



Influence of School Environment on Academic Performance of Public Secondary School Students in Jos – south Local Government Area of Plateau State - Nigeria

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Abstract

The purpose of the study is to examine the influence of school environment on academic performance of public secondary school students in Jos South L.G.A of Plateau State. The research design was survey research design. A four-point rating scale type research designed questionnaire was developed and was validated by experts in test and measurement unit of educational foundation of University of Jos and the reliability coefficient of 0.71 using Cronbachs' Alpha reliability test. A Simple random sampling technique was used to select students and five sampled schools for the study in the area. Data for the study were collected through the use of a questionnaire. Samples of 370 students were selected through simple random sampling technique from a population of 10,038 students in public secondary schools. The data was analysed using descriptive statistics which are mean and standard deviation. Findings revealed that, school physical environment, lack of proper library services and inadequate learning materials influences academic performance of students in public secondary school. Based on the findings, it was also recommended that adequate school physical facilities should be provided by the State Government, in all public secondary schools, there should be proper planning in terms of school location, renovation of existing facilities, planting of ornamental plants or aesthetic beauty, learning materials should be made available with functional libraries, equipped with current books and ICT materials to help enhance both the students' academic performance and the teachers' effectiveness in academic activities in the school.

Keywords: Performance, Environment, Learning, Library, Student.

JEL Classification: A22, B49, H41, H75, I24

Contribution to/Originality Knowledge:

The paper's primary contribution is finding that, there is significant relationship between school environment and academic performance of public secondary school students in Jos South L.G.A of Plateau State which have contributed to educational policy developmental plan by stakeholders in education.

1.0 Introduction

Education is an active process, which deals with acquiring skills, generating interests and curiosity, imparting good behaviour and beliefs and developing required knowledge for individual learning, which leads to the development of a child and the society in general. This is required in helping learners to be responsible, capable and socially useful people. An environment is the natural surroundings of an organism and it can be land, air or water

(Asogwa, 2008). According to Onyehalu in Okeke (2001), the environment is of three parts namely: physical, social and abstract. Physical environment is objects or materials found in the home, school or community. It also includes people like parents, peers and children. The social environment is the social life, societies, clubs among others. While abstract environment is the reactions, feedback responses received on interaction with others.

Environment is the physical world inhabited by man, or the realm of nature untainted by man (human action), or the cultural milieu — the physical environment as modified by human action, (Ofomata, 2004). It could also be seen as things, around the child that he might perceive or that might have some influence on him. It can be viewed as all systems of air, land, water and life that surround man. In other words, the surrounding condition which consists of the ecosystem which has a direct impact on its development or living. They also include the atmospheric condition of the place, soil and other organisms. According to Monkhouse in Ofomata (2004), it is the whole entire surrounding conditions within which an organism, a community or an object lives.

2.0 Literature Review

The learning environment which is known as school environment includes the infrastructural facilities, school furniture, learning materials, laboratories, libraries, play grounds. School facilities refer to inputs which help in instructional activities. They include learning and other office accessories and so on. School facilities according to Ehiametalor (2001) are workable tools for every learning activity. These materials promote efficient learning processes which help to improve student's achievement.

The surrounding conditions in which the learner studies, such as classrooms, libraries are variables that influence students' learning and academic performance. The nature and quality of learning materials promotes the effective teaching and learning as well as efficient administration of the school (Ojede, 2003).

According to Ajewole and Okebukola (2000), a number of factors are said to have contributed to the students' poor academic performance in school. They further stressed that, a some of these factors that contributed to students' poor performance include: poor reading habits, unavailability of instructional facilities, weather, students' behaviour, and lack of learning materials, attitudes of the teachers, the instructional strategy and the type of learning environment provided for both the learners and the teachers. The poor performance of students in secondary schools may be a thought of the type of school environment.

According to Felix (2004), a conducive learning environment should possess adequate physical conditions (aesthetic beauty, availability of learning materials, location) necessary for adequate instruction. According to Subair and Awolere (2006), there should be utmost availability of physical conditions such as lighting, ventilation, good structures, location, learning facilities, adequate windows and doors, vents and fans to cool the temperature during hot weather. All these improve work and health of both the teachers and the students.



According to Hallak in Odeh, Oguche & Ivagher (2015) learning materials form one of the important factors that assist in students' academic performance in the school organization. They involve the learning facilities, classes, hostels, libraries, laboratories, furniture, recreational equipment, apparatus and other instructional materials. They went further to say that their availability, relevance and adequacy contribute to academic performance of students. At the same time unattractive school structures and overpopulated classrooms among others contribute to poor academic performance of the students in secondary school and other forms of higher learning.

The physical structures of the learning environment have a different influence on teachers, learners, and the educational system. Improper lighting, noise and air pollution in the classes, and inconsistent temperatures make teaching and learning difficult. Poor maintenance and ineffective ventilation systems lead to poor health among students as well as teachers, which lead to poor performance and higher absentee rates (Lyons, 2001).

According to Nwachukwu in Koroye (2016), the physical setting for learning influences the learner. The setting should be good enough to make learners wish to spend long hours there. What we have now in most of our public secondary schools does not meet these conditions. The typical village classroom is part of an unattractive building. The roof may still be in place or may have been blown off by a thunderstorm. If the latter is the case, students are forced to learn in the open without being protected from the influence of the weather (Koroye, 2016). Most urban secondary schools also have the same scenario.

According to Ajayi, Ekundayo and Osalusi (2010), the quality and quantity of learning materials such as infrastructural facilities have a direct influence on the academic performance of students. This means that the school environment determines how teaching and learning takes place. An efficient school environment should be in line with good standard, competent teachers, and effective administration to achieve sound academic performance of students in examinations. Roberts, Edgerton and Peter (2008) argued that there is a psychological link between the kind of learning facilities and those that are inside the school surrounding which includes the learners and instructors.

Usaini and Abubakar (2015) discovered that poor infrastructures and inadequate space, as well as the arrangement of furniture in the classroom, library and laboratory, would affect the organization of the learning environment. Friendly atmospheric conditions give room for students to study hard and improve their academic performance.

Learning facilities are mediums through which contents stimuli are passed to the students (Bassey, 2006). Mbipom (2000) described learning facilities as that which the teacher uses to achieve his aims. Mbipom further observed that, inadequate instructional materials in schools have a major challenge in the learning processes and concluded that, no efficient learning can take place without educational materials. He also observes that a school environment is dysfunctional by unavailability of instructional and learning materials may strongly influence the level of students' academic performance. This then implies that, learning facilities and materials have their own consequences on the academic achievement of students.

In a study by Acha (1999) opined that the usability of learning materials may improve students' academic performance if only the instructional materials are readily made available in the classroom, but that if not constantly made available, may therefore have no effect on the students' academic performance. Samati in Koroye, (2016) in a study on the importance of teaching social studies with instructional materials. Koroye further discovered that, the availability of learning materials doesn't have any significant relationship with students' academic performance in social studies. Koroye justified his findings by saying that learning materials will depend on how they are used to influence learning on students.

The library is the heart of the educational industry. Library is a place for acquiring knowledge aimed at restoring Nigerian schools by providing recent books and journals, (Federal Government of Nigeria, 2004). It is a store house of learning materials and as such provides more opportunities to the learner to acquire knowledge, which facilitates greater academic performance. It contributes to the total development of the students and enlarges their knowledge. Edoka (2000) sees the library as a resource centre where a collection of books, periodicals, book materials are housed for use by teachers and researchers for learning, study, research, recreational activities and personal interest. Library is the storehouse of the academic life of a school. With the new techniques of teaching, the library should be the Centre of the school educational program. The school library Should be located where all the students can have access to the materials in it. It should also be located outside from a noisy environment in order not to be distracted.

School libraries are learning facilities par excellence where learners study, meet face to face with resources, get information and develop research skills for life-long study (Dike, 2001). The purpose of the library in schools is to serve the school's demand and to make possible the objective and system of instruction which the school undertakes. The quality of library services in school makes difference in students' performance, (Library Research Service, 2000). It enhances the growth of knowledge. A well-furnished library is a storeroom of learning.

It has been found out that, there is a strong link between school libraries and academic performance of students. Keith (2000) found out that schools with well-established library perform more than schools where libraries are not well-equipped. Libraries provide learning resources to enrich the curriculum and provide limitless opportunities for learners (Aguolu, 2002). An effective school library provides a footing for independent study which cannot be spared in facing challenges of tertiary education.

The importance of libraries is also reflected in the National policy on Education (FGN, 2004) which states that libraries form useful educational services; proprietors of schools shall provide functional libraries in line with the lay-down guidelines. They shall also provide training for librarians and library assistants for this service. The current role of the library is to satisfy a need for an environment that cultivates student collaboration and peer learning (Hisle, 2005). The primary role of the library is symbolically reinforced in the spirit of studying by providing rooms for reading and meeting (Campbell, 2006). Library provides trustworthy information and helps students distinguish reliable information sources of social, political, economic, scientific, technological, educational, and cultural issues among the community (Campbell,



2006). The report prepared by the American Association of School Librarian (AASL) in (2009) reveals that school libraries improve students' knowledge. Administrators argued that school libraries are vital aspect of a good school program as they provide an equitable, fiscally responsible strategy for providing resources among various grades and the curriculum while addressing core reading, information and technology literacy.

AASL (2009) elaborate that school libraries often serve as a second classroom. Adefarati (2002) highlighted the aims of the school library to be a source of the subject information Centre and support the school curriculum. Jato (2014) revealed that, school library was very important in shaping students' habits as regard reading for leisure, to pass examinations and to obtain information on different aspects of life.

The establishment of more secondary schools in Jos-South L.G.A, most of the schools are not well equipped with learning facilities, some are left at the mercy of parents and the community to provide the needed facilities for proper take-off, which most parents finds it difficult to provide such facilities to their children and the community. The present condition of most of the schools in terms of learning facilities, the school environment, classroom structures necessitated the researcher to carry out this study on the influence of learning environment on the academic performance of students in public secondary schools in Jos-South L.G.A of Plateau State.

2.1 Objectives of the Study

The main objective of the study is to determine the influence of school environment on the academic performance of secondary school students in Jos-North L.G.A of Plateau State, Nigeria. Specifically, the study sought to:

1. determine whether school physical environment affects the academic performance of students in public secondary schools of Jos-South L.G.A of Plateau State
2. ascertain how school learning facilities affect students' academic performance of public secondary schools' students
3. determine the extent of the library services affects the academic performance of students of public secondary schools in Plateau State.

2.2 Research Questions

The following research questions guided the study:

1. What is the influence of the physical environment on the academic performance of students in public secondary schools of Jos-South L.G.A of Plateau State?
2. What is the influence of school learning facilities on students' academic performance in public secondary schools?
3. What is the influence of library services on the academic performance of students in public secondary schools?

3.0 Methodology

Kombo and Tromp (2006) asserted that, a research design is the ‘glue’ that holds all the elements in the research project together. The research design adopted for the study is descriptive survey research design. This was used with the aim of finding out the influence of the school physical learning environment on students’ academic performance.

The population of the study consists of 10,031 students sampled from 20 public secondary schools in Jos South Local Government Area of Plateau State. The sample size of 370 students were chosen using research advisor (2006) and also five public secondary schools were chosen using simple random sampling technique. According to Ashby & et al, (2011) a sample is worthless unless it reflects the entire population upon which generation is made. For that reason, the researcher samples the students regardless of their sex or age to allow easy analysis. The researcher used a simple random sampling technique which was aimed at getting a good representation of the population.

The instruments for data collection that guided the study was a structured questionnaire. The instrument for data collection was a questionnaire titled “Influence of learning Environment on the Academic Performance and Achievement of Public Secondary Schools Students Questionnaire” (ILEAPAAPSSSQ). The questionnaire consisted of 16 items. A four-point rating scale was used; it contains a list of statements which the students respond to. The questionnaires were designed by the researcher to help in obtaining information from the respondents. The response options to the items were a four-point rating scale: Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD).

To ascertain the validity of the instrument, the questionnaires were submitted to three experts, two in test and measurement in the Department of Educational Foundation and one in Economics education unit of social science education, all in University of Jos for screening, critical analysis and corrections. This was done to make sure that the items measured what they were designed to measure.

Thus, the data collected were subjected to descriptive statistical analysis. Mean and standard deviation was used to answer the research question which was found suitable by the researchers because of its simplicity. The decision rule was to reject an item whose mean fall below 2.5 since it used 4-point rating scale. The reliability of the instrument was tested through the pilot study conducted and using Cronbach alpha reliability coefficient which is 0.71 with the use of SPSS version 25.0.

4.0 Results/ Findings

Research Question 1: What is the influence of a school physical environment on the academic performance of students in public secondary schools of Jos-South L.G.A of Plateau State? Table 1 shows responses on the influence of school physical environment on the academic performance of public secondary school students.



TABLE 1: Mean Analysis on the influence of school physical environment on the academic performance of public secondary school students.

S/N	Statement	Mean	Std. Deviation	Decision
1.	A quality school building motivates me to perform well and also punctual to school	3.20	0.66	Agreed
2.	The architectural structure of my school is so welcoming	2.32	1.02	Disagreed
3.	The signs and symbols in my school makes the school beautiful	2.36	1.12	Disagreed
4.	I am not comfortable with position of the writing board, it is placed too high	2.82	1.06	Agreed
5.	Flowers beautify the school environments and refreshes my mind whenever I look at them	3.42	0.62	Agreed

The results in table 1 showed responses of the respondents on items 1, 2, 3, 4 and 5 are 3.20, 2.32, 2.36, 2.82 and 3.42 while the standard deviation is 0.66, 1.02, 1.12, 1.06 and 0.62. Items 1, 4 and 5 mean ratings were above the cut-off point of 2.50 and only items 2 and 3 are below the cut-off point of 2.50. This implies that most of the respondents sampled agreed school physical environment influence students' academic performance. This implies that most of the items are measures of the influence of school physical facilities on academic performance of students.

Research question 2: What is the influence of school learning facilities on students' academic performance in public secondary schools? Table 2 shows the Mean analysis of responses on the influence of learning facilities on the academic performance of public secondary school students.

TABLE 2: Mean analysis on the influence of learning facilities on the academic performance of public secondary school students.

S/N	Statement	Mean	Std. Deviation	Decision
6.	The availability of learning facilities in my schools make going to school fun	2.95	0.89	Agreed
7.	I don't get tired when writing because my chair is very comfortable	2.01	0.84	Disagreed
8.	The chalkboard are poor and this has Make writing difficult	2.90	0.88	Agreed

9. lack of proper instructional materials discourages me from participating in classroom activities	2.86	0.86	Agreed
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The results in table 2 showed that the mean responses of the respondents on items 6,7,8 and 9 are 2.95, 2.01, 2.90 and 2.86 while the standard deviation are 0.89, 0.84, 0.88 and 0.86. Items 6, 8 and 9 mean ratings were above the cut-off point of 2.50 and only item 7 is below the cut-off point of 2.50. This implies that most of the respondents sampled agreed that learning facilities influence students' academic performance.

Research Question 3. What is the influence of library service on the academic performance of students in public secondary schools? Table 3 shows the responses on the influence of library services on the academic performance of public secondary school students.

TABLE 3: Mean Analysis on the influence of library services on the academic performance of public secondary school students.

S/N	Statement	Mean	Std. Deviation	Decision
10.	I enjoy doing my assignments because of the good library service	3.12	0.54	Agreed
11.	Whenever I have a free time, I enjoy doing some research in the library	1.73	0.81	Disagreed
12.	The availability of a lot of materials in my school library has made reading fun	2.25	1.28	Disagreed
13.	The processes of borrowing books from the library discourages me from using the library	3.30	0.65	Agreed
14.	Reading in the library is boring because noise and eating is not allowed	2.63	0.82	Agreed
15.	I find it easy to sleep in the library due to its quiet nature	2.67	1.02	Agreed

The results in table 3 that the mean responses of the respondents on items 10, 11, 12, 13, 14, 15 and 16 are 3.12, 1.73, 2.25, 3.30, 2.63 and 2.67 while the standard deviation are 0.54, 0.81, 1.28, 0.65, 0.82 and 1.02. Four of the mean ratings were above the cut-off point of 2.50 which implies that most of the respondents sampled are aware of the influence of library service on academic performance. This implies that most the items are measures of the influence of library service on academic performance on students.



4.1 Discussion of Findings

The results of analysis for research question one which examined the influence of school physical learning environment on academic performance of students in public secondary schools revealed that the respondents agreed that, school physical learning environment influences the academic performance of secondary school students. For effective teaching and learning, it led to the combination of many factors which among others include: the classroom painting and lighting, seats and sitting arrangement, the classroom climate, air quality or ventilation, facilities. Thus, students' academic performance is tied to these aspects of the learning environment. The above views are in agreement with the views of Nwachukwu in Koroye (2016) who asserted that, the physical setting for the learning influences the learner.

The results of analysis for research question two which sought to examine the influence of learning facilities on students' academic performance in public secondary schools revealed that learning facilities affects students' academic performance. The findings agreed with the opinion of Okafor (2003) and Ibiain (2004) that adequate provision of facilities in the school promotes the academic performance of the students and also ensures the effective teacher's performance in teaching and learning activities.

The results of analysis for research question three which examined the influence of library services on the academic performance of students in public secondary schools concluded that, library services affect the academic achievements of students of public secondary schools. The above findings are in line with the opinion of Keith (2000) who found out that schools with well-established library perform more than schools where libraries are not well-equipped. The provision of enough reading materials in the school library with good seats and tables help to improve the quality of the academic performance of students in the school.

5.0 Conclusion/ Recommendations

Based on the findings gathered from the study, the following conclusion was made; that the aesthetic beauty of the school significantly influences students' academic performance. There exists a significant influence of school infrastructures on students' academic performance. That is students from schools with good infrastructure perform better academically than students from schools with poor infrastructure. School facilities/instructional materials significantly influence students' academic performance.

Based on the findings and conclusions, the following recommendations were made:

1. Adequate school physical facilities should be provided by the State Government, to all secondary schools in Plateau State. This will help to engage the students in meaningful activities.
2. More classrooms should be built by the State Government to reduce congestion mostly in the urban secondary schools, and
3. More teachers should be employed so as to meet the minimum standard of class sizes as stipulated by National Policy on Education. This will enable a teacher to have firm

control over his/her class and consequently will be able to checkmate the activities of students which will further increase students' academic performance.

4. The Ministry of Education and indeed all stakeholders in the educational sector should work towards the provision of adequate physical facilities and instructional materials most especially in the rural schools to ensure that students in those schools enjoy some privileges and exposures like their counterparts in the urban schools.

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