students in the controlled environment conditions performed significantly better than students in the uncontrolled environmental condition. Therefore, the research studies cited above presents a formidable body of research findings that demonstrate that the arrangement of school facilities has a measurable influence upon the academic performance of secondary school students.

Most of the studies were on school plant planning, facilities, supply and utilization with little or no emphasis on how its maintenance and arrangement may affect students' academic performance. This study, therefore, seeks to investigate school plant organization and Students' Academic Performance in Akinyele Local Government Area Senior Secondary Schools, Oyo State.

Statement of the Problem

The organization of the school buildings and facilities raised serious concerns and go a long way in determining students' academic performance. When providing quality, equitable and efficient education for students, policy makers, planners, and educators must not only take into consideration, the roles school buildings and facilities play in the educational system, but should also consider how their organization is related to student's academic performance.

Abdullahi (2010) pointed out that, poor academic performance is indeed a major problem among so many Nigerian students. The poor academic performance experienced at all levels of education, particularly among secondary school students according to Abdullahi (2010) was due to school plant maintenance which had affected the academic achievement of many senior secondary school students. A study on school facilities depreciation and students' academic performance have proved that in order to achieve good students' academic performance in Nigerian schools, school buildings should be solid structures because the building in schools represent a learning

environment which has strong impact on the comfort, safety and academic performance of students (Bello, 2010).

The researchers such as Abdullahi (2010), Bello (2010) and Gabriel (2012) revealed the relationship between school plant maintenance, school plant facilities depreciation and students' academic performance. Unfortunately the aspect of school plant organization and students' academic performance has not been given the desired attention despite the fact that school plants impact highly on students' academic performance. It is in this connection that the present researcher examined the relationship between school plant organization and students' academic performance in senior secondary schools in Akinyele Local Government, Oyo State.

Purpose of the Study

The main thrust of this study, was to investigate the relationship between school plant organization and students' academic performance in Senior Secondary Schools in Akinyele Local Government. Specifically, the study investigated the influence of classroom, laboratory, library, staff room and workshops' organization on students' academic performance of students in Akinyele Local Government Area, Oyo state.

Research Question

What are the effects of school plants organization on students' academic performance?

Research Hypothesis

H₀: There is no significant relationship between school plant organization and students' academic performance in Akinyele Local Government Area Senior Secondary Schools.

Operational Hypotheses

H₀₁: There is no significant relationship between classroom organization variables of laboratory, library, staff room, Workshop and play ground and students' academic performance in Akinyele Local Government Area Senior Secondary Schools.

Methodology

The research design adopted for this study was the descriptive research design, using survey approach. This design was considered appropriate taking into consideration the focus of the study. Simple random sampling technique was used to select 100 teachers spread across 10 secondary schools in the Local Government. Data were obtained through the use of the questionnaire named "School Plant Organization Questionnaire" (SPOQ) and a checklist titled "Students' Academic Performance Checklist" (SAPC) which was used to collect information on the performance of students in the Senior Secondary Certificate Examination (SSCE) conducted by the West Examination Council (WAEC). Stepwise multiple regression analysis and Pearson product moment correlation statistical techniques were used to analyse the data collected.

Presentation and Analysis of Data

Research Question: What are the effects of school plant organization variables on students' academic performance?

Table 1

Analysis of the contributions of school plant variables on students' academic performance.

Coefficients					
Model		Unstandardized Coefficients		Standardized Coefficients	
		B	Std. Error	Beta	
1	(Constant)	4.894	4.209		1.163 .248
	Classroom Organization	.213	.070	.239	3.023 .003
	Laboratory Organization	.172	.066	.199	2.596 .011
	Library Organization	.069	.064	.089	1.075 .285
	Staff Common Room Organization	.169	.071	.186	2.386 .019
	Workshop Organization	.222	.062	.269	3.556 .001
	Play-ground Organization	.084	.054	.117	1.567 .121

Source: Fieldwork

Table 1 shows the contributions that the sub variables of school plant organization have on students' academic performance in the selected senior

secondary schools. As shown in the table, classroom organization's contributed .213 which represents 21.3%, laboratory organization contributes .172 which represents 17.2%, library organization's contribution was .069 which represents 6.9%, staff common room organization's contribution was .169 which represents 16.9%, workshop organization contributed .222 which represents 22.2%, and playground organization's contribution to students' academic performance was .084 which represents 8.4%. This revealed the extent to which each of the independent variables contributed to the performance of students. Classroom and workshop organization have over 20% contributions which indicate that classroom is the heart of any educational system that serves as the central housing for qualitative education. Hence, the importance of classrooms and workshop organization in secondary schools are paramount.

This finding can be justified by the opinion of Ijaiya (2000) who stressed that no curriculum is complete without implementation and evaluation both of which are mainly carried out in a well-organized classroom. McCabe (2005) remarked that school workshop is a database for creative artists to assist students in bringing learning to life and helps them to be more creative, engaging and imaginative. In this respect, students learn better because they are taught and encouraged to be involved in psychomotor activities which have positive impact on students' ability, confidence and academic performance.

The table also showed that workshop organization has the highest contribution to students' academic performance and has a B-value of .222 representing 22.2%. This revealed that workshop organization has positive contribution to students' academic performance.

Table 1 indicates that library organization has the least contribution to students' academic performance with a B-value of .069 representing 6.9%. This revealed the fact that library organization has the least positive contribution to students' academic performance, this research work should serve as eye opener to government, educational planners, policy makers, school heads and other stakeholders in education in taken proper measures on where and how school library should be sited, as it has effects on the outcome of students' performance.

Table 2

Model Summary					
Model		R	R Square	Adjusted R Square	Std. Error of the Estimate
	1	.817 ^a	.667	.645	8.38910

Source: Fieldwork

As shown in table 2, the R square 66.7% indicating that 66.7% variation in students' academic performance was accounted for by school plant organization. This therefore shows that school plant organization has a strong impact on students' academic performance. That is why Lackney and Picus (2008) opined that school buildings like classrooms, library, laboratories, workshop etcetera should be responsive to the changing programs of educational delivery and should provide an environment that is safe, secure, comfortable, accessible, well-ventilated, well-illuminated, aesthetically pleasing and to be an integral component of the condition of learning

Table 3: Summary of hypotheses Testing

S/N	Hypotheses	Statistical Instrument	Level of Significance.	P-value	Decision
1.	Class Organization and student Academic performance	Pearson product moment correlation statistics	0.05	.000	Significant
2.	Laboratory Organization and student Academic performance	Pearson product moment correlation statistics	0.05	.000	Significant
3.	Library Organization and student Academic performance	Pearson product moment correlation statistics	0.05	.000	Significant
4.	Staff Common Room Organization and student Academic performance	Pearson product moment correlation statistics	0.05	.000	Significant
5.	Workshop Organization and student Academic performance	Pearson product moment correlation statistics	0.05	.000	Significant
6.	Play ground Organization and student Academic performance	Pearson product moment correlation statistics	0.05	.000	Significant

All the hypotheses tested were rejected with p-value of .000 less than the level of significance of 0.05. as shown in table 3. This therefore means that school plant organization has a positive and significant relationship with students' academic performance. This finding is in line with Oladejo (2004) who observed that school plant organization plays very important roles. It serves as the bedrock for any meaningful learning to take place and on which student's academic outcome lies because without proper organization of school plant, human resources in schools can not be optimally utilized. Hypothesis 3 shows that the p-value (.000) is less than the alpha level of significance. Hence, the null hypothesis is rejected. Therefore, there is a positive and significant relationship between classroom organization and students' academic performance. This is because when the organization of classroom is not absolutely taking into consideration before erection, students in this category of classroom buildings will be exposed to a lot of distractions and thereby little or

This finding is in line with Filardo (2008) who established that improper organization of staff common room is one of the deficiencies which impair quality of teaching and learning as well as contributing to health and safety problems for the staff and students in the school. The educational process is a very complex system, thus, there was no part of the educational process that can stand alone when improving school facilities. In this wise, the health, conduciveness and motivation of teachers go a long way in determining students' academic outcome.

HO5 shows that the *p*-value (.000) is less than the alpha level of significance (.05) at 98 degree of freedom. Hence, the null hypothesis which states that there is no significant relationship between workshop organization and students' academic performance is rejected. This means that there is significant relationship between workshop organization and students' academic performance.

This finding is in agreement with McCabe (2005) who remarked that school workshop is a database for creative artists to assist students in bringing learning to life and that it helps them to be more creative, engaging and imaginative. In this wise, students learn better because they are taught and encouraged to be involved in psychomotor activities which have positive impact on students' ability, confidence and academic performance.

HO6 shows that the *p*-value (.534) is greater than the alpha level of significance (.05) at 98 degree of freedom. Thus, the null hypothesis which states that there is no significant relationship between playground organization and students' academic performance is not rejected. This means that there is no positive and significant relationship that exists between playground organization and students' academic performance. In other words, the organization of school playground does not in any way affect students' academic performance because it is well located. This is in line with the observation of this researcher during the course of carrying this research work that most of the visited senior secondary schools have their playgrounds located where students would not be distracted, and usually close to the school main entrance.

Conclusions

Based on the findings of the study, it has been demonstrated that school plant organization and students' academic performance has a high degree of relationship. The findings show that a conducive environment for student would

enhance effective and efficient teaching and learning. The study also established the fact that it is not just important that a school should be richly endowed with educational facilities, it is equally very important that such facilities are well and properly organized to facilitate effective teaching and learning. It was also demonstrated that playground organization in senior secondary schools in Akinyele Local Government does not in any way affect students' academic performance; therefore, they are well located.

Recommendations

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

1. In establishing new schools, master plan and agencies involved in school plant planning should be given due consideration.
2. Proper library organization should be borne in mind so as to contribute positively to students' academic performance
3. Playgrounds are encouraged to be located close to the school entrance as it has many implications on students' performance and health
4. Workshops in senior secondary schools are better located far away from classrooms, libraries, and laboratories to avoid distractions

With these in place, teaching and learning becomes effective which invariably enhance the achievement of school goals and objectives.

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