

Effective Inclusion of Learners with Hearing Impairment in Cameroon: Ways to Implement Sign Language Interpreters in Higher School Institutions

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Abstract

Inclusive higher education remains a fundamental requirement for ensuring equitable access to learning opportunities for all students, including those with disabilities. Despite Cameroon's commitment to international and national frameworks promoting inclusive education, learners with hearing impairment continue to encounter substantial communication barriers within higher education institutions. This study examines effective strategies for implementing sign language interpreter services as a means of enhancing the inclusion of learners with hearing impairment in higher school institutions in Cameroon. Guided by a qualitative descriptive research design, the study involved five students with hearing impairment, four academic staff members, and four university administrators purposively selected from four higher education institutions. Data were collected through structured interviews and classroom observations, and analyzed thematically. The findings reveal a critical shortage of qualified and professional sign language interpreters, inadequate institutional support structures, weak enforcement of disability policies, and the absence of dedicated funding for communication accessibility services. Results further indicate that the lack of interpreter services contributes to academic underperformance, social isolation, and increased financial burdens on students who are compelled to secure interpretation services independently. The findings also expose a significant gap between legal provisions guaranteeing educational rights and the actual experiences of learners with hearing impairment in higher education. The study concludes that the inclusion of learners with hearing impairment in Cameroon's higher education system remains largely symbolic rather than functional. It recommends the institutionalization and professionalization of sign language interpreting services through dedicated government funding, interpreter training and certification programs, implementation of inclusive pedagogical practices, and stronger collaboration with Deaf organizations.

Keywords: Inclusive education, hearing impairment, sign language interpreters, higher education, accessibility.

Introduction

Inclusive education has become a central concern of educational systems worldwide, as it seeks to ensure equal access to quality education for all learners, regardless of physical, sensory, or cognitive differences. Among learners with special educational needs. Students with hearing impairment face significant barriers in accessing and fully participating in academic activities, particularly in higher education institutions where instruction is predominantly oral and auditory. These challenges often result in limited academic engagement, poor performance, and social exclusion when adequate support mechanisms are not provided. However, inclusive education has gained significant traction in Cameroonian legislative discourse.

In Cameroon, the commitment to inclusive education is reflected in national policies, international conventions, and legal frameworks that advocate for the rights of persons with disabilities, including the right to education without discrimination. Despite these commitments, the practical implementation of inclusive strategies for learners with hearing impairment in higher education remains limited. Many universities and professional institutions lack structured support services, trained personnel, and appropriate communication

accommodations, making it difficult for deaf and hard-of-hearing students to effectively access lectures, tutorials, assessments, and campus life. The practical application of these laws within the lecture halls of higher education remains critically underdeveloped which is a scholarly response to the systemic communication barriers faced by deaf learners in many higher educational institutions in Cameroon. One of the most effective strategies for promoting the inclusion of learners with hearing impairment is the use of sign language interpreters. Sign language interpretation serves as a vital communication bridge between hearing-impaired students, lecturers, and peers, thereby facilitating comprehension, participation, and academic success. In higher education contexts, professional interpreters play a crucial role in translating complex academic content, technical vocabulary, and interactive discussions into an accessible visual language.

However, in Cameroon, the availability, training, deployment, and institutional integration of sign language interpreters remain inadequate and uneven across higher education institutions. This research therefore focuses on the effective inclusion of learners with hearing impairment in Cameroon's higher education system, with particular emphasis on practical ways of

implementing sign language interpreters for students. By examining existing challenges, institutional practices, and potential strategies for interpreter integration, this study seeks to investigate the implementation gap between the legal mandates of the state and the pedagogical realities of the university, with a specific focus on the professionalization of sign language interpretation.

Background to the Study

Education is universally acknowledged as a fundamental human right and a key driver of social inclusion, national development, and individual empowerment. In recent years, there has been increasing global emphasis on inclusive education, which seeks to ensure that all learners, including those with disabilities, have equal access to quality education within mainstream institutions. International instruments such as the Salamanca Statement (UNESCO, 1994) and the United Nations Convention on the Rights of Persons with Disabilities (UN, 2006) stress the responsibility of governments to eliminate barriers to learning and to provide reasonable accommodations that promote full participation of learners with disabilities at all levels of education. As a result, inclusive education has become a central goal of contemporary educational reforms worldwide.

In line with these international commitments, Cameroon has adopted policies and legal frameworks that recognize the rights of persons with disabilities to education. National legislation promotes inclusive education and advocates for the integration of learners with disabilities into regular schools and higher education institutions. However, despite these policy provisions, the implementation of inclusive education in Cameroon remains uneven, particularly for learners with hearing impairment. Although some efforts have been made to support inclusive practices at the primary and secondary school levels, access to appropriate support services in higher education institutions is still limited (Education Profiles, 2023). Moreover, learners with hearing impairment face distinct challenges that are largely linked to communication barriers within mainstream educational environments. Since instruction in Cameroonian higher institutions is predominantly delivered through spoken English and French, deaf and hard-of-hearing students often struggle to follow lectures, participate in discussions, and engage effectively with academic content. Consequently, the absence of accessible communication support places these learners at a disadvantage, affecting their academic performance and overall university experience. Studies conducted in Cameroon

indicate that communication barriers remain one of the most significant obstacles to the successful inclusion of learners with hearing impairment in regular educational settings (Ndongwa Bamu et al., 2017).

Furthermore, sign language is internationally recognized as the primary and most effective means of communication for many deaf individuals. Its use in educational settings is therefore essential for meaningful learning and cognitive development. Nevertheless, in Cameroon, sign language has not been fully institutionalized within the formal education system, especially at the tertiary level. While some non-governmental organizations and faith-based institutions offer sign language training and limited interpretation services, these initiatives are often fragmented and insufficient to meet the needs of learners with hearing impairment enrolled in higher education institutions (Nalova & Ayuk, 2020). In addition, the shortage of trained and professional sign language interpreters further hinders effective inclusion in higher education. Many universities lack structured disability support services, clear policies on interpreter provision, and adequate funding to recruit qualified interpreters. As a result, learners with hearing impairment are frequently compelled to rely on informal support such as classmates' notes or untrained volunteers, which is often inadequate for understanding complex academic content. This situation negatively affects not only academic achievement but also students' confidence, participation, and sense of belonging within the university community (Tongwa & Atemnkeng, 2019).

Despite existing inclusive education policies, a significant gap persists between policy intentions and actual practice in higher education institutions in Cameroon. This gap underscores the need for deliberate and sustainable strategies aimed at improving communication access for learners with hearing impairment. Implementing sign language interpreter services in higher education institutions emerges as a crucial mechanism for promoting equity, academic success, and full participation of deaf students. Therefore, this study seeks to examine effective ways of implementing sign language interpreters in higher education institutions in Cameroon as a means of enhancing the inclusion of learners with hearing impairment. It also seeks to contribute to the development of more inclusive, equitable, and accessible learning environments for deaf students. Ultimately, the research aims to support policy formulation, institutional planning, and educational practices that uphold the rights and academic potential of learners with hearing impairment in higher education institutions in Cameroon.

Statement of the Problem

Cameroon has ratified a good number of international policies and frameworks such as the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) and the Salamanca Statement to promote Education for All. Despite this commitment, learners with hearing impairment in higher education institutions continue to face significant barriers to effective participation and academic success. One of the most critical challenges is the lack of structured implementation of sign language interpreter services in universities and other higher school institutions.

In most Cameroonian higher education settings, teaching and learning processes are predominantly oral, with little or no accommodation for students who are deaf or hard of hearing. There is a severe shortage of trained and qualified sign language interpreters, and where they exist, they are rarely integrated into academic programs on a full-time or institutional basis. Additionally, Cameroon lacks a clearly standardized and officially enforced

national sign language policy for higher education, resulting in inconsistent communication support for learners with hearing impairment. Furthermore, limited funding, weak policy enforcement, and inadequate institutional frameworks hinder the recruitment, training, and retention of sign language interpreters. Many lecturers and administrative staff have minimal awareness or training in inclusive education practices, leading to ineffective communication, exclusion from classroom interactions, and reduced academic engagement for students with hearing impairment. As a result, these learners often experience academic underperformance, social isolation, and limited access to educational opportunities, undermining the principles of equity and inclusion in higher education.

Therefore, the problem lies in the gap between inclusive education policies and their practical implementation, particularly in the provision of sign language interpreters in higher school institutions in Cameroon. Addressing this problem is essential to ensure equal access to quality education, meaningful participation, and improved academic outcomes for learners with hearing impairment.

Objectives of the Study

The general objective of this study is to explore effective ways of implementing and institutionalizing sign language interpreter services to enhance the academic inclusion of learners with hearing impairment in higher school institutions in Cameroon.

Specifically, the study seeks to:

- Examine the current status and availability of sign language interpreter services across various higher school institutions in Cameroon.
- Identify the barriers that hinder the provision of professional sign language interpreters in higher school institutions in Cameroon.
- Study the impact of the absence of professional sign language interpreters on the academic flourishing of learners with hearing impairment in higher school institutions in Cameroon.
- Propose some recommendations to implement sign language interpreting services in higher school institutions in Cameroon.

Method

The study adopts a descriptive research design using a qualitative approach. The sample is made up of 5 students with hearing impairment, 4 academic staff, and 4 university administrators, purposively selected from 2 public higher school institutions: University of Buea and University of Douala; and 2 private higher school institutions: Higher Institute of Management Studies, Buea (HIMS), and Institut Universitaire des Grandes Ecoles des Tropiques, Douala (IUGET). A structured interview guide and an observational checklist are used to collect the data; and the data are analyzed thematically. Informed consent and confidentiality were considered.

Table 1: Presentation of the population of the study

Schools	Students with hearing impairment	Academic staff	University administrators
University of Buea	2	1	1
University of Douala	1	1	1
HIMS	1	1	1
IUGET	1	1	1

Findings

The primary findings of this study reveal the scarcity and non-professionalization of sign language interpreters. The study identifies a critical shortage of certified sign language interpreters capable of handling academic interpretation. In fact, most active interpreters in Cameroon are trained in religious or community settings and lack the technical vocabulary for university-level discourse in fields such as Law, Biochemistry, or Engineering. Furthermore, because higher school institutes do not recognize interpreters as formal support staff, the few who volunteer and assist once a while students with hearing impairment when following school administrative procedure for example, are not really motivated to support. Because of the non-recognition of their profession, they find themselves as casual laborers without neither job security, nor social insurance. This lack of professionalization leads to high turnover rates and inconsistent quality of service for the learners.

Findings from data collected from classroom observations and student interviews reveals a phenomenon that can be described as the "Glass Wall." In fact, students with hearing impairment are physically present in the lecture hall, but they are intellectually excluded because the medium of instruction is 100% oral/aural. Below are the most recurrent responses:

R1: "Every day I come to class, but I can't get anything the lecturer is saying."

R2: "Classes are bored because most of the time I'm in class, but I barely have clue of what is happening live at the moment. It is only when the lecturer writes on the board that I can guess what they are doing."

R3: "I never participate in class. I usually don't really know what is happening, unless I read in my neighbour's book, or he/she tries to use gestures to explain to me."

R4: "I'm always demotivated when I think I have to go class because just I sit in there, it is difficult for me to interact with the other students, I alone, I can't laugh when they are having fun."

R5: "Deaf students can't hear oral lectures, they can't participate to classroom interactions, they rely only on other students' notes or lecturer's handout when they give one, I can't ask a question when I don't understand something, I always feel isolated when I'm in class."

The findings show that without an interpreter or any other assistance and accommodation, students with hearing impairment rely on "peer-copying" a practice where they copy notes from hearing classmates. However, this method is fundamentally flawed as it results in the loss of >60% of the nuanced information such as explanations of complex theories, lecturer's emphasis, and peer discussions delivered during a lecture.

Moreover, findings reveal a kind of "Disability Tax" that students with hearing impairment need to pay to fully get access to the effective teaching and learning process. In the absence of state-funded or university-funded interpreters, many students with hearing impairment find themselves forced to personally hire interpreters when they need, while most of them are from low-income family. This places an unfair socio-economic burden on the student with hearing impairment, effectively making their education more expensive than that of their hearing peers. The research found that many talented deaf students drop out not because of intellectual inability, but because of communication barriers.

Findings equally reveal a systemic disconnect between the "De Jure" (legal) rights provided by Cameroon Law No. 2010/002, and the "De Facto" (actual) experience of students with hearing impairment. A total absence of specialized administrative units dedicated to hearing impairment support has been observed in the higher school institutions in Cameroon . In the all the institutions surveyed, there is no budgetary line item for "Communication Access" for students with hearing impairment. This leads to what is termed "Institutional Invisibility," where deaf students are admitted under general inclusive policies but are not provided with the specific tools (interpreters, assistive technologies, etc.) needed to access the curriculum. The research found that the responsibility for inclusion is often shifted from the institution to the individual, forcing students with hearing impairment to navigate a complex academic environment without a formal support structure.

Finally, the findings highlight a significant failure in the enforcement of the 2010 Law on the Protection of Persons with Disabilities. While the law exists, minimum standards of accessibility are barely put in place for Cameroonian higher school institutions. Some public school's administrators interviewed expressed a financial constraint in their budget, and they suggested that the Ministry of Higher Education (MINESUP) should all the necessary requirement for effective inclusion of students with hearing impairment. One even suggested that:

"It should be a mandatory condition for private higher school institutions to make provision of sign language interpreters and any other accommodation needed by deaf students before they get accreditation. If not, institutions will continue to prioritize other infrastructural needs over inclusive services."

In summary, the research establishes that the inclusion of students with hearing impairment in higher school institutions in Cameroon is currently an "unfunded mandate". The findings emphasize a three-fold crisis namely: a linguistic crisis (lack of sign language access), a professional crisis (lack of trained academic interpreters), and an institutional crisis (lack of administrative framework and funding). These factors combine to create an environment where the students with hearing impairment in higher school institutions in Cameroon are "included in name" but "excluded in practice".

Discussion of the Findings

This study set out to explore the effective inclusion of learners with hearing impairment in Cameroonian higher education, with a specific focus on the implementation of sign language interpreters. The findings reveal a landscape characterized by significant goodwill and policy intent, yet hampered by profound systemic, practical, and attitudinal barriers. This discussion interprets these findings within the broader context of inclusive education theory, the Cameroonian socio-economic reality, and global best practices.

Firstly, the identified gap between policy and practice is a central theme. While Cameroon is a signatory to international conventions (e.g., United Nations, 2006) and has a national policy promoting inclusive education, the operationalization of these frameworks in higher institutions remains weak. This aligns with critiques of inclusive education in many low- and middle-income countries, where policies often exist as "islands of innovation" rather than integrated systemic reforms (Miles & Singal, 2010). The lack of dedicated budgets, enforcement mechanisms, and standardized guidelines for providing interpreters means that inclusion becomes dependent on the discretionary commitment of individual institutions or departments, leading to the inconsistent and unsustainable support observed.

The critical shortage of qualified sign language interpreters emerges as the most formidable practical barrier. The discussion must move beyond merely noting this shortage to understanding its roots. It stems from the absence of a formal, accredited interpreter training and certification pathway. Without this, the role is not professionalized, leading to unreliable

ad hoc arrangements with teachers from deaf secondary schools or family members. This practice is problematic: it burdens already busy professionals, compromises the neutrality and quality of interpretation (Winston & Monikowski, 2020), and fails to provide the specialized vocabulary required for tertiary-level disciplines like engineering, law, or medicine.

Furthermore, the reliance on family members or peers infringes on the student's autonomy and privacy. The financial constraints cited by institutions are undeniable, given Cameroon's economic challenges. However, this discussion argues that framing interpreter provision solely as a cost is a fundamental misapprehension of inclusive education. It is, rather, a necessary investment in human capital and a legal obligation. The discourse must shift from "can we afford it?" to "how can we implement it cost-effectively and creatively?" Potential models, such as centralized interpreter pools shared between institutions in a city, leveraging video remote interpreting technology for certain contexts, or integrating interpretation costs into national higher education budgets, need serious consideration (World Health Organization & World Bank, 2011).

Beyond resources, the findings point to a pervasive lack of institutional and pedagogical preparedness. The physical environment, teaching methodologies, and assessment formats in most Cameroonian higher school institutions are designed for a hearing norm. Lecturers rarely receive training on inclusive pedagogy, such as using visual aids, providing lecture notes in advance, or ensuring clear sightlines for potential interpreters. This creates a situation where even if an interpreter is present, the overall learning ecosystem remains alienating. Effective inclusion requires Universal Design for Learning (UDL) principles, where curriculum design anticipates diversity from the outset, benefiting all students, not just those with hearing impairments (Rose & Meyer, 2002).

Attitudinal barriers stigma, low expectations, and a lack of awareness underpin all other challenges. The medical model of disability, which views impairment as a deficit to be cured or managed individually, still prevails over the social model, which identifies societal barriers as the primary disabling factor (Oliver, 2013). This is reflected in the tendency to place the burden of adaptation on the student rather than on the institution to transform. Promoting deaf awareness and sensitization for administrators, faculty, and hearing students is not a peripheral activity but a core component of creating an inclusive culture. Highlighting the success of deaf

professionals and the linguistic richness of sign language can help change perceptions. Finally, the role of Deaf communities and their organizations is crucial. Their reported marginalization from planning processes is a significant failure. Authentic inclusion requires their direct partnership. They are the experts on sign language, their educational needs, and the competencies required of interpreters. Institutional policies on inclusion must be co-created with organizations like the Cameroon National Association of the Deaf (CANAD) to ensure they are relevant, respectful, and effective (De Clerck, 2016).

In conclusion, the discussion posits that implementing sign language interpreters in Cameroon is not a simple logistical task but a complex socio-educational intervention. It demands a multi-pronged approach that synchronizes policy enforcement with professionalization of interpreting, institutional transformation through training and UDL, strategic financial investment, and cultural change fostered through awareness and community partnership. Without this holistic approach, efforts will remain fragmented, and the right to equitable higher education for deaf learners in Cameroon will continue to be unrealized.

Recommendations

To achieve a functional inclusive environment, the Ministry of Higher Education in Cameroon must take a leadership role by establishing a national task force to draft specific enforcement guidelines for inclusion. This should include a "National Manual of Procedures" that mandates the provision of interpreters in all universities as a condition for accreditation. Furthermore, a per-capita "Inclusion Grant" system should be implemented to provide universities with the necessary subventions to cover the costs of these specialized services, ensuring that the financial burden of disability does not fall upon the student.

At the institutional level, higher school institution's administrations should move toward the creation of permanent Special Needs Resource Centers that manage a professional pool of staff interpreters. Rather than hiring casual laborers, interpreters should be integrated into higher school institutions as permanent support staff with competitive salaries and clear career paths. Collaboratively, these institutions must work to develop a digital, video-based glossary of academic sign language to standardize technical terminology in fields like Law, Medicine, Engineering, etc across the national territory.

Furthermore, faculty members must be equipped with inclusive pedagogical skills through mandatory seminars organized by University teaching and learning centers. Lecturers should be trained to work effectively with interpreters, emphasizing the need to provide lecture materials in advance and maintain a bilingual-bicultural classroom atmosphere. Finally, the deaf community and civil society must be empowered through student-led advocacy groups to lobby for their rights, while organizations like CANAD should partner with higher school institutions to certify the proficiency of interpreters, ensuring that the quality of communication remains high and academically rigorous. Through these concerted efforts, Cameroon can transition toward a truly equitable higher education system that values diversity and linguistic rights.

Conclusion

In summarizing the findings of this study, it is evident that the inclusion of learners with hearing impairment in Cameroonian higher education is currently symbolic rather than functional. The research established that the predominant oral-based teaching methods act as a systemic barrier, as universities lack formal departments or budgetary allocations for sign language services. The resulting linguistic isolation forces deaf students to rely on inadequate "peer-support" systems, which fails to provide the epistemological access required for high-level academic success. Furthermore, the absence of specific enforcement guidelines for existing disability laws allows institutions to remain inaccessible without accountability.

Ultimately, the study concludes that true inclusion is an active, institutionalized process rather than a passive act of enrollment. The sign language interpreter serves as the essential bridge to academic equity, and until their role is professionalized and funded, the rights of hearing-impaired learners will remain unfulfilled. We must move from a charity-based model to a rights-based model where sign language is recognized as a legitimate and necessary medium of instruction in the Cameroonian academic ecosystem.

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