

The insertion and comprehensive human formation in Professional and Technological Education of blind students from the Araguaia region in Pará

A inserção e a formação humana integral na Educação Profissional e Tecnológica de alunos cegos da região Araguaia no Pará

La inserción y la formación humana en la Educación Profesional y Tecnológica de alumnos ciegos de la región Araguaia de Pará

Carla Santos Ramos¹

Instituto Federal de Educação, Ciência e Tecnologia do Tocantins

Rivadavia Porto Cavalcante²

Instituto Federal de Educação, Ciência e Tecnologia do Tocantins

Marcelo Rythowem³

Instituto Federal de Educação, Ciência e Tecnologia do Tocantins

Mary Lucia Gomes Silveira de Senna⁴

Instituto Federal de Educação, Ciência e Tecnologia do Tocantins

Abstract: This article deals with the comprehensive education of blind students in Professional and Technological Education, at an institution located in Araguaia region, state of Pará. It aimed to analyze the laws that support blind students and their experiences at the institution. Considering the integral formation of blind students, the article discusses the principles of integral human formation of Gramsci, Marx and Freire. The research used the qualitative method, through interviews with two blind students, which corresponds to 100% of the institution's blind students. The results show that, despite some progress, there are still difficulties in adapting materials, accessibility and teacher training. The need for comprehensive human education is highlighted, promoting the full inclusion of blind students in the world of work and society, requiring improvements in the implementation of public policies.

Keywords: Professional and Technological Education; Blind student; Inclusion.

^a English version by Viviane Grazielle Metzshka – Master in Professional and Technological Education from the Federal Institute of Education, Science and Technology of Tocantins – IFTO, Brazil. E-mail: viviane.graziele@ifto.edu.br.

¹ Master student of the National Postgraduate Program in Professional and Technological Education – ProfEPT – IFTO/Campus Palmas. Administrative Technician in Education at IFPA – Campus Conceição do Araguaia, Pará, Brazil. E-mail: carla.ramos@estudante.ifto.edu.br; Lattes: <http://lattes.cnpq.br/2375808101292417>; ORCID: <https://orcid.org/0009-0002-5703-2022>.

² PhD in Linguistics and Social Practices from the Federal University of Paraíba - UFPB. Professor of the National Postgraduate Program in Professional and Technological Education – ProfEPT, IFTO – Campus Palmas, Tocantins, Brazil. E-mail: riva@ifto.edu.br; Lattes: <http://lattes.cnpq.br/0253765727453200>; ORCID: <https://orcid.org/0000-0002-6568-7910>.

³ PhD in Education from the Federal University of Goiás – UFG. Professor of the National Postgraduate Program in Professional and Technological Education – ProfEPT, IFTO – Campus Palmas, Tocantins, Brazil. E-mail: marcelo@ifto.edu.br; Lattes: <http://lattes.cnpq.br/5061712494939723>; ORCID: <https://orcid.org/0000-0001-5819-3800>.

⁴ PhD in Science from the University of São Paulo – USP. Professor of the National Postgraduate Program in Professional and Technological Education – ProfEPT, IFTO – Campus Palmas, Tocantins, Brazil. E-mail: marysenna@ifto.edu.br; Lattes: <http://lattes.cnpq.br/1745769805611202>; ORCID: <https://orcid.org/0000-0002-4112-5470>.

Resumo: Este artigo aborda a formação integral do estudante cego na Educação Profissional e Tecnológica, em uma instituição localizada na região Araguaia, estado do Pará. Teve por objetivo analisar as leis que amparam os estudantes cegos e suas experiências na instituição. Considerando a formação integral do estudante cego, o artigo discute os princípios de formação humana integral de Gramsci, Marx e Freire. A pesquisa utilizou o método qualitativo, através de entrevistas com dois estudantes cegos, o que corresponde a 100% dos alunos cegos da instituição. Os resultados mostram que, apesar de alguns avanços, ainda há dificuldades na adaptação de materiais, acessibilidade e formação dos professores. Destaca-se a necessidade da busca por uma formação humana integral, promovendo a inclusão de forma plena dos estudantes cegos no mundo do trabalho e na sociedade, requerendo melhorias nas efetivações das políticas públicas.

Palavras-chave: Educação Profissional e Tecnológica; Estudante cego; Inclusão.

Resumen: Este artículo aborda la formación integral de estudiantes ciegos en Educación Profesional y Tecnológica, en una institución localizada en la región de Araguaia, estado de Pará. Tuvo como objetivo analizar: las leyes que apoyan a los Estudiantes ciegos y sus experiencias en la institución. Considerando la formación integral Del estudiante ciego, el artículo analiza los principios de la formación humana integral de Gramsci, Marx y Freire. La investigación que dio como resultado este trabajo, utilizo el método cualitativo, a través de entrevistas a dos estudiantes ciegos, lo que corresponde al 100% de los estudiantes ciegos de la institución. Los resultados muestran que, a pesar de algunos avances, aún existen dificultades en la adaptación de materiales, accesibilidad y capacitación docente. Se destaca la necesidad de buscar una formación humana integral, promoviendo la plena inclusión de los estudiantes ciegos en el mundo del trabajo y la sociedad, requiriendo mejoras en La implementación de políticas públicas.

Palabras-clave: Educación Profesional y Tecnológica; Estudiante Ciego; Inclusión.

Received on: December 17, 2023

Accepted on: April 09, 2024

Introduction

This article discusses the issue of the comprehensive training of blind students in the context of Professional and Technological Education (EPT), an educational modality provided for in the Law of Guidelines and Bases of National Education (LDB), with the aim of preparing citizens for the exercise of their profession, in the world of work and in life in society (Brazil, 1996).

Thus, looking at the role of EPT, we compared the laws supporting blind students and their experiences with such disability in a EPT institution in the northern region of Brazil. Therefore, it is of fundamental importance to ensure that they have access to comprehensive learning that provides subsidies for life in society and comprehensive

human formation, making them capable of overcoming life's obstacles. According to the Brazilian Inclusion Law (LBI), in its Article 27, an inclusive educational system at all levels is guaranteed, as well as opportunities for lifelong learning, aiming to achieve the maximum possible development of their talents and physical, sensory, intellectual, and social abilities, according to their individual characteristics, interests, and learning needs (Brazil, 2015).

In this vein, Gramsci (1991, p. 9) states that "[...] the school is the instrument for for developing intellectuals at different levels". And for the blind student to become an organic intellectual, who fights for their social rights, aware of the social class to which they belong, seeking improvements for this one, the school plays a fundamental role.

In accordance with the LDB, educational systems will ensure that students with disabilities receive special education for work, aiming at their insertion into society (Brazil, 1996). However, the reality faced by blind students is fraught with a series of challenges, which often limit their comprehensive human formation, since blindness can affect how visually impaired individuals perceive and interact with the world, and the lack of accessibility, specific to their condition, can hinder the active participation of blind students.

According to the National Institute for Educational Studies and Research Anísio Teixeira (INEP), through the Statistical Synopsis of Basic Education of 2021, the number of blind students enrolled in Basic Education in the state of Pará was 467 (Brazil, 2022). In the Statistical Synopsis of Basic Education of 2022, the quantity increased to 482 (Brazil, 2023). We can observe that there was an increase from one year to the next, and it is up to the school to be prepared to receive this target audience, investing in infrastructural and pedagogical adaptations, as well as in the training of the professionals involved.

Considering their comprehensive education, it is worth asking: How does a EPT institution, located in the Araguaia region, in the state of Pará, train blind students? What does the blind student reveal about his training process in this EPT context? In order to providing answers to these questions, this study aimed to theoretically analyze the laws that support blind students and their reality within a EPT institution, seeking alternatives to meaningful learning, since EPT is a right and has much to contribute to these students, preparing them for the world of work, in line with Article 227 of the Federal Constitution states, highlighting the guarantee of the right to "professionalization" and "education" (Brazil, 1988).

This study was justified, therefore, by taking as its object of investigation the education and training of blind students from a region still lacking both public policies for people with disabilities and policies for inclusive education. According to Cruz and Vieira (2021), the statistical data from the Amazon 2030 project reveal that the current development indices of

education in this region, where Pará is located, urgently need pedagogical interventions and promotion, in order to advance in the formation, inclusion, and success of the human development of blind students.

The Legal Amazon has been thematized in official statistical documents as the region with the worst social development index, which reveals the need for intervention to improve conditions, both economic life and educational development by 2030. According to Cruz and Vieira (2021, n.p.), responsible for the research, "[...] the most striking scenario, however, occurs in professional education: the gross enrollment rate in the Legal Amazon (2.4%) is practically half that of the rest of the country (4.7%)". Thus, we aim to analyze the laws that support blind students and how their educational process takes place in a PTE institution in the northern region of Pará, by examining the laws that support them. Using a semi-structured interview to discover how they are developing in the institution.

Theoretical Framework: Principles of Comprehensive Human Formation

According to Gramsci (2011), the school is a place for the integral development of the individual. This Gramscian view originates from the Communist Manifesto, written in 1848 by Marx and Engels. In the nineteenth century, Marx and Engels already announced that comprehensive and omnilateral human education prioritizes intellectual development, physical development, knowledge of techniques, and technologies (Marx; Engels, 1998). According to Gramsci (2011), the unitary school is the one that prepares for personal life and for life in the workforce. Therefore, concerning blind individuals, regardless of their condition or limitation, Gramsci's theoretical contributions guide us to direct them towards an education that helps them overcome barriers, obstacles, and challenges. Thus, the blind student can achieve the same rights to access work, social participation, management of their workforce, and the benefits that work can provide them, ensuring equal rights for all, as already established in the Brazilian Federal Constitution (Brazil, 1988).

Furthermore, in Gramsci (2011), intellectual formation is what shapes the organic intellectual. In the case of blind individuals, blindness is not an obstacle for this social being to constitute, form, or educate themselves within the school as a thinking, intellectual, and complete being to act in the society where they live, regardless of regional location or political context. "All men are intellectuals," one could say; however, not all men perform the function of intellectuals in society (Gramsci, 2011, p. 6). Thus, it is the educator's role to prepare this student to fulfill their function as an intellectual in society.

In line with the progressive contributions of Gramsci (1991) and Karl Marx (2011), Paulo Freire, in his works *Pedagogia da autonomia* (Freire, 1996) and *Educação como Prática da Liberdade* (Freire, 1999), already guided us that the school is the place for creating educational and formative possibilities. According to Freire (1999), humans need to identify their role as subjects in the world, actively participating in the construction of knowledge and the transformation of their reality.

According to Freire (1996), the school where the student is, whether elite or not, may be a place with limitations in their academic development. Therefore, the teacher is the one who needs to understand the needs of their student, create opportunities for them to learn and develop, even in the face of difficulties. Moreover, according to the author, "An education is truly humanistic only if, instead of reinforcing the myths that seek to keep man dehumanized, it strives for the unveiling of reality" (Freire, 1997, p. 13).

Frigotto, Ciavatta, and Ramos (2005) point out integrated curriculum as an opportunity for omnilateral formation of the social being. In the case of blind students, this perspective meets their needs, as integrated curriculum, based on this theory, provides paths for the formation of blind students, considering the dimensions of work, science, technology, and culture. These are essential axes of the curriculum, pedagogical practice, and the social being in formation.

According to Ciavatta (2005, p. 85),

The idea of Integrated Education suggests overcoming the human being historically divided by the social division of labor between the action of executing and the action of thinking, directing, or planning. It is about overcoming the reduction of work preparation to its operational, simplified aspect, devoid of the knowledge that is in its scientific-technological genesis and in its historical-social appropriation. As human formation, the goal is to ensure adolescents, young people, and adult workers the right to comprehensive formation for understanding the world and acting as citizens belonging to a country, integrally integrated into its political society. Formation that, in this sense, presupposes an understanding of the social relations underlying all phenomena.

Thus, in line with Mészáros (2008), who advocates for a school for the less privileged, where they can become political agents, think, and have the power to transform the world, thereby having the possibility of liberation from the ruling class. For him, education, which has the power to transform this social being, the blind student in this case, ends up being an instrument of a capitalist and exclusionary society. According to the author, simply accessing school is a necessary condition but not sufficient to ensure that this individual is not just

another number in statistical data, as the process of exclusion occurs not in terms of access anymore, but rather in the educational process within schools.

Aligned with Gramsci's thought, the school should prioritize formation for social practice, contrary to a school focused solely on vocational training. According to the author, the school aims to train workers who are capable of becoming critical and, at the same time, aims to form a new model of intellectual, not merely a holder of ideas that only make sense in an abstract context. The search is for the organic intellectual who focuses on experiences of practical life and stems from a concrete reality (Gramsci, 2011).

In the same vein, Saviani's contribution elucidates the importance of considering with all attention and care the problem of the content of education to be developed within the scope of the entire process of formation of the unitary school (Saviani, p.5, 2022). Thus, for the development of blind students, it is essential to ensure that educational content is accessible, meaningful, and aimed at promoting their full participation in the educational and social context.

The Importance of Education for the Comprehensive Formation of Blind Students

Education for students with disabilities in a PTE institution in the Araguaia region is governed by the Institutional Pedagogical Project and Resolution No. 064/2018-Consup of March 22, 2018, which focus on creating and recreating actions and norms that enable the formation of integral human beings (IFPA, 2017; 2018). For this purpose, guidelines, principles, and attributions are proposed for the core that serves students with disabilities, who are attended to according to their specific needs. Thus, the blind student is supported by these guidelines and has the right to have their needs met. This fact can be observed in the principles governing Resolution No. 064/2018, in its article 11:

I- Right to inclusion and appreciation of difference; [...] III-Equal opportunities for intellectual and social emancipation; [...] VI-Effective integration of the student into society and the workforce; [...] VIII-Promotion of educational strategies (curriculum, methods, techniques, educational resources) that enable the success of students with specific educational needs (IFPA, 2018).

These principles align with the Federal Constitution, in its article 205, which states that education is the right of all (Brazil, 1988). Similarly, article 27 of the LBI states that education is the right of persons "with disabilities, guaranteeing them "[...] an inclusive

educational system at all levels and lifelong learning, aiming to achieve the maximum possible development of their physical, sensory, intellectual, and social talents and abilities [...]” (Brazil, 2015).

In line with this, Vygotsky (1983) demonstrates through his studies that individuals with disabilities develop like any other person but have their own particularities, and knowledge construction occurs through social interaction. The author also emphasizes respect for differences since the blind student is connected to the context in which they are inserted, where the school that serves blind individuals should be based on education that promotes interaction with society. Furthermore,

He understands visual impairment as a socio-psychological problem and has at his disposal three types of weapons to fight against visual impairment and its consequences: social prophylaxis (preventive inspection), social education, and social work for the visually impaired. The notion of prophylaxis of visual impairment should be granted to the vast popular masses. It is necessary to eliminate isolation, education oriented to the disability of the visually impaired, and to erase the demarcation between special and normal schools. The education of a visually impaired child must be really organized on the same terms as the education of any child capable of normal development (Vygotsky, 1983, p. 87).

The quote discusses the education of visually impaired children, but it is considered that even as young people and adults, they require the same attention, as future learning depends on previous learning processes, i.e., in childhood (Amiralian, 2007). From this perspective, both the development of blind and sighted individuals follows the same rules. Thus, “[...] there is no difference in principle between the education of a sighted child and that of a blind child” (Vygotsky, 1983, p. 35). However, adaptations are necessary to meet the needs of these individuals in the educational context and to enable specific learning such as teaching Braille, orientation and mobility techniques, and daily living activities through educators' mediation.

Therefore, “[...] the importance of the educator's role is perceived in the peace with which it is certain that part of their teaching task is not only to teach content but also to think correctly [...]” (Freire, 1996, p. 15), requiring that the teacher be prepared to serve this audience, seeking to understand how this individual perceives the world around them, respecting their uniqueness and experiences, seeing their possibilities and not focusing on the disability itself. In this way, the teacher will be preparing this individual holistically to live in society and in the workforce. Thus, Bill (2017) emphasizes that recognizing the blind person as a citizen, who has difficulties but also

has qualities and actively participates in society, must come through education, but not through fragmented education, from disinterested and dehumanizing people. Instead, through an inclusive policy, with professionals prepared to work with all audiences, whether with or without disabilities.

Similarly, it is necessary to reflect on how the school was initially conceived and how it currently operates when considering ensuring the permanence of students with disabilities, in this case, blind students. It is necessary to think about pedagogical practices that end exclusion, which many of them face daily, adapting the way the school operates so that everyone can have the same opportunities and development (Amorim; Antunes; Santiago, 2021).

Research Methodology

In this article, we aimed to analyze the laws supporting blind students while engaging with the experiences of two blind students from a EPT institution in the Araguaia region. Through semi-structured interviews, we sought to understand their perspectives and the challenges they face in overcoming barriers that arise in their school routine, in pursuit of comprehensive human education.

This research was based on a qualitative approach, as it "[...] considers that there is a dynamic relationship between the real world and the subject, that is, an inseparable link between the objective world and the subject's subjectivity that cannot be translated into numbers" (Prodanov; Freitas, 2013, p. 70). It focused on capturing the testimonies of two blind students, analyzing and discussing the results obtained. They are enrolled in different courses, one in the exact sciences field and the other in the humanities field. The choice of this sample size was based on the fact that these were the only blind students enrolled in the higher education course at the PTE institution, representing 100% of the target population. Regarding the planning and qualitative procedures:

The sample at this stage should be intentional, that is, intentionally selected among participants who experienced the central phenomenon of the research. One of the most recommended strategies is maximum variation sampling, in which individuals are selected who are expected to have different perspectives on the central phenomenon (Gil, 2019, p. 148).

The semi-structured interview script was developed over a period of one week, following the steps of formulating questions to be asked to the students. After finalizing the questions, we contacted the students and scheduled the interview. The students, referred to *Revista Educação e Políticas em Debate* – v. 13, n. 3, p. 1-15, set./dez. 2024

as Student 1 and Student 2, were interviewed at different times, in a room where only the interviewer and the student were present.

The choice of the semi-structured interview as a data generation instrument was made considering that the interview is flexible and has significant advantages, as it provides data not available in theoretical and documentary sources and allows the interviewer to repeat or explain the questions, helping the interviewee better understand the meaning of the questions (Lakatos; Marconi, 2003). Thus, the semi-structured interview used in this research was constructed in a brief script with six questions, all of them addressing the difficulties and needs of the participating students, as well as their readings and life experiences as blind individuals in formation at the researched institution.

The analysis of the interviews took into account the interpretative gesture of these students' discourse, bearing in mind that, according to Bakhtin (2006), a person's discourse and report is loaded with all their interpretations, experiences and ideologies. The interviews were transcribed and submitted to a comparison of the data obtained by the two participants. Lastly, the results were interpreted. An analytical-comparative analysis was carried out regarding what the laws and authors who deal with the subject in question say and what is experienced by blind students in the school context.

Results and Discussion

For the purposes of this article, the narratives of the blind students who took part in this research were taken into account. Table 1 summarizes the thematic content of the dialogue established with these participants:

Table 1 – Research Questionnaire

Questions	Blind Student 1	Blind Student 2
Describe how your learning process has been at the institution?	Through reading texts and support from classmates, Braille text reviewer, and teachers.	Through oral explanations and sometimes through adapted materials.
Do you consider that the institution has contributed to your academic development as a blind student?	In terms of structure, there is a lack of accessibility and more attention to learning from the teachers.	Yes, but it still needs improvement.
What do you find most challenging regarding accessibility at the institution?	Barriers that prevent independent movement, lack of tactile paving and protections.	Lack of tactile paving throughout the institution, limiting movement.
What are the main difficulties with the teacher-student relationship?	Some teachers fall short when they do not describe the images used in lectures or do not adapt materials, not realizing the difficulty in completing the task, but others do not disappoint.	I didn't always feel included; sometimes I received activities just to fulfill requirements. Teachers need training on how to interact with blind students, describe images in lectures, explain in a more understandable way.
What activities do you find most challenging?	When the activity is not adapted	More visual activities.
Do you think that when you leave the Institute you'll be ready for the world of work?	Partially, as we will never be fully prepared, but the Institute is preparing me well.	. I believe so, but I will miss some things that I couldn't learn.

Source: Own Authorship, 2023.

Analyzing the first question posed to Student 1, it becomes clear that learning is facilitated with the assistance of teachers, a Braille reviewer, and classmates, using text readings. Considering that Student 1 is pursuing a degree in History Education, solely relying on text readings will not provide effective learning for acquiring adequate skills for the workforce, thus requiring tactile material adaptations. According to Nunes and Lomônaco (2010, p. 60), “Blind students, in their school life, need adapted materials that are suitable for tactile-kinesthetic, auditory, olfactory and gustatory knowledge, especially tactile graphic materials and Braille”. Without adequate access to these types of resources, their learning will be impaired

Student 2 mentions that sometimes the material is adapted. The adaptation of resources aims to promote equality of conditions between blind students and those without disabilities. Sampaio, Batista, and Nascimento (2020) emphasize the importance of understanding the particularities and diverse learning styles of visually impaired students, as well as being knowledgeable about technologies and resources that can significantly contribute to their learning.

In response to the second question, Student 1 states that the institution partially supports the education of blind students, as there is a lack of accessibility and attention to learning from teachers. This complaint aligns with what is stated in the Brazilian Inclusion Law (LBI), in Article 28, item II, which states that there should be "improvement of educational systems, aiming to ensure conditions of access, permanence, participation, and learning, through the provision of services and accessibility resources that eliminate barriers and promote full inclusion" (Brazil, 2015). Therefore, according to Bernardes, Santos, and Lucena (2022, p. 8), "the major problem with inclusion is still teacher training, especially to work with visually impaired students."

Student 2 says that the institution contributes, but still has much room for improvement. According to Gramsci (2011), the school needs to adapt to the student, not the other way around. Furthermore, Bernardes, Santos, and Lucena (2022) argue that to ensure inclusion, it is necessary to think beyond the physical school space, reconsidering pedagogical practices, as technological advancements require ensuring the autonomy of these students.

When asked about the structural accessibility of the institution, both blind students talked about the difficulties encountered due to the lack of tactile paving in certain areas of the school, making it difficult for them to move around safely and independently. Thus, the data show that students' rights are not being effectively guaranteed. These situations violate the citizen's right to come and go, as supported by Article V of the Federal Constitution (Brazil, 1988) and the LBI (Brazil, 2015), in its Article 3, item IV, which considers barriers to be: "[...] any obstacle [...] to freedom of movement [...] to safe movement [...]".

Regarding the difficulties encountered in the teacher-student relationship, these are highlighted in the statement of Student 1, who mentions that some teachers fall short when they do not make the necessary adaptations for the student and are unaware of their difficulties. Student 2, on the other hand, often felt excluded from the educational process, and believes that teachers need training to work with blind students, since they often do not understand what is being conveyed in class.

According to Nunes and Lomônaco (2010), studies have revealed that lack of teacher training is one of the factors that hinder the schooling process of visually impaired students. Lima (2021) emphasizes that the main difficulties faced by teachers of blind students are that they all need to receive stimuli and be guided through the other senses in a meticulous and orderly manner. For Bernardes, Santos, and Lucena (2022), barriers to successful learning

arise due to inflexible curricula that are irrelevant to visually impaired students, and these problems are caused by the lack of adequate teacher training.

When questioning Student 1 whether, upon leaving the institution, he would be prepared for the world of work, he said yes, but according to his previous answers, we can see a contradiction, since he feels prepared at the same time as he reports gaps in his learning, left by an educational system that does not fully train individuals. Therefore, according to Amorim, Antunes, and Santiago (2021), many teachers are not well acquainted with the characteristics of students with disabilities and do not recognize their abilities. As a result, teachers may not adapt their teaching to meet the needs of these students, resulting in barriers to learning and their development.

Student 2, on the other hand, states that they will miss things they were unable to learn, indicating that their education is fragmented, as "[...] the complete disregard for the integral formation of the human being and their reduction to mere training reinforce the authoritarian way of speaking from top to bottom" (Freire, 1996, p. 59). According to Ramos (2008), teaching with the purpose of integral human formation aims to educate the individual in their entirety, advocating for an education that integrates scientific, cultural, humanistic, and technological knowledge.

Thus, as the responsibility of higher education, as highlighted by Saviani (2022), is to provide a high-level culture, allowing full participation in cultural life, regardless of the professional context, the educational system's responsibility is to ensure the full participation of blind students, providing the necessary resources and support to overcome barriers and ensure them opportunities equivalent to those of individuals without visual impairments.

In conclusion

This article discussed the comprehensive training of blind students in the context of EPT in the Araguaia region, based on legislation that supports people with visual impairments and the experiences of two blind students in an EPT institution. Throughout the research, we have come to understand that the comprehensive education of blind students is a challenge that extends beyond architectural and physical barriers. Architectural accessibility is essential to provide the independence and autonomy of these students, providing safe movement for them, thus contributing to full participation in school activities. However, effective inclusion also requires the elimination of attitudinal and pedagogical barriers, which are sometimes more imperceptible, but no less important.

Blind students reported some difficulties related to methodologies used by teachers, leading us to infer that well-prepared teachers can make a difference in the inclusion and comprehensive education of blind students, with training for these professionals being extremely important so that they can establish appropriate strategies and promote teaching based on equity among students. Furthermore, the adaptation of materials is an important point to be taken into consideration for the learning of these students, in addition to other assistive technology resources, as this target audience needs to be prepared for the world of work.

Another point of utmost relevance is integral human formation, which must go beyond content, preparing the blind student to be an agent of transformation in society, being able to face obstacles in the world of work and attitudinal barriers in society. Despite advances in laws that support people with disabilities, it can be noted that much remains to be done to ensure quality education for blind students, especially in regions with a low level of social and educational development. Public policies need to be more effective.

Referências

AMIRALIAN, M. L. T. M. A construção do eu de crianças cegas congênitas. *Natureza Humana*, v. 9, n. 1, p. 129-153, 2007.

AMORIM, C. C.; ANTUNES, K. C. V.; SANTIAGO, M. C. Da educação básica ao ensino superior: desafios à construção do processo de inclusão em educação. *Acessibilidade e Inclusão no Ensino Superior*, v. 1 n. 1, 1 – 17, 2021.

BAKHTIN, M. *Marxismo e Filosofia da Linguagem*. 12. ed. Hucitec, 2006.

BERNARDES, J. F.; SANTOS, E. G. dos; LUCENA, L. S. de. Inclusão de alunos com deficiência visual: um estudo de caso da experiência de professores e alunos de Manaus no período de 2020/2021. *Revista Proficiências*, 2022. v.5, n.1, p. 1- 29.

BILL, L. B. *Educação das pessoas com deficiência Visual – uma forma de enxergar*. 1. ed. Curitiba: Appris Editora, 2017.

BRASIL. *Constituição da República Federativa do Brasil de 1988*. Brasília, DF: Presidência da República. 1988. Disponível em: http://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm. Acesso em: 17 jun. 2023.

BRASIL. *Lei de Diretrizes e Bases da Educação Nacional*. Lei n. 9.394, 20 de dezembro de 1996. Estabelece as Diretrizes e Bases da Educação Nacional. Brasília, DF, 1996. Disponível em: http://www.planalto.gov.br/ccivil_03/Leis/L9394.htm. Acesso em: 20 jul. 2023.

BRASIL. *Lei nº 13.146, 6 de julho de 2015*. Institui a Lei Brasileira de Inclusão da Pessoa com Deficiência (Estatuto da Pessoa com Deficiência). Brasília, DF, 2015. Disponível em: https://www.planalto.gov.br/ccivil_03/_ato2015-2018/2015/lei/l13146.htm. Acesso em: 20 jul. 2023.

BRASIL. Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira. *Sinopse Estatística da Educação Básica 2021*. Brasília: Inep, 2022.

BRASIL. Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira. *Sinopse Estatística da Educação Básica 2022*. Brasília: Inep, 2023.

CIAVATTA, M. *A formação integrada: a escola e o trabalho como lugares de memória e de identidade*. In: FRIGOTTO, G. et al. (Orgs.). *Ensino médio integrado: Ensino médio integrado concepções e contradições*. São Paulo: Cortez, 2005. p. 83-105.

CRUZ, T. S.; VIEIRA, J. P. A. *A Educação na Amazônia Legal: Diagnóstico e Pontos Críticos*. FGV, 2021. Disponível em: <https://amazonia2030.org.br/educacao-na-amazonia-legal/>. Acesso em: 10 jul. 2023.

FREIRE, P. *Pedagogia da autonomia: saberes necessários à prática educativa*. São Paulo: Paz e Terra, 1996.

FREIRE, P. *Papel da Educação na Humanização*. Revista da FAEEBA, Salvador, n. 7, p. 9-17, jan./jun. 1997.

FREIRE, P. *Educação como prática da liberdade*. 23. ed. Rio de Janeiro: Paz e Terra, 1999.

FRIGOTTO, G.; CIAVATTA, M.; RAMOS, M. (org.). *Ensino Médio Integrado: concepções e contradições*. São Paulo: Cortez, 2005.

GIL, A. C. *Como elaborar projetos de pesquisa*. 6. ed. São Paulo: Atlas, 2019.

GRAMSCI, A. *Os intelectuais e a organização da cultura*. Rio de Janeiro: Civilização Brasileira, 1991.

GRAMSCI, A. *Cadernos do cárcere - volume 2: os intelectuais, princípio educativo, jornalismo*. 6. ed. Rio de Janeiro, Civilização Brasileira, 2011.

IFPA- Instituto Federal de Educação, Ciência e Tecnologia do Pará. *Projeto Pedagógico Institucional, PPI 2017*. Belém, 2017. Disponível em: <http://proen.ifpa.edu.br/documentos-1/departamento-de-ensino-superior/3-politicas-e-normativas-institucionais/ppi-pdi-e-regulamento-didatico-pedagogico-do-ensino/1846-projeto-pedagogico-institucional-ppi-ifpa-2017>. Acesso em: 03 ago. 2023.

IFPA- Instituto Federal de Educação, Ciência e Tecnologia do Pará. *Resolução nº 064/2018- Consup de 22 de março de 2018*. Propõe as diretrizes, princípios, composição e atribuições do núcleo de atendimento às pessoas com necessidades educacionais específicas do Instituto Federal de Educação, Ciência e Tecnologia do Pará — IFPA. Belém, 2018. Disponível em: <https://proen.ifpa.edu.br/documentos-1/13-resolucoes-do-consup/resolucao-do-consup/2018-2/1889-resolucao-n-064-2018-consup-ifpa-propoe-as-diretrizes-principios-composicao-e-atribuicoes-do-nucleo-de-atendimento-as-pessoas-com-necessidades-educacionais-especificas-do-ifpa/file>. Acesso em: 03 ago. 2023.

LAKATOS, E. M.; MARCONI, M. A. *Fundamentos de Metodologia Científica*. 5. ed. São Paulo: Atlas, 2003.

LIMA, E. C. *Saberes e fazeres Pedagógicos na Deficiência Visual*. 1. ed. São Paulo: Editora Senac, 2021.

MARX, K. *O Capital: crítica da economia política: livro I*. Rio de Janeiro: Civilização Brasileira, 2011.

MARX, K.; ENGELS, F. Manifesto do Partido Comunista. *Estudos Avançados*, v. 12, n. 34, p. 7-46, 1998.

MÉSZÁROS, I. *A educação para além do capital*. 2. ed. São Paulo: Boitempo, 2008. Disponível em: <http://piape.prograd.ufsc.br/files/2020/07/Istv%C3%A1n-M%C3%A9sz%C3%A1ros-A-educa%C3%A7%C3%A3o-para-al%C3%A9m-do-capital.pdf>. Acesso em: 10 jun. 2023.

NUNES, S.; LOMÔNACO, J. F. B. *O Aluno Cego: Preconceitos e Potencialidades*. Revista Semestral da Associação Brasileira de Psicologia Escolar e Educacional, São Paulo, v. 14, n. 1, p. 55-64, jan./Jun. 2010.

PRODANOV, C. C.; FREITAS, E. C. de. *Metodologia do trabalho científico: métodos e técnicas da pesquisa e do trabalho acadêmico*. 2. ed. Novo Hamburgo: Feevale, 2013.

RAMOS, M. Concepção do ensino médio integrado. In: Seminário Sobre Ensino Médio, 2008. *Anais [...]*. Belém: SEDUC/PA, 2008. p. 1-30. Disponível em: <https://tecnicadmiwj.files.wordpress.com/2008/09/texto-concepcao-do-ensino-medio-integrado-marise-ramos1.pdf>. Acesso em: 10 ago. 2023.

SAMPAIO, A. C. C. de A.; BATISTA, A. de F.; NASCIMENTO, É. de L. A inclusão escolar para alunos com deficiência visual. *Anais VII CONEDU - Edição Online...* Campina Grande: Realize Editora, 2020. Disponível em: <https://editorarealize.com.br/artigo/visualizar/67730>. Acesso em: 15/04/2024 22:30

SAVIANI, D. Em defesa do projeto de formação humana integral para a classe trabalhadora. *Revista Brasileira da Educação Profissional e Tecnológica*, [S.l.], v. 1, n. 22, p. E13666, mar. 2022. ISSN 2447-1801.

VYGOTSKY, L. S. *Obras Escogidas – Tomo V: Fundamentos de defectología*. Madrid: Visor, 1983.