

## SCHOOL PHYSICAL FACILITIES MANAGEMENT AND THEIR IMPACT ON STUDENTS LEARNING IN KANO STATE PUBLIC SECONDARY SCHOOLS

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### **Abstract**

*The study investigated the impact of school physical facilities management on students' learning in Kano State public secondary schools. Descriptive survey was employed as the research design and 684 participants were considered as the target samples out of 62, 500 final year students chosen from their respective secondary schools in Kano State clustered within four educational zones in Kano State. The sample size was selected via stratified random sampling technique, while the secondary schools were sampled through purposive sampling method. The instruments employed for the collection of data was a well-constructed questionnaire titled "School Physical Facility Management and Students' Learning Questionnaire (SPFMSLQ)" and observation checklist. The instrument was adequately validated by the researchers and thereafter tested for reliability by using Cronbach Alpha reliability coefficient method, and a reliability index score of 0.86 obtained indicating that the instrument was reliable. Mean scores, standard deviation and Pearson Product Moment Correlation (PPMC) coefficient was used for answering the generated research questions and formulated hypotheses at <0.05 alpha level. Findings from the study revealed that school physical facilities are poorly managed in Kano State public secondary schools, although, the management of school physical facilities have significant impact on students' learning as reflected in their overall academic achievements. Based on these findings, the study recommended that government and school administrators need to pay adequate attention to proper management of physical facilities in public secondary schools in Kano State. In addition, teachers should be actively involved in school facilities maintenance by carrying out regular repairs of damaged facilities,*

*decongesting classrooms and hostels while ensuring periodic servicing and maintenance of school equipment.*

**Keywords:** *Physical facilities, Facility management, Students' learning, Secondary school, Kano State*

### **Introduction**

The future development of every nation depends on her younger generation. Societies create and construct schools to educate this segment of her population. Teaching and learning are basic aspects of formal education in a school setting and it is on this note that Janguza, Mahmud and Dodo (2012) consider a school as a significant social environment in the lives of students. Thus, to achieve any meaningful educational objectives, school environment needs to be physically and socially safe for teaching and learning. It is therefore the responsibility of the school leaders to provide this enabling environment by proper management of the school physical facilities, as well as human resources in order to achieve a desired students' learning.

Management of school facilities may be considered as a process of facility maintenance and hence, proper utilization of institutional material resources. According to Lawanson, Anike and Tari (2011), school facilities management is a systematic process of rationalizing the provision and maintenance of these facilities within an educational institution to ensure their optimal utilization and achievement of educational objectives. In other words, school facilities management is a process that involves, determining which facilities are required to achieve school goals and how to ensure their longevity. Oguche cited in Ekpoh (2018) argued that school physical facilities management involves keeping of the buildings, classrooms, equipment and landscapes at their best condition of completeness and efficiency, either through repairs or replacement.

The Nigerian education system particularly Kano State is faced with problems ranging from dilapidated school structures, mismanagement of allocated resources to declining standard of education as being experienced in public schools (Olaniyan and Anthony, 2013). Amuche, Amuche, Bello and Marwan (2014) linked such problems to poor students' learning outcome and dwindling performance of students in external examinations such as the Senior

School Certificate Examinations (SSCE) organized by West African Examination Council (WAEC). The introduction of Universal Basic Education in 2004, was to remedy a situation of the fallen standard of education and to provide basic education to all Nigerians of school age. At the state level is the State Universal Basic Education Board (SUBEB), responsible for funding of the scheme in the states.

According to Kano State SUBEB Annual Report (2015), the board awarded contracts for the provision of classroom blocks, toilets facilities and furniture for both teachers and pupils. The projects were carried out in primary and secondary schools across the 44 Local Government areas of the State. This resulted in massive renovations of schools across the state. Despite the huge spending in the provision of school facilities in Kano State, one could still notice that the desired results of students from external examinations are still a mirage. The quality of learning therefore has been below standard because the school facilities are not properly maintained (Danjuma and Adeleye, 2015). Asiyai (2012) rightly noted that facilities in public schools currently have dilapidated buildings, empty libraries, poor hostel facilities, broken tables and chairs, unclean clinics, unkempt school compound, abandoned broken down school vehicles and so on. This situation may affect students' readiness to learn.

The academic performance of Senior Secondary School students in SSCE organized by WAEC in Kano State compared to other States in Nigeria has been very poor during the years (2014 – 2016). The results placed the State above 20 out of 36, with less than 35 % pass, (Adamu, 2017). Consequently, this could hampered their progress in higher academic pursuit and subsequent high rate of drop-out. Jackline and John (2014) have attempted to examine the relationship between maintenance of school facilities and students' academic performance and reveal rather good relationship. This suggests that students' perform poorly academically in schools with inadequate standard facilities.

As indicated by Saad (2010), absence of essential physical facilities and other related factors have been noted as a portion of the issues that result in poor academic performance of students in Nigerian secondary schools especially in Kano State. Such opinion lends credence to the fact that effective facilities management is a catalyst for students learning. Similarly, Asiabaka cited in Uko (2015) maintains

that school facilities management plays a pivotal role in the actualization of educational goals and objectives by satisfying the physical and emotional needs of the staff and students. When the physical and emotional needs of students and staff are provided, it would foster effective teaching and learning with excellent results. This symbiotic relationship has led the researchers into thinking about the need to investigate more the dependency of students' academic performance on school facilities management in Kano State.

### **Statement of the Problem**

There have been expressed concerns by parents and stakeholders about alarming out of school children and massive poor performance of students in public secondary schools examinations in Kano State. The statistical results of WEAC in 2014-2016 indicated poor performance and massive failures of students in public secondary schools. One noticed that most of the school facilities in the study area are not properly maintained for students to have the required learning environment, thus, this could interfere with their expected performance in external examinations. In addition, the problem of students' drop out and poor performance in external examinations in Kano State have often been linked to factors such as: insufficient teachers, inadequate funding or leadership style. Little or no research has been conducted, on these problems of school facilities management in relation to students learning. It is in view of this that this study investigated the impact of school facilities management on students' learning in Kano State public secondary schools. The objective of the study therefore was designed to appraise the extent to which school facilities were managed and how it affected students' learning in public secondary schools.

### **Theoretical Framework**

This study is based on Field Theory of Learning which was established by Kurt Lewin in the 1930s. For Lewin, an individual conduct was not a result of previous occasions or future desires, but the capacity of the collaboration among people and their present condition or 'field' as he named it. For him, there is a relationship between human learning and environment (school physical facilities). Lewin's hypothesis sees learning as a relativistic cycle by which a learner grows new

understanding or changes old ones. Along these lines, the environment in this hypothesis is viewed as a main consideration that shapes human conduct including learning. This means that academic achievement depends not only on the learner's cognitive or intellectual ability but also on the quality of his/her environment which is the basic physical facilities of the school system. Hence, this theory is relevant to this study so as to find out the impact of school environment or physical facilities on students' learning (Shivangi, n.d.).

### **Research Questions**

The research questions generated in this study are as follows:

To what extent are physical facilities managed in public Secondary Schools in Kano State?

- i. To what extent are school physical facilities have impact on students learning in public secondary schools in Kano State.
- ii. What is the level of students' academic performance in Kano State senior secondary schools?

### **Hypotheses**

**Ho1:** There is no significant difference between school physical facilities management and students' learning in public secondary schools in Kano State.

**Ho2:** School physical facilities management has no significant impact on students' academic performance in public secondary schools in Kano State

### **Methodology**

Descriptive survey design was adopted for the study. The targeted population was 62,500 final year students in the 17 educational zones. 4 educational zones were sampled using simple random sampling technique and purposeful sampling technique was used to sample 684 students for the study. The instrument for the study was a questionnaire, titled School Physical Facilities Management and Students' Learning Questionnaire (SPFMSLQ), designed on a modified 4 point Likert type scale, with responses such as: Very High Extent (VHE) representing 4-point, High Extent (HE) representing 3-point, Low Extent (LE) representing 2-point and Very Low Extent (VLE) representing 1-point.

The draft of the constructed questionnaire used for data collection was validated by an expert from test and measurement department. To test the reliability of the instrument, a trial test was conducted by using Cronbach alpha and a reliability coefficient of 0.86 was gotten. Data collected were analyzed the means core, standard deviation and Pearson Product Moment Correlation (PPMC) coefficient was used for answering the research questions and testing of hypotheses. The tested hypotheses were considered significant at p-value <0.05 alpha level. A weighted mean of 2.50 or above indicated effective strategy in the management of school physical facilities.

### Findings and Discussion

The results are presented on tables 1 to 5

**Table 1:** Mean Ratings on the Extent of School Physical Facilities Management

S/No	ITEMS	N	$\bar{X}$	SD	Decision
1.	ICT/internet facilities and equipment are regularly serviced and regulated in my school	684	2.16	0.26	LE
2.	There is a weekly labour to keep classrooms, hostels, halls and other buildings clean in this school	684	2.18	0.23	LE
3.	The books in my school library are properly arranged on the shelves	684	2.10	0.11	LE
4.	Laboratory facilities are properly monitored and handled with caution in my school	684	3.06	0.78	HE
5.	The buildings in my school are painted and look new	684	2.28	0.90	LE
6.	The clinic in my school, is functional with basic first aid drugs	684	3.24	0.83	HE
7.	In my school, water supply is very regular	684	2.28	0.87	LE

8. There is constant supply of electricity in my school	684	2.27	0.86	LE
<b>Cluster mean</b>	<b>684</b>	<b>2.44</b>	<b>0.60</b>	<b>LE</b>

Table 1 presents the mean ratings of students on the extent of school physical facilities management in public secondary schools in Kano State. From the table, it was observed that 6, out of the 8 items were rated low. Thus, items 1, 2, 3, 5, 7 and 8 have low ratings, with mean ratings of 2.16, 2.18, 2.10, 2.28, 2.28 and 2.27 respectively, while items 4 and 6, were highly rated with mean ratings of 3.06 and 3.24 respectively. Table 1 also revealed a cluster mean of 2.44. Therefore, with a cluster mean of 2.44, it showed that school physical facilities are poorly managed in Kano State public secondary schools.

**Table 2:** Mean and Standard Deviation on the Impact of School Physical Facilities Management on Students Learning

S/No	ITEMS	N	$\bar{x}$	SD	Decision
9.	Students learn better when the school buildings are well maintained in my school	684	3.76	0.15	VHE
10.	Students learn better when the school facilities are properly managed in my school	684	3.88	0.85	VHE
11	When hostels and good beds are used for the right number of students, they learn better in my school	684	3.89	0.87	VHE
12	Decongested classrooms and hostels with adequate facilities motivate students to learn better in my school	684	3.94	1.44	VHE
13	Good and relevant books in the library help students to learn better in my school.	684	2.77	1.71	HE
14	Laboratory facilities help students to learn better in my school.	684	2.73	1.74	HE

15	Sporting activities in my school keep students physically and mentally fit in order to learn better.	684	3.05	1.84	VHE
16	Students learn better when the school compound is safe	684	2.79	0.55	HE
17	Availability of light and water motive students to learn better in my school	684	3.69	1.51	VHE
18	When students have quick access to first aid in the clinic, it keeps them healthy and help them to learn better in this school.	684	3.26	0.85	VHE
19	Internet/ICT facilities like computers help students to learn better in my school.	684	3.50	1.12	VHE
<b>Cluster mean</b>		<b>684</b>	<b>3.39</b>	<b>1.14</b>	<b>VHE</b>

Table 2 presents the mean ratings of the impact of school physical facilities management on students learning in Kano State public Secondary Schools. From the table, it was observed that all the 11 items were highly rated, with mean above the 2.50 which is the bench mark for acceptance. In addition, the table shows that the cluster mean is 3.39, which indicated that school physical facilities management has impact on students learning in Kano State public secondary schools.



**Table 3:** Summary of Means and Standard Deviation of Students' Academic Performance in WAEC 2014 – 2016 in Kano State.

Year	N	Pass	%	Not pass	%	$\bar{x}$	SD	Remark
2014	65723	16451	25.03%	49302	74.97	1.33	0.51	Poor
2015	62244	15966	25.65%	46278	74.35	1.35	0.62	Poor
2016	49316	19502	39.54%	29814	60.54	1.65	0.72	Poor
<b>Grand mean</b>						<b>1.44</b>	<b>0.62</b>	<b>Poor</b>

Table 3 shows the mean and standard deviation of students' academic performance in 2014 – 2016 WAEC/SSCE in Kano State. The grand mean of 1.44 and standard deviation of 0.62 shows that students' academic performance in public senior secondary schools in Kano State was poor in the years under review.

**Table 4:** Summary of PPMC coefficient statistics between School Physical Facilities Management (SPFM) and Students Learning (SL)

Variables	N	$\bar{x}$	$r$	p-value	Relationship	Remark
SPFM	684	2.44	0.134	0.000	Low	Significant
SL	684	1.44				

Table 4 indicates that  $r = 0.134$  with the P-value of 0.000, which is less than the alpha value. This shows that there was a significant difference between school physical facilities management and students' learning. Thus, the null hypothesis earlier stated was rejected while the alternate hypothesis was accepted. Therefore, it was concluded that school physical facility management has impact on students' learning in public secondary schools in Kano State.

**Table 5:** Summary of PPMC Coefficient Statistics between School Facilities Management (SFM) and Students' Academic Performance (SAP)

Variables	N	$\bar{x}$	$r$	p-value	Relationship	Remark
SFM	684	3.39	0.186	0.004	Low	Significant
SAP	684	1.44				

Table 5 above shows that the calculated  $r$  value was 0.186 with a  $p$ -value of 0.000, which was less than the alpha value. This showed that there was a significant difference between school facilities management and students' academic performance. Thus, the alternative hypothesis was adopted because school facilities management has great impact on students' academic performance in public secondary schools in Kano State.

### **Discussion**

The mean rating of senior secondary school students in Kano State revealed that school physical facilities management in public secondary schools are poorly managed. From table1, it was seen that the available physical facilities in secondary schools were not adequately managed for the effective teaching and learning process in Kano State. The ratings from items 1, 2, 3, 5, 7, and 8 on table 1 showed that there was poor management of school facilities and lack of maintenance culture in the schools. The study agreed with Allen (2015) who revealed that management of school facilities through maintenance in secondary schools has not being achieved and as a result, schools have failed to achieve its intended objectives nowadays because facilities were not serviced or repaired promptly until they become worst or broken down beyond repairs. This implied that educational structures, classrooms, etc need urgent attention and proper maintenance to be conducive enough to enhance learning. Similarly, Nwokike (2012) opined that School buildings, equipment, physical facilities and play grounds must inevitably have tears and wears resulting from use, but there should be regular maintenance for them to have a long life span and enhance effective students' learning with good performances.

Table 2 showed the mean rating of the impact of school physical facilities management on students learning in Kano State public Secondary Schools. From the table, it was observed that all the 11 items were highly rated. The findings revealed how school facilities made positive impact on students learning in secondary schools. This implied that students, who were opportune to study in schools where structural buildings were well maintained and other facilities were properly managed, perform better. Similarly, they learned better when the classrooms were not overcrowded and the hostels less congested.

Oyesola in Idowu (2015) argued that school facilities and educational performance are closely related and interwoven.

The findings also showed that students with well-equipped library and laboratories had hedge over others, since the students were motivated by availability of these facilities while it also helped to learn outside the classroom. This supported the opinion of Adesina cited in Idowu (2015: 154) that educational standard and performance of students are good functions of the available physical facilities and their maintenance for learning experience. The ratings also showed that ICT/internet facilities motivated students to learn better and even learn ahead of others. It was also revealed that schools with health facilities and recreational activities kept their students on red alert on learning scale. Students needed to be emotionally and physically fit to be on high tempo of learning. For more emphasis, one would agree with Asiabaka cited in Uko (2015) that school facilities management play a pivotal role in the actualization of educational goals and objectives by fulfilling the physical and passionate needs of the teaching staff and students.

Table 3 revealed that students learning outcome as indicated in academic performance in Kano state was low in WAEC examinations between 2014-2016 academic years. This could be attributed to the poor maintenance culture of school facilities among other factors. It therefore meant that a good school manager should not neglect the managerial function of resources, including school physical facilities, to achieve the desired objectives. This explains the rate of school dropout, poor performance in external and internal examinations and many other syndicates. The only way to go, is an urgent need to rescue the standard of education in Kano State by reviving the quality of the school physical facilities.

### **Conclusion**

The success of any school depends not only on the quality of the management of staff and students. School physical facilities are necessary and vital for modern teaching and learning. However, school management have not given enough priority to renovation of school infrastructures and has not received best attention from the corridor of power especially as was found in this study on Kano state. Improper management and inadequate facilities maintenance was evidently a

factor affecting students' performance in WAEC in Kano State. Findings from this study further revealed that school facilities management have significant relationship with students learning and academic performance. Therefore, schools must have modern physical facilities as well as develop maintenance culture for the available school physical facilities to help educate her future generation.

### **Recommendations**

Based on the findings of this study, it was recommended that:

- i. Considering that physical facilities provided in secondary schools were not adequate for teaching and learning effectiveness, there is therefore the urgent need for the Kano State Government to set up adequate monitoring and supervisory team for management of physical facilities across the secondary schools in the state, while ensuring that schools with inadequate facilities are upgraded.
- ii. Considering the fact that school facilities made positive impact on students learning in secondary schools in Kano State, the study suggested that school administrators and teachers should all uphold the policy of maintenance culture to keep the standard of the physical facilities in good conditions so as to boost the teachers' teaching ability and the students learning habit in the study area.

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