

## Dimensions of accessibility in Higher Education: academic training of students with low vision

*Dimensões de acessibilidade no Ensino Superior:  
formação acadêmica de estudantes com baixa visão*

*Dimensiones de la accesibilidad en la Educación Superior:  
formación académica de estudiantes con baja visión*

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**Abstract:** Educational policies guarantee the access of visually impaired students in Higher Education. The study aimed to investigate the dimensions of accessibility presented in scientific research and indicate which dimensions of accessibility allow access to academic training for students with low vision in Brazilian Higher Education. The Systematic Review was adopted, the databases were: *SciELO* and CAPES. The analysis showed that the barriers faced by people with low vision permeate two axes: Accessibility in its different dimensions and Teacher training. The data indicated the need to be attentive to the process of inclusion of students with low vision, ensuring that the access and permanence of these individuals are occurring effectively.

**Keywords:** Special education. Higher Education. Low vision.

**Resumo:** As políticas educacionais garantem o acesso de estudantes com deficiência visual na educação superior. O estudo objetivou investigar as dimensões de acessibilidade apresentadas nas pesquisas científicas e indicar quais dimensões de acessibilidade possibilitam o acesso à formação acadêmica de estudantes com baixa visão na Educação Superior brasileira. Foi adotada a Revisão Sistemática, as bases de dados foram: *SciELO* e CAPES. As análises evidenciaram que as barreiras enfrentadas por pessoas com baixa visão perpassam por dois eixos: Acessibilidade em suas diferentes dimensões e Formação docente. Os dados indicaram a necessidade de se atentar ao processo de inclusão de estudantes com baixa visão garantindo que o acesso e permanência desses indivíduos estejam ocorrendo de maneira efetiva.

**Palavras-chave:** Educação especial. Educação Superior. Baixa visão.

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**Resumen:** Las políticas educativas garantizan el acceso de los estudiantes con discapacidad visual a la educación superior. El estudio tuvo como objetivo investigar las dimensiones de accesibilidad presentadas en la literatura científica e indicar qué dimensiones de accesibilidad permiten el acceso a la formación académica de estudiantes con baja visión en la Educación Superior brasileña. Se adoptó la Revisión Sistemática, las bases de datos fueron: SciELO y CAPES. Los análisis mostraron que las barreras que enfrentan las personas con baja visión permean dos ejes: Accesibilidad en sus diferentes dimensiones y Formación Docente. Los datos indicaron la necesidad de atención al proceso de inclusión de los estudiantes con baja visión, asegurando que el acceso y la permanencia de estos individuos sea de manera efectiva.

**Palabras-clave:** Educación especial. Educación Superior. Baja visión

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## Introduction

The present article focuses on the academic training of students with low vision. Its objective is to investigate the dimensions of accessibility presented in scientific research and to indicate which dimensions of accessibility enable access to academic training for students with low vision in Brazilian Higher Education.

In this regard, according to microdata from Brazilian Higher Education (INEP, 2019), in 2019 (the last data available at the time this study was carried out), around 12,350,832 students enrolled in Higher Education, of the total enrollments only 18,951 had low vision, which corresponds to 0.15% of the total enrollments in the country. Although there has been an increase in the number of students with low vision enrolling in Higher Education since 2016, this number remains below 1% of enrollments, indicating that these students remain marginalized from education.

According to Cabral, Orlando, and Meletti (2020), policies play an important role in guaranteeing the right to academic training for students with disabilities in Brazilian Higher Education. Nonetheless, the gradual increase in enrollment is the result of the continuous efforts of the population, such as social movements, teachers, people with disabilities, and others, in the attempt to ensure their rights, given that quotas for enrollment are guaranteed by law, discussions regarding access and retention of these students in Higher Education are still a necessity (MENDES, 2022).

Preconceived notions end up becoming yet another barrier in the daily lives of people who exhibit any characteristics that deviate from what is considered ideal and are seen as a less desirable type of person, “thus, we stop considering them a common and complete

creature, reducing them to a spoiled and diminished person” (GOFFMAN, 1988, p. 06). The author states that “not all undesirable attributes are at issue, but only those that are incongruous with the stereotype we have created for a particular type of individual” (GOFFMAN, 1988, p. 06). From this perspective, it is evident that the process of inclusion needs to take place in all spheres of society so that individuals can transform these thoughts that exhibit ableist postures.

According to Vendramin (2019), these are behaviors that can diminish the rights of people with disabilities and even their right to life, both in a conceptual/aesthetic sense and in the performance of a specific task, not considering them as healthy or capable individuals. These behaviors are often identified in the posture adopted by the faculty of these institutions, revealing the need for investment in programs of continuing education (SELAU; DAMIANI; COSTAS, 2017; MACHADO, 2014; GESSER; NUERNBERG, 2017).

The teacher training of university professors directly impacts the academic education of people with low vision, as they are responsible for mediating and promoting adaptations in the process of knowledge appropriation. In the case of people with low vision, some examples of strategies that can be used are: enlarged texts, screen readers, the use of software that can assist with accessibility, as well as resources that can be designed according to the demands of said learners (SÁ; SILVA; CAMPOLINA, 2007).

It is crucial to highlight that throughout the process of creating strategies, the opinion of the student being served should be taken into account, as they are the best suited person to say which resources have been used in their school trajectory and best meet their needs, as stated in the “Guiding Document of the In Loco Evaluation Commissions for Higher Education Institutions with Emphasis on Accessibility” (INEP, 2016), which indicates that:

The promotion of accessibility by the Higher Education Institutions for the target audience of special education (which can be students, teachers, and/or technical-administrative staff) in Higher Education requires the expression of the individual to determine the type of strategy to be applied (INEP, 2016, p. 24).

Therefore, the training of university teachers needs to be expanded in order to provide opportunities so that their pedagogical practice ensures students’ access and meets the demands of the context in which they are currently inserted (TORRES; ALMEIDA, 2013). According to David (2018), university professors need to be aware of the historical moment they are experiencing, seeking strategies that reflect this moment in their teaching. Furthermore, they need to pay attention to “the need for transformative

education, institutional or social demands [...] reflecting on their role and function, the limits and possibilities of a transformative action” (2018, p. 210), which will result in the process of constant formation and construction of their teaching practice.

Cunha and Zanchet (2010) assert that teachers rely solely on their knowledge and experience when constructing and developing their teaching with students, since there is a gap in their initial training. The authors also indicate that teachers learn throughout their lives “teaching models and routines that are updated when they face urgent situations where they have to take on the role of teacher without anyone/anything having prepared them” (2010, p. 4).

Zulian and Freitas (2001) state that it is not possible to idealize education as a right without considering teacher training and educational practices focused on the use of new technologies, since the access of students with low vision in the classroom addresses the reality of the moment. It is necessary for the teacher to seek resources capable of benefiting and meeting the real needs of these students and, furthermore, to understand the importance of these tools during the learning process.

The pedagogical conceptions have been undergoing changes due to the insertion of new technologies, which can affect the training of teachers and their way of acting. Therefore, it is possible to consider that teacher training should be built continuously, adapting to the needs observed in the classroom and molding to new challenges (MODELSKI; GIRAFFA; CASARTELLI, 2019).

For Manzini and Santos (2002), the process of inclusive education does not only happen in the didactic-pedagogical aspect, but it is also socio-affective. The teacher needs to provide opportunities for the student to feel welcomed and, from this, not see diversity as an obstacle, but as a stimulus for the formation of the awareness of everyone involved in the socio-educational and affective process.

Thereby, the movement for the right to schooling and, specifically, for the access and permanence of students with disabilities in Brazilian Higher Education has been put on the agenda today. Among the challenges present in this process, we highlight the theme of accessibility dimensions in the training of students with low vision in Brazilian Higher Education (DÍAZ *et al.*, 2009).

In view of the above, this research has as its main query: what do academic studies indicate about the dimensions of accessibility in the process of academic training of students with low vision in Brazilian Higher Education?

## Method

The research is based on a systematic literature review, which is defined by Fernández-Ríos and Buela-Casal (2009) as a method that increases the potential of a specific search in order to find the greatest number of results possible. The outcome is not limited to chronological or descriptive factors but is presented in a reflective and critical manner regarding the analyzed material.

Sampaio and Mancini (2007, p.85) argue that “an effective search involves not only a strategy that includes appropriate terms, but also the choice of databases that specifically address the topic.” Therefore, for this research, two electronic databases were chosen: Scientific Electronic Library Online (*SciELO*) and Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES). These were selected because they provide free access to scientific literature, which can be accessed through university authentication (UFSCar).

The inclusion criteria defined were: works related to the theme; works in Portuguese language; works carried out in national territory; works available on the internet; works evaluated by peers. The present study did not employ any temporal restriction.

According to Brandrau, Monteiro, and Braile (2015), keywords do not follow any structure, they are random and taken from free language texts. Descriptors, on the other hand, “are organized in hierarchical structures, facilitating the research and subsequent retrieval of the article” (BRANDRAU; MONTEIRO; BRAILE, 2005, p.18). However, this work chose to use keywords because they were not included in the *Thesaurus*.

Considering the importance of defining keywords within a search and how this can influence the results during searches (KOLLER; HOHENDORFF, 2014), based on readings and a brief analysis of the literature related to the theme, the string was defined with the following keywords: accessibility; Higher Education; low vision and visual impairment.

The searches were conducted in two stages by combining the keywords using the Boolean operator *AND*. The research used two strings: (i) accessibility *AND* Higher Education *AND* low vision; (ii) accessibility *AND* Higher Education *AND* visual impairment. In order to meet the general objective, the search was conducted based on the defined strings.

Initially, the papers were screened and selected based on their titles. Subsequently, the abstracts were reviewed, and then the selected papers were fully read for inclusion in the review, following the PRISMA recommendation (GALVÃO et al., 2015). The protocol

adhered to the PRISMA checklist and was applied using the START data extraction tool, which is designed to organize and extract data (GASTALDI, 2016). To this end, the papers were exported in BibTex format, as it allows the database files to be kept in a specific format, retaining all bibliographic references (PRATI, BARANAUSKAS; MONARD, 1999), and included on START.

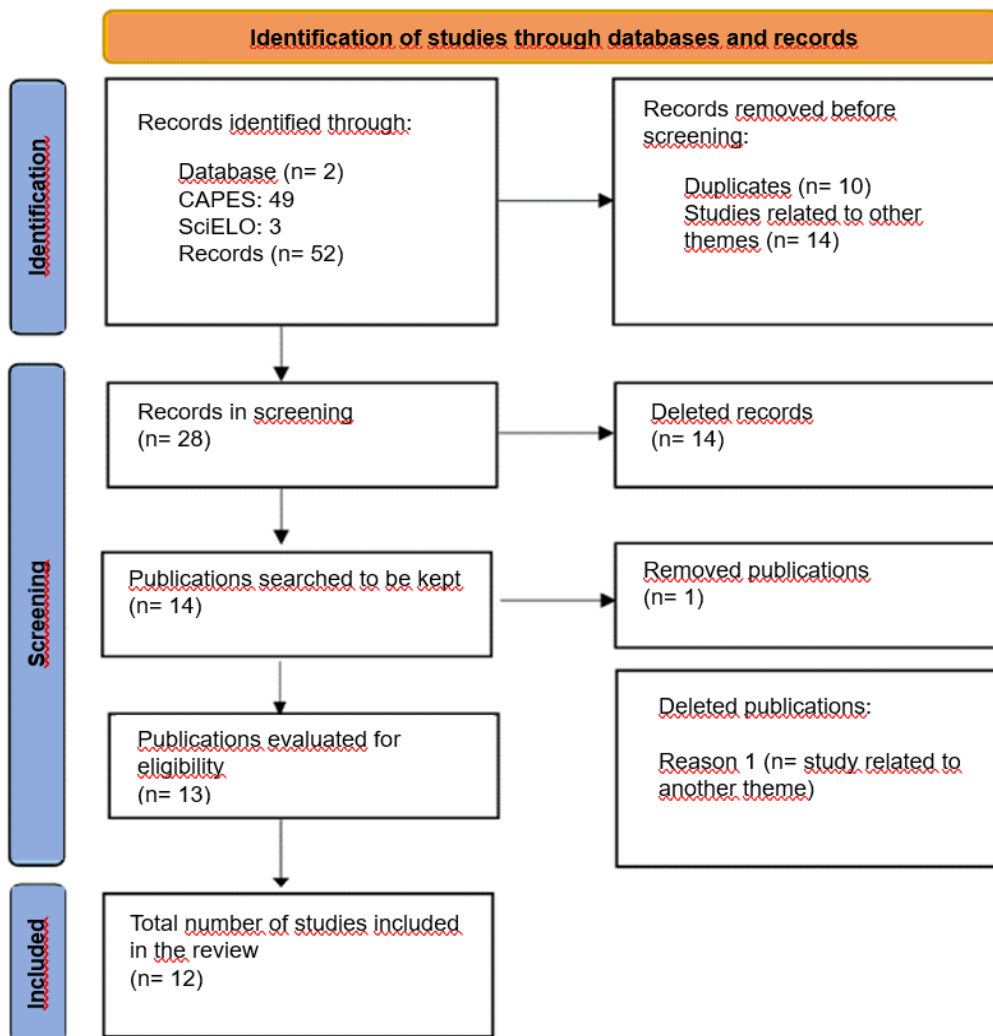
## Development

Based on searches carried out in electronic databases using the keywords: accessibility *AND* Higher Education *AND* low vision, the results obtained were: a) CAPES = six studies and b) *SciELO*= zero studies. Upon conducting further searches using the subsequent keywords: accessibility *AND* Higher Education *AND* visual impairment, the results obtained were: a) CAPES = 43 studies and b) *SciELO*= three studies. In total, 49 studies were located in CAPES and three in *SciELO*, totaling 52 studies.

During the pre-selection stage, the titles of the 52 studies located in the databases were analyzed. Among these, 24 were excluded based solely on their titles as they did not meet the selection criteria of the present study. During the reading of the abstracts of the remaining 28 studies, 14 were discarded. The exclusions occurred due to various factors, including: articles related to other themes, duplicate articles, works not found in full, and studies that were not related to accessibility dimensions in Higher Education.

Hereinafter, 14 studies were read in full, from which two were excluded, being that one was not available on the internet for reading in full and the other was related to another theme that analyzed the accessibility present in an access portal. These steps can be verified in Figure 1.

Figure 1 - Stages of study selection for inclusion in Systematic Review.



Source: Self elaboration according to research data, based on the PRISMA statement (2023).

Sequential tables were constructed with the information extracted from the studies, according to their chronological order, as indicated in Table 1, in order to facilitate the step of data extraction and visualization.



Table 1 - Identification and analysis of studies included in the Review.

Year	Author	Title	Journal	Nature
2014	MACHADO, E. V.	Inclusão no ensino superior — uma experiência exitosa	Revista Ibero-Americana de Estudos em Educação	Bibliographic research and case study
2016	ALEXANDRINO, E. G. <i>et al.</i>	Desafios dos alunos com deficiência visual no ensino superior: um relato de experiência.	Cinergis	Descriptive-exploratory experience report
2017	GESSER, M., NUERNBERG, A. H.	A participação dos estudantes com deficiência física e visual no ensino superior: apontamentos e contribuições das teorias feministas da deficiência	Educar em revista	Theoretical debate
2017	SIEMS-MARCONDES, M. E. R.	Estudantes com deficiência no ensino superior: trajetórias escolares, acesso e acessibilidade	Pesquisa Brasileira em Ciência da Informação e Biblioteconomia	Oral history
2018	LIMA JÚNIOR, G. C.	A inclusão da pessoa com deficiência visual no ensino superior: Design de Moda e o Método SEE BEYOND	Revista de Ensino em Artes, Moda e Design (Revista ENSINARMODE)	Bibliographic review
2018	BERNARDI, L. <i>et al.</i>	Autonomia das Pessoas com Deficiência Visual em Instituições de Ensino Superior	Interfaces científicas: saúde e ambiente	Reflective article
2019	DE ABREU ARAÚJO, J. D. <i>et al.</i>	(In)acessibilidade arquitetônica e suas implicações para a permanência da pessoa com deficiência visual no ensino superior.	Scientia plena	Descriptive study
2020	GUEDES, L. C.	Luta por Dignidade e Inclusão da Pessoa com Deficiência no Ensino Público Superior: uma Experiência de Construção de Acessibilidades pelo viés da Gestão Inclusiva no Nordeste Brasileiro.	Revista portuguesa de pedagogia: publicação da Faculdade de Psicologia e de Ciências da Educação	Exploratory research
2021	MALHEIRO, L. A. C	Acessibilidade no Moodle: contribuições para inclusão dos estudantes com deficiência visual no ensino superior.	Laplage em Revista	-Survey research; -Exploratory and descriptive study.
2021	SILVA, J. C., PIMENTEL, A. M.	Inclusão educacional da pessoa com deficiência visual no ensino superior	Cadernos Brasileiros de Terapia Ocupacional	Integrative review
2022	GUEDES, D., ALMEIDA, P. M. A.	Acessibilidade no ensino superior na modalidade remota para deficientes visuais: comparação entre Brasil e Portugal.	Revista EDaPECI: Educação a Distância e Práticas Educativas Comunicacionais e Interculturais	Comparative analysis of bibliographic research
2022	SALES, I. H.; TORRES, J. P.	Inclusão de estudantes com deficiência visual em uma Universidade Federal Mineira	Revista de Educação Especial	Qualitative approach

Source: Self elaboration according to research data (2023).



Table 1 presents information regarding the studies included in the review, which were analyzed based on the year, title, nature, objectives, and discussions. From the collected data, it was possible to identify that the oldest study was published in 2014, two years after the implementation of the Affirmative Action Law in Brazil (2012). Only two years later (2016), a new study was published, and from then on, the interval between studies decreased, with a greater concentration in the years 2017, 2018, 2021, and 2022, each presenting two publications. Therefore, the scarcity of research addressing the topic of this study is evident in the selected databases used for the searches.

From the analysis of the studies included in the Systematic Review, it was possible to identify that the barriers faced by people with visual impairments during their academic formation mainly encompass two dimensions: (i) Accessibility in its different aspects, and (ii) Teacher training. Accordingly, the discussions on these thematic dimensions are supported by the bibliographical framework used for this study, as well as the literature in the field.

### **Accessibility in its different dimensions**

Communicational accessibility was found in 10 out of the 12 articles selected for this study, being the most cited barrier by students with low vision in Brazilian Higher Education. This dimension is responsible for eliminating barriers in interpersonal communication, providing the right to autonomy and independence for students in Higher Education institutions. It is one of the eight dimensions provided in the “Documento Orientador das Comissões de Avaliação *In Loco* Para as Instituições de Educação Superior Com Enfoque em Acessibilidade” (Guiding Document for the On-Site Evaluation Committees for Higher Education Institutions with a Focus on Accessibility) (INEP, 2016).

The study by Machado (2014) highlights, through the reported experience in the article, that the people involved in it had, in addition to public policy, the certainty that they could not ensure the access and permanence of these students alone. It was necessary to involve all individuals who make up the institution so that inclusive practices would not occur in isolation and would encompass all environments within the university. The author asserts that there is:

[...] a need for an interdisciplinary attitude, for a practice of listening and respecting the knowledge of others, and for building collective work with the common goal of enabling access for individuals with visual disabilities in the University, based on the principle of equity (MACHADO, 2014, p. 126-127).

It turns out that collaborative work is not always possible, given the need for society to adapt and deconstruct prejudices regarding the needs of people with disabilities, allowing it to become an egalitarian space with respect and acceptance for the existing differences in the environments they frequent. When this does not occur, the result is the exclusion of students with disabilities, who are considered minorities within educational institutions (DÍAZ *et al.*, 2009).

The dimension of architectural accessibility was found in nine studies. These barriers are very often present in the daily lives of students with low vision. In the research of Alexandrino *et al.* (2016, p. 05) the lack of accessibility and adequate spaces in the institution's building is identified, and “it is observed in the participant's report that compliance with accessibility aspects meant only the admission of the visually impaired student through the admission test in the institution”, without there being any adjustments made to enable the student's access to the university's environments. In Selau and Damiani's studies (2017), this dimension is also classified as one of the barriers encountered by students with visual impairments in higher education.

The methodological area, another area of accessibility that presents considerable barriers in the educational process in higher education for people with low vision, was mentioned in seven studies. It is possible to observe it in the experiential report exposed in the study by Alexandrino *et al.* (2016):

*Since the most serious problems with the university had been solved, I believed that I could proceed with my course with tranquility, but that was not what happened, as I rarely received the content of the classes in advance. [...] many times, I received them days after the assessment had been administered. The teachers accused the person responsible for producing the material, and the responsible party accused the teachers. And as if this situation were not bad enough, there were still teachers who never remembered my assessments and did not adapt my assignments (ALEXANDRINO *et al.*, 2016, p. 05, emphasis of the author).*

Based on this, it is clear the disregard with which students with low vision are perceived during their academic training, being treated as invisible within the classroom. This would not happen if professors and classmates actually knew the student with a disability who shares the same environment as them and, according to Goffman (1988), this knowledge depends on their current visibility and their previous acquaintance with the stigmatized individual. It is possible that these situations occur as a result of ableist practices, since “ableism is characterized by intentional or unintentional, subliminal and internalized attitudes that are embedded in society” (VENDRAMIN, 2019, p.20) and that may be reflected in the practices that make up methodological accessibility.

The attitudinal dimension was mentioned in seven of the 12 analyzed articles. Considering that the Guiding Document for on-site evaluation committees for Higher Education institutions with a focus on accessibility (INEP 2016) states that this dimension of accessibility permeates all others, it is one of the barriers encountered by people with low vision in their academic formation. Bernardi *et al.* (2018), characterizes the negative attitude of some individuals within their own institutions as one of the problems that pervades the entire process of inclusion within Higher Education institutions. In the study by Araújo *et al.* (2018) it is also pointed out that:

[...] what is perceived is that even with legislation and the debate about the inclusion of people with disabilities being so present in and out of the university, it is still easy to find various attitudinal and architectural barriers that do not contribute at all to the process of inclusion of people with disabilities (ARAÚJO *et al.*, 2018, p. 8).

The academic routine of people with low vision has been full of ableist barriers and stigmatized patterns. Often, only architectural accessibility is considered, as attitudinal accessibility depends on a practice of self-perception, knowledge, and analysis (VENDRAMIN, 2019). This statement is aligned with the findings of Goffman (1988), who posits that in addition to the symbols relating to prestige and stigma, another possibility, both real and illusory, may be found, enabling the disruption of a pre-existing image. In this instance, such a disruption may occur in a positive direction, as desired by the subject of the action. Mendes (2022, p. 313) postulates that “society imposes prejudices on what it deems to be outside of what is considered normal or different,” reaffirming the existence of pre-existing judgments directed towards people with disabilities.

The digital dimension was cited in eight articles, and it can be found in virtual environments provided for students within Higher Education. Barriers can be found from accessing certain digital content to accessing portals of the said institution, as indicated in the study by Malheiro (2021). The author raises accessibility issues related to the *Moodle* platform of a Higher Education institution, considering students with low vision who make use of the portal.

The author points out that it is common for these students to require screen readers, screen enlargement software, resources for character enlargement, and high-contrast systems, in order to guarantee access to the digitally available content. Thus, it is emphasized that educational inclusion goes beyond guaranteeing the rights of these students. The provision of guidance on the use of available materials should also be considered, so that they can effectively be used and not just be made available (MALHEIRO, 2021).

The accessibility dimensions in transportation were mentioned in four articles. It was observed that they only appeared in the studies as references to the existing legislation regarding the inclusion of people with disabilities in Brazilian universities. Regarding the strategies adopted by these institutions to ensure transportation for students with low vision within the campus, no action was detected. The same happened with instrumental accessibility, which was mentioned in only two of the 12 articles analyzed. Programmatic accessibility was not referenced in any of the studies included in this review, which is a factor to be considered, since it refers to the barriers that surround public policy aimed at increasing access to Higher Education for the Brazilian population through programs, affirmative action laws, federal university restructuring programs, and others (CABRAL; ORLANDO; MELETTI (2020).

### Teacher training

During the analysis of the selected studies in this work, the continuing education of these professionals was a predominant factor mentioned by the authors, possibly being one of the aspects that contributes to the lack of accessibility present in Higher Education institutions, since “the absence of this pedagogical training delegates an enormous weight to these teachers in relation to the interfaces of ‘what to teach’, ‘how to teach’, and ‘whom to teach’” (DAVID, 2018).

Martins and Silva (2016) assert that students with low vision not only need adapted physical materials and resources, but this adaptation must also be present in the teacher's attitude, who “must be constantly changing in the face of diversity, in order to include their disabled students, ensuring equity among the class participants” (SILVA; PIMENTEL, 2021, p. 12). This is in line with the research of Guedes and Almeida (2022), who assert that it is essential for:

[...] Higher Education institutions to reconfigure their didactic methods in order to produce accessible and inclusive means for students with visual impairments, as well as to properly prepare teachers to adequately serve all students, thus enabling an equitable learning progress among them (GUEDES; ALMEIDA, 2022, p. 22).

In this context, it is important that these demands are not solely assigned as responsibilities of the teachers, but rather of the institution as a whole. As emphasized by Silva and Pimentel (2021), when they argue that:

[...] these pedagogical adaptations and innovations should not fall solely on the competence of the teacher, since a directive inclusion policy involves other subjects, such as administrative technicians and students, as well as financial resources, logistics, conditions of Higher Education Institutions, among other aspects (SILVA; PIMENTEL, 2021, p. 12).

It is important to emphasize that this should not be used as a justification for the possible lack of methodological accessibility present in the classroom. Since accessibility needs to be part of the faculty work, it must be present as one of the criteria used when conveying content. “The teacher cannot exempt oneself from the responsibility of planning and teaching his classes considering the needs of all his students, thus introducing the accessibility criterion as part of the teaching work” (GESSER; NUERNBERG, 2017, p. 158).

In the case study presented in the research of Machado (2014), it is reported that the teachers of the institution in question had the guidance of specialists when they had doubts about what to do in the classroom and in their pedagogical practices, so that exclusionary practices were avoided, which often occur due to lack of knowledge resulting from new experiences experienced by the university faculty, which is in line with Torres and Almeida (2013), when they affirm that the institution of Higher Education, along with the teaching and administrative staff, did not prepare for such changes.

However, these students do not always find teachers willing to change their pedagogical practices adopted in the classroom. In the study by Bernardi *et al.* (2018) the difficulty associated with the relationship between teachers and visually impaired students in Higher Education is highlighted. Thus, the inclusion process, which already has gaps resulting from the lack of continuing education for teachers, also has the posture adopted by some teachers as one more barrier to be faced.

To stay abreast of the changes present in the academic environment, it is necessary to have “a broad and critical view of new forms of knowledge acquisition and new information and communication technologies, in obtaining quality education and life” (ZULIAN; FREITAS, 2001, p. 01). This is not an easy reality to be found in the face of the difficulty of accepting diversity present in society, reaffirming the idea that Higher Education presents itself in an elitist, normative, and exclusionary manner (ARAÚJO *et al.*, 2018).

All these aspects surrounding the teacher training of university professors bring results, in many cases negative, which are presented as barriers to the retention of visually impaired students in Brazilian Higher Education. This weakness in training reflects directly in the classroom, as teachers feel unprepared to act within an inclusive perspective when faced with the demands of students with disabilities (SALES; TORRES, 2022). Still in the study by Sales and Torres (2022), it is highlighted that:

The university professor becomes qualified to work in Higher Education, mainly after completing a master's and doctoral degree, whose focus is on conducting scientific research. Therefore, didactic and pedagogical attributes end up being developed through experience over the years in the university (SALES; TORRES, 2022, p. 13).

Consequently, it is understood that novice teachers may not have pedagogical practices capable of meeting the needs of all students in the classroom, as “the preparation they received did not meet the demands of teaching and did not adequately prepare them for it” (CUNHA; ZANCHET, 2010, p. 190). Given the aforementioned, it may be idealized that time and context will teach the teacher to be a professor, but it is important to understand that these skills arise from daily practices, regardless of the conditions offered. This experience is only built through daily reflection on the pedagogical practice to be developed, looking at the sociocultural context, embracing values and content for the higher education institution and the teaching work. In addition to the will, there must be action (TORRES; ALMEIDA, 2013).

### **Considerations**

It was possible to identify that the inclusion process of people with low vision in Brazilian Higher Education relies on many initiatives created from public policy. However, the actions aimed at developing strategies and changes to enable access and permanence of these individuals in the academic environment are not always visible, both from the institution and the faculty, without guaranteeing compliance with legislation that aims to ensure access for this public in Brazilian Higher Education institutions.

The barriers that surround this process were shown, in most of the analyzed studies, to be present in different dimensions of accessibility. Although they are presented in eight subcategories, it is clear that for an environment to become capable of being considered inclusive, they need to work in a way that they are interconnected, so that one complements the other. Still in regards to the barriers present in the daily life of people with visual impairments, there are difficulties resulting from the lack of a program that addresses the continuing education of university professors, which stem from the lack of preparation of everyone involved in the academic environment to receive this group of students, making it impossible for them to have access to quality education and resources that facilitate their daily life during their Higher Education.

Wherefore, despite inclusion policies leading to an increase in enrollment of visually impaired students, there have been few changes made to promote the full



inclusion of these individuals, resulting in an even smaller number of students who are able to complete the courses they attend and confirming the existence of an ableist perspective that society still holds towards people with disabilities. The stigmas present in this process define visually impaired individuals as incapable of occupying the same spaces as those without visual impairments. It is from this point that attitudinal accessibility permeates all other barriers found during the research. In view of this, the inclusion process must be a common object, involving changes in different sectors pertaining to the academic community.

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