

## STRATEGIES FOR ACCESSIBILITY AND INCLUSION IN HIGHER EDUCATION

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### ABSTRACT

Deaf individuals primarily use sign language, a visual and spatial form of communication, but face significant barriers in environments dominated by spoken language. In Latin America, many deaf individuals struggle with the spoken language of their countries, which often marginalizes them as a linguistic minority. This paper examines the inclusion of deaf students in higher education in Medellín, Colombia, and explores the progress and challenges they face. Using a qualitative and ethnographic methodology, the study investigates communication barriers, educational adaptations, and the role of sign language interpreters. Case studies from Medellín universities highlight the real-world experiences of deaf students, including their struggles with entrance exams designed for hearing students and the broader social implications of their exclusion. The research reveals the need for structural changes in higher education, including the adaptation of entrance exams, academic materials, and teacher training to accommodate sign language. The findings suggest that true inclusion requires recognizing deaf individuals as a linguistic minority and making reasonable adjustments to ensure equitable access.

**Keywords:** Deaf education, Inclusion, Sign language, Higher education, Linguistic equity.

### INTRODUCTION

Human diversity encompasses various conditions that shape distinct cultures and languages. One of these conditions is deafness, which significantly influences the creation of a unique culture and language. Individuals who are deaf or have significant hearing impairments do not acquire the spoken language of their environment naturally. In Latin America, deaf individuals often exhibit significant gaps in their command of spoken Spanish (Ochoa, Gómez, & Osorno, 2014). This places them as a linguistic minority with a culture that differs from the hearing majority. True inclusion must acknowledge these specific characteristics.

Deaf individuals primarily communicate through their own language: sign language. This language is visual, gestural, and spatial, and lacks a written form

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(Liddell, 2005). It allows them to communicate as effectively as hearing individuals do through spoken language. However, most people are unfamiliar with sign language, excluding deaf individuals from many spaces they are entitled to access as citizens (Ochoa et al., 2014).

One key space where this exclusion is especially problematic is higher education, which plays a critical role in personal development. For individuals with disabilities, education is one of the most crucial pathways to achieving social inclusion (Kersh et al., 2007).

In the context of a teacher-student relationship, communication is essential for sharing knowledge and ensuring effective learning. When the teacher and student do not share a common language, and the deaf student has limited proficiency in Spanish, certain adjustments are necessary. These adaptations extend beyond the classroom to include interactions with peers, student support services, extracurricular activities, and other areas essential to the full experience of a university student.

Salazar (2018) conducted a study on the experiences of specific deaf students in Medellín, Colombia. Six years later, many aspects have evolved. This article seeks to examine the progress and ongoing challenges in the inclusion of deaf students in higher education in Medellín, Colombia, while proposing strategies to promote a more inclusive academic environment across Latin America.

The article is structured as follows: first, it provides key definitions regarding the methodology, which was guided towards qualitative research. Following this, it offers a broader context on the inclusion of deaf individuals in higher education, addressing their entry into universities, linguistic competencies, the role of sign language interpreters, academic performance, and external factors. It then examines strategies proposed in previous studies to support the inclusion of deaf students in higher education. Case studies from specific universities in Medellín are presented, analyzing real-world examples observed during the research process. This includes a collective case of a social movement that had an important impact in the city. Finally, the article concludes with an analysis of the findings, followed by future work, acknowledgments, and references.

## **METHODOLOGY**

Qualitative research is centered on understanding human behavior from the perspective of those involved. As noted by McMillan and Schumacher (2005), this

type of research not only advances theoretical understanding but also informs educational practices, planning, and contributes to broader social awareness. Its goal is to provide a detailed and contextualized view of social realities, grounded in the experiences of the participants.

Furthermore, qualitative research allows researchers to build a conceptual framework for understanding phenomena by identifying the key characteristics that define them (Mella, 1998). This method is especially valuable for distinguishing the specific phenomenon under investigation from others, achieved through careful observation and analysis of its unique qualities.

When it comes to ethnography, this research approach is designed to explore the way of life within a specific social group (Gómez, Gil, & García, 1999). Ethnography focuses on small communities and emphasizes direct engagement with the environment being studied. Researchers typically spend significant time within the community to gather a large volume of data, placing strong importance on the broader social and cultural context of the behaviors and interactions observed.

To gather insights, researchers often rely on unstructured interviews, participation in daily activities, and detailed field notes. Additionally, the subjective experiences of both the researcher and participants play a critical role in interpreting the social dynamics at play. Rockwell (2011) highlights the importance of recognizing the meanings embedded in these interactions, which requires continuous interpretation throughout the research process.

Ethnography aims to move beyond simply documenting events. Instead, it seeks to uncover how individuals respond to and manage these events, either reinforcing or reducing the likelihood of them happening again (Jociles, 1999). This approach allows for a deeper and more comprehensive understanding of the lived experiences of the participants.

The decision to use a qualitative, ethnographic methodology stems from its ability to deeply explore the lived experiences of deaf students in higher education. Ethnography enables an immersive study of the cultural and social dynamics that shape their academic and social inclusion, focusing on direct observation and participant interaction. This approach provides a nuanced understanding of communication barriers and adaptation strategies within the educational environment, making it ideal for capturing the complexities of deaf students' experiences and developing targeted inclusion strategies. Thus, it aligns perfectly with the study's objectives of enhancing theoretical insight and practical applications.

## PROBLEMATIC CONTEXTS OF DEAF STUDENTS IN HIGHER EDUCATION

The situation of Deaf individuals in higher education remains challenging due to multiple factors that hinder their full inclusion and equitable access. Two critical aspects in the discussion about their education are the communication modality used in classrooms and the type of educational institution—whether it is a regular institution integrated with hearing students or a specialized school exclusively for Deaf students. In Latin America, the most common case for higher education is to have regular institutions.

In terms of communication, two paradigms often emerge: monolingualism and bilingualism. The monolingual approach, often following an audiological model, focuses on developing competencies in the majority spoken language, such as Spanish, through strategies like phonological training. On the other hand, the bilingual approach advocates for the use of both sign language as the native language and the surrounding spoken language as a second language. This bilingual model promotes sign language as the primary tool for interaction and instruction in early education and calls for its formal integration into the curriculum alongside spoken language.

However, the challenges for Deaf individuals in higher education extend beyond the classroom. Many public and private institutions have entrance exams that, despite some adaptations, remain heavily oriented toward hearing students. These exams often rely on Spanish, which is a second language for Deaf students, placing them at a disadvantage. Questions that require an understanding of complex linguistic features, such as metaphors and idioms, are particularly inaccessible for those whose primary language is sign language.

Deaf communities in Latin America have historically experienced exclusion, frustration, and lower academic expectations, leading to delayed entry into formal education and limited access to their natural language, sign language. Educational policies have frequently been designed without involving these communities, ignoring their history, language, and identity. This disconnect creates further barriers to achieving equitable access to higher education, where Deaf individuals often struggle due to the lack of inclusive practices and supportive resources tailored to their needs.

Inclusion, therefore, is not just about placing Deaf students in either integrated or specialized institutions, but about creating educational environments that respect and address their unique linguistic and cultural needs. Addressing this gap requires a shift in attitudes and a commitment to seeing differences not as obstacles but as opportunities to foster a truly inclusive and diverse learning experience.

## RESULTS

A field investigation focused on four individuals was conducted in relation to the problem context. By using a qualitative approach and ethnographic techniques, researchers compiled a field diary and carried out semi-structured interviews. This process took into account the same 4 cases that had been analyzed in the preliminary study reported by Salazar (2018), and by following the same participants in their evolution, it allowed for a trace of the paths they took. Additionally, a case is presented that, over the past 4 years since the previous study, stands out as a milestone in public higher education for deaf students in the city of Medellín. This case involves the adaptation of the admissions exam specifically designed for sign language users.

The following section details the findings from this study, along with an analysis of those results. First, the study cases will be reported, starting with the collective case and then the individual ones.

### *Collective Case: The Movement of Deaf Communities and Their Struggle for Linguistic Rights*

At *Universidad de Antioquia*, an important public university located in Medellín, there was an entrance exam where sign language interpreters were present, but it made little sense because one of the main components was reading comprehension in Spanish—a language in which deaf signers were not being fairly evaluated. As a result, in over 200 years of the university's history, no deaf signer had ever been admitted.

Then, in 2021 deaf communities decided to protest outside of this important institution. They stayed for 22 days, successfully pushing for the inclusion of sign language in the entrance exam. This achievement highlighted the power of collective

mobilization to transform access to education. The demands of deaf communities underscore the need for reasonable adjustments in educational systems.

### *Individual cases*

#### *Case 1*

Daniel is a person who was born deaf. At the age of four, his parents enrolled him in an oral education institution, where he was taught to read lips and vocalize in an attempt to mimic sounds. After two years, it became clear to his parents that he was not making progress in oral skills, prompting them to seek a different school. They found a specialized institution that focused on deaf students and taught them in their natural language: sign language. Daniel adapted easily to this new environment.

He recalls being amazed when he first arrived at the new school and witnessed sign language communication. It was incredible for him to see people communicating fluently without relying on spoken words, which had been a struggle for him. His experience at the school was positive; he graduated with honors and was the top student in his class on the state exams.

Afterward, Daniel began searching for universities to pursue a law degree. His family's financial situation allowed him to apply to a private university, where the admission process included an interview with the support of an interpreter. Although the university accepted him, it failed to provide an interpreter for his classes, despite this being a legal requirement in Colombia. Daniel filed a legal complaint, and the court ruled in his favor, compelling the university to fulfill its obligation to provide the necessary support.

However, law is a field where reading and writing are almost sine qua non skills. Without access to sign language interpretation for the course materials, his studies became extremely challenging. Although he was determined to continue, after three years of struggling without adequate support, he decided to withdraw. He later applied to Universidad de Antioquia, the previously mentioned prestigious public institution, just as it changed its admissions exam to include Colombian Sign Language, and he was admitted. He is now studying cultural management, another area of great interest to him. He expresses great happiness with this new path.

#### *Case 2*

Andrés, a deaf individual nearing graduation in Political Science, has faced significant financial challenges in pursuing higher education. His low performance on

state exams initially limited his chances of securing a scholarship. Despite applying to public universities, he was repeatedly denied admission, even though interpreter services had been introduced as part of exam accommodations.

Determined to continue his education, Andrés worked as a teacher for deaf students to save money, eventually applying to a prestigious private university. Through the support of an NGO that assists students with disabilities, he secured a scholarship, and the university's director offered full support.

Unlike many deaf students, Andrés had access to sign language translation for academic documents and interpreters who voiced his sign language essays. He also taught sign language to his classmates and others interested in learning. As he approaches graduation, Andrés was recently recognized as a distinguished student for his leadership.

### Case 3

Susana lost her hearing at two due to acute bacterial meningitis and attended a school for hearing peers, where she learned lip-reading and vocalization through speech therapy. After receiving a cochlear implant at six, her communication with hearing individuals improved, leading her to apply to a public university, where she enrolled in Animal Science on her second attempt. Initially studying without an interpreter proved frustrating due to the technical language used by instructors and their tendency to speak while writing on the board. After requesting an interpreter for her second semester, she faced challenges with one who lacked empathy and insisted she adapt to his signing style. Following a change in interpreters, Susana excelled academically, highlighting the importance of having a qualified interpreter who respects professional ethics and accommodates the needs of deaf students.

Finally, Susana graduated from the university, becoming the first deaf alumna of that prestigious public institution. This achievement was celebrated by her family, the university, and the media. However, she has been struggling to find employment in her field.

### Case 4

After graduating from high school, David pursued a degree in Spanish at a virtual education institution. Despite having access to a sign language interpreter, the virtual format proved unsatisfactory for him due to limited interaction with peers, lack of face-to-face contact with the teacher and interpreter, and the absence of guidance



with readings. These factors led David to discontinue his studies in that program. However, studies show that virtual education can be inclusive and successful, though this was not the case for David.

Determined to continue his education, David enrolled in another university to study Social Sciences, becoming its first deaf student. The institution was receptive to necessary accommodations, ensuring timely interpreter services and creating awareness spaces for the university community about deaf students' needs. David was allowed to substitute written assignments with sign language presentations or videos and even proposed teaching free sign language courses as part of his social work requirement, benefiting both the university and his personal interaction within the community. However, the costs associated with these accommodations had to be covered by David himself; the institution was only responsible for contracting an interpreter during classes, not for readings or writing assignments.

An NGO dedicated to assisting deaf students stepped in to support him during this process. Although it was challenging, the involvement of volunteers contributed to his success. Ultimately, David graduated from college and subsequently completed a master's program.

## **ANALYSIS**

### *Social Movement for Deaf Rights Preservation*

Deaf communities have been pivotal in driving social movements that advocate for the recognition of sign language and linguistic rights. An iconic case is the 1988 "Deaf President Now" protests at Gallaudet University in the U.S., which demanded deaf representation in institutional leadership (Bauman & Murray, 2014; García-Fernández, 2023). This movement illustrates the potential of deaf communities to influence educational and social policies.

As mentioned in the reported cases, a similar process unfolded in Colombia at Universidad de Antioquia. Despite years of academic meetings where committees analyzed the situation of potential deaf students and prepared necessary adaptations for them, the final decision to genuinely modify an exam to accommodate their needs—specifically recognizing sign language as their first language—was repeatedly postponed. These protests then precipitated the decision, and it was approved to have an exam fully adapted for sign language speakers. Since then, more than 20 deaf students have been admitted, and the institution has established a specialized team of sign language interpreters and translators to support these



students in their classes and various university activities. This team also assists in producing videos related to the course content that students need for their lessons.

### *Beyond a Second Language*

It is often stated that sign language is the natural language for deaf individuals, frequently serving as their first language, though in some cases, it may also be considered their mother tongue. In regions like Latin America, Spanish or Portuguese typically functions as a second language. The transition from a visual-gestural and non-written language like sign language to oral-written languages such as Spanish, Portuguese or English presents significant challenges. For a hearing person, the experience of learning English as a second language differs vastly from that of a deaf individual transitioning from sign language to a written language. The stimuli and modes of communication involved are fundamentally different.

With this in mind, gaining admission to university represents one of the first barriers that must be addressed. The initial step should involve implementing structural changes to national and university entrance exams, which currently prioritize spoken language and focus primarily on abilities in Spanish. While it is essential for deaf individuals to have a basic understanding of Spanish, compelling them to evaluate their skills and knowledge through a language that is not their main tongue is both counterproductive and discriminatory.

Murray et al. (2020) have highlighted the need for educational institutions to recognize the deaf community as a linguistic minority, with rights that include education in their native language, sign language. Evaluating deaf students with the same criteria as hearing students, without considering their linguistic conditions, perpetuates an exclusionary model rather than promoting true inclusion.

Skutnabb-Kangas (2018) has argued that education in the mother tongue is key for cognitive and emotional development, and in the case of deaf individuals, sign language plays an essential role. Therefore, adapting both entrance exams and scholarship programs for deaf individuals would be an important step toward educational equity.

### *Inclusive Education*

The inclusion of deaf students depends on reasonable adjustments that ensure equitable access to education. These adjustments include the adaptation of materials, interpreters, and raising teachers' awareness about the needs of deaf students. Linguistic rights, such as learning in sign language, are crucial for true educational inclusion (Mohanty & Skutnabb-Kangas, 2022). Universities must collaborate with deaf professionals to foster an inclusive environment for all.

Many students graduate with significant gaps in their knowledge, having occasionally passed courses without fully grasping the material. Providing adaptations such as translating texts into sign language and employing translators to voice sign language videos created by students is essential for fostering equal opportunities. While these services may increase costs, they are crucial for ensuring comprehensive understanding.

However, interpreting and translation are not the only considerations. Professors and other members of the educational community must be aware of the basic needs of deaf students. While fluency in sign language is not required, it would be beneficial for them to learn some basic signs. More importantly, fostering a supportive attitude toward assisting deaf students is essential to ensure they receive the help they need.

### *The Importance of Deaf Professionals as Support Models*

The role of deaf professionals in universities is essential for ensuring the retention of deaf students, providing them with not only academic but also emotional and cultural support. These professionals, experts in sign language and deaf culture, serve as key role models for deaf students, contributing to their academic and personal success (Yabe, 2024).

Through interviews with the research participants, they have reported an improvement in their well-being and academic performance when having deaf staff in universities. Importantly, interpreters are not intended to mediate in these holistic support situations; their ethical responsibility is limited to providing interpretation and translation services. This distinction is crucial to ensuring that the role of interpreters remains clear and that deaf students receive the comprehensive support they need from specialized staff.

## **FINAL CONSIDERATIONS**

Historically, deaf individuals have seen their right to higher education compromised, as many institutions have not been able to meet this need. The present study addresses the importance of higher education with a bilingual approach and interpretation services to facilitate access for deaf people in Colombia. The objective is to raise awareness among institutions about the needs of the deaf population and describe how adjustments can be made for their inclusion in higher education, highlighting sign language as an essential means to guarantee their access and participation.

Many universities across Latin America struggle many challenges for the inclusion of deaf students. The findings of this study underscore the importance of recognizing deaf individuals as a linguistic minority within higher education systems. Despite some progress, many deaf students in Medellín, Colombia, face significant barriers that hinder their full participation in academic life. These challenges stem from systemic issues, such as entrance exams designed for hearing students, limited availability of sign language interpreters and translators, and a lack of teacher training in inclusive practices. Without substantial adaptations to curricula, assessment methods, and communication strategies, deaf students remain at a disadvantage, perpetuating educational inequality. A key conclusion is that the success of deaf students depends not only on providing interpreters but also on embracing sign language as a legitimate medium of instruction, necessitating broader institutional changes.

Final considerations highlight that meaningful inclusion of deaf students requires a paradigm shift in the way educational institutions approach diversity. Universities must go beyond compliance with disability laws and actively promote linguistic equity by fostering environments where sign language is integrated into teaching, learning, and social interaction. This involves increasing resources for interpreter services, creating accessible materials, and developing policies that account for the unique needs of deaf students. Ultimately, the pursuit of inclusive education benefits not only deaf individuals but the entire academic community, as it cultivates a culture of respect for linguistic diversity and promotes innovative pedagogical practices that accommodate varied learning styles.

## **ACKNOWLEDGMENTS**

I would like to express my sincere gratitude to the Instituto Tecnológico Metropolitano (ITM), particularly to the *Centro de Idiomas*, where I have had the invaluable opportunity to learn about research in sign language over the past three years. This experience has been fundamental to my professional and personal growth, providing me with the tools and knowledge that will strengthen my career in the field of interpretation and translation.

I am deeply grateful to Valentina Valencia for her constant support and encouragement, which have been crucial during challenging moments. Additionally, I extend a special thanks to Katherin Pérez, my research tutor, whose wise and patient guidance has illuminated my path throughout this process. Her dedication and commitment have left an indelible mark on my education, and I am immensely thankful for the opportunity to have learned from her in the Colombian Sign Language - Spanish Interpretation and Translation program.

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