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Influence of Educational Infrastructures on Students' Behaviour in Public Schools in Bayelsa State

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Abstract

This study investigated the influence of educational infrastructures on learners' behaviour in the public schools in Yenagoa Local Government Area of Bayelsa State. The researcher observed the rampant act of misbehaviour by learners in public schools and sought to determine if the nature of the educational infrastructure available in these public schools affects the learners' behaviour. A Questionnaire titled Educational Infrastructures and its Impact on Learners' Behaviour questionnaire (ELLSPB) was designed to determine the degree of the availability of these infrastructures and the extent to which they impact the learners' behaviour. The researcher also used interview and observation techniques. In the end, only 89 copies of the questionnaire out of the 250 copies that were distributed were returned. The chi–square was used as the method of analysis and the results of the analysis of the data obtained showed that there is indeed a significant relationship between educational infrastructures and learners' behaviour. The null hypothesis was rejected and its alternative was accepted. The researcher recommends, among others, that school authorities and staff should work as a team to ensure that these vital educational infrastructures are used properly to prevent damages or promptly report these damages when they occur and have them properly maintained.

Keywords: Educational Infrastructures, Learners, Behaviour, Public Schools, Misbehaviour.

Introduction

Public schools provide free education for the teeming population of Nigerian youths. It is an avenue for the attainment of the nation's education goals. Their essence lies in their commitment to providing accessible, inclusive and high-quality education to all learners and they play a fundamental role in shaping the future of individuals and society. A crucial part of high-quality education is the provision of adequate educational infrastructures, which encompass a wide range of elements that collectively facilitate the delivery of education and contribute to the academic, social, emotional, and physical development of learners. When adequately provided, they create environments that foster excellence, equity and innovation in teaching and learning.

On the other hand, poorly maintained educational infrastructures can have detrimental effects on students' motivation, engagement, health, cognitive development, perception of education, and social-emotional well-being. For instance, it can lead to decreased motivation, and engagement, increased stress and anxiety, have a negative impact on the health, and well-being of both teachers and learners, can lead to impaired cognitive

development, negative perception of education and schools, and a negative impact on social and emotional development. This is why schools need to prioritize the upkeep and maintenance of their facilities to provide a safe, supportive, and conducive learning environment for all students.

In Bayelsa state, public schools are found in practically every community ensuring their accessibility. They usually consist of several blocks of classroom, a staff room and a retinue of staff, both academic and administrative, to see to the affairs of the pupils and students. The government funds these schools and their staff are government employees. It is, therefore, expected that the government via her Ministry of Education will equally maintain these infrastructures.

However, a visit to many of these schools reveals that their infrastructures do not conform to the most basic standards required for such institutions even more so when you compare them to their private counterparts, the difference becomes glaring. There is a big gap in quality resulting from large numbers of students in crowded classrooms, using inadequate and obsolete equipment, with disillusioned teachers. The unfriendliness of the school environment may be induced among other things by inadequacies in classroom space, furniture, equipment and teaching/learning materials, poorly motivated teachers, use of poor teaching methodologies, inadequacy of water and sanitation facilities in schools, and limited community participation.

Statement of the Problem

Many Nigerian public schools are faced with the combined challenges of deteriorating conditions, out-of-date design and capacity utilization pressures. These combined deficiencies perhaps constitute a major gap in the quality of learning infrastructure and, thus, may bear on teaching and learning that prevent the education system from getting the best out of its efforts to achieve the required level of attainment in the teaching and learning activities of the school. They also create health and safety problems for both staff and students. It is against this background that this study considers the identified gaps in the school learning environment to determine their effect on the behaviour of students in public schools in Bayelsa state.

Research Objectives

Therefore, the objective of this study is to determine if the deficiency of educational infrastructures in these public schools affects the behaviour of these learners. This objective is guided by the following questions:

What educational facilities are available in these public schools?

i. To what degree are these infrastructures available or lacking?
ii. To what extent are these infrastructures maintained?
iii. To what degree do these facilities affect students' behaviour?

This study hypothesizes that there is no significant relationship between educational infrastructures and learners' behaviour.

Review of Literature

Theoretical Framework

The input-output theory, also known as the input-output model, is a conceptual framework used in various fields to analyse the relationship between inputs, processes, and outputs within a system. It helps understand how changes in input variables affect output variables and how the system functions as a whole. In educational research, it is a conceptual framework often used to understand how various factors, or inputs, within the educational environment, influence student outcomes or outputs. In the context of the influence of educational infrastructures on student behaviour, the input-output theory can help elucidate the relationship between the physical, organizational, and social components of educational infrastructures and student behaviour.

Inputs in the context of educational infrastructures include factors such as the physical facilities, resources, organizational structures, policies, and social dynamics within schools. Physical inputs may encompass the quality of school buildings, classroom facilities, instructional materials, and technology infrastructure. Organizational inputs refer to aspects such as school leadership, governance, curriculum, instructional practices, and support services. Social inputs include the relationships, norms, values, and cultural climate within the school community. Olasunkanmi & Mabel (2012) cited improved curriculum delivery, improved techniques of management and planning, effective teacher development strategies, developed infrastructures and the provision of facilities for secondary school services as inputs.

Outputs in the context of student behaviour encompass observable actions, attitudes, and interactions exhibited by students within the educational environment. This may include behaviours such as attendance, participation, engagement in learning activities, academic achievement, social interactions, disciplinary incidents, and overall attitudes towards school and learning. The output is the product of educational input and process (Salam, 2015).

The Concept of Educational Infrastructures

Educational infrastructures are the structural foundation upon which the edifice of learning and academic achievement rests. Far more than mere physical structures, they encompass a complex network of resources, policies, technologies, and support systems designed to optimize educational outcomes. We shall delve into the multifaceted concept of educational infrastructures, exploring their significance in shaping the educational landscape and fostering student success.

At its core, educational infrastructures encompass the tangible and intangible elements that support and enhance the teaching and learning process. These include:

i. Physical Facilities: Educational infrastructures encompass the physical spaces where learning takes place, including classrooms, laboratories, libraries, and recreational areas. Well-designed and adequately equipped facilities provide students with a conducive environment for learning, exploration, and collaboration.

ii. Resources and Technologies: Central to educational infrastructures are the resources and technologies that facilitate teaching and learning. This includes textbooks, educational materials, digital resources, and access to technology such as computers, tablets, and interactive whiteboards. These resources empower educators to deliver engaging lessons and enable students to access information, communicate, and create content effectively.
iii. Policies and Governance: Educational infrastructures are governed by a framework of policies, regulations, and administrative structures that guide decision-making and ensure accountability. These policies address issues such as curriculum development, assessment practices, teacher certification, and funding allocation. Effective governance is essential for maintaining standards, promoting equity, and responding to the evolving needs of students and communities.
iv. Support Mechanisms: Educational infrastructures encompass a range of support mechanisms designed to meet the diverse needs of students and facilitate their academic and personal development. This includes counselling services, special education programs, academic interventions, extracurricular activities, and partnerships with community organizations. These support mechanisms play a crucial role in promoting student well-being, fostering a sense of belonging, and enhancing overall student success.

Educational Infrastructures and Students' Behaviour

Educational infrastructures are the backbone of any society, shaping not just academic outcomes but also moulding the behaviour and character of students. However, when these infrastructures falter, the repercussions extend far beyond the classroom. We shall explore the profound impact of inadequate educational infrastructures on student behaviour and its broader implications.

Fatima and Nazeer (2022), in a study on teacher roles, infrastructure and student wellbeing in the post-pandemic era, found that insufficient infrastructure not only affects learning quality but also dampens students' enthusiasm. In addition, Umar et al (2023) in a study comparing the quality of infrastructure on student outcomes in public and Punjab education foundation-funded secondary-level schools found that improved school infrastructure quality positively correlates with student engagement, motivation, and academic achievement, emphasizing the need to bridge infrastructure disparities.

Other researchers have found that adequate and well-maintained facilities provide a conducive space for teaching and learning, fostering a sense of engagement and motivation among students (Mbalaka & Cheloti, 2021). Conversely, dilapidated or poorly equipped schools can hinder the educational process and create a demotivating atmosphere (Liu, 2020). Ramli et al (2018) found that poor maintenance and inefficient management of school facilities affect learning.

The impact of inadequate educational infrastructures on student behaviour includes the following:

i. Disrupted Learning Environment: this may include insufficient resources such as outdated textbooks, overcrowded classrooms, and lack of proper technology to hinder effective learning. Graham (2023) states that when classrooms are overcrowded, it may lead to a stressful learning environment that impacts negatively on the overall teaching and learning process. In such environments, students may struggle to concentrate, leading to disruptive behaviours like talking out of turn, inattentiveness, or even defiance towards authority. This fact is also corroborated by Osai et al (2021).

ii. Low Teacher Morale and Burnout: Teachers are crucial in shaping student behaviour, but they too are affected by poor infrastructures. Overworked and under-resourced educators may experience burnout, diminishing their ability to manage classrooms effectively. Mathase (2021) found that rural schools in South Africa lacking teaching and learning materials impacted the performance of educators. This can result in inconsistency in discipline and a lack of positive reinforcement, further exacerbating behavioural issues among students.

iii. Limited Extracurricular Opportunities: Onuoha & Agabi (2023) state that these infrastructures are essential in stimulating educational activities for effective learning. Extracurricular activities play a vital role in fostering holistic development and channelling students' energy constructively. However, inadequate infrastructures often mean limited or non-existent extracurricular programs. Without these outlets, students may resort to negative behaviours as a means of expression or engagement.

iv. Impact on Mental Health: A substandard learning environment can take a toll on students' mental well-being. Persistent stress from overcrowded classrooms, dilapidated facilities, and a sense of hopelessness regarding their educational prospects can lead to anxiety, depression, and other behavioural issues. Students may exhibit aggression, withdrawal or apathy as coping mechanisms, further complicating their academic and personal growth. Josephat (2019) in a study found a great relationship between infrastructure and academic performance, self-worthiness, confidence and a sense of belonging.

v. Cycle of Underachievement: most learners who attend these public schools that provide free education come from disadvantaged circumstances that invariably increase the probability that they will not be successful at school. Poor educational infrastructures contribute to a cycle of underachievement, wherein students from disadvantaged backgrounds face systemic barriers to success. Without adequate support and resources, these students are more likely to disengage from learning and exhibit behavioural problems. This perpetuates a cycle where academic performance and behaviour continue to suffer, limiting opportunities for upward mobility and perpetuating social inequality.

The impact of poor educational infrastructures on student behaviour is profound and multifaceted. From disrupting the learning environment to exacerbating mental health

issues and perpetuating cycles of underachievement, the consequences are far-reaching. Addressing these challenges requires a concerted effort from policymakers, educators, and communities to prioritize and invest in building robust educational infrastructures that support the holistic development of students. Only then can that cycle be broken and thus create environments where every student can thrive academically and behaviourally.

Research Methodology

This study uses both quantitative and qualitative research models. It is qualitative in the sense that it goes deeper into issues to explore nuances related to the problem at hand. Thus, it makes use of in–depth interviews and observation methods to collect data. On the other hand, it is quantitative in the sense that it tries to quantify the problem and understand how prevalent it is by looking for projectable results for a larger population. It also identifies evidence regarding cause-and-effect relationships tests hypotheses and examines specific relationships. In this regard, it uses the questionnaire method to obtain relevant data.

The area of study is Yenagoa Local Government Area of Bayelsa state. The data was drawn from staff in the 23 public schools located in Yenagoa Local Government Area of Bayelsa state. The sample size for this study was determined using the Yamen's formula. The formula is stated thus:

$S = \frac{N}{1+N\sigma^2}$

Where;

S = sample size

N = the population size

σ = level of significance which is usually 0.05

The total number of public Secondary schools in Yenagoa Local Government Area is 23. Therefore, the sample size is thus:

$S = \frac{23}{1+(23\ x\ 0.05)^2}$

$= \frac{23}{1+(23\ x\ 0.05)^2}$

$= \frac{23}{2.3225}$

= 9.9031

= 10 Secondary schools.

The total population of staff in these schools is 391. Out of this figure, 291 are academic staff while 100 persons are non–academic staff. However, out of the total number of questionnaires distributed, only 89 copies were satisfactorily completed and returned. The chi–square was used to analyse data obtained to investigate the existence or not of significant differences between theoretical and observed frequencies from a given population.

The researcher also used the interview and observation methods. The interview method allowed the researcher to obtain direct reliable and detailed responses. It also provided an excellent opportunity to probe and explore questions. Furthermore, it was used to follow – up on feelings and experiences that were shared using the questionnaire. On the other hand, the observation method was used to discover behaviours.

Findings

Relationship between educational infrastructures and students' behaviour

Test Question	SA	A	D	SD	TOTAL
8.	13	24	22	30	89
9.	10	23	27	29	89
11.	26	51	6	6	89
10.	4	8	30	47	89
Total	**53**	**106**	**85**	**112**	**356**

Source: Udeze (2021).

$X^2 = \frac{\sum(Oi-ei)}{ei}$

ei = $\frac{RT\ X\ CT}{GT}$

ei.1 = $\frac{53\ X\ 89}{356}$ = 13.25

ei.2 = $\frac{106\ X\ 89}{356}$ = 26.5

ei.3 = $\frac{85\ X\ 89}{356}$ = 21.25

ei.4 = $\frac{112\ X\ 89}{356}$ = 28

Hypothesis Testing

SA			A			D			SD		
Qi	ei	X^2	Qi	ei	X^2	Qi	ei	X^2	Qi	ei	X^2
13	13.25	0.004	24	26.5	0.24	22	21.25	0.03	30	28	0.14
10	13.25	0.80	23	26.5	0.39	27	21.25	1.56	29	28	0.04
26	13.25	12.27	51	26.5	22.65	6	21.25	10.94	6	28	17.29
4	13.25	6.46	8	26.5	12.92	30	21.25	3.60	47	28	12.89
Total		**19.53**	**Total**		**36.2**	**Total**		**16.13**	**Total**		**30.36**

Source: Udeze (2021).

= 19.53 + 36.2 + 16.13 + 30.36

= 102.22

The significant level = 0.05 while the degree of freedom (df) is given as (c – 1) (r – 1) where r represents rows and C represents columns. Therefore,

df = (c – 1) (r – 1)

= (4 – 1) (4 – 1)
=3 x 3 = 9

Decision Rule

The table value at 0.05 significant level is 16.919. The decision is that since the calculated value is greater than the table value, the null hypothesis is rejected and the alternative accepted. Therefore, there is a significant relationship between educational infrastructures and students' behaviour.

Discussion

Different environments can evoke emotional responses and elicit or inhibit behavioural responses. For instance, a good environment provides a sense of safety and security, which allows the learners to relax and feel comfortable. In such an environment, they are more likely to exhibit positive emotions such as calmness and contentment. However, in the course of this study, it was common sight to find classrooms without ceilings or windows, lizards and other pests roaming freely in the classroom. There are insufficient desks and chairs, poor lighting or ventilation conditions, grasses are overgrown and laboratories lack equipment to aid the teaching of science-based subjects. The teachers interviewed specifically noted that when there were poor lighting or ventilation conditions, the students became restless. They would fan themselves with their books instead of reading or writing in them. They lose their concentration and become restive. Sometimes, it leads to suffocation and other health complications. At other times, when the temperature is very high, students frequently go out for a drink of water while others take to pulling off their shirts. The result is that the teacher becomes distracted and the lesson is disrupted.

When classrooms are better designed, they can produce desirable behaviours. Overcrowded classrooms are one of the major causes of behavioural disruptions in schools. It often leads to noise, fatigue and eventually, misbehaviour. As the findings of this study show, there is indeed a significant relationship between educational infrastructures and students' behaviour. Therefore, the question that all stakeholders must ask is how can we create a better learning environment that leads to less disruptive behaviour. To begin, the ambient environment conditions of learning must be addressed. These conditions include temperature, ventilation, lighting, colour and noise level. These conditions can produce either comfort or irritation that can affect the behaviour of the occupants of these facilities. This is because students' behaviour is affected by how they perceive their physical environment.

One act of student misbehaviour that has the most impact on educational infrastructures is vandalism. Vandalism is the wilful destruction of school facilities and most vandals destroy school property for the thrill of it. When furniture or walls are vandalized, it is the students who end up suffering. Thus, it is quite common to find students standing up in lessons because of the lack of furniture. Sometimes, they end up absconding classes and the staff interview at these schools readily testify that truancy exists. Perhaps, this truancy lies in the

fact that a badly maintained school environment gives the impression that no one cares and that they, the students, are not important. The result is that these students develop a carefree attitude towards education.

Also, while it is believed that most vandals are likely to be students lacking the appropriate counselling to deal with issues of anger and frustration, this act of misbehaviour must be handled promptly and in a manner that sends a strong message to the students that vandalism is not allowed.

There is an unspoken perception that the quality of an institution is directly related to the quality and/or adequacy of its infrastructures, and may even be regarded as a foretelling of the students' outcome at the end of the learning in such an institution. Thus, if the school infrastructures are inadequate and/or poorly maintained, it would reflect on the learners' outcome albeit negatively. One then wonders about the purpose of having well-developed curriculums if the school facilities cannot even meet basic safety and health standards.

The undesirable consequences arising from deficiencies in educational infrastructures confirm the Input-Output theory that posits that the quality, availability, and effectiveness of educational inputs influence student outcomes or outputs. In the context of educational infrastructures, the condition of physical facilities, the presence of supportive organizational structures, and the quality of social interactions all play a role in shaping student behaviour. The availability of essential educational infrastructures encourages the learners' participation in the teaching/learning process because they will find learning interesting. The learners will be comfortable and so will easily concentrate on the lesson being taught. This will in turn encourage attendance and have a lasting positive impact on behaviour.

Conclusion

The impact of poor educational infrastructures on student behaviour is significant and pervasive, affecting various aspects of academic life. Educational infrastructures represent the bedrock of educational excellence, providing the essential framework and support systems necessary for effective teaching and learning. By investing in and prioritizing the development of robust infrastructures, stakeholders can ensure that every student has the opportunity to thrive academically, socially, and personally. In doing so, we can build a brighter future for generations to come.

Recommendations

i. The issue of overcrowding in classes should be prioritized and addressed by all stakeholders at different levels.
ii. School authorities and staff should work as a team to ensure that these vital educational infrastructures are used properly to prevent damages or promptly report these damages when they occur and have them properly maintained.
iii. Supervision should be carried out regularly by the Ministry of Education. This will help spot the onset of decay and arrest it.

iv. Finally, where students are responsible for damages to educational infrastructure, they should be made to bear the liabilities. This will serve as a deterrent to others who may be in the habit of vandalizing school property.

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