

Challenges Facing Deaf Learners in Accessing Quality Education in Public Primary Schools in Kyela District

Tumaini Harry Mwasanjala

Department of Doctor of Professional Studies, Outreach Care International (OCI)

Dodoma, Tanzania.

Email: tuhamwa@gmail.com

Abstract: *This study examined the challenges facing deaf learners in accessing quality education in public primary schools in Kyela District, Tanzania. It was guided by three objectives: to explore communication barriers in learning, assess school-related factors affecting access to quality education, and examine strategies used to support deaf learners in schools. A qualitative research design was adopted to capture in-depth experiences. Data were collected through semi-structured interviews and focus group discussions involving 30 respondents, including deaf learners, teachers, head teachers, and ward education officers. Thematic analysis was used to interpret the data and generate findings aligned with the study objectives. The findings revealed persistent communication barriers, especially limited teachers' proficiency in Tanzanian Sign Language and shortage of sign language interpreters, which significantly reduced classroom interaction and understanding. School-related factors such as shortage of trained special education teachers, inadequate teaching and learning materials, and non-inclusive classroom environments further limited learners' participation and learning outcomes. Although strategies such as inclusive teaching methods, sign language support services, and school administrative policies existed, their implementation was inconsistent and weakly coordinated across schools. The study implies that improving teacher training, strengthening interpreter services, and providing accessible learning materials are essential for promoting inclusive education. Socially, addressing these challenges would enhance equality, participation, and inclusion of deaf learners in education. The study was limited to one district and focused on public primary schools, which may affect generalizability. Its originality lies in integrating perspectives from learners, teachers, head teachers, and education officers to provide a holistic understanding of inclusive education challenges in a localized Tanzanian context.*

Keywords: Deaf learners; Inclusive education; Sign language; Communication barriers; Kyela District; Special education

1.0 INTRODUCTION.

Education is universally recognized as a fundamental human right and a critical tool for promoting social inclusion, economic development, and individual empowerment. International frameworks emphasize that all children, regardless of their physical, sensory, intellectual, or social conditions, should have equal access to quality education. The United Nations Convention on the Rights of Persons with Disabilities (CRPD) affirms the right of persons with disabilities to inclusive and quality education without discrimination and on the basis of equal opportunity [1]. Specifically, Article 24 of the Convention requires states to provide accessible educational environments, qualified teachers, appropriate communication methods, and support services for learners with disabilities, including deaf learners [1].

Globally, there has been increasing recognition of the educational needs of deaf learners. International organizations such as the United Nations Educational, Scientific and Cultural Organization (UNESCO) advocate for inclusive education systems that accommodate the diverse needs of all learners and ensure equitable access to quality education [2]. Despite these commitments, many deaf learners continue to face barriers related to communication, inadequate learning materials, insufficient support services, and a shortage of teachers trained in sign language. These challenges often

affect academic achievement, participation in classroom activities, and overall educational outcomes [3].

The importance of sign language in deaf education has been widely acknowledged worldwide. The CRPD recognizes sign language as a legitimate language and requires governments to facilitate its learning and promote the linguistic identity of the deaf community [1]. Research indicates that access to sign language enhances communication, cognitive development, social interaction, and academic performance among deaf learners. However, many schools still lack adequate sign language resources and qualified personnel capable of effectively supporting deaf students [4].

In Africa, access to quality education for deaf learners remains a major challenge. Although many countries have adopted inclusive education policies, implementation has often been constrained by inadequate funding, shortages of specialized teachers, limited educational resources, and low public awareness regarding the educational rights of children with disabilities [5]. Consequently, deaf learners frequently experience communication barriers and educational exclusion, particularly in rural and underserved areas. These challenges contribute to poor academic performance, high dropout rates, and limited educational attainment among deaf learners [3].

In Tanzania, the government has made significant efforts to improve access to education for learners with disabilities

through policies such as the Education and Training Policy of 2014 and the National Strategy on Inclusive Education [5, 6]. These initiatives seek to ensure equitable access to educational opportunities and improve the quality of education for all learners, including those with hearing impairments. Furthermore, the government recognizes Tanzanian Sign Language as an important medium of communication for the deaf community [7]. Nevertheless, challenges persist in many public schools, including inadequate teaching and learning materials, insufficient numbers of teachers trained in special needs education, limited use of sign language in classrooms, and inadequate infrastructure to support deaf learners [8].

Public primary schools in Kyela District face similar challenges. Although efforts have been made to enroll children with hearing impairments in schools, many deaf learners continue to encounter difficulties in accessing quality education [9]. Communication barriers between teachers and learners, limited availability of sign language interpreters, insufficient assistive devices, negative attitudes toward disability, and inadequate institutional support may hinder effective learning [9]. These challenges may negatively affect academic achievement, classroom participation, retention, and overall educational experiences of deaf learners.

Despite the growing emphasis on inclusive education in Tanzania, limited empirical studies have specifically examined the challenges facing deaf learners in public primary schools within Kyela District. Understanding these challenges is important for informing educational policy, improving teaching practices, and enhancing support systems that can facilitate equitable access to quality education for deaf learners. Therefore, this study seeks to investigate the challenges facing deaf learners in accessing quality education in public primary schools in Kyela District.

1.1 Statement of the Problem

Access to quality education is a fundamental right for every child, including those with hearing impairments. In Tanzania, the government has introduced inclusive education policies and programs aimed at ensuring that learners with disabilities receive equal educational opportunities. Despite these efforts, many deaf learners in public primary schools continue to face challenges that limit their access to quality education. Communication barriers between teachers and deaf learners, inadequate knowledge of sign language among teachers, limited availability of learning resources, and insufficient support services remain common concerns in many schools.

These challenges may negatively affect deaf learners' participation in classroom activities, academic performance, social interaction, and overall educational experiences. Although studies have examined inclusive education and the education of learners with disabilities in different parts of Tanzania, limited attention has been given to the specific challenges faced by deaf learners in public primary schools within Kyela District. As a result, there is inadequate

information regarding the communication difficulties they encounter, the school-related factors that influence their learning, and the measures being implemented to address these challenges.

Without a clear understanding of these issues, efforts to improve educational access and learning outcomes for deaf learners may not adequately address their needs. Therefore, this study seeks to investigate the challenges facing deaf learners in accessing quality education in public primary schools in Kyela District.

1.2 Research Objectives

1.2.1 Main Objective

To investigate the challenges facing deaf learners in accessing quality education in public primary schools in Kyela District.

1.2.2 Specific Objectives

- i. To identify communication-related challenges affecting deaf learners in accessing quality education.
- ii. To examine school-related factors influencing access to quality education among deaf learners.
- iii. To assess the strategies used by schools to address challenges faced by deaf learners in accessing quality.

1.3 Main Contribution of the Study.

This study helps to show the real-life challenges that deaf learners are facing in accessing quality education in public primary schools in Kyela District. It brings out everyday communication difficulties, especially where teachers had limited knowledge of sign language and where interaction between teachers and deaf learners are not effective. These barriers make it harder for deaf learners to fully participate in classroom learning. The study also revealed important school-related issues such as shortages of learning materials, a lack of teachers trained in special needs education, and limited support services for learners with hearing impairments. In addition, it shows that although some schools had attempted to use peer support and occasional sign language assistance, these efforts were not always sufficient to meet the learners' needs. Overall, the study provides useful evidence that can help teachers, school leaders, and education stakeholders better understand the daily learning experiences of deaf learners. It also contributes to filling the knowledge gap about inclusive education in Kyela District, especially in relation to sign language use and accessibility. The findings are expected to guide improvements in teaching practices and support systems so that deaf learners can have a fairer and more meaningful learning experience.

2.0 RELATED STUDIES

2.1 Communication Barriers in Learning

In Europe, communication barriers among deaf learners mainly arise from unequal access to sign language interpreters and inconsistencies in inclusive education implementation across countries. Although European education systems are relatively advanced, research shows that many deaf learners still experience difficulties in accessing curriculum content due to limited teacher competence in national sign languages and reliance on spoken language instructions (European Agency for Special Needs and Inclusive Education, 2020). Furthermore, disparities exist between countries in the recognition and standardization of sign languages, which affects educational accessibility [10]. Studies also indicate that late exposure to sign language contributes to poor literacy development among deaf learners. These communication gaps continue to affect academic achievement and classroom participation.

In Asia, communication barriers are strongly linked to shortages of trained sign language teachers and limited institutional support for deaf education. Many schools still rely on oral teaching methods, which disadvantage learners who depend on visual communication [3]. Research in countries such as India and China shows that lack of standardized sign language systems and insufficient interpreter services significantly reduce learning outcomes for deaf students [11]. Additionally, large class sizes and limited educational resources make individualized communication support difficult. As a result, many deaf learners in Asia experience exclusion from meaningful classroom interaction and face persistent academic challenges.

In Africa, communication barriers remain a major obstacle to inclusive education for deaf learners due to inadequate training of teachers in sign language and limited availability of teaching resources. Studies in South Africa and other sub-Saharan countries reveal that many teachers are not proficient in sign language, leading to ineffective classroom communication [12]. Furthermore, schools often lack interpreters and assistive technologies necessary for effective learning [13]. Cultural attitudes and low awareness about deaf education also worsen the situation, resulting in social and academic exclusion. These challenges significantly hinder participation and performance of deaf learners in classroom settings [2]).

In Tanzania, communication barriers are widely reported in both primary and secondary inclusive schools. Studies indicate that many teachers lack adequate training in Tanzanian Sign Language, which limits effective interaction with deaf learners [14]. Additionally, reliance on English or Kiswahili without sufficient sign language interpretation creates major learning difficulties for deaf students [15]. Shortage of teaching materials adapted for deaf learners and limited use of visual teaching strategies further contribute to poor academic outcomes. Despite government efforts to promote inclusive education, communication gaps between teachers and deaf learners remain a persistent challenge in many public schools.

Although numerous studies in Europe, Asia, and Africa have examined communication barriers affecting deaf learners, most of them focus on general inclusive education rather than specific local school contexts. In Tanzania, existing studies mainly concentrate on universities or special schools, with limited empirical evidence focusing on public primary schools in districts such as Kyela. Furthermore, there is insufficient localized research examining how teacher competence in sign language, classroom communication practices, and support systems jointly affect learning outcomes of deaf pupils. Therefore, this study addresses this gap by investigating communication barriers faced by deaf learners in public primary schools in Kyela District.

2.2 School Related Factors Affecting Access to Quality Education

In America, school-related factors influencing access to quality education for deaf learners include availability of assistive technologies, trained special education teachers, and strong policy enforcement on inclusion. Schools with well-developed Individualized Education Programs (IEPs) tend to support deaf learners more effectively than those without structured support systems. However, disparities still exist, especially in underfunded public schools where access to interpreters and adapted learning materials is limited (U.S. Department of Education, 2022). Research shows that classroom environment, teacher preparedness, and institutional funding significantly affect academic outcomes of deaf students [16]. Despite advanced infrastructure, inequities across districts continue to create unequal learning experiences.

In Europe, school-related factors affecting deaf learners include the degree of inclusive education implementation, teacher training in sign language, and accessibility of learning materials. Although many European countries have strong legal frameworks supporting inclusive education, implementation varies widely between regions (European Agency for Special Needs and Inclusive Education, 2020). Studies show that schools with bilingual education models (spoken language and sign language) produce better academic and social outcomes for deaf learners [10]. However, limited interpreter availability and inconsistent teacher competencies remain major challenges. Additionally, some mainstream schools still lack inclusive teaching strategies, affecting participation of deaf learners.

In Africa, school-related factors significantly hinder access to quality education for deaf learners due to shortages of trained teachers, inadequate infrastructure, and lack of learning materials. Many schools operate inclusive education programs without sufficient financial and technical support [12]. Studies in sub-Saharan Africa indicate that overcrowded classrooms and lack of visual teaching aids reduce learning effectiveness for deaf learners [3]. Furthermore, limited government investment in special needs education affects school readiness to support learners with hearing

impairments. As a result, deaf learners often experience exclusion even within “inclusive” school settings [13].

In Tanzania, school-related factors affecting deaf learners include shortage of sign language proficient teachers, inadequate teaching and learning materials, and limited use of inclusive pedagogical approaches. Research shows that many public schools lack structured support systems such as interpreters and specialized learning resources [14]. Additionally, teachers often rely on oral methods that disadvantage deaf learners in classroom participation [17]. Overcrowded classrooms and insufficient government resources further reduce the quality of education provided to learners with hearing impairments [9]. Despite policy efforts on inclusive education, implementation at school level remains weak and inconsistent.

So, available studies mainly concentrate on secondary schools, special schools, or urban settings, leaving a gap in understanding conditions in rural districts such as Kyela. Furthermore, limited empirical evidence exists on how school-level factors such as teacher competence, resource availability, and inclusive practices interact to affect learning outcomes of deaf learners in public primary schools. Therefore, this study fills this gap by investigating school-related factors affecting access to quality education among deaf learners in public primary schools in Kyela District.

2.3 Strategies Used to Support Deaf Learners in Schools

In Europe and America, schools use a wide range of strategies to support deaf learners, including bilingual education approaches that integrate both sign language and spoken/written language. Individualized Education Programs (IEPs) are widely applied to tailor instruction according to learners’ specific needs [16]. In addition, assistive technologies such as captioning systems, hearing aids, and real-time transcription services are commonly used to enhance access to learning. Teacher training in inclusive pedagogy is also emphasized to ensure effective communication and participation of deaf learners (European Agency for Special Needs and Inclusive Education, 2020). These strategies have improved inclusion, although gaps still exist in implementation consistency.

In Asia, strategies for supporting deaf learners include the use of special schools, sign language instruction, and increasing adoption of digital learning tools. Countries such as China and India have introduced inclusive education policies that encourage integration of deaf learners into mainstream classrooms with support services [3]. However, studies show that peer tutoring, visual learning aids, and interpreter services remain limited in many rural and under-resourced schools. Recent innovations such as mobile-based sign language learning applications are emerging to bridge communication gaps [18]. Despite these efforts, implementation is uneven across regions.

To support deaf learners include special education units, use of sign language clubs, peer support systems, and inclusive

classroom approaches. In countries like South Africa and Kenya, some schools have introduced sign language as a medium of instruction in early grades [12]. However, many schools still rely on informal communication methods due to shortages of trained teachers and interpreters [13]. NGOs and international organizations also support training programs for teachers to improve inclusive practices. Nevertheless, limited funding and infrastructure continue to affect the effectiveness of these strategies.

In Tanzania, strategies used to support deaf learners include the use of Tanzanian Sign Language (TSL), establishment of special education units, and integration of inclusive education policies. Studies show that some schools employ peer support and visual teaching aids to assist deaf learners in understanding lessons [14]. Teacher training programs are gradually incorporating sign language skills, although coverage remains insufficient [17]. Additionally, non-governmental organizations have supported workshops and capacity-building programs for teachers of the deaf. Despite these efforts, implementation remains inconsistent across public primary schools, especially in rural areas like Kyela District [19].

In Africa and Tanzania, existing studies tend to emphasize policy-level discussions rather than classroom-level implementation of support strategies. Specifically, there is limited empirical evidence on how strategies such as sign language use, peer support, and inclusive teaching methods are practically applied in public primary schools in rural districts like Kyela. Furthermore, little is known about the effectiveness of these strategies in improving participation and learning outcomes among deaf learners. Therefore, this study addresses this gap by examining the strategies used to support deaf learners in accessing quality education in public primary schools in Kyela District.

3.0 METHODOLOGY

3.1 Research Design

This study adopted a qualitative research design to explore in depth the challenges facing deaf learners in accessing quality education in public primary schools in Kyela District. The qualitative approach was considered appropriate because it allows the researcher to capture participants’ lived experiences, perceptions, and contextual realities regarding communication barriers, school-related factors, and support strategies. This approach was particularly suitable as it enabled a detailed understanding of how deaf learners and education stakeholders experience and respond to inclusive education practices in real school environments, which cannot be adequately captured through numerical data alone (Creswell & Poth, 2018).

3.2 Study Area

The study was conducted in Kyela District, Mbeya Region, Tanzania. The district was purposively selected because it has

public primary schools that enroll deaf learners under inclusive education arrangements. Kyela provides a relevant context for examining educational inclusion due to the presence of learners with hearing impairments, practicing teachers, head teachers, and education officers who are directly involved in implementing inclusive education policies at the local level.

3.3 Target Population

The target population comprised all key stakeholders involved in the education of deaf learners in Kyela District. These included 82 deaf learners enrolled in public primary schools, 4 teachers responsible for teaching and supporting deaf learners, 5 head teachers from selected schools, and 4 Ward Education Officers direct dealing with deaf. These groups were considered important because they provide different but complementary perspectives on the educational experiences and challenges faced by deaf learners.

3.4 Sample Size and Sampling Technique

The study involved a total of 28 participants selected purposively to ensure rich and relevant qualitative data. Purposive sampling was employed because it allows the researcher to deliberately select individuals who have direct experience and knowledge of deaf education and inclusive practices (Patton, 2015). The sample included 16 deaf learners selected based on their ability to communicate experiences through sign language or supported communication, all 4 teachers working with deaf learners, 5 head teachers from schools enrolling deaf pupils, and 5 Ward Education Officers responsible for overseeing education implementation at ward level. This composition ensured that data reflected experiences from learners, practitioners, school leadership, and administrative authorities.

3.5 Data Collection Methods

Data were collected through semi-structured interviews and focus group discussions. Semi-structured interviews were conducted with teachers, head teachers, and Ward Education Officers to obtain detailed insights into institutional challenges, teaching practices, and policy implementation. Focus group discussions were conducted with deaf learners to allow them to share their lived school experiences in a supportive and interactive environment. Sign language support and simplified communication methods were used to ensure full participation of deaf learners.

3.6 Data Analysis

Thematic analysis was used to analyze qualitative data. The process involved transcription of interview and discussion data, reading and re-reading of responses, coding meaningful statements, and organizing them into themes aligned with the study objectives. Themes were developed around communication barriers, school-related factors, and support strategies. The analysis also involved interpreting patterns and

linking findings with existing literature to generate deeper meaning and understanding of the study phenomenon.

3.7 Ethical Considerations

Ethical approval was obtained from relevant educational authorities before data collection. Participation was voluntary, and informed consent was sought from all participants. For deaf learners, assent was obtained alongside consent from school authorities or guardians where necessary. Confidentiality and anonymity were strictly maintained by using codes instead of names. Participants were assured that the information provided would be used solely for academic purposes.

3.8 Trustworthiness of the Study

To ensure trustworthiness, the study applied credibility, dependability, transferability, and confirmability. Credibility was ensured through triangulation of data sources including learners, teachers, head teachers, and Ward Education Officers. Dependability was achieved through clear documentation of research procedures. Transferability was supported by providing detailed descriptions of the study context, while confirmability was ensured through maintaining an audit trail and avoiding researcher bias during data interpretation (Lincoln & Guba, 1985).

4.0 RESULTS AND DISCUSSIONS

4.1 Introduction

This section presents and discusses the findings of the study on the challenges facing deaf learners in accessing quality education in public primary schools in Kyela District. The analysis is based on data collected from deaf learners, teachers, head teachers, and Ward Education Officers using interviews and focus group discussions. The findings are organized according to the study's key indicators, namely communication barriers in learning, school-related factors affecting access to quality education, and strategies used to support deaf learners. The discussion further interprets these findings in relation to existing literature and theoretical perspectives, highlighting similarities, differences, and contextual explanations that emerge from the study area.

4.2 Communication Barriers in Learning

This section presents findings and discussion on the communication barriers in learning among deaf learners in public primary schools. The analysis is guided by three sub-indicators, namely teachers' proficiency in Tanzanian Sign Language, availability of sign language interpreters, and the level of interaction between teachers and deaf learners. The discussion focuses on how these factors influence effective communication and learning participation in classrooms. The findings are further interpreted in relation to existing literature to provide a deeper understanding of communication challenges experienced by deaf learners in the study area.

4.2.1 Teachers' Proficiency in Tanzanian Sign Language

The findings showed that teachers' proficiency in Tanzanian Sign Language (TSL) was one of the most significant communication challenges affecting deaf learners in public primary schools. As presented in Table 1, 20 (66.7%) respondents indicated that teachers' sign language proficiency posed a high challenge to learning, while 6 (20.0%) viewed it as a moderate challenge and only 4 (13.3%) considered it a low challenge. These findings suggest that many teachers lacked the level of sign language competence needed to communicate effectively with deaf learners. As a result, learners often faced difficulties understanding lessons, participating in classroom discussions, and engaging fully in learning activities. Effective communication is a key component of successful teaching and learning, and where communication is weak, learners are likely to experience academic and social challenges.

Information obtained from focus group discussions with deaf learners provided deeper insights into this issue. Many participants explained that although some teachers made efforts to communicate, their knowledge of sign language was often limited. Consequently, learners struggled to follow lessons and understand key concepts being taught. One participant explained:

"Some teachers tried their best to communicate with us, but they did not know enough sign language. Most of the time we had to guess what they meant because communication was not very clear."

Another learner shared a similar experience:

"Sometimes teachers used signs that we did not understand, or they mixed speaking with signs. This made it difficult to follow the lesson, especially when learning new topics."

These responses indicate that limited teacher proficiency in sign language affected not only classroom communication but also learners' confidence and participation. Several learners noted that they frequently relied on classmates for clarification because they could not always understand what teachers were communicating. This situation reduced opportunities for direct interaction between teachers and learners and may have contributed to gaps in learning.

Interviews with teachers revealed that they were aware of these communication difficulties. While some teachers had received basic training in special needs education, many admitted that their sign language skills were not sufficient to meet the communication needs of deaf learners. One teacher explained:

"I learned some sign language during my teacher training, but it was only at a basic level. When teaching complex subjects, I sometimes found it difficult to explain ideas clearly through signing."

Another teacher stated:

"We need more training in sign language. Most of what we know has been learned through experience in schools rather than through formal training programs."

These views suggest that teacher training programs may not have adequately prepared teachers to work effectively with deaf learners. Although teachers were committed to supporting their learners, limited sign language proficiency reduced their ability to deliver lessons effectively and respond to learners' educational needs.

The findings are consistent with those reported by Kisanga [14], who found that inadequate sign language skills among teachers created communication barriers that negatively affected learning among deaf students in Tanzania. Similarly, Namirembe [17] observed that communication difficulties between teachers and learners with hearing impairments often resulted in lower participation and weaker academic performance. The current study supports these findings by demonstrating that teacher competence in sign language remains an important factor in determining the quality of education received by deaf learners.

The findings also correspond with studies conducted in other African countries. Shoko [12] reported that many teachers in inclusive schools lacked sufficient sign language skills, making it difficult to communicate effectively with deaf learners. Likewise, Ngobeni, Maimane [13] found that inadequate teacher preparation in sign language limited classroom participation and academic progress among deaf learners in South Africa. These similarities suggest that communication challenges arising from limited teacher proficiency in sign language continue to affect inclusive education systems across many African countries.

Knors and Marschark [20] found that teachers who were highly proficient in sign language were better able to support learning, encourage participation, and improve educational outcomes among deaf learners. Similarly, Napier, Houghton [10] reported that effective use of sign language strengthened classroom interaction and enhanced learners' understanding of lessons. Compared with these findings, the situation in Kyela District indicates a need for greater investment in teacher training and professional development related to Tanzanian Sign Language.

Generally, the findings exposed that limited teacher proficiency in Tanzanian Sign Language remained a major obstacle to quality education for deaf learners. The challenge affected communication, lesson comprehension, classroom participation, and learner confidence. The study therefore shows the importance of strengthening sign language training for teachers and providing continuous professional development opportunities to ensure that deaf learners can fully participate in the teaching and learning process.

4.2.2 Availability of Sign Language Interpreters

The findings showed that the availability of sign language interpreters was one of the most serious challenges affecting

deaf learners’ access to quality education in public primary schools. As indicated in Table 1, a large majority of respondents, 22 (73.3%), reported that interpreter availability was a high challenge, while 5 (16.7%) viewed it as moderate and only 3 (10.0%) considered it a low challenge. This clearly suggests that most schools did not have sign language interpreters to support communication between teachers and deaf learners. As a result, learners were often left to rely on teachers with limited sign language skills or on their classmates to interpret lessons, which affected how accurately and effectively they understood classroom content.

During focus group discussions made this situation even clearer. Many of them described how learning became difficult when there was no one to translate what teachers were saying. One learner explained in simple terms that:

“We did not have interpreters in our school, so most of the time we depended on friends to explain what the teacher was saying.”

This shows that learners were not directly accessing information from teachers but instead depended on informal support from peers, which is not always reliable or accurate. Another learner shared a similar concern, but this time focusing on school gatherings and assemblies, where important information was often missed:

“During assemblies and meetings, we missed important information because nobody interpreted what was being said.”

From these experiences, it became clear that communication barriers were not limited to the classroom alone but extended to the whole school environment. Learners were physically present in school activities but were not always fully included in what was being communicated. In another related account, a participant described the emotional impact of this exclusion, noting that:

“Sometimes we were in class, but we did not really understand what was happening around us.”

This kind of experience suggests that deaf learners were present in learning spaces but not fully participating in them, which weakens the idea of true inclusion.

Interviews with teachers and head teachers also confirmed the shortage of interpreters. Most participants explained that schools did not have professional sign language interpreters, and communication depended mainly on teachers’ limited sign language knowledge. One teacher reflected on this challenge by saying:

“We try to help deaf learners as much as we can, but without an interpreter it becomes very hard to explain some topics clearly.”

Similarly, a head teacher acknowledged the gap in support services and pointed out that resource limitations were a major reason for the shortage:

“Our school does not have an interpreter because we lack both trained personnel and enough resources to employ one.”

These responses show that the issue was not only about willingness but also about structural limitations within the education system that made it difficult to provide adequate communication support for deaf learners. When compared with existing literature, these findings are consistent with Kisanga [14], who observed that many schools in Tanzania lacked qualified sign language interpreters, which created serious communication gaps for deaf learners. Kisanga noted that without interpreters, learners struggled to access curriculum content and participate meaningfully in classroom activities. Similarly, Msuya and Taji [19] reported that interpreter shortages remained a persistent challenge in Tanzanian inclusive education, especially in rural schools where resources were limited.

The same situation has been reported in other African countries. Ngobeni, Maimane [13] found that the absence of interpreters in South African schools reduced learner participation and contributed to poor academic performance among deaf learners. Shoko [12] also highlighted that many African schools faced difficulties in providing interpreter services due to financial and staffing constraints. These studies support the idea that the challenge observed in Kyela is part of a broader regional issue.

Table 1: Data on Communication Barriers in Learning

Sub-Indicator	High n (%)	Moderate n (%)	Low n (%)	Interpretation
Teachers’ proficiency in Tanzanian Sign Language	20 (66.7%)	6 (20.0%)	4 (13.3%)	Most learners reported poor teacher sign language skills
Availability of sign language interpreters	22 (73.3%)	5 (16.7%)	3 (10.0%)	Interpreters are largely unavailable
Interaction between teachers and deaf learners	18 (60.0%)	7 (23.3%)	5 (16.7%)	Communication is limited in classrooms

Napier, Houghton [10] emphasized that sign language interpreters play a key role in ensuring that deaf learners have equal access to classroom communication. They found that learners performed better and participated more actively when interpreters were available. In contrast, Knoors and Marschark [20] argued that without interpreters, deaf learners are often partially excluded from classroom interaction, even in schools that claim to be inclusive.

Therefore, the findings show that the shortage of sign language interpreters significantly limited deaf learners' access to quality education. It affected how they understood lessons, participated in school activities, and interacted with their teachers. This suggests that strengthening interpreter services is essential if inclusive education is to be meaningful and effective in practice.

4.2.3 Interaction between Teachers and Deaf Learners

The findings indicated that interaction between teachers and deaf learners was significantly limited in public primary schools. As shown in Table 1, 18 respondents (60.0%) reported that interaction between teachers and deaf learners posed a high challenge, while 7 (23.3%) viewed it as moderate and 5 (16.7%) considered it a low challenge. These results suggested that classroom communication between teachers and deaf learners was not sufficiently effective to support meaningful teaching and learning processes. The limited interaction was mainly attributed to inadequate sign language skills among teachers, absence of interpreters, and lack of structured communication strategies tailored to the needs of deaf learners. As a result, many deaf learners experienced difficulties in following lessons, asking questions, and participating actively in classroom discussions.

During focus group discussions the results revealed that most deaf learners felt excluded during lessons due to weak teacher-learner interaction. Many learners reported that teachers often focused on writing on the board or speaking without ensuring that communication was accessible to them. One participant explained that,

“Most of the time teachers taught while facing the board, and we could not understand what they were saying because they did not sign properly”. Another learner added that, *“We rarely got a chance to ask questions because communication with teachers was very difficult in class”*

These responses indicated that classroom interaction was largely one-sided, with teachers delivering lessons without ensuring that deaf learners were fully engaged in the learning process.

In addition, some learners expressed that they depended heavily on classmates to interpret or explain lessons after class. One respondent stated that,

“We usually waited for our friends to explain what the teacher had taught because during the lesson we did not understand everything”

These accounts demonstrated that limited interaction reduced immediate comprehension and forced learners to rely on indirect learning methods, which may have affected their academic performance and confidence.

Interviews with teachers also supported these findings, as many acknowledged difficulties in maintaining effective communication with deaf learners. One teacher explained that,

“It was not easy to interact with deaf learners during lessons because our sign language skills were limited”. Another teacher added that, *“We tried to involve them, but sometimes the communication gap made it hard for them to respond or participate in discussions”.*

These responses indicated that although teachers were aware of the need for interaction, their limited competencies constrained effective classroom engagement.

Kisanga [14], reported that interaction between teachers and deaf learners in Tanzanian inclusive schools was often weak due to communication barriers. Kisanga found that limited sign language skills among teachers reduced learner participation and made classroom communication largely teacher-centered. Namirembe [17] observed that poor teacher-learner interaction negatively affected the academic engagement of learners with hearing impairments, leading to reduced participation and low motivation.

In the African context, Shoko [12] found that interaction challenges between teachers and deaf learners were common in inclusive classrooms due to inadequate training in special needs education. Ngobeni, Maimane [13] also reported that limited classroom interaction reduced meaningful participation of deaf learners in South African schools, as teachers often lacked the communication skills necessary to engage them effectively. These findings align with the current study, which demonstrated that interaction challenges were not unique to Kyela District but were part of broader systemic issues in inclusive education across Africa.

So, the findings discovered that limited interaction between teachers and deaf learners significantly hindered effective learning. The challenge affected classroom participation, comprehension, and learner confidence. It also contributed to passive learning behaviors where deaf learners depended on peers rather than direct teacher engagement. The study therefore shows the need for strengthening teacher training in sign language, promoting interactive teaching methods, and improving classroom communication strategies to enhance meaningful participation of deaf learners in the learning process.

4.3 School-Related Factors Affecting Quality Education

This section presents findings and discussion on school related factors affecting access to quality education among deaf learners in public primary schools. The analysis is guided by availability of trained special education teachers, availability of teaching and learning materials, and the

inclusiveness of the classroom environment. These sub-indicators were used to explore how school-based conditions influence the learning experiences and academic participation of deaf learners.

4.3.1 Availability of Trained Special Education Teachers

The findings showed that the availability of trained special education teachers was a significant school-related factor affecting access to quality education for deaf learners in public primary schools. As shown in figure 1, 19 respondents (63.3%) reported that the shortage of qualified special education teachers posed a high challenge, while 6 (20.0%) viewed it as a moderate challenge and 5 (16.7%) considered it a low challenge. These results suggested that most schools lacked adequately trained teachers who possessed the specialized knowledge and skills required to effectively teach deaf learners. Consequently, many learners were taught by general classroom teachers who had limited training in special needs education, which affected the quality of instruction and learner comprehension.

The shortage of trained teachers was further reflected in the experiences shared by deaf learners during focus group discussions. Many learners explained that their teachers tried to support them, but often lacked the necessary skills to adapt lessons to their learning needs. One learner stated that,

“Most of our teachers were not trained in special education, so sometimes they did not know how to teach us properly”.

This responses indicated that although teachers were committed, limited professional preparation reduced their effectiveness in delivering inclusive education.

Some learners also reported that the lack of trained teachers affected their ability to understand lessons and complete schoolwork. One participant explained that,

“Sometimes we were taught like other pupils, yet we needed more visual explanations and support to understand”. He added, “It was difficult to follow lessons because teachers did not adjust their teaching methods for deaf learners”.

These accounts suggested that the absence of specialized training contributed to a teaching approach that did not fully accommodate the communication and learning needs of deaf learners.

Interviews with teachers and head teachers supported these findings, as most acknowledged that their schools had a shortage of trained special education personnel. One teacher explained that,

“We were not all trained in special needs education, so we had to learn through experience when working with deaf learners”. A head teacher noted that, “The number of teachers trained in special education was very small compared to the needs of the school”.

These responses indicated that the shortage of qualified teachers was not only a classroom issue but also a broader

institutional challenge affecting the delivery of inclusive education.

The findings are consistent with Kisanga [14], who found that many schools in Tanzania lacked adequately trained special education teachers, which negatively affected the learning outcomes of deaf and hard-of-hearing learners. Kisanga emphasized that insufficient teacher preparation contributed to ineffective teaching strategies and poor learner engagement. Also, Namirembe [17] observed that the shortage of specialized teachers limited the ability of schools to provide appropriate instructional support to learners with hearing impairments.

Knoors and Marschark [20] emphasized that teachers trained in deaf education were more effective in facilitating communication, adapting instruction, and improving learner outcomes. They found that learners performed better in environments where teachers had specialized training in sign language and inclusive pedagogy. Similarly, [10] reported that teacher expertise significantly influenced the quality of interaction and academic success of deaf learners in inclusive settings.

Thus, the findings revealed that the shortage of trained special education teachers significantly affected the quality of education for deaf learners. The lack of specialized training limited teachers' ability to adapt instruction, communicate effectively, and support learners' individual needs. This situation resulted in reduced comprehension, low participation, and uneven learning experiences among deaf learners. The study therefore highlights the need for increased investment in teacher training programs, recruitment of qualified special education teachers, and continuous professional development to strengthen inclusive education practices in public primary schools.

4.3.2 Availability of Teaching and Learning Materials

The findings revealed that the availability of teaching and learning materials specifically designed for deaf learners was a major school-related challenge affecting access to quality education in public primary school. As shown in figure 1, 21 respondents (70.0%) reported that the shortage of appropriate teaching and learning materials posed a high challenge, while 6 (20.0%) indicated a moderate challenge and only 3 (10.0%) considered it a low challenge. These results suggested that most schools lacked adequate visual learning resources, adapted textbooks, and assistive learning tools necessary to support effective instruction for deaf learners. As a result, teaching often relied on standard materials designed for hearing learners, which limited comprehension and participation among learners with hearing impairments.

The experiences shared by deaf learners during focus group discussions further illustrated this challenge. Many learners explained that learning materials were not tailored to their needs, making it difficult to understand lessons independently. One participant explained that,

“We did not have enough books or visual materials that could help us understand lessons better”. Another learner added that, “Teachers mostly used the same materials for all pupils, but for us it was not easy to understand without pictures or visual explanations”.

These responses indicated that the lack of adapted learning resources reduced the effectiveness of classroom instruction and limited learners’ ability to engage with academic content meaningfully. Interviews with teachers and head teachers also confirmed the shortage of teaching and learning materials for deaf learners. One teacher explained that,

“We did not have enough specialized materials, so we often had to improvise using available resources”. Similarly, a head teacher noted that, “The school lacked sufficient visual aids and adapted textbooks for deaf learners, which made teaching very challenging”.

These responses indicated that the problem was institutional in nature and was linked to limited funding and resource allocation for inclusive education.

Kisanga [14] reported that the lack of appropriate learning materials was a major barrier to effective education for deaf learners in Tanzania. Kisanga found that many schools relied on general teaching resources that did not support visual learning needs, thereby limiting learners’ understanding of classroom content. Similarly, Namirembe [17] observed that inadequate instructional materials reduced learner engagement and contributed to poor academic performance among learners with hearing impairments.

Shoko [12] found that the shortage of adapted learning materials in inclusive schools negatively affected teaching effectiveness, as teachers struggled to present content in accessible formats. Ngobeni, Maimane [13] also reported that insufficient educational resources limited the ability of deaf learners to actively participate in classroom learning in South African schools. These studies align with the current findings, which showed that resource limitations remained a persistent challenge in inclusive education systems across Africa.

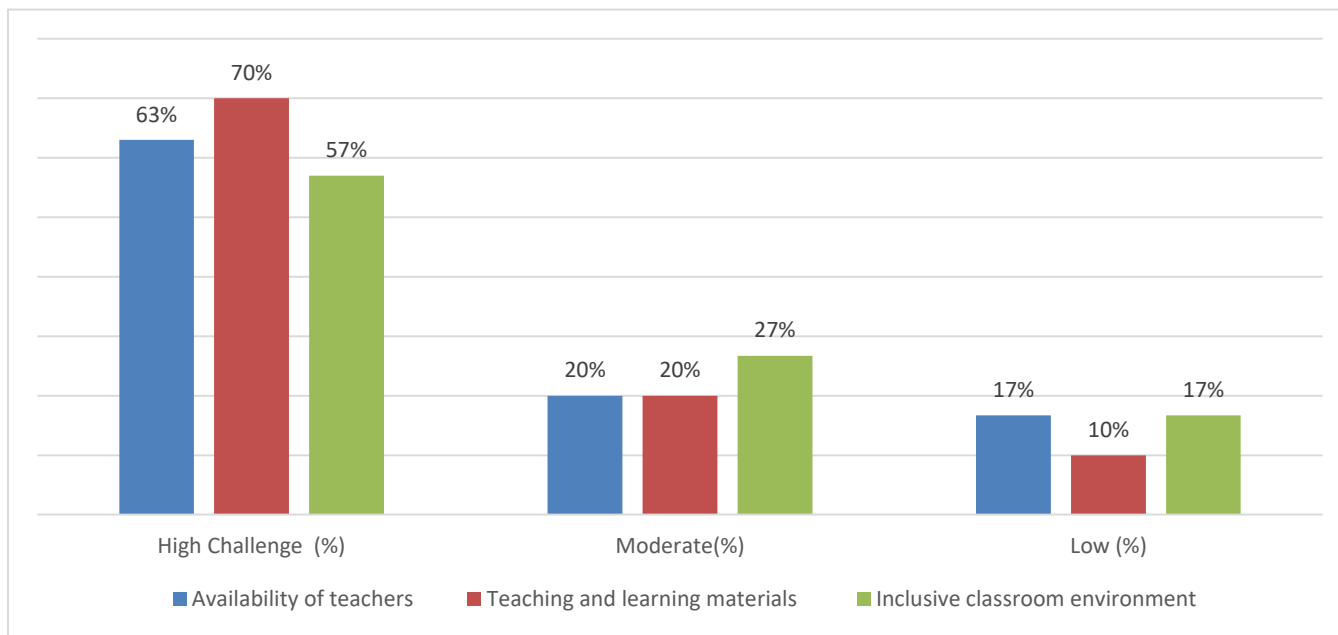


Figure 1: Data on School-Related Factors Affecting Quality Education

Global studies further support these findings. Knoors and Marschark [20] emphasized that the availability of visual and adapted learning materials significantly improved comprehension and academic performance among deaf learners. They argued that effective instructional design for deaf education must include visual supports such as diagrams, images, and sign-based resources. Similarly, Napier, Houghton [10] found that learners in resource-rich inclusive environments demonstrated higher levels of understanding and engagement compared to those in poorly resourced settings.

Therefore, the findings revealed that the shortage of appropriate teaching and learning materials significantly

affected the quality of education for deaf learners. The lack of visual aids, adapted textbooks, and assistive resources limited comprehension, reduced participation, and increased dependence on teachers’ explanations. The study therefore show the need for improved resource allocation, development of accessible learning materials, and strengthened support for inclusive education to enhance learning outcomes for deaf learners.

4.3.3 Inclusiveness of the Classroom Environment

The results showed that the inclusiveness of the classroom environment was still a major challenge for deaf learners in public primary schools. As presented in figure 1, 17 respondents (56.7%) indicated that the classroom

environment was highly non-inclusive, while 8 (26.7%) reported a moderate challenge and 5 (16.7%) considered it a low challenge. This suggests that although deaf learners were physically present in mainstream classrooms, the learning environments were not fully adjusted to meet their communication and learning needs. Many classrooms still relied heavily on spoken instruction, with limited use of visual aids, structured sign communication, and other inclusive teaching strategies that could support better understanding.

The voices of deaf learners during focus group discussions made this situation clearer. Many learners felt that being in the same classroom with hearing peers did not automatically mean they were fully included in learning activities. One learner explained that: *“We sit in class like other pupils, but most of the time we cannot understand what the teacher is saying because everything is spoken.”*

This shows that physical placement in a classroom was not enough without proper communication support. Another learner added that teachers rarely adjusted their teaching methods to suit their needs, explaining that:

“Teachers do not always use methods that help us understand; we need more pictures, writing, and visual explanations.”

Such experiences suggest that teaching approaches were still largely designed for hearing learners, leaving deaf learners struggling to keep up with lessons. Some learners also expressed feelings of being left out during lessons, not because they were absent, but because the teaching methods did not fully reach them. One participant noted that:

“We are in the same classroom, but sometimes we feel left out because teaching is not changed for us.”

This indicates that inclusion was more physical than practical, meaning learners were present but not fully participating in the learning process.

Interviews with teachers and head teachers supported these experiences. One teacher admitted that classroom conditions were not fully suitable for inclusive teaching, stating:

“Our classrooms are not fully prepared for deaf learners, so sometimes it becomes difficult to teach them effectively.”

Similarly, a head teacher acknowledged that efforts were being made, but limitations still existed:

“We try to promote inclusion, but the classroom environment and resources are not always enough to fully support learners with hearing impairments.”

These responses suggest that challenges in classroom inclusiveness were not only about attitudes but also about limited resources, training, and practical support systems within schools.

When compared with previous studies, these findings are consistent with Kisanga [14], who observed that inclusive classrooms in Tanzania often remained poorly adapted for

deaf learners. Kisanga noted that even where inclusion policies existed, classroom practices still tended to favor hearing learners, limiting meaningful participation. Namirembe [17] found that weak adaptation of classroom environments reduced engagement and academic performance among learners with hearing impairments.

Shoko [12] reported that many inclusive schools lacked the necessary teaching adaptations and resources to fully support deaf learners. Ngobeni, Maimane [13] also found that classroom environments in South African schools were often not fully accessible, which reduced interaction and participation among deaf learners. These studies support the current findings, showing that classroom inclusiveness remains a widespread challenge across the region.

Consequently, the findings show that classroom environments were not yet fully inclusive for deaf learners. While learners were placed in mainstream schools, the teaching methods and classroom arrangements did not fully support their learning needs. This gap suggests a need for stronger teacher training in inclusive education, improved use of visual teaching strategies, and better classroom support systems to ensure that deaf learners are not only present in classrooms but are also actively included in the learning process.

4.4 Strategies Used to Support Deaf Learners

This section presents findings and discussion on the strategies used to support deaf learners in accessing quality education in public primary schools. The analysis is guided by the use of inclusive teaching and learning methods, availability and use of sign language support services, and the level of school policy and administrative support for inclusive education. These were used to explore how schools attempt to address communication and learning challenges faced by deaf learners. The discussion further examines how these strategies are implemented in practice and how they influence participation, understanding, and overall learning outcomes, while also comparing the findings with existing empirical and theoretical literature on inclusive education practices.

4.4.1 Use of Inclusive Teaching Methods

The results indicated that the use of inclusive teaching methods in public primary schools was present but inconsistently applied in practice. As shown in figure 2, 16 respondents (53.3%) reported that the implementation of inclusive teaching methods was at a high level, while 8 (26.7%) indicated a moderate level and 6 (20.0%) reported a low level of implementation. These results recommended that although some teachers attempted to apply inclusive strategies such as visual aids, gestures, writing on the board, and simplified explanations, the consistency and effectiveness of these methods varied significantly across classrooms. This inconsistency appeared to limit the extent to which deaf learners could fully benefit from instructional adaptations designed to support their learning needs.

The experiences shared by deaf learners during focus group discussions further illustrated this variation. Some learners acknowledged that certain teachers made efforts to include them in the learning process, particularly through visual explanations and writing key points on the board. However, they also emphasized that such practices were not consistently applied by all teachers. One learner explained that,

“Some teachers try to use pictures and write important points on the board, which helps us understand, but not all teachers do this, so sometimes we are confused depending on the subject and teacher”.

Another participant added that,

“When teachers use drawings and gestures, learning becomes easier for us, but many lessons are still mostly speaking and we cannot follow everything clearly”.

These responses suggested that the effectiveness of inclusive teaching methods depended largely on individual teacher effort rather than a standardized approach across the school.

Some learners further explained that inconsistency in teaching methods affected their ability to follow lessons across different subjects. One participant stated that, “

In some classes we understand well because the teacher uses visual methods, but in other classes we just copy notes without really understanding what is being taught”.

Another learner noted that,

“It depends on the teacher; some try to help us, but others do not change their teaching style for deaf learners”.

These accounts indicated that the lack of uniformity in applying inclusive teaching methods created unequal learning experiences among deaf learners, depending on the teacher assigned to the class.

Interviews with teachers also revealed mixed practices regarding inclusive teaching. Some teachers reported that they intentionally used visual aids, demonstrations, and written instructions to support deaf learners, while others admitted difficulties in consistently applying such methods due to time constraints, lack of training, or large class sizes. One teacher explained that,

“I try to use pictures, writing, and demonstrations whenever possible, but sometimes the class is too large and it becomes difficult to give individual attention to deaf learners in every lesson”.

Another teacher added that,

“We were not fully trained in inclusive teaching methods, so we mostly learn by doing, which means consistency is not always possible”.

These responses indicated that while inclusive teaching practices existed, they were not systematically embedded into daily classroom routines. Namirembe [17] found that inconsistent use of inclusive teaching strategies negatively affected learning outcomes among learners with hearing impairments, as instructional practices varied widely between teachers and subjects. Shoko [12] noted that although inclusive teaching methods were promoted in policy frameworks, their classroom implementation remained uneven due to limited teacher training and resource constraints. Ngobeni, Maimane [13] also reported that many teachers in South African inclusive schools struggled to consistently apply differentiated instructional strategies, resulting in unequal learning experiences for deaf learners. These studies align with the current findings, which show that inconsistency in teaching practices remains a major challenge in inclusive education systems.

Knoors and Marschark [20] emphasized that consistent use of visual and interactive teaching strategies significantly improves comprehension and engagement among deaf learners. They argued that inclusive education is most effective when teaching practices are standardized and systematically applied across all classrooms. Napier, Houghton [10] found that learners achieved better academic outcomes in environments where inclusive teaching methods were consistently used rather than applied sporadically.

Generally, the findings revealed that inclusive teaching methods were available but not uniformly or consistently implemented. This inconsistency created unequal learning experiences among deaf learners and limited the effectiveness of inclusive education efforts. The study therefore highlights the need for continuous teacher training, institutional monitoring, and standardized teaching guidelines to ensure that inclusive teaching methods are applied consistently across all classrooms, thereby improving learning outcomes for deaf learners.

4.4.2 Sign Language Support Services/Clubs

The findings indicated that sign language support services and clubs in public primary schools were generally weak and not well organized. As presented in figure 2, 10 respondents (33.3%) reported a high level of implementation, 9 (30.0%) indicated a moderate level, while 11 (36.7%) reported a low level. This suggests that although a few schools had attempted to introduce sign language clubs or support activities, these initiatives were not consistently implemented or properly sustained. In most cases, what existed depended on individual teachers' personal effort rather than an established school system or clear policy, which made the support irregular and unreliable for deaf learners.

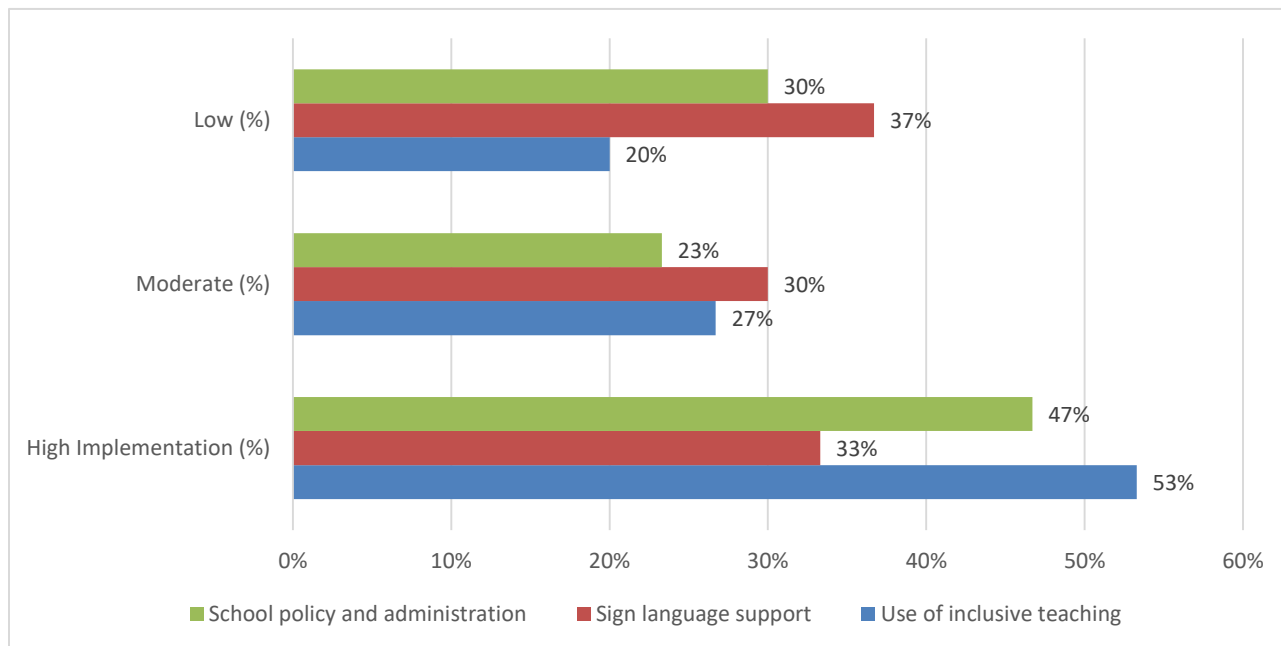


Figure 2: Data on Strategies Used to Support Deaf Learners

The experiences shared by deaf learners made this situation more understandable. Many learners said that they had been told about sign language clubs, but in reality, the activities were not active or regularly conducted. One learner explained that:

“We were told there is a sign language club, but it does not meet regularly, and sometimes we do not even know when it is supposed to happen.”

This shows that even where support structures existed in name, learners were not consistently benefiting from them. Another learner added that:

“Sometimes a teacher tries to gather us and teach signs, but after a short time everything stops and we go back to learning from friends.”

This suggests that sign language learning was not systematically planned, but instead happened in an informal and interrupted way, which limited progress.

Another learner explained that they mostly depended on peers for communication support, saying:

“We mainly learn signs from friends, not from a proper club, so our communication improves very slowly.”

These responses show that learners lacked a stable environment where they could regularly develop their sign language skills, which affected both learning and interaction.

Teachers and head teachers also confirmed that these programs were not well structured. One teacher admitted that:

“We try to organize sign language sessions sometimes, but because of workload and lack of resources, it is not easy to run them regularly.” he added that, *“There is no formal*

structure for sign language clubs in our school; whatever we do depends on individual effort.”

Similarly, a head teacher explained that:

“We understand the importance of sign language clubs, but we do not have trained facilitators or enough resources to sustain them.”

These responses suggest that the weakness of these programs was not due to lack of awareness, but rather lack of structure, training, and resources to make them consistent.

These findings align with Kisanga [14], who observed that sign language support programs in Tanzanian schools were often informal and not regularly implemented. He noted that without proper organization, such programs failed to achieve long-term impact on learners’ communication skills. Msuya and Taji [19] also found that many schools lacked structured communication support systems, which limited deaf learners’ ability to fully participate in learning activities. Knoors and Marschark [20] emphasized that consistent and well-organized sign language programs improve learners’ communication, confidence, and academic performance. Napier, Houghton [10] further noted that structured language support environments help deaf learners participate more actively in both academic and social school life.

So, the findings show that sign language support services and clubs existed in some form but were weak, irregular, and poorly structured. As a result, learners had limited opportunities to practice and strengthen their communication skills. This advocates a need for schools to establish formal, well-supported sign language programs with trained facilitators and regular schedules so that deaf learners can receive continuous and meaningful communication support.

4.4.3 School Policy and Administrative Support

The results presented that school policy and administrative support for deaf learners in public primary schools was present, but not strongly or consistently implemented. As indicated in figure 2, 14 respondents (46.7%) reported a high level of support, 7 (23.3%) indicated a moderate level, and 9 (30.0%) reported a low level. This proposes that although inclusive education policies existed and school leaders were generally aware of them, the actual implementation at school level varied from one school to another. In some cases, administrators made efforts to support deaf learners, but these efforts were not always sustained or translated into practical classroom improvements. In other schools, support was minimal due to limited resources, lack of training, and competing administrative priorities.

The experiences shared by deaf learners helped to illustrate this gap between policy and practice. Some learners felt that school leaders were at least aware of their challenges, but they rarely saw lasting changes in their learning environment. One learner explained that:

“Sometimes the head teacher calls us and asks about our challenges, but after that nothing really changes in class.”

This shows that while communication from leadership existed, it did not always lead to concrete action in classrooms. Another learner added that:

“We are told that the school supports us, but in real lessons we still face many difficulties without enough help.”

This suggests that learners experienced a difference between what was stated at school level and what actually happened during teaching and learning.

Some learners also felt that support depended more on individual teachers than on clear school systems. One participant noted that:

“The school says we are included, but it feels like real support depends on each teacher, not strong school rules that everyone follows.”

Another learner explained that despite school promises, classroom challenges remained:

“Even when they say inclusive education is important, we still struggle in class because teachers are not always prepared to support us.”

These responses show that institutional support was not fully structured, and implementation depended heavily on individual effort rather than a clear, consistent system.

Teachers and head teachers also acknowledged these challenges. One teacher explained that:

“The school has inclusive education policies, but applying them fully is difficult because we lack training and resources.”

Another teacher added that:

“We receive general instructions from administration, but there are no strong systems that ensure every teacher supports deaf learners in the same way.”

A head teacher admitted that:

“We are committed to inclusion, but we are limited by funding, lack of materials, and shortage of trained staff.”

These views suggest that while commitment existed at leadership level, practical implementation was constrained by structural and resource-related challenges.

When compared with previous studies, these findings are consistent with Kisanga [14], who observed that inclusive education policies in Tanzania often existed on paper but were weakly implemented in schools due to limited resources and weak enforcement. Msuya and Taji [19] found that administrative commitment to inclusion varied widely across schools, leading to inconsistent support for deaf learners. Ngobeni, Maimane [13] also found that weak administrative systems contributed to inconsistent inclusive education practices, which negatively affected learners with hearing impairments.

Knoors and Marschark [20] emphasized that strong school leadership is essential for successful inclusive education, especially for deaf learners, because it ensures coordination, resources, and consistent teaching practices. Napier, Houghton [10] similarly noted that schools with strong administrative systems tend to achieve better learning outcomes for deaf learners compared to those with weak implementation structures.

Therefore, the findings from show that school policy and administrative support existed, but it was only moderately effective and inconsistently applied. While school leaders showed awareness and willingness to support inclusion, the lack of strong implementation systems reduced its impact. This suggests a need for stronger enforcement of inclusive education policies, better resource allocation, and more consistent monitoring to ensure that support for deaf learners is not only stated in policy but also clearly reflected in daily classroom practice.

5.0 CONCLUSION AND RECOMMENDATIONS

In conclusion, this study examined the challenges facing deaf learners in accessing quality education in public primary schools. The findings revealed that communication barriers, limited interaction between teachers and deaf learners, and inadequate availability of sign language interpreters significantly hindered effective teaching and learning. In addition, school-related factors such as shortages of trained special education teachers, inadequate teaching and learning materials, and non-inclusive classroom environments further constrained learners' participation and comprehension. The study also found that although various strategies such as inclusive teaching methods, sign language support services, and administrative policies existed, their implementation was inconsistent and weakly coordinated across schools. Overall,

these interrelated challenges demonstrated that deaf learners were physically included in schools but not always meaningfully engaged in the learning process, thereby affecting the quality and equity of education they received.

The study recommended that the government and education stakeholders should strengthen the recruitment and deployment of trained special education teachers and qualified sign language interpreters in public primary schools to enhance communication and instructional support for deaf learners. It also suggested the need for continuous professional development programs to equip all teachers with basic Tanzanian Sign Language and inclusive teaching skills. Schools should improve the availability of adapted teaching and learning materials, including visual aids and accessible resources, to support better understanding among deaf learners. Furthermore, school administrations were encouraged to establish and sustain structured sign language clubs and support services to promote communication practice among learners. Finally, stronger monitoring and enforcement of inclusive education policies were recommended to ensure consistent implementation of supportive strategies across all schools, thereby improving equitable access to quality education for deaf learners.

Future research should focus on expanding the scope of this study by including other districts within the Mbeya and Southern Highland regions to allow for broader comparison of challenges affecting deaf learners across different educational contexts. Further studies could also adopt a mixed-methods approach to quantify the impact of communication barriers and school-related factors on academic performance, thereby strengthening generalizability of findings. In addition, future research may explore the perspectives of policymakers, special education experts, and curriculum developers to understand how national-level decisions influence school-level implementation of inclusive education. Moreover, longitudinal studies are recommended to assess the long-term effects of improved sign language support, teacher training, and inclusive policies on learning outcomes and social integration of deaf learners in primary education settings.

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