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INFLUENCE OF SCHOOL STRUCTURES AND ENVIRONMENT ON SECONDARY SCHOOL STUDENTS' ACADEMIC ACHIEVEMENT IN DELTA STATE

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ABSTRACT

This study focused on the influence of school structures and environment on secondary school students' academic achievement in Delta State. It was guided by four specific objectives, research questions and hypotheses, which sought to determine the extent to which school facilities; physical building and premises; location and administrative system affect academic achievement of students. The study adopted descriptive survey design. The population consist of teachers and students in public secondary schools in Oshimili South Local Government Area of Delta State, numbering 2,596, out of which 374 subjects (72 teachers and 302 students) were sampled for the study. The instrument used for data collection is a structured questionnaire. It was validated by three experts, and was subjected to test-retest method of reliability (aided by Cronbach Alpha correlation) which yielded a 0.74 index. Responses to the research questions were analysed using mean rating while hypotheses were tested using z-test. The findings revealed among others that physical building and premises; location and administrative system affect academic achievement of students to a great extent. Similarly, test of hypotheses showed no significant difference between the responses of teachers and students on the extent physical building and premises; location and administrative system affect academic achievement of students in Delta State. The study recommended, among other things, security measures be put in place for schools situated in notorious ghetto and other unsafe environments hunted by bandits, kidnappers, touts/gangs and other hoodlums. This is to prevent students from learning these negative traits or even merely affected by the activities of these hoodlums.

Keywords: School Structures; Environment; Students' Academic Achievement

Introduction

Student performance in academics represents performance outcomes that indicate the extent to which a student has accomplished specific goals that were the focus of activities in instructional environments, specifically in school, college or University. It is also seen as student's success in meeting short- or long-term goals in education. Academic performance refers to the level of performance in school, accomplishment or success in school". However, academic

performance is the core of educational growth (Iwuagwu, Don and Ojemhenkele, 2016).

In a layman understanding, academic performance means what a student have achieved at the end of learning contact based on the students' efforts. The educational system is vital for every country in the world and Nigeria is not exceptional; a strong and effective educational system can help boost the development of any country, as academic performance in Nigeria most especially at the secondary school level has been largely associated with many factors in literature. These include; school environment, lack of learning resources as well as home environment factors (Adeagbe, 2014; Ali, Khan & Ahmed, 2020). Padilla and Ganzalez (2014) and Ndukwe & Akintobi (2020) also reported tremendous academic failures among students and some have tried to find the reasons behind the alarming rate of failures thus, the problem of under-achievement of students at school has a long history in educational psychological research. Consequently, improving student academic achievement has long been an extremely complicated and vexing problem for school structure/system and education policy makers. Among the many efforts aimed to improve student's achievement are two quite different approaches, each with deep historical roots.

Oladeji (2017) submitted that the environment of most children is not conducive for learning. Ozmert (2015) emphasized the important of environmental influence as a major factor in the development of students' study habit. This environment factors that influences students' academic performance, according to Odeh, Oguche and Ivagher, (2015), comprised topographical environment, school location, distance and physical structures for learning, which encompasses buildings, facilities and other infrastructures within school premises.

Environment can be defined as a system within which living organisms interacts with the physical element while education environment is a learning place where the learner learns and interact with learning facilities in order to be socialized and face the challenges in the society. Yakubu, Uwaleke, and Emakpor (2022) saw environments as consisting of all elements existing around man and which exert some influence on him. These include physical, biological and social attributes. Environment can also be seen as aggregate of all the external conditions and influence affecting the life and development of an organism. Orlu (2013) submitted that the concept of environment refers to the surrounding of schools in a particular area. Therefore, by environment is meant all external factors that influence or tend to influence development after life has begun.

In line with the above, school structure comprises both the physical component of the school environment as well as the policies/system for managing the day-to-day activities of schools. Ndukwe & Akintobi (2020) described the physical aspect of

school structure to be the buildings in which lessons are delivered to students and all other peripherals facilities therein. These facilities may include library facilities, laboratories, bathrooms/toilet, furniture and equipment for class/staff rooms. Usman & Madudili (2019) described school structure from the aspect of policies/systems for managing schools, and emphasised that it entails among others school curriculum and principals' management or leadership style.

In sum, whatever one comes in contact with and reacts to is a part of the environment, whatever it is in the classroom, outside classroom, around the school, in the home or at the playground. This implies that school structure and environment precisely focussed on the environmental factors within the school. According to Mgbodile (2014), they include classroom size and number of students, school facilities such as libraries, conveniences and other physical infrastructures, instructional materials, the conduciveness of the environment and the administrative/management system. These environmental factors have influences on students' performance in every course of study.

Students require a school system/structure that is effective and a comfortable environment conducive for learning because there is a general perception of falling standard of education that in turn result in increased poor academic performance (Ali, Khan & Ahmed, 2020). This is even moreso in secondary schools because of the foundational and basic role they play in the entire educational system. It is on this note that the researcher is prompted to study the effect of school structures and environment on student performance in secondary schools in Oshimili South Local Government Area of Delta State.

Statement of the Problem

It is no longer news that in many secondary schools, especially public secondary schools across the country, educational facilities are grossly inadequate and these facilities constitute the most part of school learning environment. Beside their inadequacy, the available facilities are often poorly managed in public schools, which is an indication of the poor management system prevalent in public service in Nigeria. These have multiplier effect on the ultimate performance of teachers and students alike. From dilapidated buildings (leaking roof, broken windows and desks) to lack of or unequipped libraries and laboratories, from paucity in implementation of curriculum to ineptitude in the management of day-to-day activities in schools by principals, these are some of contributory factors to students' poor performance.

On the issue of inadequate educational facilities, there is a common belief that it makes learning appear very abstract and difficult for the learners as they used their sense only. Secondary school teachers in many schools, especially those in public schools, find it a very herculean task to accompany their lessons with relevant

educational facilities such as audio aids, visual aids, visual and audio-visual aids. This is largely due to lack of textbooks, library facilities, laboratories and other facilities.

The state of the physical structures, especially in public schools, is nothing to write home about. In some rural areas, the physical building is broken, with shattered windows and doors, broken desks and chairs. Conveniences such as toilet are sometimes missing in some schools, even when they are available, they are not usable probably because of poor water system or lack of routine maintenance. Many at times, the field are allowed to fallow thereby exposing the students to dangerous reptiles and insects.

There is also the issue of school location. A school located in noisy environment, say near an open market, is less likely to have the right ambience for teachers to develop lesson note or for students to read quickly within the school premises. In the same vein, a school situated in an unsafe neighbourhood notorious for hoodlum activities is more likely to record high rate of student violence and other vices, which in turn hamper academic performance of students.

All of the above components of the environment have direct or indirect link with administrative structure (management or leadership style) of these schools. For instance, the cases of under-utilization of available facilities abound – the limited facilities provided are often not put to use either because of inefficiency or unwillingness of the teachers. There is little or no assertion from superiors (principals or Ministry of Education) to ensure implementation of curriculum and the use of these facilities in doing so. Similarly, the state of physical structure (dilapidated buildings, fallow school premises, lack of inconveniences/toilet) is a function of the management style of principals/ministry of Education. Even issues such as teachers' commitment and motivation, which are instrumental to improved students' academic performance are a function of supervision, training and retraining, remuneration, welfare, among others, all of which are determined by the prevailing leadership/management style.

The worry of this study, therefore, is to determine the extent to which these prevailing school structures and environment (school facilities, buildings, location and administrative style) influence students' academic performance in secondary schools in Oshimili South of Delta State.

Purpose of the Study

The broad aim of this study is to investigate the effect of school structures and environment on secondary school students' academic achievement in Delta State. The specific objectives are to:

1. determine the extent to which school facilities affect academic achievement of students in secondary schools;

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2. ascertain the extent to which school physical building and premises affect academic achievement of students in secondary schools;

Research Questions

The following questions guided this study:

1. To what extent do school facilities affect academic achievement of students in secondary schools in Delta State?
2. To what extent do school physical building and premises affect academic achievement of students in secondary schools in Delta State?

Methods

The design of this study adopted descriptive survey. The population for this study will consist of all the teachers and students in public secondary schools in Oshimili South Local Government Area of Delta State. Owing to the huge population size, Taro Yamane sampling techniques was used to determine the exact number of respondents to be quizzed, which was approximately 374. Therefore, the sample size for the study was 374 subjects (72 teachers and 302 students). Simple random sampling techniques was used for sampling. The instrument for data collection will be a checklist and a questionnaire titled "Influence of Educational Facilities on Academic Achievements of Secondary School Students Questionnaire (IEFAASSSQ)". The instrument was face-validated by 3 experts. Two of the experts were from the Department of Education Management, University of Port-Harcourt while the third will be from Measurement and Evaluation Department, University of Port-Harcourt. To ensure the reliability of the instrument, test-retest method was applied. Cronbach alpha correlation was used to measure the reliability co-efficient. The index was 0.74, which indicated that the instrument was reliable for the study. The data was analysed in tables using simple percentage (for research question one) and mean.

Findings

Research Question 1: To what extent do school facilities affect academic achievement of students in secondary schools in Delta State?

Table 1: Responses on the extent school facilities affect academic achievement of senior secondary school students

S/N	School facilities affect academic achievement in the following ways	Teachers n = 72			Students n = 302		
		$\bar{X}$	SD	Decision	$\bar{X}$	SD	Decission

1	Provision of well-equipped laboratory with adequate apparatus encourage science class attendance	2.98	0.60	Great Extent	3.05	0.90	Great Extent
2	A positive, supportive and conscious classroom ambience encourage active student engagement	3.00	0.82	Great Extent	3.00	0.76	Great Extent
3	Clinic or access to first aid kits in school affect student health and in turn their performance	2.96	0.85	Great Extent	3.01	0.76	Great Extent
4	Provision of instructional materials (aids) heighten students interests and ultimately affect their performance	3.22	0.59	Great Extent	3.04	0.33	Great Extent
5	Well-equipped library improves student engagement and examination preparedness	3.02	0.88	Great Extent	3.07	0.65	Great Extent
	Grand Mean	**3.04**	**0.73**	**Great Extent**	**3.03**	**0.69**	**Great Extent**

Table 1 revealed that all listed items have mean scores above the cut-off point of 2.50 for teachers and students alike. This implies that school facilities affect students' academic achievement in Delta State to a great extent.

Research Question 2: To what extent do school physical building and premises affect academic achievement in students in secondary schools in Delta State?

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Table 2: Responses on the extent school physical building and premises influence academic achievement of secondary school students

S/N	School physical building and premises affect academic achievement in the following ways:	Teachers n = 72			Students n = 302		
		$\overline{X}$	SD	Decision	$\overline{X}$	SD	Decision
6	Offices and common-room for teachers aids their preparation of lesson note and in turn improves lesson acquired by students	2.74	0.95	Great Extent	2.81	0.90	Great Extent
7	Free rooms for reading help students engage in extra-moral reading for better examination performance	3.02	0.88	Great Extent	2.97	0.76	Great Extent
8	Dining hall gives students good lunch experience, which affect their receptibility and retention of lessons afterwards	3.00	0.76	Great Extent	2.76	0.76	Great Extent
9	Adequate classroom spaces for teaching aid better student attendance	3.01	0.92	Great Extent	2.99	0.83	Great Extent
10	Indoor spaces and field for sports improves student engagement in physical and health education	2.89	0.88	Great extent	2.82	0.94	Great extebt
11	Well painted and roofed building with electricity boost student attendance and academic engagement within school premises	2.96	0.60	Great Extent	3.01	0.65	Great Extent
	Grand Mean	**2.94**	**0.83**	**Great Extent**	**2.89**	**0.81**	**Great Extent**

From table 2, all items, had mean ($\overline{x}$) scores above the cut off point of 2.5. Precisely, the implication of this is that these items that connected with school building and premises and they affect academic achievement of secondary school students in the study area.

Summary of the findings

(1) That, to a great extent, provision of well-equipped laboratory with adequate apparatus encourage science class attendance; a positive, supportive and conscious classroom ambience encourage active student engagement; clinic or access to first

aid kits in school affect student health and in turn their performance; provision of instructional materials (aids) heighten students interests and ultimately affect their performance; and that well equipped library improves student engagement and examination preparedness.

(2) That offices and common-room for teachers aids their preparation of lesson note and in turn improves lesson acquired by students; free rooms for reading help students engage in extra-moral reading for better examination performance; dining hall gives students good lunch experience, which affect their receptibility and retention of lessons afterwards; adequate classroom spaces for teaching aid better student attendance; indoor spaces and field for sports improves student engagement in physical and health education; and that well painted and roofed building with electricity boost student attendance and academic engagement within school premises to a great extent.

Discussion of Findings

The first research question sought the extent to which school facilities affect secondary school students' academic achievement in Delta State. It was found out that provision of well-equipped laboratory with adequate apparatus encourage science class attendance; a positive, supportive and conscious classroom ambience encourage active student engagement; clinic or access to first aid kits in school affect student health and in turn their performance; provision of instructional materials (aids) heighten students interests and ultimately affect their performance; and that well equipped library improves student engagement and examination preparedness. Result from test of hypothesis I further affirm these findings as there was no significant mean difference in the responses of teachers and students on the extent school facilities affect academic performance of students in secondary schools. This is a little in opposition to the opinion of Iwuagwu, Omoike and Ojemhenkele (2016) who asserted that library services are wonderful and their availability is a major determinant of how well students engage in academics and ultimately perform. In the same token, Ali, Khan & Ahmad (2020) strongly asserted that school facilities that aid academics are meant to increase the chances of better students' performance in academics should they be provided.

Research question 2 sought the extent school physical building and premises affect academic achievement of secondary school students in Delta State. It was found out, among others that offices and common-room for teachers aids their preparation of lesson note and in turn improves lesson acquired by students; extra rooms for reading help students engage in extra-moral reading for

better examination performance; adequate classroom spaces for teaching aid better student attendance; indoor spaces and field for sports improves student engagement in physical and health education; and that well painted and roofed building with electricity boost student attendance and academic engagement within school premises to a great extent. Test of hypothesis II revealed that there is no significant mean difference in the responses of teachers and students on the extent to which school physical building and premises affect academic performance in students in secondary schools. This finding is in line with the submission of Amadi (2013) and Onukwo (2015). Onukwo (2015) submitted that conveniences for teachers and students as well as adequate classroom spaces hamper effective teaching and learning significantly in many public secondary schools. Similarly, Oguche and Ivagher (2015), Blum, (2015) and Megan (2012) carried independent research on this subject and their findings were similar. For Ivagher (2015), a conducive classroom environment relaxes the students' minds, which enables better focus on lessons at hand; Blum (2015) submitted that a serene learning environment with all necessary instructional materials have a long-term positive effect on student academic participation while Megan (2012) found a direct correlation between a neat school environment that has the basic learning materials with high student academic achievement.

Conclusion

Based on the following research findings, the researcher concludes that: school structures and environment, particularly the facilities, building & premises, location, and administrative system have significant effect on student academic achievement in the study area. There is need, therefore, for all of these stakeholders to come together in eliminating or at least mitigating the problems associated with these school structures and environment.

Recommendations

Sequel to the findings, the following recommendations are hereby made:

(1) Appropriate school authorities should endeavour to provide a conducive school environment that has good climate for effective teaching and learning. Such environment should be safe, students treated fairly by teachers and happy to be in school as well as feel they are a part of the school.

(2) The Delta State Government should provide adequate school physical facilities in secondary schools to enhance teaching and learning processes. The Parent Teacher Association (PTA), philanthropist and other charitable organizations are also implored to compliment the effort of the government to boost academic achievement of secondary school students

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