OPEN ACCESS

Int. J. Educ. Found. 03 (02) 2026. 277-287 DOI: 10.33687/ijef.003.02.0108

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IJEF

Available Online at EScience Press
International Journal of Education Foundations
ISSN: 3078-7866 (Online), 3078-7858 (Print)
https://ijef.esciencepress.net

RESEARCH ARTICLE

The Influence of Classroom Infrastructure on Teachers' Job Performance in Public Pre-Primary Schools in Shinyanga District, Tanzania

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Article History
Received: November 22, 2025; Accepted: January 28, 2026; Published: March 14, 2026.

ABSTRACT

This study aimed to examine the influence of classroom infrastructure on teachers' job performance in public pre-primary schools in Shinyanga district, Tanzania. The study was guided by the System Theory developed by biologist Ludwig Von Bertalanffy in the 1950s. A mixed research approach and an explanatory sequential research design were employed. The sample size included 102 teachers, 10 head teachers, 3 Ward Education Officers, 1 District Quality Assurance Officer, 1 Statistics and Logistics Officer, and 1 District Education Officer. Data collection methods included questionnaires, face-to-face semi-structured interviews, non-participant observations, and documentary reviews. A pilot study was conducted to assess the reliability of the data collection instruments. The results of Test 1 showed an average reliability coefficient of 0.76, which was consistent with the results of Test 2. Quantitative data from questionnaires were analysed using SPSS version 23, and descriptive statistics were used for data presentation. Qualitative data from interviews were analysed thematically. The study findings indicate that classroom infrastructure has a significant impact on teachers' job performance. Teachers believe that having adequate classrooms boosts their motivation and dedication to teaching by creating a conducive and supportive setting. The research suggests that well-designed, spacious, and properly ventilated classrooms not only enhance teacher morale but also facilitate effective classroom management and enable the implementation of various teaching methods. It is recommended that teachers play an active role in identifying and addressing physical deficiencies in their classrooms, such as insufficient furniture, inadequate classroom layout, and a lack of teaching resources.

Keywords: Classroom infrastructure; teachers' job performance; public pre-primary schools

INTRODUCTION

Classroom infrastructure includes physical elements like classroom buildings, furniture, ventilation systems, and learning resources. In pre-primary education, these elements are crucial due to the developmental needs of young learners and teaching methods used by educators. Gurion and Limbong (2025) stated that teachers' performance, including lesson planning, classroom management, instruction delivery, and assessment, can be influenced positively or negatively by the classroom environment. Eneiga (2024) emphasized that the physical learning environment in pre-primary education, with its demanding teaching requirements, necessitates creativity, patience, and physical activity to either support or hinder pedagogical efforts. Rawal (2024) highlighted that individual can perform optimally when basic needs like safety, comfort, and conducive surroundings are met. Patra et al. (2025) argued that inadequate classroom infrastructure can lower teachers' motivation, reduce instructional

efficiency, and diminish overall job satisfaction. Conversely, well-structured classrooms with suitable furniture, adequate spacing, and good ventilation can boost teacher morale, effectiveness, and engagement.

Historically, the infrastructure for pre-primary education in classrooms emerged in the early 19th century in Germany with the establishment of the kindergarten movement by Friedrich Froebel in 1837. The term "Kindergarten," meaning "children's garden," introduced a dedicated space equipped with age-appropriate furniture, learning materials, and outdoor play areas, setting the groundwork for modern pre-primary classrooms (Aderogba & Isele, 2025). Sloan (2025) argued that early classrooms aimed to strike a balance between structure and freedom, prioritizing child-centered learning. Furniture was small and movable, materials were simple and tactile, and nature often played a role in daily activities. Popyk et al. (2025) found that Froebel's model represented a shift in educational philosophy from treating children as miniature adults to acknowledging their unique developmental requirements. This shift marked a significant evolution in early childhood education worldwide, shaping educational ideologies for generations to come.

In the United States, Lombo and Subban (2024) noted that classrooms generally have adequate basic infrastructure, including furniture, instructional materials, and facilities. However, districts in poorer or rural areas often face challenges such as aging buildings, limited space, and classrooms not specifically designed for young children. Andrade et al. (2024) found that in some districts, pre-primary programs are housed in school buildings not originally intended for such use, which can impede the creation of appropriate learning environments. Similarly, in Germany, Scholz et al. (2019) reported that public early childhood centres in more affluent regions generally have good physical infrastructure. However, there is a shortage of available spaces, leading to many children waiting for enrolment, and existing preschool classrooms operating at full capacity. In Malaysia, Kong (2022) highlighted improvements in public preschool infrastructure, particularly through national initiatives that have increased the number of preschool classes and enhanced teacher development. Nevertheless, rural, remote, and low-income areas still lack adequate preschool infrastructure. Chung et al. (2017) emphasized that even where infrastructure is in place, challenges such as insufficient learning materials, lower qualifications among some public preschool teachers, and coordination issues between agencies can hinder the quality of early childhood education.

Addie (2025) highlighted that Nigeria's public pre-primary school infrastructure is often in poor condition, particularly in rural or peri-urban areas. Many schools have dilapidated classrooms, lack basic furniture, inadequate sanitary facilities, insufficient water supply, and limited playground or safe outdoor space. Ayeni et al. (2025) reported that allocated funds to many schools are not fully utilized, resulting in unsafe or substandard infrastructure. Kenya has made official commitments under the Early Childhood Development Education program to construct/rehabilitate numerous classroom blocks, toilets, and associated facilities, aligning with the Vision 2030 infrastructure targets (Charnley 2022). However, Oyaro (2025) argued that many public ECDE classrooms in Kenya are still in dilapidated condition, with mud walls, rusted iron sheets, or temporary structures, shared or overcrowded rooms, and deficiencies in water, sanitation, and hygiene facilities.

In Tanzania, Mligo (2025) emphasized the importance of developing pre-primary education as a key strategy to enhance the quality of education at the foundational level. However, early childhood education has not received adequate investment compared to primary and secondary education. Tandika (2025) noted that since the implementation of the Education and Training Policy (ETP) in 1995, its revision in 2014, and the 2023 Education and Training Policy (Edition), there has been a focus on improving teachers' performance, recognizing pre-primary education, and increasing access to education for five-year-old children who are ready for schooling. These policies have raised awareness about the significance of pre-primary education. Similarly, Ali et al. (2025) argued that post-independence educational reforms in Tanzania prioritized expanding access to basic education, leading to primary schools receiving the majority of infrastructural development. Additionally, Mabwe (2021) revealed that the rapid growth of pre-primary classes within primary school compounds in the early 2000s was not accompanied by adequate infrastructural planning, resulting in many pre-primary classes lacking proper classrooms, furniture, and sanitation facilities. Nguru and Ally (2025) pointed out that most pre-primary classrooms are overcrowded, poorly ventilated, and inadequately equipped, which hinders teachers' performance and diminishes the learning experience for children.

In Shinyanga district, the government, with support from development partners, has made efforts to enhance classroom infrastructure. However, progress has been sluggish and inconsistent. Mrutu and Kibga (2023) identified inadequate classroom infrastructure as a significant obstacle to effective teaching and learning. While numerous studies have explored the impact of these environmental factors on student performance, few have delved into their effects on teachers, especially at the pre-primary level. This study aims to examine how classroom infrastructure conditions influence teachers' job performance in public pre-primary schools in Shinyanga district.

LITERATURE REVIEW

Theoretical Review

The System Theory, developed by biologist Ludwig Von Bertalanffy in the 1950s, centred around the concept that all parts of a system are interconnected, and a change in one element can impact the entire system. It highlights that high-quality classroom infrastructure can enhance teachers' ability to engage students, facilitate learning, and promote positive child development outcomes.

Empirical Literature Review

The influence of classroom infrastructure on teachers' job performance in public pre-primary schools varies significantly among nations, depending on factors such as the age of enrolled students and their level of engagement. A well-designed, modern classroom infrastructure enhances student engagement, facilitates effective teaching, and incorporates digital tools such as smart boards, projectors, and audio-visual equipment for interactive learning (Lombo & Subban 2024).

A quantitative study conducted by Lassila (2023) in Finland examined the impact of classroom infrastructure on teaching performance. The results indicated that physical infrastructure, including lighting, furniture, and temperature control, significantly affects teachers' productivity and academic performance. Teachers reported higher satisfaction levels in well-equipped classrooms, leading to more effective lesson delivery. The study suggests that policymakers and education implementers should prioritize upgrading classroom infrastructure to enhance learning and teaching conditions. However, the generalizability of the findings is limited due to a small sample size. To address these limitations, this study used a mixed approach to examine the impact of classroom infrastructure on teachers' job performance in public pre-primary schools in the Shinyanga district.

Shala and Buza (2024) explore the classroom environments of pre-primary schools in Denmark to enhance teaching through play development for 5–6-year-old children. The study identified a need for sufficient outdoor play areas and redesigning indoor spaces with a child-centered approach. Recommendations include redesigning classroom spaces to better cater to children's needs, ensuring easy access to play materials, and creating adequate outdoor play areas. This study does not inspect the impact of infrastructure on teachers' job performance. Therefore, this study investigates how classroom infrastructures support teachers' job performance in public pre-primary schools in Shinyanga district of Tanzania.

In India, a quantitative study conducted by Tabassum et al. (2024) examined different types of preschools, including Anganwadi centers, and government and private preschools. This investigation identified that the government and private preschools excelled in infrastructure, safety, and classroom processes, with government preschools slightly edging out private ones. The study recommended that all preschool types should improve their WASH practices and preschool learning, focusing on curriculum delivery and creating a child-friendly environment. While the study highlighted the need for improvements in Anganwadi centers, government and private preschools were also encouraged to enhance their educational practices. However, this research was restricted by a few samples and lacked a detailed exploration of teacher assessment techniques. By addressing this gap, this study used a mixed research approach to investigate how classroom infrastructure influences teachers' job performance in public pre-primary schools in Shinyanga district.

Akudo and Nweke (2024) examine the correlation between classroom facilities' availability and teachers' job effectiveness in public pre-primary schools in Anambra. The study observed a weak correlation between the availability of classroom infrastructure and with effectiveness of teachers, highlighting the need for more investigation into the influence of environmental factors towards the pre-schooling processes. It is recommended in their study that the government should improve the availability of educational facilities through initiatives and policies aimed at enhancing classroom infrastructure to support better teaching performance. However, the study faced limitations, such as the weak

correlation between variables. This research examines how specific aspects of classroom infrastructure influence teachers' job performance.

The study by Burgin and Daniel (2022) examined classroom infrastructure in Ecuador. The study explores the perceptions of elementary school teachers regarding the support provided by classroom infrastructure. Results show that teachers receive inadequate support in terms of space and resources, which hinder their job performance in pre-primary schools. The study recommends improving classroom infrastructure by providing better learning materials, creating safer environments, ensuring appropriate space, and enhancing administrative support. However, this research primarily focuses on administrative and parental factors, lacking a detailed exploration of how physical and resource-based aspects of the classroom impact teaching performance. This study investigates how classroom facilities, such as space, furniture, and resources, influence teachers' capacity to engage and teach effectively.

In Ethiopia, Kassaw and Demareva (2024) examined factors influencing teaching performance. They argue that inadequate classroom facilities, overcrowded classrooms, low emotional resilience, weak academic self-esteem, and excessive social media use were linked to low teacher morale. The study recommends on improving classroom infrastructure, providing sufficient teaching resources, and fostering supportive environments to boost teacher effectiveness and student outcomes. However, the study's reliance on quantitative methods limits the depth of the collected data. By addressing this limitation, the study used a mixed research approach when investigating the contribution of quality classroom infrastructure on teachers' performance in public pre-primary schools in Shinyanga district.

The study conducted by Ainomugisha (2024) aimed to investigated the role of investing in high-quality classroom infrastructure in pre-primary education on workforce productivity in developing countries in Uganda. The research found that high-quality classroom infrastructure improves teachers' and children's skills, leading to better academic performance and job readiness. In contrast, inadequate infrastructure hinders skill development, limiting future employment opportunities and overall educational productivity. The study recommends that governments should prioritize funding and support for high-quality classrooms in pre-primary programs to foster a productive workforce through initiatives such as teacher training, infrastructure improvement, and curriculum development for improved educational outcomes. However, the study's reliance on qualitative research may have limited the depth of information collected. This study addresses this limitation by using both qualitative and quantitative methods to investigate how classroom infrastructure can influence teachers' job performance in public pre-primary schools in Shinyanga district.

Study by Sang (2020) explored the influence of the classroom setting on the learning success of preschool children in the Pioneer Zone, Uasin Gishu County, Kenya. The research revealed that inadequate classroom infrastructure, specifically lack of textbooks and small classroom sizes, significantly led to poor achievement in mathematics among preschoolers in the area. The study suggests that government and educational authorities should prioritize investments in improving classroom infrastructure, such as increasing access to textbooks and constructing larger classrooms, to enhance the teaching and learning environment in early learning. Sang's study focuses on the crucial environmental factors that affect mathematics performance rather than solely on how classroom facilities influence teachers' job performance. Therefore, the current study intended to bridge the gap by examining the influence of classroom infrastructure on teachers' job performance in public pre-primary schools in Shinyanga district.

In Tanzania, Kyarilo (2024) explored classroom management in public and private preschools in Sumbawanga. The research utilizes a combination of numerical and descriptive research methods within a descriptive framework. The findings indicate that effective classroom management is significantly helpful for the effectiveness of teachers and students' learning in public pre-schools. However, the study does not examine the direct impact of physical classroom infrastructure on teacher effectiveness. This study examined the influence of specific aspects of classroom infrastructure on teachers' job performance in public early childhood education institutions in Shinyanga district, Tanzania.

METHODOLOGY

This study employed a mixed research approach, combining quantitative and qualitative methods to gather comprehensive data and provide a deeper understanding of classroom infrastructure in public pre-

primary schools in Shinyanga District. The research design used was an explanatory sequential design, involving two phases of data collection: starting with a quantitative phase followed by a qualitative phase. The sample size consisted of 118 respondents, including 102 teachers, 10 head teachers, 3 Ward Education Officers, 1 District Quality Assurance Officer, 1 Statistics and Logistics Officer, and 1 District Education Officer. Respondents were selected using purposive, stratified, and simple random sampling methods to ensure representation across various categories within the educational sector. Data collection instruments included observations, documentary reviews, questionnaires for teachers, and interview guides for DQAO, DEO, SLO, WEOs, and head teachers. The use of diverse data collection instruments allowed the researcher to gather comprehensive information on classroom infrastructure to enhance teachers' job performance. Both quantitative and qualitative analysis methods were utilized in the study, with SPSS version 23 used for quantitative data analysis and thematic analysis for qualitative data. The researcher conducted a pilot study to refine the instruments before the main study, ensuring the reliability of the instruments at 0.76. Ethical considerations were prioritized, with permission for data collection obtained, informed consent from participants secured, and confidentiality guaranteed.

RESULTS AND DISCUSSION

The researcher aimed to investigate the influence of classroom infrastructure on teachers' job performance in public pre-primary schools. The researcher collected the information from teachers on how classroom infrastructure influence teachers' job performance in public pre-primary schools. The researcher collected data by providing questionnaire to teachers which were to be answered through Likert scale by responding whether they strongly disagree, disagree, agree, or strongly agree. The result from the questionnaire filled by teachers showed that many respondents agree that school physical facilities influence teachers' job performance in public pre-primary schools. Their responses were complemented by the interview conducted with the head teachers, Ward Education Officers, Statistic and Logistic Officer, District Education Officer, and District Quality Assurance Officer in Shinyanga district. Their responses are presented in Table 1.

Table 1. Teachers' response on the influence of classroom infrastructure on teachers' job performance (n=102)

No.	Items	SD		D		A		SA	
		F	%	F	%	F	%	F	%
1.	Availability of classrooms	2	2.0	3	2.9	52	51.0	45	44.1
2.	Classrooms space for teaching	3	2.9	14	13.7	45	44.1	40	39.2
3.	Ventilation system	4	3.9	6	5.9	49	48.0	43	42.2
4.	Allows external noise	2	2.0	6	5.9	50	49.0	44	43.1
5.	Naturally well-lit classrooms	3	2.9	3	2.9	55	53.9	41	40.2
6.	Access to mobility challenges	7	6.9	8	7.8	46	45.1	41	40.2

Source: Field Data (2025)

Table 1 displays the respondents' opinions on the influence of classroom infrastructure on teachers' job performance in public pre-primary schools. The results indicate that 95.1% of respondents agreed that classroom presence affects teachers' job performance positively, while 4.9% disagreed. Moreover, 83.3% of respondents believed that the available classrooms offer sufficient space for teaching activities, with 16.6% expressing disagreement. Additionally, 90.2% of respondents agreed that classrooms provide adequate airflow, which enhances teachers' job performance, while 9.8% disagreed, citing inadequate airflow as a hindrance to comfort during teaching. Furthermore, 92.1% of respondents agreed that classrooms effectively block external noise, allowing for uninterrupted teaching activities, while 7.9% disagreed. In terms of natural lighting, 94.1% of respondents agreed that classrooms are well-lit to support effective teaching, with 5.8% disagreeing, noting insufficient lighting. Lastly, 85.3% of respondents agreed that the constructed classrooms are accessible to teachers with mobility challenges, facilitating job performance, while 14.7% disagreed. Therefore, based on those findings and the information obtained from the quantitative information, there are different sub-themes extracted and explained as follows:

The Availability of Classroom Infrastructure

The findings in Table 1 show that many teachers understand and agree hat classroom infrastructure influence teachers' job performance. As the table above indicates that 97 (95.1%) of the respondents agreed

that there are enough classrooms for pre-primary pupils that enhance teachers' job performance, while 5 (4.9%) of the respondent disagreed with the statement. This implies that most of teachers are morally motivated, and committed as the available classrooms influence them to better perform their daily responsibilities regarding teaching and learning process. The quantitative findings were supported by the qualitative information obtained during the interviews. When the interviewees were asked about the influence of classroom infrastructure on teachers' job performance, one interviewee responded:

> Our school have two classes which are well-established specifically to meet the required standards for pre-primary learning. It is a government effort through the Boost project of 2022/2023. This enables teachers to better organise their daily responsibilities in a supportive context of teaching and learning processes (Interviewee 5, 2nd Jun 2025).

This response means that classroom infrastructure has positive influence on teachers' job performance because classes are sufficient enough to accommodate all pre-primary pupils in a particular school. This contributes in rising teachers morally and reducing attrition from working. Document reviews also confirmed this, with school work-plan, classrooms construction plan, and committees' minutes for schools' infrastructure development. However, through observation, it was evident that classroom infrastructure was adequately available and well-organized to support teaching activities for pre-primary pupils. Most classrooms were structurally sound, equipped with child-friendly furniture, and arranged to promote effective teaching and learning. These findings align with Addie (2025) who underscores that school infrastructure significantly affects both teacher satisfaction and instructional effectiveness, as functional classrooms reduce stress and support better lesson delivery. Similarly, Charnley (2025) found that the availability of well-designed learning classrooms with necessary learning corners directly influence teacher productivity and pupils' outcomes by fostering an organized and motivating teaching environment.

The study findings are also relating to the System Theory by Ludwig Von Bertalanffy in the 1950s which view classroom availability as a key component within the broader educational system. It highlights that classroom infrastructure directly affect teaching performance and overall pupils' engagement. Therefore, when classrooms are insufficient or poorly constructed, it disrupts the balance of the system, affecting not only pupils but also teaching activities. According to the theory, all parts of the system must function effectively and harmoniously, meaning that school infrastructure and teaching activities must align with the international standards of the pupils needs. Therefore, lack of relevant pupils' classrooms signals a breakdown in the system that requires immediate intervention

Adequate Spaces for Teaching Activities

The researcher intended to determine classrooms spaces in supporting teachers' job performance in public pre-primary schools. The responses in Table 1 reported as follows; 85 (83.3%) of the respondents agreed that the available classrooms have enough space that allow movement of pupils and teachers in the classroom during teaching and learning processes. On the other hand, 17 (16.6%) of the respondents disagreed with the statement that classrooms were constructed to meet the required standards of learning spaces for early pupils. This means that classrooms were constructed based on required criteria that require pre-primary classes to have enough space for pupils and their teacher to move from one learning corner to another. Also, the findings align with System Theory developed by Ludwig Von Bertalanffy in the 1950s by arguing that in the pre-primary education context adequate classroom space is a crucial sub-system that directly influences teaching performance as it allows free movement within the classroom enabling better classroom management, individualised attention, and flexible teaching strategies. In the same argument, when interviewees were asked whether classrooms spaces are enough for teaching activities, one interviewee was quoted saying:

> The space in our classrooms is adequate as it allows teachers to organize different learning corners without feeling restricted. Teachers can move freely to support each child especially during learning activities. This flexibility helps teachers to manage the class better and keeps the pupils engaged. Honestly, it makes teaching more effectively and enjoyable (Interviewee 3, 6th Jun 2025).

This quotation implies that, adequate classroom space positively impacts teachers in performing their daily responsibilities. It enables classroom organization and supports learning activities as teachers can move freely while providing better support to pupils. The findings are

consistent with the results of Kong (2022) who found that a well-designed learning space allocation directly impacts teachers' ability to manage the classroom, move around freely, and engage with learners individually, all of which enhance instructional quality. In line with this, Oyaro (2025) found that in early learning environments, spacious classrooms contribute to more active teaching strategies and effective classroom management, boosting both teacher morally and pupils' engagement. Thus, both empirical data and supporting literature confirm that well-sized classrooms are not just a physical requirement but a pedagogical necessity in enhancing teaching performance.

Adequate Airflow Through Ventilation Systems

The findings in Table 1 indicate that 92 (90.2%) of the respondents agreed that good ventilation enhances classroom comfort. Proper airflow is essential for creating a healthier teaching environment and reducing fatigue for both teachers and students. On the other hand, 10 (9.8%) of the respondents disagreed, suggesting that the current ventilation systems may not provide adequate airflow in classrooms. This highlights the importance of well-ventilated rooms in promoting attentiveness and participation among students, while also helping teachers to stay energetic and focused during lessons. Ludwig von Bertalanffy's System Theory, developed in the 1950s, emphasizes the interconnectedness of all parts of a system, where the functioning of one part impacts the entire system. Good ventilation is a critical component of the broader educational system. Well-ventilated classrooms create a healthier and more comfortable environment, directly benefiting teachers' physical well-being and cognitive function. This improved comfort leads to enhanced job performance for teachers, as it reduces fatigue, enhances concentration, and lowers stress levels. In a similar argument, when a researcher asked interviewees to explain the condition of airflow in classrooms through ventilation systems, one had this to say:

> Airflow in our classrooms really improves teaching environment as it keeps the classroom cool and fresh which helps both teachers and children stay active and focused. Honestly, we rarely experience comfortability during lessons especially during wet seasons (Interviewee 9, 4th Jun 2025).

This reveal that proper airflow in classrooms significantly enhances teachers' job performance as it highlights the role of ventilation in maintaining a cool and fresh atmosphere. When classrooms are well-ventilated, both teachers and pupils remain physically comfortable, reducing fatigue and distractions. Therefore, it is evident that good ventilation enhances classroom comfort and performance, and aligns with extensive literature emphasizing the importance of indoor air quality in education setting. This also is insisted by Mabwe (2021) who acknowledges that adequate ventilation in classrooms significantly reduces symptoms of fatigue, improves concentration, and enhances teachers' job performance. Similarly, the study by Burgin and Daniel (2022) demonstrates that teachers working in well-ventilated classrooms experience fewer health complaints and greater attentiveness, contributing to sustained instructional quality throughout the school day.

Classrooms Design Allowing External Noises

Most of the respondents revealed that noise proofed classroom design enhances teachers job performance. This is revealed in Table 1 which indicate that 94 (92.1%) of the respondents agreed that noise from outside can interfere with classroom activities. This underscores the need for well-constructed classrooms that reduce distractions from external environment especially schools located near roads and markets. 8 (7.9%) of the respondents disagreed that noises from outside the classrooms does not interfere the classrooms teaching activities. Thus, a large number of respondents agreed with the statement that noises from external environment interfere the classroom activities. One interviewee was quoted commenting:

> Our schools near markets, roads and the noise from passing vehicles in the district makes it hard for teachers to teach and pupils to listen because noise interference disrupts concentration, hampers communication, and affects both teaching delivery and pupils understanding. Therefore, teachers in noisy classrooms often find it difficult to maintain student attention and control the learning pace (Interviewee B, 10th Jun 2025).

This implies that there is a need for better physical classroom infrastructure that minimizes external noise interference. Ensuring soundproof or noise-resistant construction is essential for creating a constructive teachers' job performance. The findings are supported by a study of Akudo and Nweke (2024) who commend that excessive external noise such as traffic, markets or playgrounds significantly disrupt verbal communication in classrooms, making it harder for teachers to convey

instructions and maintain pupil's focus. Supporting this, Ainomugisha (2024) found that persistent noise exposure leads to increased teacher stress and vocal strain, while simultaneously impairing pupils' attention, memory, and overall teaching effectiveness. Therefore, these findings and supporting literature underscore that soundproof or well-insulated classroom designs are necessary for schools especially in urban or noisy areas to support teachers' well-being and enhancing the teaching environment.

Naturally Well-Lit Classrooms

In determining the naturally well-lite classrooms on enhancing teachers job performance, most of the respondents exposed that naturally well-lit classrooms are connected to teachers' job performance. This is revealed from the finding in Table 1 which shows that 96 (94.1%) of the respondents agreed that classrooms are well-lit for better teaching activities as it reduces eye strain, enhance visibility and contribute to a positive teaching environment. Moreover, 6 (5.8%) of the respondents disagreed with the statement. This implies that, the construction of naturally well-lit classrooms creates conducive environments that support teachers in carrying out their daily responsibilities more efficiently.

The findings are consistent with the System Theory developed by Ludwig Von Bertalanffy in 1950s. The finding relates with the theory in the sense that naturally well-lit classrooms in pre-primary schools positively enhances teachers' job performance depending on the collaboration among the education stakeholders from their different levels of education authorities. The founder of this theory believes that there is no organization without physical infrastructures generated from the collective responsibility of every individual.

During the interview, when interviewees were asked about the influence of natural light through classroom design on teachers' job performance, one of the interviewees had the following comment:

> Our district and government, together have effectively invested in classrooms design and infrastructure that align with national and international standards that are appropriate for pre-primary education which supports daily teachers' responsibilities in school setting (Interviewee B, 10th Jun 2025).

This implies that there are efforts made by the government and other education stakeholders for effective investments in the construction of classroom infrastructures which meet national and international standards for pre-primary education. The findings are supported by Eneiga (2024) who found that classrooms with ample natural light improve not only student achievement but also support teachers' visual comfort and mood, reducing fatigue and increasing engagement. Additionally, Braun (2023) asserts that natural lighting reduces eye strain and fosters a more pleasant teaching environment, which can positively affect instructional quality and emotional well-being. Unlike, the information from the interview; as quoted from one interviewee who narrated:

> From my experience, our classrooms still struggle with natural lighting, especially during cloudy days due to their small size, poor construction, and limited windows. We acknowledge that some improvements have been made, but generally, the majority of our structures do not fully meet the standards expected for pre-primary education. However, a few newer classrooms may be better lit, the majority fall short of the recommended construction standards, although, it is important that such feedback informs future planning and renovation efforts (Interviewee 7, 3rd Jun 2025).

The quotation implies that, classrooms lacked adequate natural lighting due to poor construction. This concern is reinforced by head teachers' observation, highlighting issues like small room size, limited windows, and substandard infrastructure. The implication is that most classrooms do not meet the recommended standards for pre-primary pupils. The findings comply with the study done by Lombo and Subban (2024) which recommends that factors like classroom size, window placement, and lighting conditions directly affect pupil engagement and teachers' job performance. Furthermore, Ayeni et al. (2025) underscore that classrooms which are poorly built, small, and lacking natural light fail to ensure safety, accessibility and stimulation for pre-primary pupils.

Accessibility to Teachers with Mobility Challenges

In determining the possibility of classrooms in supporting teachers with mobility challenges, the findings in Table 1 revealed that 87 (85.3%) of the respondents recognizes the importance of classroom infrastructure that accommodates teachers with mobility challenges. Therefore, they respectively agreed with the statement that the available classrooms are accessible to the teachers who face mobility challenges while 15 (14.7%) of the respondents

disagreed with the statement that classrooms do not support the accessibility to teachers with mobility challenges. Thus, these responses indicate that classroom infrastructure are inclusive classrooms that support staff with mobility challenges by ensuring ramps, wide doorways, and appropriate seating arrangements. This improves teachers morally by fostering an equitable teaching environment and reducing stress related to assisting physically challenged teachers. Additionally, when the interviewees were asked about the classrooms supporting teachers with mobility challenges, one interviewee gave the following remark:

> Our school has made significant strides in ensuring classroom accessibility for teachers with mobility challenges. We have implemented inclusive infrastructure such as ramps, wide doorways, and well-arranged seating, which have really made a difference. It does not only allow all our teachers to perform their duties effectively but also fosters a sense of belonging and equality. This has noticeably boosted morale and reduced the stress that previously came with mobility-related limitations (Interviewee 1, 5th Jun 2025)

The quoted information suggests that, inclusive classroom infrastructure positively influences staff well-being and teachers' job performance, especially for teachers with mobility challenges. During observation, it was evident that most classrooms were designed with inclusivity in mind, particularly to support teachers with mobility challenges. Ramps were present at the entrances of several classroom blocks, and doorways were noticeably wide enough to allow wheelchair access. Seating arrangements within the classrooms were also adjusted to create sufficient space for movement and comfort. This led to improved teachers, retention, better job performance, and stronger institutional culture of equity and respect.

Similarly, Ali et al. (2025) points out that, accessible design such as ramps, wide doorways, and adaptive classroom layout not only benefits individuals with mobility impairments but also promotes a universally inclusive culture that enhances job satisfaction and participation. Furthermore, Gurion and Limbong (2022) noted that when schools adopt barrier-free designs, they support the professional autonomy and morale of staff with disabilities, reducing stress and reinforcing equity in the workplace. Therefore, it is evident that accessible classroom infrastructure underscores the critical role of inclusivity in promoting equal opportunities for all teachers.

CONCLUSION

From the findings this study concludes that; classroom infrastructure plays enhance teachers' job performance in public pre-primary schools. Well-structured, spacious, and well-ventilated classrooms improve teacher morale, enable effective classroom management, and support diverse teaching strategies. Natural lighting helps reduce fatigue and improve visibility, while inclusive designs accommodate teachers with mobility challenges, promoting equal participation. However, issues like poor lighting, external noise, and unequal infrastructure quality still hinder optimal performance. Stakeholders and theoretical frameworks affirm that infrastructure and teaching effectiveness are deeply interconnected. Observations confirmed that better infrastructure leads to more engaged teaching and improved learning. To foster greater improvement, continued and equitable investment in classroom infrastructure is recommended to meet both national and international standards.

RECOMMENDATION

Based on the findings, the study recommends that teachers should actively participate in identifying and reporting physical inadequacies in their classrooms, such as inadequate furniture, poor lighting, and lack of teaching aids. This can be achieved by maintaining accurate records of the school environment's condition and suggesting practical improvements. Teachers should also promote a culture of cleanliness and care for school property to preserve existing facilities. Similarly, head teachers should conduct regular inspections of infrastructure and submit timely reports to the relevant authorities. They should effectively budget and transparently use the school's funds, such as capitation grants, for minor renovations and facility upgrades. Collaboration with school committees and the community is essential to prioritize facility improvement projects and mobilize local support for construction or repair work, fostering ownership and sustainability.

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