FACILITY UTILIZATION AS CORRELATES OF STUDENTS' ACADEMIC PERFORMANCE IN OSUN STATE SECONDARY SCHOOLS

By

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Abstract

The use of facilities and students' academic achievement at secondary schools in Osun State, Nigeria, was the main subjects of this study. To direct the investigation, two objectives and two hypotheses were answered and tested. The descriptive research of the survey type was used for the study. The population comprised 3,228 teachers and 234 school principals in Osun state secondary schools. Using purposive sampling technique, 350 respondents were selected as sample for this study. Out of the 234 public secondary schools in Osun State, fifty (50) senior secondary schools were chosen. Using a stratified sample technique, ten (10) local governments and one (1) area office were chosen from thirty (30) local governments in Modakeke, Osun State. Eight (8) teachers and one (1) principal were chosen at random from each of the fifty (50) schools. The researcher created two sets of questionnaires. Experts validated two instruments: the Facility Utilization Questionnaire (FUQ) and the Enrollment of Students' Result and Staff Inventory (ESRSI). The instruments' reliability coefficients were 0.86 for both. To test each hypothesis at the 0.05 level of significance, the data was evaluated using the statistical techniques of Pearson product Moment Correlation and Independent Sample T-test. It was suggested, based on the study's findings and outcomes, that the government work with non-governmental organizations to make sure schools have the necessary infrastructure and teaching resources, including textbooks, libraries, and labs, in order to support sound and efficient teaching and learning practices.

Keywords: Facility utilization, students, and academic performance.

Introduction

Education is defined as any act or experience that shapes an individual's mind, character, and physical abilities. It involves providing information to those who are inexperienced, aiding in their physical, mental, social, emotional, spiritual, political, and economic development by fostering the acquisition of valuable skills and desirable attitudes for society (Asiyai, 2016). In Nigeria, the demand for formal education continues to rise each year. Despite economic

challenges and the significant impact of inflation in the country, there are more students in classrooms than the available facilities can accommodate.

Secondary education serves as a crucial component of Nigeria's educational framework. It acts as a transitional phase (Federal Republic of Nigeria, 2004), bridging primary and tertiary instit0utions. The effectiveness of tertiary education significantly relies on the robustness of the secondary education system (Oparaji, 2022).. The caliber of secondary school graduates influences both the input and output of higher education. Essentially, the quality of graduates is primarily determined by their performance in the Senior Secondary School Certificate Examinations (SSCE). Numerous factors within the secondary school system can impact the performance of students, either positively or negatively (Odunlami, 2016). Key elements include the availability of facilities, their effective utilization, and the students themselves. Each of these factors plays a vital role in shaping students' academic success at this educational stage (Ozcan, 2021).

It appears that the principals of the majority of secondary schools in the state are purposefully seeking to increase enrollment in order to receive more funding from the state government. However, they appear to be disregarding the facilities that are already in place and how well they are being used, which frequently results in student absences from class, physical altercations between students, teacher verbal abuse, etc

All these could affect the academic performance of senior secondary school students has been largely associated with many factors. Most students in senior secondary schools in Nigeria are daily confronted with challenges of coping with their academic under a serious emotional strains accustomed by long walk to school, class size, facilities utilization, laboratory, library, lack of good textbooks, and being taught by unmotivated teachers couple with this, is an uncooperative-to-study attitude of parents who more often toil to provide for the needs of the family (Ihebom and Uko 2020).

Enrolment of students ranged from 8337 in 2021, 9875 in 2022 and further increase to 11030 in 2023. (Osun State Ministry of Education, Department of Planning, Research and Statistics, 2023), The result of students who sat for the examination between 2021 and 2023 are clear indications of the falling academic performance of students. The continuous decline and abysmal failure of senior secondary school students in the external examination (WAEC) in the

recent years has become source of worry and concern. Osun state which used to be in the 13th – 15th position in WAEC results in the past has descended to a ridiculous 22rd position during the last academic session (2023-2024). The general appearance of facility utilization constitutes the basis upon which members of the public pass their judgment about the academic performance going on in the school. The state has lost its old glory as a result of this and no wonder it has a negative effect on the performance of students in the state. This is the evidence by the result analysis of the West African Examination Council (WAEC).

Class size is described as the average number of students per class. It has been observed that average class size influence the cost of school. According to the National Policy on Education prescribed a maximum of 40 students in a class based on the recommendation for UNESCO, but in most secondary schools in the state, the average class size exceeds 50. This implies that some classroom is likely to be congested. As school population increases, class size has become a phenomenon often mentioned in the educational literature as an influence on students' academic performance. It has been observed that the size of a class would prove a significant determinant on the degree of success of students. A situation where more students are admitted to study under a limited space there is the tendency that student's academic performance will be affected negatively because the atmosphere will not be conducive for teaching and learning. Increase in enrolment without corresponding increase in facilities could affect teaching and learning. Enrolment explosion could make the available classrooms inadequate. On the other hand utilization is tied directly with square footage and number of classroom. Utilization analysis identifies the number of classroom need to accommodate a given student enrolment. The input needed for the analysis is the existing number of classrooms and classroom schedules.

A smaller school is likely to produce better academic results and a better climate (Amaechina and Ezeh 2019). Supervision and effective management of student becomes easier in a small school. Nigerian secondary schools are becoming increasingly large and complex, attempts need to be made in order to keep the size at a level that will ensure that the basic interests of individuals are not submerged. If students' interests are cared for, their academic performance is likely to increase (Akinsolu, 2010).

In spite of the seeming exhaustiveness of literature of academic performance of students, there seems to be more area of interest to be investigated. This becomes obvious in view of the contiguous interest of researchers, and continuous attention to government, policy makers and curriculum planners. It has been observed that the falling academic performance and the influential factors include size of the school, class size, location and level of attainment of students in an examination (Shahjahan, et.al. 2021). Hence, this alls for the study in facility utilization as correlate of students' academic performance in Osun State.

The objectives were:

1. To ascertain the connection between facility usage and the academic achievement of students in Osun State's public secondary schools.
2. To determine how differently public secondary schools in Osun State's rural and urban Districts use their facilities.

Research Questions

1. What is the level of facility utilization in Secondary schools in Osun State?
2. What is the level of students' academic performance in Osun State secondary schools?

Research Hypotheses

The following null hypotheses were raised to achieve the purpose of the study:

$H0_1$ There is no significant relationship between Osun State's public secondary schools' pupils' academic achievement and facility utilization.

$H0_2$ There is no significant difference in the use of public secondary school facilities between urban and rural communities.

Methodology

The use of facilities and students' academic achievement at secondary schools in Osun State, Nigeria, was the main subjects of this study. The descriptive research of the survey type was used for the study. The population comprised 3,228 teachers and 234 school principals in Osun state secondary schools. Using purposive sampling technique, 350 respondents were selected

as sample for this study. Out of the 234 public secondary schools in Osun State, fifty (50) senior secondary schools were chosen. Using a stratified sample technique, ten (10) local governments and one (1) area office were chosen from thirty (30) local governments in Modakeke, Osun State. Eight (8) teachers and one (1) principal were chosen at random from each of the fifty (50) schools. The researcher created two sets of questionnaires. Experts validated two instruments: the Facility Utilization Questionnaire (FUQ) and the Enrollment of Students' Result and Staff Inventory (ESRSI). The instruments' reliability coefficients were
0.86 for both. To test each hypothesis at the 0.05 level of significance, the data was evaluated using the statistical techniques of Pearson product Moment Correlation and Independent Sample t-test. All hypotheses were tested at 0.05 level of significance.

Descriptive Analysis

Question 1

What is the level of facility utilization in Secondary schools in Osun State?

In order to answer the question, scores relating to facility utilization in secondary schools in Osun state were computed using items 1-20 of section B in "Facility utilization Questionnaire (FUQ)". The mean score (54.74) and standard deviation (8.78) were used to categorize the respondents into "low", "moderate" and "high" levels of facility utilization in secondary schools. The low level of facility utilization was obtained by subtracting the standard deviation from the mean score, scores around the mean score were categorized into "moderate" level of facility utilization while the high level of awareness were obtained using the addition of mean and standard deviation. The result of facility utilization in secondary schools in Osun State is presented in Table 1 and Figure 1.

Table 1: Level of facility utilization in public secondary schools in Osun State.

Level of facility utilization	Frequency	Percentage
Low (20.00-45.96)	4	1.0
Moderate (46.97-63.51)	109	27.3
High (63.52-80.00)	287	71.8

Total	**400**	**100.0**

Table 1 show that only 1% of total sampled had low level of facility utilization in Osun State secondary schools, 27.3% had moderate level while 71.8% had high level of facility utilization in Osun State secondary schools. This implies that the level of facility utilization in secondary schools in Osun state is high. Figure 1 further depicts the level of facility utilization in Osun State secondary schools.



Figure 1: Level of facility utilization in Osun State Public Secondary Schools

Question 2

What is the level of students' academic performance in Osun State secondary schools?

In answering the question, students' performance in WAEC/SSCE in 2021, 2022 and 2023 were obtained using "Enrolment students results and staff strength inventory (ESRSSI)." The result is presented in Table 2.

Table 2: Level of students' academic performance in Osun state secondary schools.

	Number Registered	**5 credits**		**4 Credits**		**<4Credits**	
		N	**%**	**N**	**%**	**N**	**%**
2020/2021	8337	1018	12.2	3173	38.1	4146	49.7
2021/2022	9875	1391	14.1	3967	40.2	4517	45.7

2022/2023	11030	1223	11.1	5476	49.6	4331	39.3
Total	**29242**	**3632**	**12.4**	**12616**	**43.1**	**12994**	**44.4**

Table 2 presents the level of students' academic performance in Osun State secondary schools. The result shows that in 2021, 12.2% of the students who registered for senior school exam had 5 credits, 38.1% had 4 credits while 49.7% below 4 credits. Similarly, 14.1% of the students who registered in 2022 had 5 credits while 40.2% and 45.7% had 4 credits and less than 4 credits respectively. In 2023, 11.1% of the total registration had 5 credits, while 49.6% and 39.3% 4 credits and less than 4 credits pass respectively. In all, only 12.4% of the students who enrolled for School Certificate Exam had 5credits, 43.1% obtained 4credits while had less than 4credits. Therefore, the level of students' academic performance in Osun State secondary schools is moderate.

Results and Discussions

$H0_1$: There is no significant relationship link between Osun State's public secondary schools' pupils' academic achievement and facility utilization.

Table 1 shows correlation between utilization of facilities and students' academic performance of public secondary schools in Osun State

Pearson Product Moment Correlation results of utilization of facilities and students' academic performance of public secondary schools.

Variable	N	Mean	SD	t-cal	r-tab
Facility utilization	50	534.24	390.15		
				.287*	.205
Academic performance	50	1.24	0.18		

P<0.05

Table one shows that t-cal (.287) is greater than r-tab (.205) at 0.05 level of significance. The null hypothesis was rejected. This implies that there was significant relationship between facility utilization and students' academic performance of public senior secondary schools in Osun State.

$H0_2$ There is no signficant difference in the use of public secondary school facilities between urban and rural communities.

Table 2 shows no significant difference in utilization of facilities of public secondary schools in urban and rural areas in Osun State.

Independent sample t-test on facility utilization of urban and rural public secondary schools in Osun State.

Location	N	Mean	SD	Df	t-cal.	r-tab
Urban	30	556.03	227.75			
				48	5.208*	2.700
Rural	20	224.70	184.96			

P<0.05

Table two revealed that average school size in urban areas means score of 556.03 was more than that of rural areas with the means score of 227.75. The value of t-cal. (5.208) is superior to r-table of (2.700) at 0.05 level of significance. The null hypotheses which stated that there is no significant difference in utilization of facilities of public secondary schools in urban and rural areas was rejected. This implies that there was a significant difference in utilization of facilities of public secondary schools in urban and rural areas in Osun State. From the above table, it indicates that urban schools have over-utilization of facilities while in the rural schools there was under-utilization of facilities.

Discussion

The study revealed that there was significant relationship between facility utilization and students' academic performance of public secondary schools in Osun state. The finding is consistent with Olayemi (2010) who contended that under the right conditions, as schools get smaller they produce stronger students' performance as measured by attendance rates, test scores, extracurricular activity participation and graduation rates. Also, there appears to be a particularly strong correlation poor students' in urban school districts. Key elements include the availability of facilities, their effective utilization, and the students themselves. Each of these factors plays a vital role in shaping students' academic success at this educational stage (Ozcan, 2021).

Findings of the study showed that students in the rural areas perform better than students in the urban areas. This is in line with Amaechina and Ezeh 2019, that the larger the school, the greater the routine operational practices of the teacher on the difficulty of assessing class integration. A smaller school is likely to produce better academic results and a better climate

Conclusion

Based on the findings of the study, it can be reasonably inferred that:

Students' academic performance in public secondary schools vary from one geographical location to the other while students' academic performance largely depends on facility utilization, class size, and school location. There is wide disparity in the utilization of facilities between rural and urban public secondary schools in Osun state.

Recommendations

On the basis of the findings of this study, the following recommendations are made:

1. Government should endeavour to recruit more teachers into public secondary schools to reduce workload on teachers, improve classroom management and increased overall students' performance.
2. Government in collaboration with Non-Governmental organization should ensure that schools are properly equipped with adequate facilities and instructional materials such as text books, libraries, and laboratories to promote sound and effective teaching/learning processes in schools.

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