# SCHOOL PLANT AND STUDENTS' ACADEMIC PERFORMANCE IN MAKURDI EDUCATION ZONE OF BENUE STATE

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#### **Abstract**

This study investigated school plant and students' academic performance in Makurdi Education Zone of Benue State. Specifically, the study investigated the influence of recreational facilities on students' academic performance. One research question and one hypothesis guided the study. Descriptive survey design was adopted for the study. From the population of 1,191 secondary school teachers, 298 teachers were sampled from 24 schools using simple random sampling technique. School Plant and Students' Academic Performance Questionnaire (SPSAPQ). The data collected were analyzed using the mean and standard deviation to answer the research questions and chi-square to test the hypotheses at 0.05 level of significance. Findings from the study revealed that recreational facilities have significant influence on students' academic performance in Makurdi Education Zone of Benue State. It was therefore, recommended that recreational facilities should be provided and be maintained to enhance effective teaching and learning process in secondary schools.

## Introduction

Education is a veritable machinery for the development of any nation. It is a process for bringing positive change for the benefit of the society. The guiding principle of education in Nigeria is the equipping of every citizen with such knowledge, skills, attitudes and values as to enable him/her to derive maximum benefits from his/her membership in society, lead a fulfilling life and contribute to the development and welfare of the community. According to the Federal Government of Nigeria the national educational aims and objectives for all levels of education are: the inculcation of national consciousness and national unity; the inculcation of correct types of values and attitudes for the survival of the individual and the Nigerian society; and training for understanding the world around.

State governments own a large proportion of secondary schools in the country. With regard to state secondary schools, administration and management fall within the purview of ministries of education and their proprietors, but they have to comply with minimum standards which are prescribed by state laws. The administration of public primary schools is under local education authorities, while pre-primary schools are essentially maintained and administered by their proprietors. Federal and state governments maintain quality control through inspection of schools (Aba, 2012).

Other ministries involved in education are the ministries of Women's Affairs and Social Welfare, Health, Agriculture, Information and Culture, Finance and the National Planning Commission. For example, the Ministry of Information undertakes publicity and sensitization for educational policies and programmes. The Federal Ministry of Women's Affairs and Social Welfare and the State Commissions for Women collaborate with Ministries of Education in the promotion of the education of women and girls. The Ministry of Finance provides funding while the National Planning Commission and State Ministry of Planning approve educational plans.

There are networks of non-governmental organizations (NGOs) which collaborate with the federal and state ministries of education in the management of the non-formal education system. They operate private primary schools and offer literacy and other educational programmes. Women's education centres have been established in most of the states. They are involved in mobilization and advocacy in aid for the education of women and girls.

School plant comprises the site, buildings, play grounds, health facilities, instructional materials and all forms of school equipment. It is the controlled environments which facilitates teaching and learning process as well as protect the well-being of the occupants. The main objective of a school plant is to satisfy educational goals which have been predetermined by educational planners. A school plant enhances better school programmes and the community needs by providing a place for psychological and physical safety for students and teachers. It also enhances the academic performance of students (Ovosola, 2007).

School plant includes the school site, medical facilities, instructional materials, school laboratories, classroom facilities, recreational facilities among others. All these are relevant in the teaching and learning process in a school system. This study is focused on school site, medical facilities, infrastructural facilities instructional materials and recreational facilities. The level at which these facilities may enhance conducive teaching and learning depends on the location of structures and facilities within the school environment. It is therefore, very likely that a well-planned school plant in terms of location, structure and facilities will engender effective teaching and learning and

enhance academic performance of students. A comfortable and caring school plant contributes to students' academic performance. The school plants have variety of performance aspects on teachers, students and the learning process. Poor lighting, noise, high level of carbon dioxide in classrooms and inconsistent temperatures make teaching and learning difficult. Poor plants location and ineffective ventilation systems lead to poor health among students and teachers. This could lead to poor academic (Mark, 2009).

According to Akpakwu (2012), a school plant should start and end with the students and staff. This means that a school plant should be designed to satisfy the physical and emotional needs of both students and staff. The physical need of staff and students can only be met by ensuring safe structures, adequate sanitary facilities, balanced visual environment, an appropriate thermal environment, a satisfactory acoustic environment and sufficient accommodation for their work and relaxation. The emotional needs of both staff and students can be met by creating conducive and pleasant surroundings. A friendly and an inspiring school plant is capable of increasing academic performance of students. The teaching and learning process involves large number of learners coming together to acquire knowledge. This is not possible without physical spaces and facilities which aid teaching and learning process.

According to Ada (2006), a well-developed curriculum will fail if it is not supported with adequate facilities. A well-trained teacher who can improvise will not succeed if he or she does not have the minimum facilities to work with. Indeed, teaching and learning other sporting activities of the school can only successfully take place in a conducive environment. The provision of adequate school plant therefore would create a favourable environment for teachers to use their creativity and knowledge in teaching for the students to learn properly.

The term performance is the ability of the child or students to retain and be able to transfer acquired knowledge in the appropriate situation. Performance of a student is ascertained when he or she is able to understand what is taught by the teacher and is able to explain or write when evaluated (Ozumba, 2011). Performance can be described as the scholastic standing of a student at a given moment. This scholastic standing could be explained by the grades obtained in a subject or group of subjects taken (Owoyemi, 2010). Aloga (2014) maintains that school site location is important in educational attainment of students. Schools that are well-sited in the urban areas enjoy basic facilities such as light, portable water, and other educational facilities.

On the other hand, those schools in rural areas lack basic facilities particularly light which is needed to put certain machines active. The school site should be such that is accessible for effective teaching and learning.

Recreational facilities play important roles in the academic lives of the students. They help the students to live a successful life when they go into the society after school (Millard, 2010). According to Maduewesi (2009), it is essential that the school should plan for co-curricular activities properly and manage them well. These activities shape the social and physical outlooks of the students (Marsh and Kleitman, 2011 and Kelstrom, 2010). The school extra-curricular project activities are the images of schools in the society (Odeh, 2014).

Jibrin (2014) pointed out that, the school plant is a very important part of educational planning. Unless schools are programmed, buildings adequately constructed and equipment adequately utilized and planted, much teaching and learning may not be realised. The responsibilities of the principals in secondary schools do not stop at the human and financial aspects of the school but also involves their ability to effectively and

efficiently manage the school site instructional materials, school libraries, students' hostels, staff offices, medical facilities as well as recreational facilities among others.

It is unfortunate that due to the increase in enrolment in secondary schools as well as increase in staff strength in our schools, the school plant in secondary schools has not kept pace with the trend. Most of the secondary schools in the area of study are sited where they are not supposed to be located. Most of the schools are sited on the highways while others do not meet the minimum landmass requirements for secondary schools. The high level of students' academic performance may not be guaranteed where instructional materials, medical facilities, school laboratories, recreational facilities, library facilities are not properly kept or maintained.

It is noted based on the above explanation that the process of school plant, which is the planning, is equally important. This is because it has an immediate influence on students' academic performance. However, it seems that proper school plant has not been accorded its due place in our educational institutions as can be seen in the sitting of some schools in areas instructional materials, medical facilities, laboratory facilities, recreational activities, library facilities, weather conditions or climatic change, exposure of sporting/laboratory facilities to harsh weather conditions due to poor plants citing. It is certain that all these may have negative effects on the teaching and learning process.

In Makurdi Education Zone of Benue State which is the researcher's area of concern, it seems that inadequate school plant planning in most schools has given way to dilapidated buildings, vandalism, poor state of laboratories, library facilities like text books, furniture, laboratory equipment and chemicals. All these could lead to poor academic performance among students. The researcher observed that some of the schools in the study area have adequate school plant while some of the schools do not have. Even those schools that have the facilities are not properly organized and maintained. It is against this background the researcher investigated the influence of school plant on students' academic performance in Makurdi Education Zone of Benue State.

## **Purpose of the Study**

The purpose of this study was to investigate the influence of school plant on students' academic performance in Makurdi Education Zone of Benue State. The study sought to:

1. Determine the influence of recreational facilities on students' academic performance in Makurdi Education Zone of Benue State.

# **Research Questions**

This research question guided the study:

1. How do recreational facilities influence students' academic performance in Makurdi Education Zone of Benue State?

#### **Hypotheses**

The null hypothesis was formulated and tested at 0.05 level of significance:

1. Recreational facilities have no significant influence on students' academic performance in Makurdi Education Zone of Benue State.

## **Research Method**

The study adopted descriptive survey design. The population of the study comprised of 1,191 teaching staff in 100 government approved secondary schools in Makurdi Educational zone of Benue State. The sample for the study was 298 teachers representing 25% of teaching staff from 24 or 27% of the secondary schools. Simple random sampling technique was used to select the sample through hat and draw technique. This was done to avoid bias and ensure that each respondent has equal chance of being selected. A structured 5-item four point rating scale questionnaire titled: School Plant and Students' Academic Performance Questionnaire (SPSAPQ) was developed and used to collect data for the study. The questionnaire was made up of one cluster which covered recreational facilities and students academic performance in secondary schools. The instrument was a rating scale of Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) =2 and Strongly Disagree (SD) = 1. The questionnaire was administered by the researcher and research assistants who were briefed on how to administer and collect them back in the sampled schools. A total of 298 copies of the questionnaire were given out to the respondents in the sampled schools for the study which was collected back after four days. Data obtained were analysed using mean and standard deviation to answer the research questions while chi-square  $(x^2)$  was used to test the hypotheses. The cut-off point considered as agree for the responses was 2.50. The basis for arriving at 2.50 was by adding  $4+3+2+1 = \frac{10}{4} = 2.50$ . Thus, the interpretation of the mean scores was based on cut-off point of 2.50. Any mean scores that was 2.50 and above was considered positive while a mean score that was below 2.50 was considered negative. Chi-square  $(x^2)$  was used to test the hypotheses at .05 level of significance. It was considered appropriate for the study because it is a non-parametric statistics for treating data.

# **Results and Findings**

The data collected were analysed and tested.

**Research Question One:** How do recreational facilities influence Students' academic performance in secondary schools?

**Table 1:** Mean ratings and standard deviation of the influence of recreational facilities on secondary schools students' academic performance

Item	Item Description	SA	A	D	SD	$\overline{X}$	ST.D	Decision
<b>No</b> 1	Recreational facilities such as parks and viewing centres for students' relaxation refresh students for further learning/academic performance.	161	104	23	10	3.40	0.77	Accepted
2	Total involvement in athletics hinders students from attending most school lessons and other academic activities and this in turn leads to low academic performance.	140	92	42	24	3.17	0.95	Accepted
3	Excessive television-watching encourages impulsive behaviours which may eventually decrease students' academic performance.	147	81	51	19	3.19	0.94	Accepted

4	Participation in interscholastic	95	96	64	43	2.82	1.04	Accepted
	sports activities promotes							
	students' development and social							
	ties among students.							
5	Lack of recreational facilities like	106	120	39	33	3.00	0.97	Accepted
	football field, basketball pitch, and							F
	other sporting facilities,							
	discourage students in most of the							
	group activities in the school.							
	Cluster mean/standard					2 1 2	0.93	Accepted
						3.14	0.93	Accepted
	deviation							

Source: Fieldwork, 2018.

The table shows that the mean ratings for items 16-20 were 3.40, 3.17, 3.19, 2.82 and 3.00 with corresponding standard deviations of 0.77, 0.95, 0.94, 1.04 and 0.97 respectively. All the mean ratings are above the cut-off point of 2.50. This means that the respondents agreed that recreational facilities such as parks and viewing centres for students' relaxation refresh students for further learning/academic performance in secondary schools. They agreed that total involvement in athletics hinders students from attending most school lessons and other academic activities and this in turn leads to low academic performance in secondary schools. Excessive television-watching encourages impulsive behaviours which may eventually decrease students' academic performance, Participation in interscholastic sports activities promote students' development and social ties among students and lack of recreational facilities like football field, basketball pitch, and other sporting facilities, discourage students in most of the group activities in the schools which improves students' academic performance. The cluster mean of 3.12 with the standard deviation of 0.93 was also found to be above the cut-off point of 2.50. This implies that recreational facilities have influence on students' academic performance.

## **Hypothesis Testing**

**Hypothesis One:** Recreational facilities have no significant influence on students' academic performance.

**Table 2:** Chi-square test of the influence of recreational facilities on academic performance

Opinions	Observed	Expected	Дf	Lovol	<b>V</b> 2_cal	<b>X</b> 2₌tab	Decision
Opinions		Frequency	uı	of sig	A-Tom	A	Decision
SA	161 (54.1)	129.8	1	0.05	105.17	3.84	Ho Not accepted
A	104(34.9)	98.6					
D	23(7.8)	43.8					
SD	10(3.4)	25.8					

Values in parentheses are percentages ( $X^2 = 105.17$ , df = 1, p = 0.05 > 0.00)

Table 8 shows that 77% of the respondents agreed that recreational facilities have influence on students' academic performance in secondary schools as against 23% respondents who disagreed. Chi-square calculated value of 105.17 was greater than

the chi-square table value of 3.84 checked at 0.05 level of significance and at 1 degree of freedom. The null hypothesis was therefore not accepted. This implies that recreational facilities have significant influence on students' academic performance

## **Discussion of Finding**

Based on the result of the analysis of the research question and testing of research hypothesis, the finding is organized and discussed for ease of comprehension. The one null hypothesis postulated and tested is not accepted.

The finding of the study showed that recreational facilities have significant influence on students' academic performance of secondary schools. This is in line with

Maduewesi (2009) found that adequate provision of recreational facilities such as sporting and library facilities is very important in the wholesome academic development of students, most especially, in their physical ability and mental alertness. A well-organized sporting and library facilities encourage students' interest in reading, learning, teaching, research and professional development of teachers. This implies that there is an urgent need for planning and provision of sports and library facilities in order to facilitate effective teaching and learning, to enhance students' academic performance. Marsh and Kleitman (2011) who argued that many co-curricular activities have proven to be beneficial in building and strengthening academic performance, even if the activities are not obviously related to academic subjects. In agreement with the above, Kelstrom (2010) observed that music instruction actually enhances students' academic performance in areas even outside music.

#### Conclusion

Based on the findings of this study, it was concluded that, school site, medical facilities, instructional materials and recreational facilities have significant influence on students' academic performance in Makurdi Education Zone of Benue State.

#### Recommendations

Based on the finding of the study, the following recommendation was made:

1. Appropriate school authorities should make sure that they provide recreational facilities in schools to enhance students' academic performance.

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