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Influence of School Plant on Mathematics Teachers Job Performance in Oyo State Public Secondary Schools, Nigeria

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Abstract

This study investigated influence of Schools plant on Mathematics Teachers job performance and students' academic performance in public secondary schools in Oyo State, Nigeria. The study adopted a descriptive research design with a population of all the Mathematics Teachers and students in the public secondary schools in Oyo State. Simple random sampling technique was used to select 120 Mathematics Teachers and 300 students (SS2). Questionnaire was adopted as data collection instrument. The instrument used to collect data was the 'Influence of School Plant on Teachers Job Performance and Student Academic Performance Questionnaire (ISPTJPQ)'. The questionnaire has sections A and B. Section A was on personal data of the respondents while section B provided answers to the research questions raised for the items on a modified Likert scale of measurement: Strongly agree (SA), agree (SA), disagree (D), Strongly disagree (SD). The reliability of the instrument was established through the test-retest method. The two sets of responses were correlated using Pearson's Product Moment Correlation and a reliability coefficient of 0.83 was obtained. Data collected were analyzed using the mean, percentage, Pearson's Product Moment Correlation (r), Zero Differentiation Hypothesis statistical. The findings showed that there is significant relationship between school plant and Mathematics teachers' job performance in public secondary schools. The result also indicated that there is significant relationship between school plant and academic performance of students in public secondary schools.

Keyword: Influence, Job, School, Plant, Public, Performance

Introduction

School is a social organization established for the purpose of teaching and learning. The realization of school objectives hinges on the availability of both human and materials resources. Chibuogwu, & Ojukwu, (2021) opined that the school system is operated with some physical structures such as the school buildings, water supply sources, electricity supply etc. which are required for the

smooth running of the schools. These support items to the running of schools are generally referred to as the school plant. Secondary education, serves as a link between primary and tertiary levels. It is vital to national development. Management of school plant is vested on the school principal who is the head of his school. School plant provision and maintenance is very vital in the achievement of educational objectives.

Chibuogwu, & Ojukwu, (2021) Cited Okeke, (2013) noted that "As skeleton is to a body, so are school plant necessary for the realization of result-oriented teaching and learning in school". School plants are the skeleton of the school. The school plant/facilities consist of all types of buildings for academic and non-academic activities, equipment for academic and non-academic activities, areas for sports and games, landscape, farms and gardens including trees, roads and paths (Asiabaka, 2008).

Chibuogwu, & Ojukwu, (2021) cited Okunamiri and Ajaeree, (2008) submitted that such school plant, other things such as lack of classrooms, desks, textbooks, chalks to work with, cause setback in school. The importance of adequate provision of school plant in education to teaching and learning cannot be over-emphasized. The dictum that "teaching is inseparable from learning but learning is separable from teaching" is that teachers do the teaching to make the students learn, but students can learn without the teachers. The provision, availability, adequacy and relevance of school plant influence efficiency and high productivity in school (Chibuogwu, & Ojukwu, 2021).

School plant is defined by Amanchukwu and Nwachukwu (2015) as the school site, all the essential structures-permanent and semi-permanent such as machines and laboratory equipment and chalkboard needed for effective teaching and learning, other scholars have defined school plant in different perspectives. Yusuf (2008) noted that school plant is the space interpretation of the school curriculum. In this perspective, the curriculum will be impossible to implement if the physical facilities required for refers to all the inclusive as material provisions in a school environment. Njoku (2004) viewed school plant as educational facilities that are tangible such as buildings, land equipment, machineries, furniture, fixtures and fittings which are put into use and capable of providing excellent educational services.

The effectiveness of every school administrator, teachers and students depends on the availability of quality school plant. Every subject teachers in the school system including Mathematics teachers and students needs adequate provision of school plant. The Mathematics teacher is among the teachers that have been described as mover and is accorded an important position in school

setting. The success or failure of any school system lies solidly on the teachers' job performance. But the said teachers are allowed to operate freely without being effectively managed to do their job. These laxities in administration usually create a scenario where teachers only manage to survive in the teaching-learning environment (Ekpiken, & Atsu 2014).

At present, it is observed that Mathematics teachers' job performance is not encouraging due to many challenges. Ekpiken, & Atsu (2014) observed that teachers' behaviour in the school results from a conscious and unconscious desire to satisfy some of their complex needs. Therefore, failure on the part of the administrators, government to meet these needs results in discontentment, disloyalty, discouragement, truancy, absenteeism, redundancy and lack of commitment in the work place. All these amount to poor teachers' job performance, and by this there exists troubling discrepancies between their goals.

Mathematics students' academic performance also depends to some extent on the availability of school plant. Hillary & Nleremchi, (2018) opined that high educational standards are achieved when school plants are effectively managed in schools. This is when students live in clean, attractive and pleasant learning environment, classrooms and hostels in good working conditions, the laboratories, libraries, and workshops well equipped. Hillary & Nleremchi, (2018) and Adesina and Ogunsaju (2003) in their recognition of the need for school plant and effective performance of educational programs noted that "For effective teaching and learning situations, school plant and educational goals should be viewed as being closely interwoven and interdependent apart from protecting student from the sun, rain, heat and cold.

In this context, school plant and educational goals are interdependent. Studies on school plant abounds by different researchers. For instance, Chukwuaguzie, Iorlaha, & Ushunamoka (2021) did a study that investigated the influence of School Plant on the Management of Secondary Schools in Zone 'B' Senatorial District of Benue State of Nigeria. The finding of the study revealed that school site/location, school medical facilities and school laboratories have significant Influence on the Management of Secondary Schools in Zone "B" Senatorial District of Benue State of Nigeria. Also, Chibuogwu, & Ojukwu, (2021) carried out a study that investigated school plant management effectiveness of secondary school principals in Anambra State. The findings of the study showed that the poor teaching and learning found in so many secondary schools today are as a result of inadequate provision, poor utilization, lack of maintenance and inspection of the school plants. Most of these problems happened due to the principal's ineffectiveness in the

management of available school plants. The study concluded that academic performance of secondary school can be better if there is adequate provision of school plants and effective management by the principals.

Another study by Atoyin, Victor Mifa Cassidy (2019) who examined school funding strategy, infrastructural maintenance, attracting and retaining teachers in some selected public secondary schools in the Federal Capital Territory, Abuja. The finding of the study revealed that education funding could be through direct allocation from consolidated funds, education tax on all operating companies, feasible fees to be borne by parents, and donations from organizations. It was also found that maintenance of schools building could be sustained through public private partnership, a well functional PTA body and that teachers could be attracted and retained through provision of attractive salaries and good working incentives, appropriate motivation, provision of good infrastructures, regular promotion of teachers and public change in perception about teaching profession. Arowojolu, Yinusa, Ameh, Arowojolu (2019) examines the relationship between school plant planning and students' academic performance in ten randomly selected secondary schools in Irele Local Government Area of Ondo State using descriptive survey research design. The study revealed that the levels of school plant planning and students` academic performance were relatively close, and as such students` academic performance was significantly related to instructional space planning, Administrative space planning, circulation space planning, and space for convenience planning. Wordu, & Nleremchi (2018) investigate the management of school plant by principals for effective instructional delivery in public senior secondary schools in Port Harcourt Metropolis. Findings show that teachers disagreed that school principals made use of professionals in procuring facilities and equipment, failed to carry out routine services of facilities and equipment, fail to establish maintenance units. The findings also revealed that students were not asked to replace damaged equipment. These findings were confirmed by the rejection of Ho1 and Ho2, while Ho3 and Ho4 were accepted.

Statement of the Problem

School plant is very potential for the realization of secondary school objectives. However, where school plants are inadequate, poorly maintained, and not safe guarded the teaching and learning process becomes difficult. The goals and objectives of secondary school may not be achieved under this condition. Discussion and interactions with teachers and students of Mathematics of public senior secondary schools in Oyo State on school plant availability in their schools indicated

that most of the public secondary school in the territory are in bad condition, dilapidated buildings, blown off roofs classroom, sagging classroom roofs, cracked on classroom and decaying walls, etc. Effective teaching and learning under this situation cannot be guaranteed for any programme including Mathematics. It is against this issues and problem that this study put in interrogative form is: how do school plant influence Mathematics Teachers' job performance and students' academic performance in public secondary schools in Oyo State?

Objectives of the Study

The objectives of this study is to investigate influence of schools plant on Mathematics Teachers' job performance and students' academic performance in public secondary schools in Oyo State, Nigeria. Specific objectives:

1. to assess the influence of school plant on Mathematics Teachers' job performance in public secondary school in Oyo State;
2. to identify the influence of school plant on Mathematics Students academic Performance in public Secondary school in Oyo State.

Research Hypotheses

To guide this study, the following hypotheses were raised

Ho1: There is no significant relationship between school plant and Mathematics Teachers job performance in public secondary school in Oyo State,

Ho2: There is no significant relationship between school plant and Mathematics students' academic performance in public secondary school in Oyo State.

Methodology

The study adopted a descriptive research design with a population of all the Mathematics Teachers and Mathematics students in the public secondary schools in Oyo State. Simple random sampling technique was used to select 120 Mathematics Teachers and 300 Mathematics students (SS2). The study covered Afijio, Akinyele, Atiba, Oyo East, Ogo Oluwa and Oyo West Local Government Areas of Oyo State. The instrument used to collect data was the 'Influence of School Plant on Teachers Job Performance and Student Academic Performance Questionnaire (ISPTJPQ). Structured questionnaire contained 20 which items was used as an instrument for data collection. The questionnaire has sections A and B. Section A was on personal data of the respondents while section B provided answers to the research questions raised for the items on a modified Likert scale of measurement was used thus: Strongly agree (SA), agree (SA), disagree (D), Strongly

disagree (SD). The reliability of the instrument was established through the test-retest method. This was done by administering the instrument twice within an interval of two weeks to 30 Mathematics teachers in two schools that were not part of the sample used for the study. The two sets of responses were correlated using Pearson's Product Moment Correlation and a reliability coefficient of 0.83 was obtained. Data collected were analyzed using the mean, percentage, Pearson's Product Moment Correlation (r), Zero Differentiation Hypothesis statistical.

Results

Ho1: There is no significant relationship between school plant and Mathematics Teachers job Performance in public secondary school in Oyo State.

N	**WEIGHTED**	**DIFF**
SD	Calculated Z	Critical Z
Remarks	X	
	Calculated 63.52	
420		412
17.67	2.17	1.96
Significant	Normative 42.7	

The data in table 1 shows that from the perception of 420 Mathematics teachers, the calculated mean of Mathematics teachers was 63.52 and the normative mean was 42.7. The result of the analysis is significant since the calculated Z of 2.17 was greater than the critical Z of ± 1.96 and less than the normative mean of 42.7. It therefore implies that there is significant relationship between school plant and Mathematics teachers' job performance in public secondary schools in Oyo State.

Ho2: There is no significant relationship between school plant and Mathematics Students academic Performance in public secondary school in Oyo State

N	**WEIGHTED**	**DIFF**
SD	Calculated Z	Critical Z
Remarks	X	
	Calculated 64.51	
420		412
17.67	2.66	1.96
Significant	Normative 45.7	

The data in table 2 shows that from the perception of 420 Mathematics teachers, the calculated mean was 64.51 and the normative mean was 45.7. The result of the analysis is significant since the calculated Z of 2.66 was greater than the critical Z of ± 1.96 and less than the normative mean

of 45.7. It therefore implies that the null hypothesis was not significantly high, so was rejected. That means there is significant relationship between school plant and academic performance of students in public secondary schools in Oyo State.

Discussion of Findings

The result obtained indicated that there is significant relationship between school plant and Mathematics teachers' job performance in public secondary schools. This findings is in line with the discovered of Chukwuaguie, Iorlaha, & Ushunamoka (2021) did a study that investigated the influence of School Plant on the Management of Secondary Schools in Zone 'B' Senatorial District of Benue State of Nigeria and found out that school site/location, school medical facilities and school laboratories have significant Influence on the Management of Secondary Schools in Zone "B" Senatorial District of Benue State of Nigeria.

The result showed that there is significant relationship between school plant and academic performance of students in public secondary schools. Arowojolu, Yinusa, Ameh, Arowojolu (2019) examines the relationship between school plant planning and students' academic performance in ten randomly selected secondary schools in Irele Local Government Area of Ondo State using descriptive survey research design. The study revealed that the levels of school plant planning and students` academic performance were relatively close, and as such students` academic performance was significantly related to instructional space planning, Administrative space planning, circulation space planning, and space for convenience planning.

Conclusion

The importance of school plant management in the teaching and learning process in Secondary Schools and other educational institutions cannot be over emphasized. The nature, condition, adequacy and relevance of the school plant have direct impact on the teaching-learning process. The study concludes that there is significant relationship between school plant and Mathematics teachers' job performance in public secondary schools. The result also established that there is significant relationship between school plant and academic performance of students in public secondary schools.

Recommendations

Based on the findings, the following recommendations were made;

1. Government should provide adequate school plant in the public secondary schools in the State. This will assist in achieving effective teaching and learning in schools.

2. The school principals should ensure that the plants available in the school are utilized for effective teaching and learning.

3. Principal of schools and other school authorities should preserve the available plants in the school and prevent wrong use of the plants, especially, by external persons who are not members of the school.

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