

Perceptions of Typhology in Colombia in the Context of Inclusive Education: Insights from Blind Individuals and Typhologists*

[English version]

Percepciones de la tiflogía en Colombia en perspectiva de educación inclusiva: voces de personas ciegas y tiflólogos

Percepções da tiflogia na colômbia na perspectiva da educação inclusiva: vozes de pessoas cegas e tiflólogos

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Abstract

Objective: This study explores the perceptions surrounding the work of typhlogists in Colombia. **Methodology:** The fieldwork was conducted with three population groups: professionals in typhlogy, professional blind adults, and blind youth from district educational institutions in the city of Bogota, Colombia. Semi-structured interviews were used as the primary instrument for data collection. **Results:** It is evident that, although national regulations highlight the importance of typhlogy in inclusive education, there is no official profile established by the Ministry of National Education in which the field of action, characteristics and specific functions are established. In other words, there is no professionalization of the typhlogist's work. This means that any professional with a minimum of experience in relation to the educational process can accompany the visually impaired population. This could affect the quality of support provided to people with this type of disability in the country. **Conclusions:** It is necessary to recognize the importance of typhlogy as a profession that contributes to inclusive education, to the extent that it addresses all the dimensions of visual impairment.

Keywords: education; visual impairment; inclusion; typhlogy (obtained from UNESCO and MECS thesaurus).

Resumen

Objetivo: se indaga en las percepciones que circulan alrededor de la labor del tiflólogo en Colombia. **Metodología:** el trabajo de campo se adelantó con tres grupos poblacionales: profesionales en tiflogía, adultos ciegos profesionales y jóvenes ciegos de instituciones educativas distritales de la ciudad de Bogotá, Colombia. Se hizo uso de la entrevista semiestructurada como principal instrumento de recolección de información. **Resultados:** se evidencia que, si bien desde la normatividad nacional se resalta la importancia de la tiflogía en la educación inclusiva, no hay un perfil oficial desde el Ministerio de Educación Nacional en el que se establezcan el campo de acción, características y funciones específicas. En otras palabras, no hay una profesionalización

de la labor del tiflólogo. Esto genera que cualquier profesional con unos mínimos de experiencia en relación con el proceso educativo realice acompañamiento a población con discapacidad visual. Lo que podría afectar la calidad del apoyo que se brinda a las personas con este tipo de discapacidad en el país. **Conclusiones:** es necesario reconocer la importancia de la tiflogía como una profesión que aporta a la educación inclusiva, en la medida en que aborda todas las dimensiones que comprende la discapacidad visual.

Palabras clave: educación; discapacidad visual; inclusión; tiflogía (obtenidos del tesoro UNESCO y MECS).

Resumo

Objetivo: investigar as percepções que circulam em torno do trabalho do tiflólogo na Colômbia. **Metodologia:** o trabalho de campo foi realizado com três grupos populacionais: profissionais em tiflogia, adultos cegos profissionais e jovens cegos de instituições educacionais distritais na cidade de Bogotá, Colômbia. Foi utilizada a entrevista semiestruturada como principal instrumento de coleta de informações.

Resultados: evidencia-se que, embora a importância da tiflogia na educação inclusiva seja destacada pela legislação nacional, não há um perfil oficial estabelecido pelo Ministério da Educação Nacional que defina o campo de atuação, características e funções específicas. Em outras palavras, não há uma profissionalização do trabalho do tiflólogo. Isso faz com que qualquer profissional com alguma experiência relacionada ao processo educacional preste apoio à população com deficiência visual. Isso pode afetar a qualidade do suporte oferecido às pessoas com esse tipo de deficiência no país.

Conclusões: é necessário reconhecer a importância da tiflogia como uma profissão que contribui para a educação inclusiva, na medida em que aborda todas as dimensões que envolvem a deficiência visual.

Palavras-chave: educação; deficiência visual; inclusão; tiflogia (obtidas do tesoro UNESCO e MECS).

Introduction

The process of transforming special education towards inclusive and quality education reflects a paradigm shift in the pursuit of more just societies (Correa & Rúa, 2018; de la Rosa, 2021). Colombia has made significant progress at the regulatory level in the search for inclusion, equity and guaranteeing the rights of persons with disabilities in the educational sphere. This is evidenced by what is enacted in the Political Constitution of 1991, the Law 1346 of 2009, the Statutory Law 1618 of 2013, the Decree 1421 of 2017, the Ten-Year Education Plan 2016 -2026, the Guide for the implementation of Decree 1421 of 2017, the Guidelines for reporting children and adolescents with disabilities in the Integrated Enrollment System (SIMAT), Circular 020 of 2022, Policy Guidelines for inclusion and equity in education: Education for all people without exception 2022, among others.

In this context, the recent Resolution 1239 of 2022, issued by the Ministry of Health and Social Protection, includes in the category of visual impairment both blind people and those with low vision. The latter includes those who, despite wearing glasses, contact lenses or having undergone surgery, have difficulty perceiving light, shape, size or color of objects. It also highlights the importance of providing support to promote independence and autonomy, such as orientation canes, glasses or magnifying glasses, texts in Braille, macrotype (enlarged text), screen reader programs, magnifying programs, or auditory information, among others (MEN, MSPS & the Saldarriaga Foundation, 2021).

Despite legislative advances in Colombia, there are still challenges that require attention to ensure inclusive and quality education for all students in the country (Aristizábal, 2019; Guerrero & Rojas, 2023). These challenges are evident in the experiences of blind students, who face barriers that restrict their participation and learning in the educational environment. These include insufficient teaching on the use of Braille and the abacus, and the lack of implementation of techniques that promote orientation, mobility and socialization in school spaces and daily activities (Ruiz & Zamora, 2021); as well as the shortage of specialized personnel to meet the educational needs of blind children and young people in regular educational offerings (Castro, 2022).

In response to these challenges, the Ministry of National Education (MEN) has created temporary jobs for pedagogical support teachers, with the objective of reinforcing accompaniment in educational establishments and to classroom teachers (MEN, 2015; MEN, 2017). These professionals are affiliated with the schools of certified territorial entities, and among their responsibilities are the design and implementation of curricular flexibilities, advising on inclusive

pedagogical strategies, and collaborating with the educational team to ensure educational support for students with disabilities, including visual impairment. This is aimed at contributing to the construction of an accessible and equitable educational environment that promotes the full participation of all students in the school setting (MEN, 2015; MEN, 2017).

Among these professionals is the typhlogist, a specialist who focuses on developing didactics that allow for the application of typhological areas in teaching-learning processes, determining reasonable adjustments, and promoting the participation of blind and visually impaired students in the educational process within the framework of inclusion (Ruiz & Zamora, 2021). In fact, the National Institute for the Blind (INCI, Spanish acronym for *Instituto Nacional Para Ciegos*), the entity responsible for ensuring the rights of Colombians with visual disabilities, asserts that to move towards a more inclusive education, it is necessary to involve professionals who understand how to support blind and visually impaired students in their academic training processes, in accordance with the provisions of Decree 1421 of 2017 (INCI, 2018).

However, no professional typhlogists have been trained in Colombia since the mid-1990s. In fact, the Universidad Pedagógica Nacional (UPN) was the only institution of higher education in Colombia that offered and trained graduates in education with this emphasis, who received the title as: Bachelor's in Special Education with an Emphasis in Typhology. As a result of this educational trajectory, 82 experts in visual impairment, 32 experts in Typhology, accredited as intermediate professional technicians, and 67 graduates in Special Education with an emphasis in Typhology graduated (Cabrera, 1993). Consequently, there is currently a significant shortage of these professionals in the country (INCI, 2019). In addition, higher education institutions do not have and have not offered a formal postgraduate education program in Typhology, which hinders the visibility, research and updating of this profession in Colombia (Castro, 2022).

Within the framework of a global movement towards inclusion, distancing itself from the population-based approaches that gave rise to Special Education with an Emphasis on Typology, the aim is to move towards a broader perspective of diversity (Ministry of National Education et al., 2021). This article explores the perceptions of people with visual disabilities and typhlogists on typhology in Colombia, valuing the authenticity of their experiences and understanding that their voices allow for the identification of successes and necessary adjustments in response to the paradigm shifts that redefine educational support for people with disabilities.

Methodology

This study has an interpretative approach, since it seeks to understand the meaning of typhology in Colombia, through the emerging reality and the voices of those involved in this field. Three key profiles were considered for the selection of participants in order to capture a broad representation of perceptions of typhology in Colombia. Typhologists with recognized experience were convened, as well as blind adults and youth who had previously utilized typhology services; all of them residing in Bogotá.

Four professionals with over ten years of experience in typhology in the educational field participated. The selected typhologists hold teaching roles in higher education institutions, and work as temporary pedagogical support teachers in district schools in the city of Bogotá. This group was chosen to gain insight into the support, training, and teaching processes directed towards blind individuals within the educational setting.

The second profile included three blind adults, over 30 years old, with postgraduate education and professional development in various areas. This group was chosen to explore and understand the scope of typhology from the life experience of the participants, and to analyze the generational conceptions of this discipline.

The third group consisted of three blind youth aged between 15 and 20, in the process of completing their high school studies in public educational institutions. This inclusion provided an opportunity to closely analyze the daily experiences of blind students in the current context of inclusive education in Colombia.

The semi-structured interview technique was used, which involves asking a set of open-ended questions to the interviewees. According to Tejero (2021), this allows the collection of sufficient data to understand the area of interest and saturate the information. This offers researchers multiple points of view from participants, as well as the flexibility to change the order of questions, add new ones, ask for clarification, or go deeper into a specific topic, facilitating a fluid, personalized and authentic conversation.

The procedure involved creating an interview guide aligned with the research objective, structured into previously established categories that included sociodemographic information, related regulations, training opportunities, and the significance of typhology in Colombia. The ten interviews were conducted until data saturation was reached, and the established topics were covered. During the data collection process, informed consent was obtained from the participants,

and ethical considerations proposed for research involving human subjects were followed, establishing a risk level lower than the minimum (Resolution 8430 of 1993).

Following the dialogue, a process of orthographic transcription of the audio formats into text documents in Word was carried out to facilitate the collection of the provided responses, the coding, and the content analysis. This technique made it possible to identify recurring patterns expressed by the interviewees during the development of the questions, examining the different factors that have an impact on the research topic. This was done with the assistance of specialized data analysis software, ATLAS. IT, which allows to extract, categorize, and relate data segments from various documents (Puig et al., 2014).

Results

This section presents the results classified according to the pre-established categories and those that emerged during the dialogue with the participants.

Political Factors

This category refers to elements related to the normative context that influences perceptions of typhology in Colombia. In this regard, exploration was conducted on the interpretation of policies, laws, regulations, and norms directly related to inclusive education and the rights of people with visual disabilities.

The educational support for people with disabilities in Colombia has undergone significant changes in the models of care, their scope, and field of action (MEN, 2017). According to a blind adult, these transformations are due to:

[...] the social struggles of historically excluded sectors, which were previously in segregated education, as they are now demanding spaces where everyone, including, of course, the population with disabilities, can be included. So, it is basically the perspective of inclusion or inclusive education, and that is that everyone learns in the same spaces. (Personal communication, May 15, 2023).

Therefore, it is essential to continue advancing towards inclusive education to maintain consistency with the United Nations Convention on the Rights of Persons with Disabilities. In this context, speech typhlogist and other support professionals are immersed in fundamental processes aimed at the personal development of individuals with visual impairment, within the framework of education for all. This commitment transcends mere professional responsibility, and is based on essential values such as cooperation, respect, and recognition of the characteristics of this group (Verdugo et al., 2020).

In this regard, a young blind man interviewed mentions that

[...] there are many barriers because learning is very different from that of a person who can see; what facilitator there can be or what I have found out mainly is that, well, typhlogists provide audios, videos, or assign us material to be able to learn a little more or approach the similarity of the activity being carried out. (Personal communication, May 30, 2023, own translation).

This perspective of inclusion benefits the visually impaired population by allowing them to share experiences and knowledge with people without disabilities, creating an enriching space for all. It guarantees an education in which dialogues from different knowledge are promoted; as well as the construction of inclusive environments, where mutual understanding is fostered and inclusive education is put into practice. This to overcome barriers and promote meaningful learning that drives better interactions and self-determination, as pointed out by the MEN (2017).

Although regulations on inclusive education can be interpreted as favorable, they can also be understood as barriers. A typhlogist mentioned:

[...] the principal of the school where I am, he is very legalistic, and he says that the school opened for everyone. We are not going to exclusively receive children with visual disabilities. "We are going to receive all the children who arrive." So there, children with cognitive disabilities, physical disabilities, autism, arrive, and at that moment, within the school's profile, we are more pedagogical support teachers than typhlogists. (Personal communication, May 20, 2023, own translation).

This is highlighted in national regulations, such as Decree 1421 of 2017 and Circular 020 of 2022, oriented towards inclusion and equity in education, which contribute to the care of students with disabilities and the organization of the education system. However, the involvement of the typhlogist in a pedagogical support teacher role can lead to a lack of recognition as a profession

and ambiguity about the action they carry out. Consistent with Guerrero and Rojas (2023), this affects the quality of supports and accommodations for students with visual impairments.

Meaning of Typhology in Colombia

This category refers to the understanding and appreciation that participants attribute to typhology based on their own conceptions and experiences.

The meaning of typhology in Colombia has undergone significant changes over time. Since, in line with the models of the time, the education of people with visual disabilities was carried out in a segregated manner in specialized institutions or they were integrated into regular classrooms. This is expressed by two blind adults interviewed:

I was the only blind person in the school. So no, they didn't have tools, and well, they suggest that I enter a school that already implements these integration processes. I remember that at that time it was called, school integration or something like that. (Personal communication, May 15, 2023, own translation).

Similarly, the other participant states that

I studied in a school where I was the only blind student, at a time when the law didn't even exist, imagine, let's think about Law 115 which is from '94, I entered school in '88 when the law came out, I had already been in school for 6 years, so I was educated in illegality [...] They issued that law, which doesn't even talk about inclusion, it talks about integration. (Personal communication, May 15, 2023, own translation).

However, with the evolution of educational policies and approaches toward inclusion, the meaning of typhology has evolved. It is now recognized that this is not limited to specific training in aspects related to visual impairment, but also encompasses the comprehensive training of educators and professionals working in the field of inclusive education.

A typhlogist interviewed defines a «typhlogist» as

[a person who broadly recognizes the capabilities of blind and low vision people, who recognizes them as peers, that is, as equals, who recognizes the potential of

blind and low vision people and who is willing to work with them and for them. A person who is free from prejudices regarding blindness. (Personal communication, May 17, 2023, own translation).

In this sense, etymologically the term "TIFLO" comes from Greek mythology. "TIFLOS" was the name of a Greek island where the blind were exiled. Today, "TIFLO" is used to refer to people who are visually impaired in some way. Thus, "typhology" is the science that studies the inclusion in education of people with visual impairment (Ruibal, 2018).

Regarding the functions of the typhologist, three interviewees expressed that these encompass "[...] teaching typhological areas such as the use of the abacus, the cane, and obviously the braille writing system when applicable, skills for daily living, orientation and mobility, and typhotechnological tools" (personal communication, May 22, 2023). Similarly, they must «[...] adapt the guides to the student, if he/she requires it, also, they must provide support in some classes if the student requires it» (personal communication, May 30, 2023, own translation), and work on

The perspective of inclusion in inclusive education is that everyone learns in the same spaces with the adjustments that need to be made and with the rhythms that need to be respected for each of the students. (Personal communication, May 15, 2023, own translation).

According to Lizarazo et al. (2023) states that typhology is divided into five typhological areas: Braille system, closed abacus, orientation and mobility, typhotechnologies and daily living skills, and rehabilitation or comprehensive habilitation.

These could be functions that are considered within the minimum parameters for the inclusion of support staff with roles in typhology, for the care of blind and visually impaired students. Currently, the required profile, according to INCI (2019), is: licensed professionals in Special Education - Typhology, whose training indicates in-depth studies in visual impairment; teachers who can demonstrate training in typhological areas; or non-licensed professionals with two (2) years of experience in direct care for the visually impaired population in the educational system.

Similarly, the practice of this professional is not limited only to the educational field, as explained by a typhologist:

[...] we can find typhologists in rehabilitation, we can find typhologists in labor inclusion, even typhologists in health processes other than rehabilitation. That

is fine because the focus of typhology is knowledge about blindness, blindness as a category. In that sense, one can be a typhologist with training in technology, a special educator, a disciplinary educator in any discipline, a therapist, of course, because he has the knowledge, his performance will be different in each setting. (Personal communication, May 17, 2023, own translation).

When we think we have progressed in policies and affirmative actions that promote inclusive spaces, scenarios arise that probably no one thought of. As mentioned by a blind adult,

[...] It is necessary, for example, to consider if in the adaptation of job positions it is necessary to think about support in higher education, it is necessary to think, for example, in the field of health there is pharmaceutical information, there is, for example, someone, a woman was complaining; a blind woman said, well, I went to do my course, what's it called, the psychoprophylactic course, to have my baby, and everything was on video, I didn't understand anything. (Personal communication, May 15, 2023, own translation).

This may be something new, but it is necessary and important for the disabled population, who have every right to appreciate reality from their access possibilities.

It is interpreted that the meaning of typhology in Colombia, from the perspective of blind individuals and typhlogists, has undergone a process of transformation; especially with the paradigm shift from special education to inclusive education and the origin of typhology. The understanding that the interviewees attribute to the role of the typhologist highlights the importance of recognizing that the central core of typhology lies in knowledge about blindness. Regarding this, a blind young person refers that.

[...] the function of a typhologist is to provide a kind of accompaniment, let's say not all the time but in things that the student or the person who requires it, that support, whether it is well, it is in part difficult for me, so I say that rather than a permanent support, it is like where you can seek help in things that are difficult for you. (Personal communication, May 17, 2023).

This approach allows a typhologist to play his role in a variety of settings, and his training should enable him to perform in a variety of roles; in areas such as rehabilitation, occupational inclusion, and health, and adapting his

performance to each specific context. It highlights the flexibility and versatility of the typhlogist beyond traditional boundaries, even in unexpected scenarios.

Training Opportunities

This category refers to the different options available to acquire the knowledge and skills necessary to work as a typhlogist in the country. As well as to train professionals interested in working with people with visual disabilities and provide them with the necessary resources and tools for their comprehensive development.

Some interviewees mention that professional training opportunities in Colombian higher education institutions represent a significant barrier for typhlogists. In this regard, a typhlogist mentions that

[...] there are seminars that talk about and give space to Typhloeducation, but no, in none of those include training in Typhlogy, like, a subject within the multiple subjects that are seen, for example, at Pedagogical University, Typhlogy in education is mandatory, but there are others that become elective, so no, there is no training. (Personal communication, May 20, 2023, own translation).

In this sense, while one of the important changes was the adoption of uniform norms on equal opportunities for people with disabilities by the State, typhlogy is not addressed as specific training. Such is the case of the Special Education program at the National Pedagogical University which, influenced by the promulgation of the Political Constitution of Colombia and in response to these demands, restructured its curriculum in 1994 to favor more inclusive educational contexts, but focusing on the comprehensive training of special educators (Lancheros, 1993).

Currently, Colombia only has five active bachelor's programs in Special Education in higher education institutions; at the National Pedagogical University, University of Atlántico, University of Antioquia, University los Libertadores, and the Ibero-American University Corporation, which offer elective subjects in typhlogical areas and teaching sessions on braille and abacus (Castro, 2022). However, the mentioned academic programs offer training in visual impairment, but not in depth, and the teaching of typhlogical areas is elective. This results in special education graduates not having the necessary tools to make the relevant adjustments and provide support to the mentioned population (Castro, 2022).

In coherence, the reflection of another typhlogist is highlighted, who mentions that

[...] the Special Education degrees have in their undergraduate program some subjects that can be, in the case of Pedagogy, part of the undergraduate curriculum and have some electives, for example, in Orientation and Mobility, in Stenography and in that kind of things, but evidently in 16 weeks they do not give you enough time to train special education students as typhlogists, so it continues to be a topic that needs to be further strengthened and for which solutions need to be sought at all levels. (Personal communication, May 17, 2023, own translation).

This perspective emphasizes the need to continue seeking strategies and solutions at different levels to strengthen typhology training within bachelor's programs in Special Education, and thus ensure a more comprehensive preparation for future typhlogists.

Regarding other training opportunities, the program in Typhology for Inclusion stands out, offered by the Ministry of Education (MEN) and the Center for Rehabilitation of Blind Adults (CRAC), aimed at licensed educators, therapists, speech therapists, occupational therapists, and physiotherapists. highlighting the relevance of this initiative, a typhlogist reports: "To date, 28 professionals have graduated in a first cohort, 33 professionals in a second cohort, and 22 professionals are expected to graduate in the third cohort that started in January of the current year" (personal communication, May 17, 2023). These numbers are evidence of the impact and positive response of the participants to the training proposal. However, despite these achievements, the Ministry of Education (MEN) does not recognize it as a postgraduate study, but rather as a supplementary training course. Considering this situation, it is evident that the training of typhlogists has become blurred and minimized in formal education contexts.

The above, within the framework of inclusive education and in accordance with Ruiz and Zamora (2021), poses new challenges with respect to the training of typhlogists from educational models that recognize the particularities of blind and low vision students in Colombia. This includes the transformation of the policies, practices, and cultures of educational contexts.

Attitudinal Factors

This category focuses on exploring how attitudes influence the dynamics of typhology, and how they can affect or favor the full participation in the educational setting of people with visual impairment.

People with disabilities face a variety of obstacles every day that prevent them from exercising their rights. As expressed by a typhologist:

[...] support teachers or discipline teachers become a barrier if we have negative imaginaries of blind and low vision people [...] many speech therapists are more barriers than facilitators. [...] Because the typhologist tells the chemistry teacher 'Why does a blind person need chemistry?' [...] when no one denies other students the possibility of studying chemistry or playing soccer. (Personal communication, May 17, 2023, own translation).

These attitudinal barriers have been related to the exercise of authority by the typhologist, and to the asymmetry of roles that can transcend the educational practice and influence the ways of understanding and relating to the other. In this sense, a blind young man mentions that "[...] the same teacher in the classroom generates barriers out of fear", and a blind adult states that:

[...] there is a power relationship that is established between the typhologist, the blind student and the classroom teacher based on the discourse of inclusive education, which goes beyond the pedagogical. When these domains appear about students with disabilities something must be done. (Personal communication, May 15, 2023, own translation).

These approaches may reflect Foucault's (1983) statement that in the educational context, discipline represents the authority that one individual gives to another to be trained and guided. This absolute power can oppress and rule, but it also generates resistance and development of capacities to seek freedom. The more oppressive the power, the greater the need to develop skills to cope with it (Hilario, 2015).

Similarly, there is mention of a distorted understanding of disability, where it is mistakenly seen as a homogeneous condition, failing to acknowledge the diversity of abilities, talents, and interests among individuals in various situations. For example, a blind person, referring to their educational process, mentions that

[...] everything was mediated by a protocol [...]. The paradox here is that, in those protocols, they somehow blocked the spontaneity between teachers, students, and blind individuals; everyday life was blocked by formality, by routes, and by procedures. (Personal communication, May 15, 2023, own translation).

The same person refers that this transcends educational spaces and ends up affecting the independence of people with disabilities; she gives as an example that it is common that in the street people approach without asking and invade the body and space of blind people because they believe they are dependent. According to the Mayor's Office of Bogotá and the Saldarriaga Concha Foundation (2022), these barriers "[...] permeate all environments where PWDs are seen as dependent, 'the eternal child'" (p. 26, own translation). They do not self-determine, which restricts inclusion processes and the guarantee of rights.

The above highlights the importance of the enactment of Law 1996 of 2019, through which a regime for the exercise of legal capacity of adults with disabilities is established. This guarantees respect for human dignity and non-discrimination, in line with important international regulations regarding the rights of this population (Alcaldía Mayor de Bogotá & Fundación Saldarriaga Concha, 2022).

Factors of Access to Information

This category includes aspects related to obtaining information effectively, considering how communication and information technologies can influence their participation in the educational context.

Typhlogists who have extensive knowledge of technologies can be of great support for teachers and people with visual impairments. This includes knowledge of cane use, screen readers, screen magnification software, e-book reading systems, braille devices and object recognition applications, among others. In this regard, a typhologist mentions:

[...] for example, in the case with my student and a lot of information, because they send text through WhatsApp and she receives it and saves it, because thanks to the cell phone, not the one we can have, because she uses those means. There are also many teachers who, with the work that has been done, know that they can send PDF documents that can be read both on their cell phones and computers, and this has been the way to have access to many documents. Well, it would be a little difficult to have them all in Braille or all printed, because of the amount of

information, so technology, when used well, is a facilitator in inclusive education. (Personal communication, May 20, 2023, own translation).

This, according to Martínez et al. (2022)

[...] has significantly benefited all individuals, especially people with disabilities, to whom it has given greater independence, since it has facilitated access to information and equal conditions. It has also allowed the acquisition of knowledge and has helped them to have a satisfactory academic and work performance (p. 30, own translation).

In Colombia, since 2017 the National Government, through the ConVerTic project, acquired the Country License. This is a software that allows visually impaired people to use computers through screen readers free of charge.

Such is the case of Andrés Díaz, a lawyer and beneficiary of ConVerTIC, who emphasizes that the most interesting aspect of the project is "the possibility of being independent at work and having access to information". He was even able to become independent and have his own firm without the need to be employed by a traditional company. (MinTIC, 2023, own translation).

Lack of Awareness Regarding the Profession

This category emerges from the perceptions of the interviewees and refers to the lack of widespread knowledge and recognition of typhology in the country.

In this regard, a blind adult says "Well, there is a problem, and that is that as the speech therapist does not exist specifically in the regulations, there is special education, let's say, as a discipline it is offered as training in some universities in the country" (personal communication, May 15, 2023, own translation). Accordingly, it is believed that only the special educator is the one who meets the requirements and knowledge necessary to provide care and follow up on the processes carried out with the visually impaired population. However, as previously identified, in the academic offer of this degree at the national level, it is evident that, in spite of handling a knowledge base, either because they accessed this information in the framework of a subject, elective or training course, the curriculum of this degree is not designed to respond to the specific needs of the population. Hence, it is perceived that the importance of typhology has been minimized and this function has been delegated to those who believe they have knowledge about this science.

Another blind adult also refers in this regard:

Since 1994, profiles in typhology students have graduated in Colombia, and even the Universidad Pedagógica Nacional suggested Typhology as an emphasis of Special Education. That's why in Colombia we cannot speak of professionals in Typhology, but rather, graduates in Special Education with an Emphasis in Typhology, in response to the recognition of providing exclusive knowledge of the skills that are managed with the blind and visually impaired population. Since we could say that it is not the same to teach the use of software to a blind person than to a non-blind person; and this requires almost specific and imperceptible knowledge in the light of educational teaching in general. (Personal communication, May 17, 2023, own translation).

Something that contributes to this lack of knowledge is that there is no official document that defines the profile and functions of the typhologist in Colombia. However, a typhologist interviewed, states that

[...] the five bachelor's degrees in special education and the organization of people with visual disabilities in our country have been working hard and decisively towards organizing the profile of typhologists [...]. The profile was approved, it should have been issued at the end of the previous administration as a circular from the Ministry of National Education, but for some unknown reason to us, it was not published. But at this moment, the Ministry has already committed to releasing the profile. (Personal communication, May 17, 2023, own translation).

As a result, typhology has lost relevance in academic scenarios, since the profile, job description, competencies and basic knowledge required are unknown.

This response is echoed by a blind adult who mentions "I know that the Ministry of Education, together with some social organizations and Fecode, were defining what the role and functions of support teachers were going to be" (personal communication, May 15, 2023, own translation). For now, there are only two current documents: The first one is made by INCI (2019), where the profile of support staff with functions in typhology are established; and another one that is consigned in Wikitiflos, "*Perfil del tiflólogo*" (Ruiz & Zamora, 2021). Despite this, they are not established by Ministry of Education [MEN] guidelines.

Conclusions

Although national regulations promote inclusion and equity in education, the lack of recognition of typhology as a profession in Colombia, together with the limited training options, the absence of an official profile and clear definition of functions represent a major challenge. There is a clear need to promote greater visibility and institutional recognition for typhology, promoting a more comprehensive and mandatory education, supported by clear educational policies aimed at recognizing and valuing diversity, while recognizing the particularities of each person.

As for possible alternatives, it could be considered in the training of teachers, or other professionals who work in the educational scenario, a deepening in the care of people with visual impairment, allowing a more comprehensive care and adapted to the particularities of each student. This could contribute to overcome the lack of recognition of typhology as an independent discipline and guarantee a more effective attention to the diversity of the visually impaired population in the Colombian educational context.

The meaning of typhology in Colombia has evolved over time from a segregated approach to an inclusive one. The importance of inclusive education and equal opportunities for the visually impaired is recognized, which has led to a change in the conception of typhology. This approach seeks to generate educational contexts that promote joint learning and integral development, breaking down barriers and overcoming discrimination in the field of education.

However, attitudinal factors can restrict the full participation of people with visual impairments. It is evident that negative attitudes and power relations on the part of typhologists and teachers can hinder inclusion. In addition, it is identified that a distorted understanding of disability can limit the spontaneity and independence of blind people. It is necessary to address these barriers mentioned from the voices of those involved, starting with the promotion of an inclusive culture that advocates for adequate training to typhologists, teachers and society in general. With respect to access to information, it should be noted that tiftotechnology is a key facilitator, providing the technological tools that make it possible.

Consequently, it is necessary to implement measures at the normative and scientific-academic levels to strengthen the field of typhology and promote its recognition in the country. Within the normative framework, it is necessary

to formulate specific educational policies that define the professional profile of the speech therapist, so that only certified professionals in the field can provide support. On the other hand, scientific-academic actions are aimed at designing new research that contributes to the consolidation of typhology as a science that contributes to inclusive education, since it encompasses all the vital and functional dimensions covered by visual impairment. In this way, the actions described at both levels are necessary to eliminate barriers that hinder quality education based on the principles of equity, justice, and participation for all.

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