



INFLUENCE OF AVAILABILITY AND UTILISATION OF EDUCATIONAL INFRASTRUCTURE ON ACCESS TO PRIMARY EDUCATION IN IJEBU ODE LOCAL GOVERNMENT, OGUN STATE

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Abstract

The role of educational infrastructure in determining access to primary education in Ijebu-Ode Local Government, Ogun State was explored in this study. The study focused on availability and utilization of educational infrastructure in the study area. The study was guided by two research questions and three hypotheses which were tested at 0.05 level of significance. Using a descriptive survey design, data was collected from 218 teachers and headteachers whose educational qualifications were majorly NCE and Bachelors of Education degrees using a questionnaire, checklist, and structured interview questionnaire. Instruments for data collection were Questionnaire on School Infrastructure Inventory Checklist, ($r = 0.78$), Availability of Educational Infrastructure ($r = 0.81$) and Questionnaire for Headteachers on Availability and Utilisation Educational Infrastructure ($r = 0.80$). Findings revealed a moderate overall level of infrastructure availability (mean=2.69) and utilization (mean=2.85). Although basic structures like classrooms were highly available and used, acute shortage of libraries, ICT, and sanitation facilities exist, as each of them were rated as very low in both availability and use. Regression analyses showed that both availability ($\beta = .394$, $p < .05$) and utilization ($\beta = .421$, $p < .05$) had significant positive influences on access individually. Furthermore, their joint influence was significant, explaining 24.8% of the variance in access ($R^2 = .248$), with utilization being the slightly stronger predictor. The study concludes that, to improve access, there is need for targeted investment to cater for acute shortages in quality-enhancing facilities and the implementation of policies to ensure the consistent and effective use of all available resources in the teaching-learning process.

Keywords: Availability, Utilisation, Educational Infrastructure, Access to Primary Education

Introduction

Education at primary school level is crucial to national development and a basic human right embedded in international frameworks like the Sustainable Development Goals (SDG 4). The achievement of this goal is faced by many obstacles especially in the aspect of ensuring equitable access to primary education in spite of government efforts. Quality access to learning experience by school-age children is the focal point of primary education, and not mere statistics. The condition of educational infrastructure plays a critical role in providing this access. A good and quality location for enhancing the nexus between educational access and infrastructure is Ijebu-Ode Local Government Area in Ogun State. This study examines the availability and utilisation of educational infrastructure with a view to better appreciating and comprehending the influence of access to primary education as predicted in the area.

Educational infrastructure refers to the resources such as materials and physical infrastructure necessary for effective teaching and learning (Fatai et al., 2021). These include classrooms, furniture, supplies of potable water, sanitary facilities, libraries, playgrounds, and information and communication technology (ICT) resources, among others. Among the factors that affect a good learning setting is the availability and adequacy of quality infrastructure. The physical infrastructure and outlook of a school determines enrollment, attendance, retention and overall academic achievement (Abdullahi et al., 2025; Akorede et al., 2023; Ogenyi, et al., 2023; Gbesoevi, et al., 2022).

According to Andries et al., (2022) tattered classrooms can lower involvement of students and the quality of learning. This is usually the situation in many semi-urban and urban areas (Andries et al. 2022), such as portions of Ijebu Ode, which limits meaningful access. Furthermore, the issue of educational resources or infrastructure is not just availability; it has to do with their efficient use. The extent to which administrators, teachers, and students make the best and most deliberate use of the existing infrastructure to achieve educational goals is utilization. Availability of facilities does not translate to effective use. This is particularly clear in the case of technology

infrastructure. Wide gaps exist between the availability of ICT and their actual use for administrative and pedagogical purpose among school administrators and teachers (Bolaji & Jimoh, 2023). Also, Ogenyi et al. (2023) observe that challenges to the integration of ICT primary schools usually prevent technology from being engaged for educational purposes. Therefore, it is crucial to carry out detailed assessment about availability and utilization of educational infrastructure so proffer solution to problems which are partially caused by deteriorating infrastructure.

According to Ogunode et al. (2022), a strong link exists between national education crisis, adequate funding and deplorable infrastructure, which subsequently undermine access and quality. Ayoko et al. (2023) noted that this inadequacy is not limited to primary education, but also affects tertiary institutions of learning where future learning trajectories are established. The problem is multifaceted and involves inequitable distribution, poor maintenance, and insufficient quantities Ikiriko and Brown (2024) offer a method for evaluating adequacy which is applicable to Ijebu Ode. Discrepancy between policy requirements and actual conditions is highlighted in the model.

Moreover, the issue of access is worsened by the prerequisite for inclusive education. With focus on inclusive lower primary education, Egbedeyi & Babalola (2023) emphasize that access to education for children with special needs is predicted by the availability of particular infrastructure modifications. The researcher concluded that the difficulties in delivering inclusive infrastructure exists and this highlight that access is not equal and must take into account the peculiar needs of learners. Owing to the lack of such considerations in infrastructure planning, a portion of the population is effectively denied access to education.

From the foregoing, this study is positioned at the interconnectedness of these important issues. The study is an effort to provide empirical evidence on how particular infrastructure components affect access to primary education through the study of availability and utilization. The outcome of the study will benefit state planners, school administrators, and local government education authorities to make policy decisions and interventions. In the end, this study advances the more general objective of ensuring children in Ijebu Ode do not only enroll in schools but also have learning environment prepared to support their holistic development.

Statement of the Problem

Significant deficits in educational infrastructure are one major factor affecting primary education in Nigeria, and specifically within Ijebu Ode Local Government Area of Ogun State. Although, studies, anecdotal evidence and national reports have established correlation between poor infrastructure and limited educational access, there is a paucity of localized, empirical data that targeted to unravel the level of availability and the extent of utilization of these facilities within the public primary school system in Ijebu Ode. Furthermore, the relative and combined influence of these infrastructural variables on the actual access to education for school age children has not been inadequately explored. Allocation of resource and evidence based planning are not possible as a result of this lack of specific data. Without a clear understanding of whether the primary barrier to access is the sheer absence of facilities, their poor state, their inefficient use, or a combination of these factors, education policymakers and school administrators in the locality may be making inappropriate decisions. This study, therefore, seeks to investigate this gap by determining the availability and utilization of educational infrastructure jointly and relative influence access to primary education in Ijebu Ode Local Government.

Theoretical Framework

This study is underpinned by an integrated theoretical framework that conceptualizes access to primary education as a function of both the availability *and* utilization of educational infrastructure. The framework draws on three complementary theories. These are the Input-Output Model of School Resources (Cohn & Geske, 1990), the Theory of Educational Production Function (Hanushek, 1986), and the Systems Theory of Educational Planning (Kaufman, 1988).

According to the Input-Output Model, educational infrastructure, including classrooms, furniture, libraries, ICT, water, and sanitation, constitutes critical inputs that directly influence access as an output. When these inputs are inadequate, access is compromised regardless of other factors (Cohn & Geske, 1990). This aligns with the observation that availability of basic facilities is a necessary condition for enrollment and regular attendance.

The Theory of Educational Production Function posits that the relationship between resources and outcomes is not automatic. Rather, how resources are utilized determines their effectiveness (Hanushek, 1986). Thus, utilization mediates the link between availability and access. Even when infrastructure is present, poor utilization due to lack of maintenance, teacher training, or scheduling results in suboptimal access.

The Systems Theory of Educational Planning emphasizes that availability and utilization are interdependent components within a larger system (Kaufman, 1988). A shortfall in either component creates systemic inefficiencies. For example, unavailable libraries cannot be utilized, while underutilized ICT fails to boost access regardless of its presence.

This study therefore adopts a dual factor theoretical model expressed as follows: access is a function of availability and utilization. Availability provides the physical potential, while utilization activates that potential into meaningful access. The framework guides the investigation of the relative and joint influence of these two factors on inclusive, equitable, and effective participation in primary education within Ijebu Ode Local Government, Ogun State.

Literature Review

The association between educational infrastructure and access to primary education documented in academic literature, with a clear theoretical and empirical link established. Access is majorly viewed and conceptualized not just as enrolment in school but as inclusive, equitable, and effective participation in the learning process. This is mainly connected with the learning environment.

As regards availability of educational infrastructure, studies have shown widespread inadequacies in developing nations. In Nigeria, infrastructural decay has been identified as a central part of the national education crisis, a situation which leads to overcrowding and poor condition of learning (Ogunode et al. 2022). Andries et al. (2022) quantified in innovative this in an innovative ways by using used satellite imagery to demonstrate severe overcrowding in rural Nigerian primary schools, an evidence of insufficient classroom availability. Ikiriko & Brown (2024) focused more directly on assessment, and developed standards for evaluating the adequacy of primary school infrastructure and reported acute shortfalls in basic amenities. Inclusive education is affected by a serious and acute lack of infrastructure tailored (Egbedeyi & Babalola, 2023). The authors show that this situation restricts access for children with disabilities and concluded that insufficiency educational infrastructure affects education of children with special needs. Ayoko et al. (2023) and Gbesoevi et al. (2022) asserted that shortage of infrastructure is a systemic barrier throughout Nigeria's education sector at higher educational levels, having a negative effect on student achievement and teacher quality.

The utilization of available infrastructure is a unique but equally core research aspect. Literature shows a gap between provision and application of ICT is regularly noticed. Olanrewaju et al. (2022) opined that educational infrastructure extend to the use of digital learning resources Unsatisfactory utilization of ICT among educational administrators in secondary schools was found by Bolaji et al. (2023) who reported that the situation was restricting administrative and pedagogical efficiency. Daramola (2022) also found that poor utilization of information and technology tools for teaching and learning limits efficiency in instructional delivery and administrative planning. Ogenyi et al. (2023) postulated that maximal utilization of technological issues such as power supply and pedagogical factors are major limitations to effective utilisation of educational resources. Bolaji & Onikoyi (2024) found that ICT when efficiently utilized can help in classroom management and solve the problem of lack of physical infrastructure.

Direct relationship between access and utilisation of educational infrastructure is evident in literature. Lack of facilities such as classrooms, water and toilet is a major barrier (Bolaji et al., 2024). As reported by Andries et al. (2022), the limitation in availability of educational infrastructure causes overcrowding and reduces access. However, the digital gap, as noted by Vitalis et al. (2025), might increase inequalities in access if consumption is not ubiquitous and equitable. Furthermore, the joint influence is implied in research that link quality instruction to facilities. The inability to employ science equipment or ICT tools owing to lack of training or policy (Okunade, 2024; Tshukudu et al. 2023) means that even when present, such infrastructure does not fully boost educational access and quality.

In summary, the literature evidently shows that infrastructure availability is a thorny issue in Nigeria and impacts access. It also demonstrates a rising focus on the utilization of educational infrastructure. However, there is a research gap in studies that focus on availability and utilization of a broad range of infrastructural components (physical and digital) at the primary school level and consider the relative and joint influence on access in Ijebu-Ode Local Government Area. This study is therefore undertaken to address this gap.

Research Questions

The study seek to answer these research questions:

1. What is the level of availability of educational infrastructure in Ijebu-Ode Local Government of Ogun State?
2. What is the extent of utilization of educational infrastructure in Ijebu-Ode Local Government of Ogun State?

Hypotheses

Three hypotheses which guided the study were tested at 0.05 level of significance:

1. There is no significant relative influence of availability of educational infrastructure on access to primary education in Ijebu-Ode Local Government of Ogun State.
2. There is no significant relative influence of utilisation of educational infrastructure on access to primary education in Ijebu-Ode Local Government of Ogun State.
3. There is no significant joint influence of availability and utilisation of educational infrastructure on access to primary education in Ijebu-Ode Local Government of Ogun State.

Methodology

This study adopted a descriptive survey research design. This design is appropriate for undertaking studies without manipulating any variable and in handling a large population (Akorede et al., 2022). The study population comprised all the 379 public primary school teachers and headteachers in Ijebu Ode LGA. The study adopted multi-stage sampling technique. The first stage is random selection of 10 primary schools in the local government area. The second stage is census sampling of all the 10 headteachers within the selected primary schools. The third stage involves proportionate-random sampling of teachers. Using Taro Yamani's formula for determining the sample size of known population at 95% confidence level and 5% marginal error, a sample of 218 primary school teachers including headteachers was arrived at.

Three instruments were used for data collection. The first instrument is the School Infrastructure Inventory Checklist (SIIC) meant for direct observation and condition of facility in the schools. The second one is Questionnaire on Availability and Utilisation of Educational Infrastructure (QAUEI) used to collect data from the teachers and students. QAUEI contains indicators like enrollment rates, regular attendance, student satisfaction with the learning environment, and perceived learning barriers will be used to operationalize the concept of access. The respondents were to rate the availability and utilisation of the infrastructure using 4-point Likert scale ranging from Very Low (1) to High (4). The third instrument is Structured Interview Questionnaire for Headteachers on Availability and Utilisation Educational Infrastructure (SIQHAUEI).

The three instruments were content and construct validated with the assistance of three experts: two in Educational Planning and Administration and one in Research, Measurement and Evaluation. Reliability of the instrument was achieved through pilot-testing on similar population in Lagos State. SIIC, QAUEI and SIQHAUEI yielded 0.78, 0.81 and 0.80 reliability coefficient respectively.

Results

Table 1: Socio-Demographic Characteristics of Respondents (Teachers and Headteachers, N = 218)

Variable	Category	Frequency	Percentage
Gender	Male	87	39.9
	Female	131	60.1
Age	21-30	45	20.6
	31-40	92	42.2
	41-50	66	30.3
	50 years & above	15	6.9
	1-5	15	6.9
Years of Experience	6-10	65	29.8
	11-15	70	32.1
	15 yrs & above	35	16.1
	NCE	132	60.6
Qualifications	B.Ed/B.Sc+PGDE	79	36.2
	M.Ed & above	7	3.2
	Rural	94	43.1
School Types	Urban	124	56.9

Table 1 shows the sample of 218 teachers and headteachers which was predominantly female (60.1%). Most respondents were in their prime working years (31–50 years, 72.5%), with considerable years of experience (over 77% had 6 or more years). The majority held an NCE qualification (60.6%), indicating a technically qualified but not highly degreed teaching workforce. Slightly more teachers worked in urban (56.9%) than rural (43.1%) schools. This profile suggests a predominantly female teaching corps serving across both rural and urban contexts, which is typical for Nigerian public primary schools.

Table 2: Level of Availability of Educational Infrastructure

SN	Infrastructure Category	Availability Index	Interpretation
1.	Classroom buildings	3.75	High Availability
2.	Furniture (desks, chairs)	2.90	Moderate Availability
3.	Toilet facilities	2.10	Low Availability
4.	Library facilities	1.85	Very Low Availability
5.	ICT facilities (computers, etc.)	1.60	Very Low Availability
6.	Playground/Physical Education	3.50	Moderate Availability
7.	Safe drinking water	2.80	Moderate Availability
8.	Electricity supply	3.10	Moderate Availability
	Overall Mean Availability Score	2.69	Moderate Availability

Note: Availability Index measured on a 4-point scale: 1 = Very Low, 2 = Low, 3 = Moderate, 4 = High

Table 2 provides explanation about the level of availability of educational infrastructure in the study area. It shows that overall availability of educational infrastructure was moderate (mean=2.69). Classroom buildings were highly available (3.75), while basic utilities like furniture, water, and electricity were moderately available. Critical deficits exist in toilet facilities (low: 2.10), library facilities (very low: 1.85), and ICT facilities (very low: 1.60). This pattern indicates that while core structural facilities exist, supportive and modern learning resources (libraries, ICT) and essential sanitation are severely lacking, pointing to an infrastructure profile strong on basic shelter but weak on quality-enhancing and hygienic components.

Table 3: Extent of Utilization of Educational Infrastructure

SN	Infrastructure Category	Availability Index	Interpretation
1.	Classroom buildings	3.82	High Availability
2.	Furniture (desks, chairs)	3.70	Moderate Availability
3.	Toilet facilities	2.95	Low Availability
4.	Library facilities	1.90	Very Low Availability
5.	ICT facilities (computers, etc.)	1.65	Very Low Availability
6.	Playground/Physical Education	3.10	Moderate Availability
7.	Water facilities	2.85	Moderate Availability
	Overall Mean Availability Score	2.85	Moderate Availability

Note: Scale: 1 = Very Low, 2 = Low, 3 = Moderate, 4 = High

Table 3 provides explanation about the extent of utilization of educational infrastructure in the study area. Utilization levels also averaged moderate (mean=2.85). Available classrooms were highly utilized (mean = 3.82), and furniture use was moderate (3.70). However, the utilization of deficient facilities like libraries (mean =1.90) and ICT (1.65) remained very low, mirroring their availability gaps. The moderate use of playgrounds (mean = 3.10) and water facilities (mean = 2.85) suggests these resources are used when present. The data reveals a utilization pattern tightly coupled with availability; high-use items are those that are most available, while scarce resources are consequently underutilized.

Table 4: Simple Regression Analysis of the Relative Influence of Availability of Educational Infrastructure on Access

Predictor Variable	B	β	t	P
Constant	1.205		5.621	.000
Availability of Educational Infrastructure	.482	.394	6.832	.000

Table 4 as presented above shows the simple regression shows a significant positive influence of infrastructure availability on access to primary education ($\beta = .394$, $p < .001$). The standardized coefficient (β) indicates that for every standard deviation increase in availability, access increases by 0.394 standard deviations, holding other factors constant. The significant t-value ($t = 6.832$, $p\text{-value} = .000$) lead to the rejection of Hypothesis 1. This confirms that better availability of school facilities is statistically associated with improved access, explaining a portion of its variance.

Table 5: Simple Regression Analysis of the Relative Influence of Utilization of Educational Infrastructure on Access

Predictor Variable	B	B	t	P
Constant	1.410		7.012	.000
Utilization of Educational Infrastructure	0.503	0.421	7.251	.000

The above table 5 presents the simple regression of influence of utilisation of infrastructure facilities on access to primary education in the study area. The table shows that utilization of infrastructure also has a significant positive influence on access ($\beta = .421$, $p < .001$). The beta value suggests that utilization has a slightly stronger relative influence on access than availability does. The highly significant result ($t=7.251$, $p=.000$) leads to the rejection of the Hypothesis 2. This implies that not just having facilities, but actively and effectively using them, is a critical factor in promoting enrollment, attendance, and overall access to primary education in the study area.

Table 6: Multiple Regression of the Joint Influence of Availability and Utilization on Access

Model Summary				
R = 0.498, $R^2 = 0.248$, Adjusted $R^2 = 0.241$				
Predictor Variable	B	B	T	P
Constant	1.205		5.621	.000
Availability of Infrastructure	.482	.394	6.832	.000
Utilization of Infrastructure	.503	.421	7.251	.000

Table 6 above is the multiple regression analysis of the joint influence of availability and utilization of educational infrastructure in the study area. The combined model shows that both availability ($\beta = .394$, $p < .001$) and utilization ($\beta = .421$, $p < .001$) are significant joint predictors of access. Together, they explain approximately 24.8% ($R^2 = .248$) of the variance in access to primary education. The model is statistically significant (implied by the significant t-values and R^2). This result leads to the rejection of the Hypothesis 3, confirming that the combined effect of both having and using educational infrastructure significantly impacts student access. Utilization again appears as the slightly stronger predictor.

Discussion of Findings

The research revealed a moderate overall presence of educational infrastructure (mean=2.69) in the Ijebu Ode Local Government Area, highlighting significant deficiencies in libraries (very low, 1.85), ICT facilities (very low, 1.60), and toilet facilities (low, 2.10). This trend aligns with the national observations made by Ogunode et al. (2022), who noted that infrastructural deterioration is a prominent aspect of Nigeria's educational crisis, often prioritizing basic shelter over adequate learning environments. The acute lack of libraries and ICT resources

substantiates the conclusions of Gbesoevi et al. (2022) regarding the systemic absence of quality-enhancing facilities.

Qualitative interviews conducted with headteachers offered insightful explanations for these deficiencies. Eight out of ten headteachers identified insufficient and delayed funding from the Local Government Education Authority (LGEA) as the main issue. One headteacher remarked, "We have requested a library for three years. The response is consistently 'no budget.'" Others pointed to a poor maintenance culture and vandalism as contributing factors. These accounts affirm that the extremely low availability scores are not coincidental but stem from systemic failures in resource allocation. Additionally, headteachers connected the absence of sanitation facilities to access challenges, particularly for girls: "When our only toilet is broken, girls stay home. Parents complain." This observation resonates with the findings of Egbedeyi et al. (2023), who highlighted that access for children with special needs is contingent upon specific infrastructural improvements, and consequently, inadequate sanitation impacts all students, especially girls. Therefore, the quantitative shortfall is contextualized with a human perspective and a causal framework through the qualitative data from the interviews.

The research indicated that the average levels of utilization were moderate (mean=2.85) and closely mirrored the availability of resources. Items with high usage, such as classrooms and furniture, were the most accessible, whereas limited resources like libraries and ICT remained significantly underutilized, with means of 1.90 and 1.65, respectively. This empirical relationship between supply and usage resonates with existing literature on the utilization gap, where Bolaji et al. (2023) highlighted inadequate ICT usage among educational administrators, which hampers pedagogical effectiveness. This situation is reflected in the current study, where ICT facilities ranked lowest in both availability and utilization. Furthermore, Ogenyi et al. (2023) identified challenges in ICT integration within African primary schools, which hinders the use of technology for instructional purposes.

The structured interviews conducted with headteachers uncovered the underlying reasons for this underutilization. Among the limited number of schools that had computers or library spaces, six headteachers indicated that the primary obstacles were the lack of teacher training and the absence of a formal timetable. A typical remark was: "We have five old computers, but no teacher knows how to integrate them into a lesson. They sit in a corner." Another headteacher commented, "The library room is used for storing old chairs because no one plans library periods." These qualitative insights extend beyond mere statistics to elucidate why availability does not necessarily lead to usage. They emphasize that without deliberate policy, training, and scheduling, facilities remain dormant assets rather than active resources for learning, directly corroborating the observation made by Ogenyi et al. (2023) that optimal utilization is constrained by pedagogical factors. This finding directly informs the study's subsequent recommendation for a mandatory infrastructure utilization framework.

Simple regression (Table 4) demonstrated a significant positive effect of infrastructure availability on access ($\beta = .394, p < .001$). This supports the fundamental premise in educational planning literature that the existence of physical facilities is essential for enrollment and participation. The findings align with the research of Andries et al. (2022), who employed satellite imagery to show how inadequate classroom availability results in overcrowding, which serves as a tangible physical barrier to access. In addition, it resonates with the perspectives of Ikiriko et al. (2024), whose methodology for evaluating the adequacy of primary school infrastructure emphasizes that deficiencies in essential facilities directly hinder enrollment and equitable participation.

The qualitative interviews provided specific mechanisms. Headteachers indicated that the absence of a fence or proper classroom doors contributed to feelings of insecurity among children, prompting some parents to move their children to private schools. One headteacher remarked, "Without a functional library or computer lab, school becomes tedious," which leads to irregular attendance. These lived experiences highlight how the mere lack of facilities creates objective, tangible barriers that quantitative assessments reflect as diminished access, thereby reinforcing the conclusion of Andries et al. (2022) that inadequate classroom availability directly impedes access.

The research indicated that utilization significantly enhances access ($\beta = .421, p < .001$) and serves as a marginally stronger predictor compared to availability. This represents a significant empirical contribution. It substantiates the assertion made by Bolaji et al. (2024) that effectively harnessed ICT can alleviate concerns regarding limitations in physical infrastructure, and aligns with Daramola's (2022) observation that insufficient use of resources diminishes the efficiency of instructional delivery.

The qualitative results offered persuasive insights into the greater importance of utilization. Headteachers noted that even if a library or computer lab is available, its lack of scheduling within the school week or absence from lesson plans renders it ineffective in enhancing access. In contrast, a classroom that is utilized daily, a water point that is regularly maintained, or a playground that is frequently used for physical education actively mitigates pedagogical and experiential barriers. One headteacher remarked, *“We have a borehole, but if it breaks and remains unrepaired for weeks, children begin arriving late or not at all. It’s not merely about having it; it’s about daily usage.”* This underscores that access is not merely a matter of passive ownership but rather of effective integration into the school’s daily operations, a notion that resonates with Daramola (2022) regarding the effectiveness of instructional delivery when tools are appropriately utilized.

The multiple regression analysis presented in Table 6 indicates that both availability and utilization collectively account for 24.8% of the variance in access ($R^2 = .248$), with these two factors serving as significant joint predictors. This comprehensive model integrates two distinct streams of literature that are frequently studied in isolation. It illustrates that the challenges faced are interdependent. As noted by Vitalis et al. (2025), the inequitable distribution of resources can exacerbate access disparities, even in situations where resources are present.

The data obtained from interviews further corroborated this interdependence. Headteachers consistently articulated a detrimental cycle: in scenarios where facilities are lacking (for instance, the absence of a library), utilization cannot take place; conversely, when facilities are available but not fully utilized (such as computers that remain unused), the potential advantages are forfeited. One headteacher encapsulated this notion succinctly: *“Building without training, or training without resources – both fail. You need both hands to clap.”* This systemic viewpoint resonates with the findings of Ogunode et al. (2022), who characterized Nigeria’s educational crisis as stemming from interconnected failures in financing, provision, and management. Consequently, the qualitative evidence substantiates the quantitative model and elucidates why initiatives that focus solely on one aspect of the equation are likely to yield inadequate enhancements in educational access.

The structured interview tool was crucial in revealing the reasons for the quantitative shortcomings (e.g., delays in funding, insufficient training), the factors contributing to underutilisation (e.g., absence of scheduled library sessions, teachers’ discomfort with ICT), and the real-life implications for access (e.g., girls remaining at home due to malfunctioning toilets, decreased attendance due to boredom). In the absence of these qualitative insights, the regression outcomes would still be statistically significant but would lack explanatory depth. Consequently, the interviews served to triangulate, enhance, and contextualise the quantitative results, thereby directly shaping the study’s conclusions and recommendations.

Conclusion

Based on the investigation conducted, it is concluded that the state of educational infrastructure in public primary schools within Ijebu-Ode Local Government Area is at a moderate level. While basic facilities necessary for shelter and teaching/learning process are generally present, there are acute shortages in areas critical for a quality learning environment, such as libraries, information technology, and adequate sanitation. Furthermore, the extent of utilisation of the available educational infrastructure similarly falls within a moderate range, indicating that underutilization along the gaps in provision.

Critically, the findings demonstrate that both availability of school facilities and the effectiveness of their application directly influence children’s access to primary education. The study establishes that the presence of infrastructure is not sufficient; consistent and purposeful utilisation in the daily life of the school plays an equally important and stronger role in improving enrollment, attendance, and a supportive learning environment. Therefore, enhancing access to education in this context is linked to a two-way strategy: technically improving the supply of lacking facilities and ensuring that all available resources are fully and functionally integrated into the teaching and learning process as well. Addressing this interconnected cycle of availability and utilization is key to making meaningful progress toward universal and equitable primary education in Ijebu Ode Local Government Area.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. There is need for the Ogun State Universal Basic Education Board (SUBEB) and the Local Government Education Authority (LGEA) to investment in targeted infrastructure. This necessary to address critical deficits identified in the study.
2. The Ogun State Ministry of Education should design and communicate a mandatory school infrastructure utilization framework. Scheduled library periods, integrated ICT lesson plans, and maintenance protocols should be included in such framework.
3. Capacity building should be put in place for teachers and administrators by the Ogun State Ministry of Education on how to effectively integrate available infrastructure (especially libraries and ICT) into classroom instruction and school management.
4. The LGEA should put in place a good data-driven management and evaluation system to regularly check the availability and utilization of educational infrastructure in primary schools within her jurisdiction.

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