Original Research

Bridging or Limiting Inclusion? Deaf Perspectives on Sign Language Interpretation in Zambian Education

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ABSTRACT

This study explores the attitudes of persons with deafness toward sign language interpretation as a means of inclusion in Zambia's educational system. Although sign language interpretation is widely considered a critical tool for bridging communication barriers, its effectiveness depends on how it is perceived and experienced by those it seeks to serve. Guided by a qualitative research design, semi-structured interviews were conducted with deaf learners to capture their perspectives on the benefits, limitations, and challenges of interpretation services. The findings reveal a duality of attitudes: while interpretation fosters access to information, confidence, and participation in mainstream education, it also raises concerns about dependency, misrepresentation, and the erosion of opportunities for direct communication between deaf and hearing individuals. Attitudes varied by gender and onset of deafness, with postlingual participants emphasizing interpreter competence and prelingual participants advocating for teachers to acquire direct sign language skills. The study concludes that sign language interpretation is valuable but insufficient on its own for genuine inclusion. It recommends investment in both professional interpreter training and sign language proficiency among educators to strengthen sustainable, inclusive education in Zambia.

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1. INTRODUCTION

Inclusive education seeks to ensure that every individual, regardless of ability or disability, has access to quality education within the same learning environment. It is rooted in principles of equity, participation, and the right to education for all. For persons with disabilities, particularly those with deafness, achieving meaningful inclusion in educational settings requires targeted interventions that address the specific barriers they face.

In Zambia, learners with deafness encounter substantial challenges in accessing education due to systemic issues such as inadequate teacher training in sign language, lack of resources, and societal attitudes toward disability (Mwale, 2019; Mulonda, 2013; Kapansa, 2017). Teachers often lack the proficiency required to use sign language effectively as a medium of instruction, resulting in communication gaps that hinder the learning process. This situation is worsened by a lack of institutional support for developing educators' sign language skills, which results in many learners with deafness being excluded from participating meaningfully in classroom activities.

To mitigate these challenges, sign language interpretation services have been introduced as an alternative means of inclusion. These services bridge the communication gap by providing real-time interpretation of spoken language into sign language, enabling learners with deafness to access mainstream curricula and participate in classroom interactions. Globally, studies have shown that sign language interpretation can significantly enhance the educational experiences of deaf learners by fostering better engagement and understanding (Smith & Kossoudji, 2017). However, its effectiveness depends on factors such as interpreter proficiency, cultural sensitivity, availability, and alignment with learners' individual needs (Banda, 2020).

Despite the potential benefits, there is limited research in the Zambian context on how deaf learners perceive these services. Attitudes toward sign language interpretation among deaf individuals may vary depending on personal experiences, the quality of the services provided, and broader cultural and systemic factors. Some learners view interpretation services as empowering and inclusive, while others perceive them as fostering dependency or falling short of their needs due to interpreter inadequacies or mismatches in communication styles (Zulu et al., 2021).

Sign language is widely acknowledged as an essential medium of instruction for learners with deafness, as it provides direct access to education in a language they can fully understand. It facilitates cognitive development, language acquisition, and social interaction for deaf individuals, ensuring they can participate meaningfully in learning environments (UNESCO, 2020). Sign language is not merely a communication tool but a cornerstone of Deaf identity and culture, as emphasized by Padden & Humphries (2005), who argue that linguistic access is inseparable from cultural inclusion (Padden & Humphries 2005).

Research highlights the necessity of incorporating sign language into teacher training programs to provide educators with the skills required for effective communication with deaf learners (Chanda et al., 2018). In Zambia, however, many teachers and lecturers are inadequately trained in sign language, which poses significant barriers to inclusive education. As Mwale (2019) observes, teacher preparation programs often lack comprehensive modules on sign language proficiency, leaving educators ill-equipped to meet the needs of deaf learners. This gap has led to a reliance on alternative methods, such as sign language interpretation, to facilitate inclusion.

Globally, studies emphasize the critical role of sign language in promoting not only academic success but also a sense of identity and belonging for deaf learners. For example, research in the United States has shown that schools offering bilingual-bicultural approaches, incorporating both sign language and spoken/written language, achieve better outcomes for deaf learners (Marschark & Spencer, 2011). This approach emphasizes the importance of prioritizing sign language as a vital element of inclusive education systems.

Sign language interpretation has emerged as a vital service to bridge communication gaps between deaf learners and their peers or instructors in mainstream educational settings. By converting spoken language into sign language in real time, interpreters enable deaf learners to access curricula and participate in classroom discussions (Smith & Kossoudji, 2017). However, the effectiveness of interpretation services is contingent upon several factors. The proficiency of the interpreter is paramount. Interpreters must not only be fluent in sign language but also possess an understanding of subject-specific terminology to convey complex concepts accurately (Banda, 2020). Cultural sensitivity is another critical factor, as interpreters must navigate the cultural nuances of both hearing and deaf communities to ensure effective communication (Napier et al., 2010; Muzata & Mahlo, 2019).

Despite its advantages, sign language interpretation is not without limitations. Some studies highlight concerns about the dependency interpretation may create among educators and indeed learners who are deaf, potentially reducing their motivation to learn and use sign language independently. Interpretation appears to undermine inclusive education goals by creating a passive engagement with Deaf learners, where educators

defer communication responsibility to interpreters (Störbeck, 2011; Mweri, 2014). Interpreters may inadvertently act as gatekeepers, controlling the flow of information and potentially altering the intended message due to misunderstandings or biases.

Attitudes toward sign language interpretation among deaf individuals are varied and influenced by factors such as personal experiences, cultural norms, and the quality of the services provided. While many view interpretation as a means of empowerment and inclusion, others express concerns about its implications for broader societal acceptance and the promotion of sign language as a primary mode of communication.

Some deaf individuals argue that an over-reliance on interpretation services may inadvertently undermine the need for hearing individuals, including educators and peers, to learn sign language. Societal attitudes toward learning sign language often contribute to an over-reliance on sign language interpreters. In Zambia, the limited emphasis on teaching and learning sign language within mainstream educational and social contexts may inadvertently reinforce this dependency. Such attitudes can lead to the undervaluing of efforts to equip educators, peers, and community members with basic sign language skills, thereby limiting direct communication with deaf individuals. This concern is echoed in studies conducted in the United Kingdom, where deaf activists advocate for the prioritization of sign language training over interpretation to foster direct communication and broader societal inclusion (Kyle, 2015).

In contrast, research in the United States suggests that interpretation services are viewed positively when provided as part of a comprehensive approach that includes efforts to teach sign language to hearing individuals (Marschark et al., 2015). This dual approach ensures that interpretation complements rather than replaces the use of sign language as a tool for inclusion. It remains unclear, however, how Deaf individuals in Zambia feel about sign language interpretation compared to community learning of sign language, highlighting the need for the present study.

Studies from Nordic countries, such as Sweden and Finland, emphasize the importance of involving deaf individuals in the training and evaluation of interpreters to ensure that services meet their needs and preferences (Woll, 2001). This participatory approach not only enhances the quality of interpretation but also empowers the deaf community by giving them greater control over the services they receive.

In Zambia, there has been limited research on the attitudes of deaf learners toward interpretation services. Preliminary findings indicate that while many learners appreciate the accessibility these services provide, some express concerns about their long-term sustainability and their effectiveness in promoting genuine inclusion (Zulu et al., 2021). This highlights the need for further research to better understand these perspectives and to develop strategies that align with the aspirations of the deaf community.

Across the globe, challenges in implementing sign language interpretation services include a shortage of qualified interpreters, inconsistent funding, and a lack of standardized training programs. In many low- and middle-income countries, including Zambia, these challenges are further complicated by limited awareness of the needs of deaf individuals and the stigma associated with disability (Chimedza & Peters, 2001). Furthermore, the demand for interpretation services often exceeds the supply, leading to issues such as interpreter burnout and reduced service quality (Napier et al., 2010). These challenges call for the urgent need for research into the attitudes of deaf individuals toward interpretation services, which remains an underexplored area in the Zambian context.

Although some studies have been conducted in the field of sign language in Zambia, the focus has not been on the perceptions towards interpretation services and their implications. For instance, Deneke (2021) looked at accessibility of sign language services in tertiary education, highlighting one related aspect of the shortage of qualified sign language interpreters. Chishiba and Mukuka (2023) studied interpretation techniques in inclusive classrooms, also highlighting inconsistent interpreter availability. Muleya and Mweemba (2022), while recognising the critical role sign language plays in the education of the deaf, posit that the lack of proficiency among teachers hinders effective teaching. The study by Muleya and Mweemba (2022) did not address the crucial subject of the implications of sign language interpretation. Although old, the study by Okombo (1996) refers to the lack of institutional support to learners who are deaf, support related to interpretation that this study is focusing on, showing that challenges facing deaf education have come a long way. Support is broad, and may include training teachers in sign language, training interpreters, and providing necessary AI applications for interpretation. There are several learning techniques that can enhance deep learning using real-time gesture recognition and incorporating robust models for translating sign language into text or speech (Shaikh & Shete, 2024).

This study endeavors to address this gap by examining the attitudes of persons with deafness toward sign language interpretation services in Zambia. Specifically, the study seeks to answer three key questions
(1) What are the attitudes towards sign language interpretation services by persons that deaf in Zambia?
(2) What factors determine the preference for sign language interpretation services among the deaf in Zambia?

(3)   What views influence the satisfaction or dissatisfaction of persons with deafness regarding the use of sign language interpretation services?

The study is anchored in the Social Model of Disability and Vygotsky's Sociocultural Theory. The Social Model of Disability places disability in the social environment as a cause and as a means that exacerbates disability by creating societal barriers that hinder participation. Within this framework, the provision of sign language interpretation is understood not merely as an assistive service but as a structural intervention to dismantle communication barriers. Attitudes toward interpretation reflect broader societal positions on disability rights, access, and equity. However, Vygotsky's Sociocultural Theory also places emphasis on tenets that this study focuses on, emphasizing that learning and development occur through social interaction and communication. From this perspective, interpretation services function as mediational tools that can either facilitate or constrain the interaction between deaf learners, educators, and peers. The quality and acceptance of interpretation services thus directly affect educational outcomes and the inclusion of deaf learners within the social and academic fabric of schools.

2.   METHOD

This was a qualitative study that adopted a descriptive phenomenological research design to explore the lived experiences and perceptions of students with deafness regarding sign language interpretation. The idea of adopting this approach and design was to obtain a detailed and in-depth understanding of the experiences of students who are deaf and depend on sign language interpretation during learning. The researchers ensured that the core themes that came out of the data reflected the real experiences of those who participated in the study.

A purposive sampling strategy was used to recruit 12 deaf learners from inclusive education institutions and higher education in Zambia. Participants included individuals with both prelingual and postlingual deafness, and both male and female participants, to capture diverse perspectives.

Semi-structured interviews were conducted in sign language with the assistance of trained interpreters who were briefed on ethical considerations such as neutrality and confidentiality. Open-ended questions focused on participants' experiences with interpretation services, perceived benefits, challenges, and recommendations for improvement.

Thematic analysis was employed to identify recurring patterns and divergences in participants' responses. Transcripts were coded into themes such as "facilitation of learning," "dependency," "role confusion," and "privacy concerns." Data were also examined comparatively according to gender and onset of deafness to highlight variations in attitudes. The steps involved familiarization, initial coding, theme development, reviewing the identified themes, defining and naming themes, and final writing. Although persons who are deaf use telegraphic or summarized language (a noted limitation), their actual experiences were recorded in voice verbatim in the findings.

To fulfill ethical guidelines, informed consent was obtained from all participants, with information provided in accessible formats. Anonymity and confidentiality were assured throughout the research process. Pseudonyms were used to identify participants as R1-R12.

3.   RESULTS AND DISCUSSION

3.1. Attitudes of persons who are deaf towards interpretation services

In this study, we first desired to establish the attitudes of the Deaf towards sign language interpretation. A number of attitudes (positive and negative) were recorded from interviews presented via different themes:

3.1.1.   Positive Views

On the positive views, sign language interpretation was said to Facilitate Learning and Inclusion. It was learnt that Interpreters help bridge the communication gap, ensure equal access, and allow deaf learners to participate in mainstream education. For instance, the following voices noted:

R1: *"Help Deaf learners with information flow…"*

R2: *"It promotes equal opportunity…"*

R10: *"Sign Language Interpreters…enable us deaf people to participate fully in the learning process."*

The findings appear to show most participants (R1, R2, R10, R11) acknowledging that sign language interpretation enhances access to information, supports inclusive education, and enables deaf students to participate in mainstream learning environments.

It was further recorded from interviews that sign language interpretation promoted Emotional and Social Benefits. Interpreters boost confidence, reduce isolation, and encourage interaction with hearing peers. The following voices were captured:

R2: *"It also boosts their confidence in learning. They'll be able to express themselves freely during the lesson."*

R11: *"At least a deaf person can interact with other students during lesson discussions."*

From the findings, we see that Interpreters boost confidence (R2), reduce isolation (R11), and foster interaction between deaf and hearing students (R10, R11). These were positive reports regarding interpretation services.

3.1.2.   Negative views

On the contrary, negative views were also reported. The negative views were grouped into two sub-themes: Dependence and Over-Reliance, and role confusion and misinterpretation.

3.2. Dependence and Over-reliance

The findings revealed that Deaf learners risked relying too much on interpreters, thereby limiting independence. Two of the participants explicitly said;

R2: *"Some deaf learners will only depend on the interpreter for everything."*

R11: *"In the presence of an interpreter, the deaf will have a few hearing friends since they will all depend on interpreting."*

R10: *"At the hospital, I don't like using an interpreter. I feel ashamed when people look at me."*

"Shopping with an interpreter is hard. People stare, and I feel uncomfortable."

Generally, participants, e.g., (R2, R10, R11) express concern that interpreters may lead to dependency, with deaf students relying too heavily on them for all communication. Students shared that interpretation in public spaces often made them feel exposed or embarrassed. These quotes underscore the emotional toll of public interpretation and the need for more discreet or empowering alternatives. Some studies indicate that students prefer different modes of communication, some of which should directly reach them rather than through an interpreter. For instance, a study by Napier et. al. (2004) found that many deaf university students prefer a combination of "literal" interpretation (word-for-word) and "free" interpretation (more sense-for-sense/ moderately paraphrased) depending on context. They believe switching between styles is useful: literal when precise technical or subject-specific terminology is involved; free when fluency, flow, or comprehension is more important. The transliteration vs. full interpretation was argued to yield better learning outcomes.

3.3. Role Confusion and Misinterpretation

There was also a fear that some interpreters act beyond their role, misrepresent information, or lack confidentiality. The following voices represent this theme:

R10: *"Some interpreters also assume the role of lecturers or teachers and tend to be too controlling…"*

R2: *"Some interpreters cannot keep information private…"*

From the above voices, R10 notes that interpreters sometimes act beyond their roles, becoming controlling or being perceived as responsible for a student's academic progress. Breaches in privacy from interpretation compromise trust; findings that James, et al (2022) report raised fear among deaf clients. Interpreters reported to be overstepping boundaries during interpretation were considered unprofessional (James et al, 2022). This can compromise learning, especially in culturally sensitive societies such as Zambia, where learning of sexual comprehensive education content is marred with cultural concerns, such as taboos (Muzata, 2025).

3.4. Examining the participants' responses by gender and onset of hearing disability

Responses by participants were examined to see possible differences that may relate to gender, the onset of the hearing impairment, and their attitudes towards sign language interpretation.

3.4.1. Differences by Gender and Onset of Deafness
3.4.1.1. Gender

Although this variable is best examined by quantitative means, findings from this study appear to suggest a generally similar trend in responses across men and women, where both valued inclusion and access. However, Female respondents (R2, R10, R11) more often emphasized emotional aspects like confidence building, the social experience, and social confidence. Quantitative studies must be employed to investigate this further to determine its validity.

3.4.1.2. Onset of Deafness

The onset of deafness also appears to have a bearing on the way participants experience sign language interpretation. Two categories, postlingual and prelingual responses, were captured, with some differences noted.

3.4.2. Post-lingual participants' views

Participants (R1, R2, R3, R4, R10, R11) were post-lingual and appeared more analytical, stressing interpreter training, role boundaries, and institutional gaps in the provision of interpretation services.

> R3: *"There is a need for sign language interpretation that has a job just for that… not a student doing it for a student."*

> R4: *"A lecturer/teacher with a degree being interpreted by a grade 12 school leaver… this doesn't make sense."*

From the findings, we see that students with postlingual deafness often recognize the value of sign language interpretation more clearly, likely due to having experienced both worlds (hearing and deaf). They were also more vocal about structural inadequacies, interpreter training, and role boundaries.

3.4.3. Pre-lingual participants' views

Participants (R5, R6, R7, R9, R12) had prelingual hearing loss and were more skeptical about effectiveness, especially in early education. Preferred direct communication by teachers fluent in sign language. The reasons for their skepticism were:

> R7: *"Classes from ECE to grade 7 do not need sign language interpretation because they will not pick anything or understand the lesson."*

> R6: *"Teachers should learn sign language themselves so that they can explain clearly."*

Prelingual participants express more skepticism about the effectiveness of sign language interpretation, especially at early education levels (e.g., R7: "ECE to Grade 7 do not need sign language interpretation …"). They tend to prefer direct communication via sign language fluent teachers and stress the quality gaps in interpretation. The results of this study resonate with what Muzata (2020) argued, that prelingual deaf children who never had spoken language find it particularly difficult if family members (parents/guardians) do not know Sign Language (SL), highlighting that this creates a huge communication barrier. This affects emotional bonding, understanding, and inhibits classroom interaction and overall learning.

3.5. Describing factors that influence satisfaction and lack of satisfaction in sign language interpretation

The findings show more dissatisfying factors of sign language interpretation than satisfying factors. Some participants reported the availability of qualified interpreters and access to lessons and inclusion as influencing factors that led to their satisfaction with interpretation. Participants reported that when interpreters are knowledgeable, satisfaction increases, and when interpreters make it possible for deaf learners to keep pace with classes and discussions. The following voices demonstrated satisfaction with the interpretation.

R10: *"Some sign language interpreters lack the necessary experience… this may cause frustration."*

R11: *"A terp called up to interpret in Mathematics class should be conversant in Maths so that interpreting can be meaningful."*

R1: *"Promote inclusive learning environments in which the deaf are not left behind."*

On dissatisfaction factors, participants named lack of training or specialization in interpretation, overworking, inconsistency of interpretation, teacher dependency, barriers to social inclusion, and breach of privacy.

3.5.1.   Lack of Training / Specialization

Many interpreters lack subject knowledge, leading to misinformation.

R5: *"Some interpreters do not know the subject matters well… very difficult to interpret complex courses."*

Almost all participants noted that interpreters often lack subject-specific knowledge (R3, R4, R5, R11), resulting in miscommunication or incomplete information. This concern is echoed by many researchers in the Zambian context, more with reference to teachers lacking sign language skills (Muzata, 2020), but specifically by Napier et al., (2004), who reports that familiarity with the interpreter also matters, where students tend to prefer interpreters, they know or who are more familiar with the subject/discipline.

3.5.2.   Overwork and Inconsistency

Few interpreters serve many learners, limiting quality.

R1: *"In some instances where there is only one interpreter and they are required to interpret for all grades/courses… it becomes a challenge."*

Sign Language Interpretation often covers multiple students or subjects, leading to burnout and inefficiency (R1, R3, R7). This finding deserves a critical consideration giving a reality of what happens in the classroom. Interpretation can affect student concentration. Students who are deaf equally have different listening and attention spans and some can easily get tired watching the interpreter over lengthened lessons, let alone a continuous period of learning from one class to another. While the student may lose concentration watching the lecturer teaching and writing or showing slides, the deaf student also has to watch his or her interpreter, dual or multi activities that drain student learning concentration. For students that also depend on lip reading, interpretation may present contradictory messages to the student. Unless interpreters are interchange, even the interpreters get tired and sometimes misrepresent concepts due to inadequate signs for some concepts in some technical or scienfic related courses (Muzata, 2017).

3.5.3.   Teacher Dependence:

Teachers avoid learning sign language because they rely on interpreters.

R4: *"Having sign language interpretation… makes teachers not want to learn sign language due to dependence."*

R6*"We need teachers who can sign, not just interpreters. That is better for us."*

R8*"Interpreters should be trained well and paid by the government. It should be a real job."*

Several participants (R1, R4, R6, R8, R10, R11) express concern that teachers avoid learning sign language, assuming the interpreter will handle everything, which undermines true inclusion. A strong preference emerged for educators who could communicate directly in sign language. Students felt more engaged and less dependent when teachers signed themselves, suggesting that direct communication fosters better inclusion than mediated interpretation. Even then, interpreters also had their own inefficiencies in interpretation, requiring interpreter education to include both linguistic fluency and academic content knowledge to ensure effective mediation in learning environments, an observation that Marschark et al. (2005) emphasise. Interpretation should be part of a broader, inclusive strategy that includes educator training, learner empowerment, and systemic support for communication equity.

3.5.4. **Barriers to Social Integration:**

Interpreters sometimes prevent natural peer interaction.

R11: *"In the absence of an interpreter, a deaf and hearing person might be compelled to learn a system of communication."*

Some (e.g., R9, R11) highlight how reliance on sign language interpretation can hinder peer-to-peer interaction and social integration with hearing students. This resonates with Alasim (2018) and Prinzi (2023), who both argue that interpreter-mediated instruction limits social interaction, integration, and spontaneous feedback among deaf learners and unintentionally isolates deaf learners from natural social engagement.

3.5.5. **Privacy and Trust Issues:**

Concerns over confidentiality and interpreter conduct.

R2: *"Some interpreters cannot keep information private."*

Concerns about interpreters breaching confidentiality or failing to represent deaf individuals faithfully were noted (R2, R10). On the failure by some interpreters to keep messages private as they interpret, Mukuka & Chishiba (2023) highlight that interpretation techniques must be context-sensitive and pedagogically aligned, especially in inclusive classrooms where learners' comprehension depends on both linguistic and instructional clarity. The language used and clarity the deaf may seek within an inclusive classroom may be for learning purposes and should not be divulged or misinterpreted in any way because the deaf want clarity by asking for the message the way it is and not to be presented metaphorically, as this may distort the meaning given to them. Their concerns echo findings by Marschark et al. (2005), who argue that interpreter training programs must address ethical boundaries and professional standards to avoid undermining educational outcomes.

The findings of this study highlight the complex and sometimes contradictory attitudes of deaf learners toward sign language interpretation in Zambia. On one hand, interpretation services are valued for promoting access to information, inclusion, and emotional well-being. This supports global literature emphasizing interpretation as a facilitator of equity in education (Smith & Kossoudji, 2017). Participants acknowledged that interpreters allowed them to keep pace with lessons, reduced isolation, and boosted confidence in mainstream settings.

However, concerns raised reveal the limitations of interpretation as a standalone strategy. The risk of dependency, breaches of confidentiality, and inadequate interpreter training underscore the structural gaps in Zambia's education system. Prelingual participants in particular stressed the importance of direct communication with teachers fluent in sign language, aligning with arguments from Kyle (2015) and James et al. (2022) who caution against over-reliance on interpreters at the expense of systemic sign language uptake. Postlingual participants, by contrast, were more analytical of interpreter professionalism and institutional shortcomings, reflecting their dual experience of hearing and deaf worlds.

The gendered differences, with female participants emphasizing social and emotional aspects, also echo broader research on gendered educational experiences among learners with disabilities.

Overall, the discussion suggests that while interpretation services are indispensable, they cannot substitute for a comprehensive approach to inclusive education. This entails that sign language interpretation alone is insufficient for inclusive education, just as observed (De Clerck, 2010). This service must be embedded

within a broader recognition of Deaf epistemologies and cultural-linguistic identity (De Clerk, 2010). Sustainable inclusion requires Professionalization of interpreting, with subject-specific training, Investment in sign language training for teachers at all levels, and the recognition of deaf learners' agency in evaluating and shaping interpretation services.

This dual focus—on strengthening interpretation while promoting sign language fluency among educators—addresses both immediate access needs and long-term cultural change.

4.   CONCLUSION AND RECOMMENDATIONS

This study examined the attitudes of persons with deafness toward sign language interpretation services as a means of inclusion within Zambia's education system. The findings reveal that while interpretation is widely appreciated for its role in bridging communication barriers, enhancing participation, and promoting confidence among deaf learners, it is not without limitations. Participants highlighted concerns about over-reliance on interpreters, inadequate training and subject knowledge among service providers, breaches of confidentiality, and the unintended reinforcement of teachers' reluctance to learn sign language.

Importantly, attitudes varied according to gender and onset of deafness. Female participants often emphasized the emotional and social benefits of interpretation, while postlingual participants were more critical of interpreter competence and institutional gaps. Prelingual participants, on the other hand, underscored the limitations of interpretation in early education and the necessity of teachers acquiring sign language proficiency themselves. These differences underscore the need for a nuanced understanding of how interpretation services are experienced across diverse contexts within the deaf community.

The study concludes that sign language interpretation is a valuable but insufficient intervention for achieving genuine educational inclusion. True inclusion requires a dual approach that involves strengthening the professionalism and availability of interpreters while simultaneously investing in equipping educators with sign language skills. Policies and practices should be in place to recognize the agency of deaf individuals in evaluating services and shaping inclusive strategies. By adopting such a holistic approach, Zambia can move toward an education system that not only accommodates but also empowers learners with deafness to participate fully and equally in society.

From the findings, a critical consideration of the following recommendation ensures the adage, " nothing for us without us" echoing the importance of the deaf voice in their education. To enhance the effectiveness and inclusivity of sign language interpretation services, several key recommendations emerged from this study. First, there is a pressing need for institutions to develop and implement formal policies on sign language interpretation. Such policies would serve as a framework to ensure the quality and consistency of interpreter services across educational settings. In addition to structural guidelines, interpreters themselves should receive specialized training in ethical interpretation practices. This is essential for safeguarding the privacy and dignity of individuals who rely on their services.

Furthermore, the study recommends diversifying communication strategies to promote greater student independence. Alternative methods such as AI-powered interpretation tools or machine interpretation tool (Najib, 2025), television captioning, and lip reading should be considered where appropriate, depending on the type and degree of hearing loss. These tools can complement traditional interpretation and empower students to engage more autonomously in their learning environments.

Cultural responsiveness is another critical area for improvement. Interpretation services must be sensitive to the diverse cultural meanings that Deaf students may attach to specific signs and symbols. Tailoring interpretation to reflect these nuances can significantly enhance comprehension and comfort for Deaf learners.

Additionally, training lecturers in basic sign language is strongly encouraged. Direct communication between lecturers and Deaf students can reduce reliance on third-party interpreters, thereby minimizing potential distractions and fostering a more inclusive classroom dynamic. Finally, the adoption of a total communication approach, integrating multiple modes of communication, can better accommodate the varied experiences and needs of students, particularly those with different ages of onset of deafness. These recommendations aim to create a more equitable, respectful, and effective learning environment for Deaf students in Zambian educational institutions.

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