

Impact of Convenience Space and Library Space Planning on the Management of Public Secondary Schools in Kaduna Metropolis, Kaduna State, Nigeria

PEMIDA, Onimisi Rebecca
Department of Educational Foundations,
Federal College of Education, Zaria

ABSTRACT

The study "examined the Impact of convenience space and library space planning on the Management of Public Secondary Schools in Kaduna Metropolis, Kaduna State, Nigeria". The objectives of the study were to: determine the impact of space for convenience space planning on the management of public secondary school in Kaduna Metropolis; and identify the impact of school library space planning on the management of public secondary school in Kaduna Metropolis. In line with the stated objectives, two corresponding research questions were raised and two null hypotheses were formulated in the study. The target population of this study comprises of 97 principals, 3,021 teachers and 21 Quality Assurance Officers within the Kaduna Metropolis. The sample size was 333 respondents consisting of 320 teachers, 10 principals and 3 Quality Assurance Officers in the 3 selected Local Government Areas. The instrument titled "School Plants Planning and Management of Public Secondary Schools Questionnaire (SPPMPSSQ)" with reliability coefficient of 0.76 was used for data collection. Data collected in the study was analysed using descriptive statistics such as frequency counts, mean and standard deviation to answer the research questions while Kruskal Wallis was used to test the eight null hypotheses at 0.05 level of significance. Findings of the study revealed among others that space for convenience planning had significant impact on the management of public secondary schools in Kaduna Metropolis (p -value $.001 < 0.05$). The study recommended among others that space for convenience should be adequately planned with potable water made available such as well, borehole, reservoir to ensure a clean and hygienic environment and reduce the students' risk of diseases.

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INTRODUCTION

Education is seen as a tool for advancing a society's development and bringing about positive change. "The primary aim of the teaching and learning process is to bring about in the learner desirable change in behaviour through critical thinking. The process does not take place in a vacuum but rather in the environment structured to facilitate learning. Schools are usually set up to provide an environment for teaching and learning, the effectiveness of which

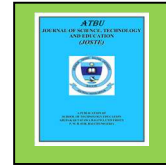
requires several factors to be put in place. These factors include a good curriculum, well trained teachers, a good learning environment, teaching aids amongst others. It is generally agreed that the quality of education delivered by teachers and the academic achievement of students in any school is dependent on several factors of which school plant is paramount. Governments, private individuals and organizations in all states in Nigeria are increasingly involved in the building of schools to meet the increasing demand for

Corresponding author: Pemida, Onimisi Rebecca

✉ pemidarebecca@gmail.com

Educational Administration and Planning Department, Federal College of Education, Zaria.

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secondary education in Nigeria, secondary school enrolment has increased without a corresponding plan for school plants for effective teaching and learning". This has put a considerable strain on most secondary schools in Kaduna State.

Convenience space in schools serves to accommodate the non-classroom needs of students and staff. These spaces must be carefully planned, taking into consideration such factors as the current and future enrolment rates in the educational system and the different methods of instruction. Classrooms can be added to a building without much difficulty, but spaces for convenience are often difficult to expand at an expense after the initial construction. On the other hand, school library services assist teaching by storing instructional materials such as textbooks, audio visual materials, magazines, newspapers, journals and reference materials. It is the function of this library to support the school curriculum by providing up-to-date information to keep teachers and students abreast of new development. The library also promotes the development of reading skills and encourages long term learning habits through reading, listening to and viewing a variety of materials. The library is the integral part of the school system".

Convenience space planning is one aspect of school plant planning which is often ignored. "Space for convenience consists of toilets, cafeteria, kitchen, dormitories, custodian sheds and stores. Convenience space in schools serves to accommodate the non – classroom needs of students and staff. These spaces must be carefully planned, taking into consideration such factors as the current and future enrolment rates in the educational system and the different methods of instruction. Classrooms can be added to a building without much difficulty, but spaces for convenience are often difficult to expand at an expense after the initial construction. Overcrowded support facilities are inefficient and may neglect much of the effectiveness of the instructional areas."

The "Oxford advanced learners dictionary described a library as a building or room in which collection of books, tapes, newspapers etc. are kept for people to read study or borrow".

Awana (2005) defines it as a place where books and other forms of materials are kept for the purpose of reading and research. Conant in Awana (2005) gives an expanded opinion by stating that "a library is an alive expository of cultural past and a sustained of intellectual activities that anticipates the future. The library is the agency devoted solely to the purpose of collecting, preserving, and making available, transmitting and securing the widest and most effective use of the record of civilization by the society which it is a part of." Owoeye and Yara (2011) posit that "the Library is an essential factor in teaching-learning process. It forms one of the most important educational services.

Statement of the Problem

The researcher observed that secondary education has experienced critical environmental issues in attaining the educational goals in Kaduna State of Nigeria. These include; space for convenience and library space. The researcher also observed that there is no enabling school plant planning to enhance the management of public secondary schools in Kaduna State of Nigeria.

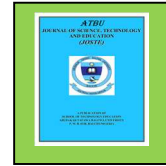
In view of the above the staff are not encouraged to teach due to inadequate infrastructural facilities and inadequate enabling environment. This greatly affects teacher's morale because the school site/location is not in the convenient environment, the essential facilities such as conveniences and libraries are insufficient for both teachers and students to achieve effective teaching and learning process. This is because inadequate provision of infrastructural facilities for an enhanced school learning environment has manifested in most schools today and their ineffective use lead to poor academic performance. It is a fact that teachers' moral is likely to affect the students either positively or negatively because of inadequate provision of convenience and libraries among others in secondary schools in Kaduna State of Nigeria. High level of students' academic performance may not be guaranteed where instructional space such as classrooms, libraries, technical

Corresponding author: Pemida, Onimisi Rebecca

✉ pemidarebecca@gmail.com

Educational Administration and Planning Department, Federal College of Education, Zaria.

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workshops and laboratories are lacking (Ajayi, 2007).

This is because observations by the stakeholders and educational administrators revealed that the Nigeria educational institutions are faced with the problem of insufficient funds necessary to carry out their educational activities. A survey by Ahmed, (2009) of secondary schools in Kaduna state revealed that 2% have partial roofs, 15% have their walls falling, 65% need doors to be repaired, and 25% have no windows in place. Commenting on why high academic attainment is not in vogue in Nigeria,

Additionally, "Amanchukwu and Ololube (2015) averred that one of the strongest problems with the Nigerian educational system is the inappropriate school plant planning. It is worrisome that most of the schools in cities and towns are not properly planned in terms of school plants. Students, especially in government-owned secondary schools, sit on floors to receive instruction. They receive instruction in dilapidated classrooms which are similar to death traps due to their poor construction. Most of these schools are sited near market places, highways, rail line, industries, airports, and close to main roads. Adesanya (2010) also argued that in Nigeria succession governments (Kaduna inclusive) have often been blamed for the deteriorating level of education. The reasons adduced range from inadequate budgetary allocation, poor and inadequate infrastructures, overcrowded classrooms, and lack of data for accurate planning".

Sadly, the mapping of the placement and distribution of educational services has been disregarded by educational planners, administrators, political leaders, and the government despite the swift increase in the opening of secondary schools countrywide and in Kaduna State in particular. This is due to the fact that many educators still do not fully grasp the idea of "school mapping" and may mistake it for a regular map indicating the location of educational institutions (Hudu, 2021). The "Federal Government of Nigeria in the National Policy on Education (NPE, 2013) sets guidelines for setting up and operating secondary schools, but does not

state clearly school plant designs, size, and layout quality and construction requirements. It is in light of the above that the researcher set out to investigate the impact of school plant planning on the management on public secondary schools in Kaduna Metropolis". Specifically, the study is set out to:

1. determine the impact of space for convenience planning on the management of public secondary school in Kaduna Metropolis;
2. identify the impact of school library space planning on the management of public secondary school in Kaduna Metropolis;

Research Questions

The following research questions guided the conduct of the study:

1. In what ways do space for convenience planning impact on the management of public secondary schools in Kaduna Metropolis?
2. Do library space planning have impact on the management of public secondary school in Kaduna Metropolis?

Research Hypotheses

The following research hypotheses were tested at 0.05 level of significance.

HO₁: There is no significant difference in the opinion of respondents on the impact of Space for convenience planning on the management of public secondary schools in Kaduna Metropolis.

HO₂: There is no significant difference in the opinion of respondents on the impact of School library on the management of public secondary schools in Kaduna Metropolis.

METHODOLOGY

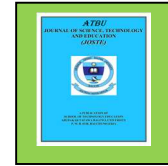
Survey research design was adopted for the study. The population of this study comprises of 97 principals, 3,021 teachers and 21 Quality Assurance Officers within the Kaduna Metropolis. The sample size was 333 respondents consisting of 320 teachers, 10 principals and 3 Quality

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✉ pemidarebecca@gmail.com

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Assurance Officers in the 3 Local Government Areas that make up the metropolis. The sample size was selected through the adoption of the Research Advisors (2006) sample size table. Thus the “hat and draw method of random sampling was used to obtain the sample size. Serial numbers of the elements in the sampling frame was recorded on pieces of papers folded and mixed thoroughly before the respondent was asked to pick at once without replacement. This technique gave the respondents equal opportunity of being selected thereby, reducing the bias effect that may interfere with the validity and reliability of the study. The instrument titled “School Plants Planning and Management of Public Secondary Schools Questionnaire (SPPMPSSQ)” was validated by specialists in education management. Its reliability was ascertain through pilot test. The internal consistency of the instrument was determined using the Cronbach Alpha method and

a reliability coefficient of 0.76 was found. This was supported by Lee in Lavrakas (2008) that internal reliability of an instrument at 0.7 and above is acceptable. Data collected in the study was analysed using descriptive statistics of frequency counts, mean and standard deviation to answer the research questions while Kruskal Wallis was used to test the two null hypotheses at 0.05 level of significance.

RESULTS

Research Question One: In what ways do space for convenience planning impact on the management of public secondary schools in Kaduna Metropolis?

The summary of the analysis carried out on the respondents’ opinions was tabulated in the form of frequency counts, mean and standard deviation. Table 1 presents the detail analysis.

Table 1: Impact of Space for Convenience Planning on the Management of Public Secondary Schools in Kaduna Metropolis

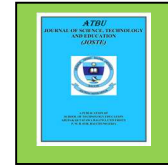
SN	Item Statement	Respondents	Mean	SD	Remark
1.	Conveniences space planning influences management of sanitary infrastructure such as toilets facilities in school.	QAO	4.333	0.577	Positive
		Principals	4.521	1.816	
2.	Cafeterias space planning have impact on the management of public secondary schools.	QAO	3.000	0.563	Positive
		Principals	4.000	1.414	
3.	Adequate planning of custodian sheds impact on the management of boarding secondary schools.	QAO	3.403	0.951	Positive
		Principals	4.011	0.577	
4.	Lack of water hinders the management of convenience space planning in schools.	QAO	3.400	0.516	Positive
		Principals	4.261	0.411	
5.	Lack of space for staff toilets hinders effective teaching and learning process.	QAO	3.021	1.220	Positive
		Principals	4.611	0.577	
6.	Convenience space planning plays a significant role in the teaching and learning process.	QAO	3.900	1.197	Positive
		Principals	3.103	1.270	
7.	Support facilities planning are inefficient and neglected in public secondary schools.	QAO	3.071	0.521	Positive
		Principals	3.200	1.032	
8.		QAO	3.281	1.072	Positive
		Principals	4.000	1.000	
		Teachers	2.100	0.875	
		Teachers	2.753	1.228	
		QAO	4.606	0.577	

Corresponding author: Pemida, Onimisi Rebecca

✉ pemidarebecca@gmail.com

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	Lawns and recreational facilities planning integrate and promote student's relationship to learning Public secondary schools.	Principals Teachers	2.800 3.065	1.229 1.093	Positive
9.	Inadequate maintenance of convenience space planning influence the management in public secondary schools.	QAO Principals Teachers	4.316 3.100 3.005	1.000 1.197 1.166	Positive
10.	Availability and accessibility of convenience to students could result in better performance.	QAO Principals Teachers	4.386 2.400 3.065	0.975 1.503 1.061	Positive
			<i>0.97</i>		

Table 1 show that space for convenience planning had impact on the management of public secondary school in Kaduna Metropolis. The table showed the average response mean of 3.54 which is higher than the standard mean of 3.0. By implication, item number 1 on the table which states that "conveniences space planning influences management of sanitary infrastructure such as toilets facilities in school" attracted the highest mean response of 4.333, 4.521 and 4.666 by Quality Assurance Officials, Principals and Teachers respectively. Details revealed that 1 quality assurance official agreed and 2 stayed undecided on the statement,

3 principals agreed, 1 stayed undecided, and 5 disagreed and 1 strongly disagreed on the statement, while 12 teachers strongly agreed, 136 agreed, 79 stayed undecided, 49 disagreed, and 44 strongly disagreed on the statement.

Research Question Two: Do library space planning have impact on the management of public secondary school in Kaduna Metropolis?

The summary of the analysis carried out on the respondents' opinions was tabulated in the form of frequency counts, mean and standard deviation. Table 2 presents the detail analysis.

Table 2: Impact of Library Space Planning on the Management of Public Secondary Schools in Kaduna Metropolis

SN	Item Statement	Respondents	Mean	SD	Remark
1.	Management of textbooks in the school library encourage students' further reading.	QAO Principals Teachers	4.000 3.700 3.121	1.000 1.059 1.136	Positive
2.	Libraries are well equip in public secondary schools in Kaduna State.	QAO Principals Teachers	4.000 3.000 3.306	1.000 0.816 1.251	Positive
3.	Internets in school Libraries have impact on the management of public secondary schools.	QAO Principals Teachers	4.000 3.300 3.228	1.000 1.251 1.147	Positive
4.	A well-planned library facility have impact on the management of public secondary schools.	QAO Principals Teachers	4.000 4.500 4.040	1.000 1.414 1.114	Positive
5.	Library Operating hours in public secondary schools have impact on the management of schools.	QAO Principals Teachers	4.333 3.000 3.146	0.577 0.527 1.161	Positive
6.		QAO	4.333	0.577	

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✉ pemidarebecca@gmail.com

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	Management of Librarians assist students on how learning materials in the school are used.	Principals	3.300	1.059	Positive
		Teachers	2.968	1.088	
7.	Every school building should have a separate wing for library and reading room.	QAO	3.666	1.527	
		Principals	3.300	0.948	Positive
		Teachers	3.187	0.993	
8.	Libraries should be centrally located so that it may be easily accessible to all students.	QAO	3.666	1.154	
		Principals	3.000	1.414	Positive
		Teachers	3.490	0.919	
9.	Management of school library media centre encourage students' reading habit	QAO	3.333	2.081	
		Principals	3.300	1.251	Positive
		Teachers	3.256	0.999	
10.	Well-kept Libraries have impact on the management of schools.	QAO	4.000	1.000	
		Principals	3.300	1.418	Positive
		Teachers	3.137	1.179	
		<i>1.10</i>			

Table 2 show that library space planning had impact on the management of public secondary school in Kaduna Metropolis. The table showed the average response mean of 3.53 which is higher than the standard mean of 3.0. By implication, item number 4 on the table which states that “a well-planned library facility have impact on the management of public secondary schools” attracted the highest mean response of 4.000, 4.500 and 4.040 by Quality Assurance Officials, Principals and Teachers respectively. Details revealed that 1 quality assurance official strongly agreed, 1 agreed and 1 stayed undecided on the statement, 6 principals agreed, 1 stayed

undecided and strongly disagreed on the statement, while 46 teachers strongly agreed, 141 agreed, 79 stayed undecided, 48 disagreed, and 6 strongly disagreed on the statement.

Hypothesis One: There is no significant difference in the opinion of respondents on the impact of Space for convenience planning on the management of public secondary schools in Kaduna Metropolis.

The data collected through the administration of questionnaire was tested using Kruskal-Wallis H. Table 3 provides the summary of the test conducted on hypothesis one.

Table 3: Summary of Kruskal-Wallis H test on the Impact of Space for Convenience Planning on the Management of Public Secondary Schools in Kaduna Metropolis

Group	N	Mean Rank	Chi-square (χ^2)	df	α	P-value	Decision
QAO	3	65.50					
Principal	10	195.41	195.676	2	0.05	.001	Rejected
Teacher	320	195.32					

Table 3 revealed that “Space for convenience planning had significant impact on the management of public secondary schools in Kaduna Metropolis. The table showed the group chi-square (χ^2) of 195.676 with p-value of .001 at

2 degrees of freedom. Since the p-value (.001) was lesser than the alpha level (0.05), the hypothesis which says that there is no significant difference in the opinion of respondents on the impact of Space for convenience planning on the

Corresponding author: Pemida, Onimisi Rebecca

✉ pemidarebecca@gmail.com

Department of Educational Foundations, Federal College of Education, Zaria.

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management of public secondary schools in Kaduna Metropolis was rejected. This implies that the hypothesis is statistically significant".
Hypothesis Two: There is no significant difference in the opinion of respondents on the impact of

School library on the management of public secondary schools in Kaduna Metropolis.

The data collected through the administration of questionnaire was tested using Kruskal-Wallis H. Table 4 provides the summary of the test conducted on hypothesis two.

Table 4: Summary of Kruskal-Wallis H test on the Impact of School Library Planning on the Management of Public Secondary Schools in Kaduna Metropolis

Group	N	Mean Rank	Chi-square (χ^2)	df	α	P-value	Decision
QAO	3	84.63					
Principal	10	168.00	192.048	2	0.05	.003	Rejected
Teacher	320	155.50					

Table 4 revealed that "School library planning had significant impact on the management of public secondary schools in Kaduna Metropolis. The table showed the group chi-square (χ^2) of 192.048 with p-value of .003 at 2 degrees of freedom. Since the p-value (.003) was lesser than the alpha level (0.05), the hypothesis which says that there is no significant difference in the opinion of respondents on the impact of School library planning on the management of public secondary schools in Kaduna Metropolis was rejected. This implies that the hypothesis is statistically significant".

SUMMARY OF THE FINDINGS

In view of the analysis carried out in the study, findings revealed that:

1. Space for convenience planning had significant impact on the management of public secondary schools in Kaduna Metropolis (p-value .001 < 0.05).
2. School library had significant impact on the management of public secondary schools in Kaduna Metropolis (p-value .003 < 0.05).

DISCUSSION OF THE FINDINGS

The findings show that space for convenience planning had impact on the management of public secondary school in Kaduna Metropolis. By implication, conveniences

space planning influences management of sanitary infrastructure such as toilets facilities in school. Thus, hypothesis three which says that there is no significant difference in the opinion of respondents on the impact of Space for convenience planning on the management of public secondary schools in Kaduna Metropolis was rejected. This implies that the hypothesis is statistically significant. This implies that the hypothesis is not statistically significant. This is in consonance with the position of Ogonor and Sani (2001) which revealed that the facilities, which are provided in schools, were grossly inadequate vis-à-vis the number of users of the facilities, hence the need for effective planning. The study also revealed that the conveniences available were not only inadequate but also unkempt. It was also discovered that there appeared to be a culture of non-replacement of worn out facilities as school personnel have not been responsive to the repairs of facilities.

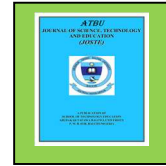
Secondly, it was revealed that library space planning had impact on the management of public secondary school in Kaduna Metropolis. By implication, a well-planned library facility have impact on the management of public secondary schools. Thus, hypothesis four which says that there is no significant difference in the opinion of respondents on the impact of school library planning on the management of public secondary

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✉ pemidarebecca@gmail.com

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schools in Kaduna Metropolis was rejected. This implies that the hypothesis is statistically significant. This implies that the hypothesis is not statistically significant. This is in consonance with the position of Leo (2016) which revealed that, some of the students from secondary school with well-planned libraries and enough materials were observed to perform better in exams than secondary schools with no well-planned libraries and enough materials due to the fact that, the availability of well-equipped libraries encourage learning habits and strengthened students study skills which results to performance of the students.

CONCLUSIONS

Conclusion was reached based on the discovery made in the study that:

1. Conveniences space planning influences management of sanitary infrastructure such as toilets facilities in school.
2. A well-planned library facility has impact on the management of public secondary schools.

RECOMMENDATIONS

The following recommendations were made in this study, that:

1. Space for convenience should be adequately planned with potable water made available such as well, borehole, reservoir to ensure a clean and hygienic environment and reduce the students' risk of diseases.
2. Secondary schools in Kaduna Metropolis should be encouraged to take school library space planning very seriously as to increase students' reading habit and thereby improve their performance.

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Corresponding author: Pemida, Onimisi Rebecca

✉ pemidarebecca@gmail.com

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