

## THE BRAILLE SYSTEM<sup>1</sup> AND THE BLIND PERSON IN CONTEMPORARY SOCIETY



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### ABSTRACT

This text addresses the use of the Braille System by blind people today. It is known that for years the only way to provide knowledge to blind individuals was through this system. However, in recent decades, with the emergence of the so-called assistive technologies, there has been a true process of debrailization, that is, blind people are increasingly ceasing to use Braille. In the current context, in which every day new technological artifacts emerge that promise interaction, speed, ease and autonomy for these subjects, the trend is to increase debrailization. In order to understand how this situation occurs in practice, we sought to know if blind people still use the Braille System in their daily lives. Regarding the methodology used in this work, we conducted a qualitative research, in which we dialogued with five blind people to find out if they still use the Braille System or if they prefer to use other technological means. To this end, we conducted interviews through text messages and audios via *WhatsApp*. Subsequently, we assessed the statements through Bardin's (2012) content analysis. We obtained as results that all the interviewees still use Braille, however, they have adhered to the use of digital technologies, such as screen readers. For some of them, such mechanisms enable more autonomy and optimization of time. They also stressed that children should continue to learn the Braille System, especially to learn the writing of words.

**Keywords:** Braille system. Debrailization. Assistive technology.

<sup>1</sup> In this work, we chose to write the words Braille and Sistema with the initial in capital letters.

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## INTRODUCTION

The use of information and communication technologies at the service of education is one of the most widespread issues today. When it comes to the learning of people with disabilities (PwD), this is an issue that has taken up space in the studies of many researchers. When talking about the process of social inclusion of people with visual impairment, we need to take into account that there are still many barriers that limit the learning and development of these subjects.

New technologies are increasingly powerful and have impacted people's lives, changing habits and imposing changes in society's customs. We live in the age of connected people, from *offline* to online. If in the past access to the internet, computer or *smartphone* was difficult, today there seem to be few people who are not connected to digital networks. In this context, we agree with Oliveira and Pletsch (2022, p. 613) when they state that currently,

Everything is defined by the here and now; by the ethics of the instant. The strategy of "online time" breaks with the traditional conception of time, shortens distances and creates a "world space and time". It is no longer a choice between adhering to technology or not, this is a reality that is part of the daily relationships of our lives.

It is known that there are many types of disabilities today, but in this text we will only deal with blind people. Visual impairment falls into two categories: blindness and low vision. According to Sá, Campos and Silva (2007), blindness is a severe or total alteration of vision, affecting the ability to perceive color, size, distance, shape, position or movement. On the other hand, low vision is defined as a severe visual loss, that is, reduced visual acuity. Blindness can be presented from birth (congenital blindness) or as a result of organic or accidental causes (adventitious-acquired blindness) (Garcia and Braz, 2020, p. 628).

To carry out this research, we sought to answer the following question: Do blind people still use the Braille System in their daily lives? In order to arrive at such an answer, we have built the following objectives.

General: To analyze whether blind people still use the Braille System.

Specific: To understand what is the space that the Braille System still has in the lives of the blind people surveyed; Know what other devices are used by the people investigated in their daily lives and in moments of study.

Below we will present some studies that, in a way, have some similarity with the research we conducted.

## THEORETICAL FOUNDATION

When we deal with the social inclusion of people with visual impairment, we choose as a starting point the need for literacy of these subjects. Thus, it is up to the State, the family, the school and the teachers to provide learning together to these individuals.

According to Decree No. 5.296 of 2004, visual impairment is that which covers the total or partial loss of vision. In this way, it encompasses blindness and congenital or acquired low vision.

Visual impairment - **blindness**, in which visual acuity is equal to or less than 0.05 in the better eye, with the best optical correction; **low vision**, which means visual acuity between 0.3 and 0.05 in the better eye, with the best optical correction; cases in which the sum of the visual field measurement in both eyes is equal to or less than 60°; or the simultaneous occurrence of any of the above conditions (Brazil, 2004).

The subject with blindness and/or low vision needs to receive dignified training that enables him to live included in society. For this, it is up to the State to provide mechanisms that favor the educational process of these people. Thus, the Braille System emerged in the nineteenth century as a technological device, which for years collaborated with the training of blind people. For Mosqueira (2010) Braille should be taught to children even before the moment of literacy, because the child must first learn to have a notion of space, laterality and body domains, this will contribute to him having more mastery over reading and also over writing in this system.

An important tool for this teaching process is through Braille. According to Resende (2021, p. 3)

The Braille System is a universal tactile reading and writing code used by people with visual impairments, invented in France by Louis Braille, a young blind man. The year 1825 is recognized as the milestone of this important achievement for the education and integration of the visually impaired in society.

From the invention of this code to the present day, we have a space of time that allows us to understand that people with visual impairment did not have an easy life during this trajectory. However, in line with the studies of Mendes (2006, p. 401) "there is no way to improve our schools if differences continue to be systematically excluded from them". In this

way, we bring difference as a bridge that leads to two paths: first, to look at the individual with disabilities and see in them learning possibilities; second, to receive such people in school but deny learning conditions, because in this way, we will once again be excluding these people.

Since its creation and popularization, the Braille System has been considered the main tool for access to writing by blind people. In 1837, Louis Braille himself proposed the basic structure that we use to this day, including its application to Mathematics and Music. In Brazil, this system arrived in 1850 through José Álvares de Azevedo, who had studied at the Institute of the Blind in Paris.

Subsequently, Braille began to be adopted in the first school for the blind in Brazil - the Imperial Institute of Blind Boys, now the Benjamin Constant Institute, in Rio de Janeiro. José Álvares de Azevedo was its creator, but died six months before the inauguration of the Institute, which took place on September 17, 1854. According to Leão and Sofiato (2019, p. 284) "In 1856, two years after the foundation of the Imperial Institute of Blind Boys, the Imperial Institute of the Deaf and Dumb was also created in Rio de Janeiro".

Gradually, Braille reached its space throughout the national territory and became the tool most used by institutions to teach blind people to read and write. According to Resende (2021, p. 4,5)

Despite some more or less prolonged resistance in other European countries and in the United States, the Braille System, due to its efficiency and wide applicability, has definitely imposed itself as the best means of reading and writing for people with visual impairment.

Unlike some countries, the Braille System was fully accepted in Brazil, adopting practically all the symbology used in France. Like other countries, Brazil began to fully use the International Code of Braille Musicography of 1929.

A very important point, and one that we need to emphasize, is the versatility of this system, which can be used in various ways with regard to the training of blind subjects. Also according to Resende (2021, p. 5)

The Braille System can be used in literary texts in various languages, in mathematical and scientific symbologies in general, in music and, recently, in computer science. It is formed by the arrangement of six points in relief, arranged in two columns of three points, configuring a rectangle six millimeters high by approximately four millimeters wide. The six dots form what is conventionally called braille cell.

After having reached such space in Brazilian schools, today we have a true dichotomy on the part of blind people. There are those who remain faithful to the use of

Braille and those who have preferred to use the new devices that have been emerging in the field of computing. When it comes to the education of visually impaired people, we understand that they must participate in all the activities proposed by the school, that they are encouraged to explore different spaces, as well as have support so that they can broadly develop their other senses, thus consolidating meaningful learning (Garcia and Braz, 2020).

It is also important to understand that in the absence of sight, there are other possibilities to help in the education of blind people, such as audio description, which appears as an instrument that should be offered and used in schools. Audio description is a resource for translating images into words, aiming to explain images, objects, among others (Garcia and Braz, 2020).

In recent years, "debrailization" has grown, for Toniazzi (2021, p.15) this term "is used by researchers when referring to the replacement of the teaching of the Braille System by technological means and computer programs adapted to blind people". In this context, in which Braille has apparently lost space to alternatives in the field of information and communication technology, our desire to carry out this research arose as a way to contribute to this debate that is so important in our time, the learning and training of blind people.

## **METHODOLOGY**

To carry out this work, we conducted interviews with blind people, with the main objective of analyzing whether people still use the Braille System. At the same time, we want to understand what space the Braille System still has in the lives of the blind people surveyed; as well as to know what other devices are used by the people investigated in their daily lives and in the moments of study.

To carry out this work, we conducted interviews with 5 (five) blind people. Thus, we listed three questions to be answered by the researched subjects:

- Do you still use the Braille System?
- In your opinion, has Braille lost ground with the arrival of digital technologies?
- What technological devices do you use on your cell phone or computer?

Below is a small profile of the people surveyed.

**Chart 1:** Identification (profile) of the research subjects:

Participant	Gender	Age	Marital status	Education and Degree
Person 1	Female	37	Single	Graduated in Letters with a specialization in Literature and Writing.
Person 2	Female	43	Single	Middle school
Person 3	Female	44	Single	Graduated in Environmental Management
Person 4	Male	37	Married	Graduating in Pedagogy
Person 5	Male	27	Married	Incomplete graduation in Mechanical Engineering.

**Source:** The authors

All the people surveyed are blind. Person 5, specifically, became blind in preadolescence due to congenital glaucoma. According to Guedes (2021, p. 5) "Glaucoma stands out as the main cause of blindness and irreversible visual impairment in Brazil and in the world". The other interviewees were born blind. They studied in public schools and were literate in Braille. All of them finished high school more than 8 years ago.

For data collection, we used the interview as a methodology. According to Flick (2009), the purpose of the interview is to obtain the individual perceptions of the interviewees on a given topic. Our contact with these people took place through *WhatsApp* messages, since this tool allows us to have direct contact with people, even if they are far away.

According to Amado (2017, p. 209), the interview "[...] it is one of the most powerful means to reach the understanding of human beings to obtain information in the most diverse fields". We understand that the interview is a way that allows us to talk to people with an intentionality that, when directed to a research, allows us to answer specific objectives on a theme.

With the answers, we made the transcriptions of the audios. Then, we did the content analysis. For Bardin (2012), such analysis generally has three stages, called "pre-analysis", in which the researcher must analyze the characteristics of the text; the second stage deals with the "exploration of the material to be analyzed", in which it is sought to perceive the consequences of the messages found in the researched text; and, finally, the "interpretation itself" in which the data will be treated, as well as describing the relevant parts, by means of coding apprehended in the previously formulated units of record and context.

## **ANALYZING THE DATA AND REFLECTING THE RESULTS**

Next, we will present parts of the transcribed material regarding the answers given by the researched subjects. Although we have transcribed all the speeches in full, we have



used in this work only the excerpts that answer the questions we asked. We mark in italics the parts that we believe to be most relevant to our reflections. To facilitate the reader's understanding and also our analyses, we made a table with the answers of all those surveyed, so that we could view them all at the same time.

**Table 2:** First question

<b>Do you still use the braille system?</b>
<b>Person 1</b> - Yes. <i>I still do.</i> I use the reglete and the punch.
<b>Person 2</b> - Yes. <i>I write</i> but honestly my wrists hurt, I preferred the Braille machine, but as I don't have the resources to buy it, <i>I write</i> , now that I like it, <i>I don't like</i> it. But as <i>I am a psalmist then I have to write.</i>
<b>Person 3</b> - Yes. <i>The slate and the punch are still very important to me.</i> Because <i>I read in church</i> then I need to go to the websites and copy the reading. Then at this time we see the importance of Braille, because if we were to read with the computer or cell phone talking, it would be very late. Then <i>I copy everything in Braille</i> with the slate and the punch <i>and read it.</i>
<b>Person 4</b> - Yes. <i>I use the reglete and the punch.</i>
<b>Person 5</b> - I only use it in situations of extreme need, usually only in evaluations. I also use it to read medicine labels and when I go to teach someone something. In general, I use technological means.

**Source:** The authors

According to chart two, when asked if they used the Braille System, all answered affirmatively, especially to write. People 2 and 3 explained that, because they participate in church activities, they need to write some texts in Braille, as they need to read at Mass. People 3 and 5 emphasized that in more specific situations they need to use Braille. Interviewee 2 highlighted that the Braille System is tiring and causes pain in the arm and hand. We understand that the constant use of Braille writing through the slate and the punch can cause repetitive strain injuries.

Person 5 explains, at various times, that he is an enthusiast of technological means and that he only uses Braille when he has no alternative. We understand that educational systems must keep up with the advances of the present time, but they cannot fail to offer the teaching of Braille, as there will be situations in which it will be more viable.

**Table 3:** Second question

<b>In your opinion, has Braille lost ground with the arrival of digital technologies?</b>
<b>Person 1:</b> yes... unfortunately Braille <i>has lost a little space</i> , mainly because we know that a book in Braille is very bulky, takes up a lot of space and <i>people have increasingly chosen to read on the computer, on the cell phone.</i> [...] Currently, they have image readers who make brief descriptions of objects. [...] Another thing, every now and then it is the subject of reports that <i>blind people no longer know how to write Portuguese correctly</i> , especially in view of the fashion for abbreviated language on social networks. [...] But <i>our contact with formal writing is through Braille.</i>
<b>Person 2:</b> Unfortunately, yes. <i>Braille has lost ground due to the arrival of technology</i> [...] <i>many students have preferred cell phone or computer screen readers to Braille.</i> An important question: if you have apps but no Internet? How will you use it? Who are you going to turn to? So, <i>I think I had to learn both</i> , I had to have both and learn Braille too. But it has lost space, yes.

**Person 3:** Good morning professor, unfortunately I am forced to agree [...] when I took the entrance exam and then the college was already through the computer. *I presented my TCC with the computer, although I took a little sheet in Braille, because in case I forgot something. In small towns we have little access to Braille.* To study Braille my arm often hurts, I even have a callus mark from writing so much with the slate and the punch. With the search for facilities, unfortunately it is a risk for Braille to lose its own space.

**Person 4:** Yes, it has. *Many people have become accommodated with the arrival of new technologies and have stopped using Braille.* But it is the only means of reading for a blind person [...] a child, in order to have access to reading, he needs to learn Braille. *Braille is the only means of writing and reading for the blind person.* When you read, the tendency is to write better... is to speak better. [...] *It's one thing for us to be listening to what the text is saying, it's another thing for us to be writing our own text, reading our own text, noticing how the word is being written,* this is important, so in my opinion nothing replaces Braille. [...] *at the university there is no Braille printer, so I have to read only the texts in Word and PDF, then I have to adapt,* but Braille, it will never cease to exist, it may even have diminished because of these situations and also with technologies.

**Person 5:** *It has certainly lost a lot of space in relation to writing, reading, all of this has been facilitated with the arrival of technology.* I say this for myself, in relation to tests, texts, because of the ease. [...] Today with the electronic medium, for example, we read PDF, through screen readers, voice readers, as well as the issue of cell phones, computers, all of this has made it much easier, so it makes us feel more comfortable. *We don't waste time.* However, this contributes to the forgetfulness of Braille. [...] On the other hand, although I use technological means, *there is another point, forgetting Braille makes us have difficulty in relation to the tests.* [...] So, when we need to use the Braille Code, we end up having more difficulty, in a way, we are still dependent on it, since *our writing takes place through this code.* [...] Currently we have screen readers, we have image transcribers, in short, all of this contributes to the oblivion of Braille and this is nothing more than a failure, not of technology, but of us, human beings.

Now, expressing my opinion in relation to all this, in my case, *I prefer technology much more because of the speed and also because Braille requires sheets, boards, a machine,* in short, a series of things and mainly, time.

**Source:** The authors

When asked if Braille has lost ground with the arrival of digital technologies - all answered yes. For people 1 and 5 this also happens because of the large volume of sheets that is needed to produce texts in Braille. For reasons like these, people end up choosing to use screen readers on the computer and/or cell phone. **Person 1** also presents a point of great relevance, which is the fact that blind people are also failing to write correctly. She says that this may be happening in view of the use of abbreviated language on social networks and we infer that it is also due to the fact that these people are using Braille less and other resources more. That is, as they are writing less in Braille, they end up not having to worry about writing the text. She reinforces that the blind person's contact with formal writing takes place through the Braille System. The first interviewee, as she is a Portuguese language teacher by training and a public servant in the state network of Pernambuco, recently sworn in as a *Braille teacher*, shows us the responsibility that the state needs to have in providing the blind with the learning of this code, which can allow more protagonism to blind people when writing and/or reading, even if they later choose to use the applications that technology offers them.



The **second** interviewee said that blind people are increasingly using applications and technological tools, but he wonders how they will proceed in the absence of the Internet, when they cannot be *online*. It is known that the Internet, computers and applications are not yet within everyone's reach. In a way, this also ratifies the need for the blind to learn the Braille System so that they can write their texts autonomously, even when they are not *online*. As for access to some resources, this can also extend to the reglete and the punch. Interviewee 2 states that the ideal would be for blind people to learn to use both the Braille System and other technological tools that are emerging today and that have helped to improve the lives of blind people.

**Interviewee 3** makes use of applications, but does not dispense with a sheet with the text written in Braille in case the technology fails. He also reports that small cities need to create opportunities for their visually impaired students to have access to Braille. We understand that the absence of the State in the promotion of public policies that prioritize people with disabilities becomes stronger in small towns in the interior of the country. He also adds that using this system is tiring and sometimes painful, especially when you only have the slate and the punch, this ends up being less suffering/painful when you use the Braille machine or the computer with a printer to write and print already in Braille. It also ratifies that with technology, in fact, blind people end up choosing less and less to use and/or learn the Braille System.

**Person 4** is a pedagogy student at a public university and in his answer it is possible to infer a social concern with the acquisition of language by the blind child. For her, Braille is an important tool for the blind to have access to writing and reading. He invites us, in a way, to understand that by learning the aforementioned System, the blind person is also finding possibilities to produce his own texts, instead of just listening to and reproducing what is put in the texts of other authors.

The authorial voice of this interviewee, by arguing that nothing replaces this code, ratifies the importance of blind subjects to be literate in Braille in order to learn to read and write, to live with more protagonism and autonomy in the construction of their history. He also reports that the blind person, in general, needs to adapt to the many situations in the spaces where he transits, because, like the university where he studies, people with disabilities almost always end up having their rights denied, usually due to lack of resources, specific materials that could help in the teaching and learning process of visually impaired subjects, for instance.

This statement by interviewee 4, when reporting that the university where he studies does not have some materials, such as a printer to reproduce texts in Braille, alerts us to the problems of technological and attitudinal barriers that are placed in society, including in universities. Here, we make a small observation, since many higher institutions are already equipped with many technological tools. However, we also know that there is still a great neglect of the education of people with disabilities from basic education to higher education.

In this context, we ask ourselves: do undergraduate courses offer their undergraduate students, for example, contact with the Braille System? Many institutions think that they should only offer this knowledge if there is a blind student. It forgets that in the process of initial training of Pedagogy courses, for example, it is necessary to expand the possibilities for students so that they can learn so that they can later know how to deal with the difference in the school space.

We understand that when **Person 4** states that he has to adapt to the institutions he studies in view of the absence of some materials, it shows that the process of school inclusion put in the various legislations in force since the Declaration of Salamanca (1994), the Convention on the Rights of Persons with Disabilities (2007), the National Education Plan (2014), the Brazilian Inclusion Law (2015), among others, are not being ensured in their breadth, not even in higher education.

We understand that such issues can be the subject of other researches, which can better scrutinize this theme, because in this way it can contribute to the expansion of this subject, while dialoguing with the daily life of higher education institutions, private or public that offer activities regarding the teaching of the Braille System and/or other technologies that help blind people.

Person 5 said that when she became blind, she had already learned Braille, but had always chosen to use digital resources. She ratifies in her speeches that one of the relevant things that technology allows her is the use of time. He also adds that the lack of constant use of the Braille System ends up leading blind individuals to forget the code.

However, he did not fail to ratify the importance of the Braille System, especially when it comes to taking tests. He said that human beings need to be more aware of the use of technological tools, because one thing cannot replace the other. He stressed a few times that he prefers the technological medium in view of the time gain. Of the five interviewees, person five is the youngest, which may justify in a way their preference for the use of technology. The interviewee studied mechanical engineering and, even though he did not

complete his degree, he shows a great interest in the use of equipment aimed at digital technology.

The studies by Bruno and Nascimento (2019) point out that when people with visual impairment start using accessible resources and applications, they stop using the Braille System almost completely. For Toniazzi (2021, p.16) this is justified "since the resources of Assistive Technology are efficient and happen in real time". In our study, when conducting the interviews, we found that all the interviewees make use of these technologies, one of them even highlighted his preference for such tools. The work of Batista (2018) corroborates our findings when she states that "the Braille System is not widespread and used, and that due to this people with blindness themselves prefer digital technologies". The absence of the state, in not providing blind people with access to Braille, corroborates why they seek only digital technologies, which in our view can be more accessible.

**Table 4:** Third question

<b>What technological devices do you use on your cell phone or computer?</b>
<b>Person 1:</b> <i>On the computer I have NVDA and I have Dosvox, and the screen reader I really use is NVDA.</i>
<b>Person 2:</b> Screen readers
<b>Person 3:</b> NVDA for the computer which is a voice program and TalkBack on the cell phone then I enter <i>WhatsApp, Facebook, email...</i> Almost all the tools that a sighted person uses through these two programs we can also use.
<b>Person 4:</b> Screen readers
<b>Person 5:</b> NVDA. I've tried to use another one but I didn't adapt.

**Source:** The authors

When we asked the third question, most answered that they use screen readers, the most cited was NVDA. NonVisual *Desktop Access* (NVDA) is a free and open-source screen reader for the Microsoft Windows operating system. Providing *feedback* through synthetic speech, it allows people who are blind or visually impaired to access Windows computers, similar to a sighted person. Also according to the Guide (2022), the aforementioned reader allows blind and visually impaired people to access and interact with the Windows operating system and many third-party applications.

The first interviewee stated that she has both NVDA and *Dosvox* on her computer. The latter is defined as,

Dosvox is not a computer program, but an integrated system that has more than 80 programs, consisting of an operating system, a speech synthesis system, a text and print editor and reader, general purpose programs, educational and playful games, screen magnifier for people with reduced vision, sound programs, among others. It has a pleasant and easy interaction environment, with command by letters and help functions. In voice synthesis, the human voice is used, in order to make the use

more pleasurable. The Dosvox system can be purchased free of charge, through download, directly from the NCE website of UFRJ (Jacomino; Zanom, 2015).

For Mendonça and Gago (2023, p. 01) "The teaching methodology for blind students is based on the use of Braille, the main writing and reading tool for blind people and a great challenge for educators, because most of the time they do not have any notion about this writing methodology".

It is known that nowadays for the effectiveness of inclusion it is necessary to use various resources in order to contribute to such a process. Therefore, when it comes to assistive technologies,

The main objective of assistive technologies is to provide people with disabilities with greater independence, quality of life and social inclusion, through the expansion of their communication, mobility, control of their environment, learning skills, work and integration with family, friends and society. The use in the classroom by teachers helps blind students to situate themselves in some situations in a more egalitarian way (Ataide; Cato, 2016).

If technology is in society, we have to make use of it to give people with disabilities more participation. In this text, we are talking specifically about visually impaired and/or blind people. Even with advances in technological tools, it is known that many people have not yet been able to benefit from these resources. Technology is a reality that, in addition to providing greater dignity to disabled students, provides a more innovative, playful, and rich teaching-learning process (Mendonça and Gago, 2023). It is expected, in this way, that more and more public policies will be thought out and implemented, in order to improve the lives of this segment of society.

Person 3 also said that he uses *TalkBack* on his cell phone and in this way he can access almost all the tools that an individual without disabilities uses. *TalkBack* is a screen reader software for mobile phones. An accessibility feature that helps people with visual impairments select options in *smartphone menus*. Voice support, for those who have low or total vision loss, speaks out loud (like a personal assistant) what are the alternatives on the screen.

Subject 5 said that he uses NVDA and that he tried to use other screen readers but that he could not adapt. *NonVisual Desktop Access* (NVDA), is of Australian origin, and refers to a

[...] screen reader, free of charge, which allows people with visual impairment to use computers, *notebooks*, *tablets*. The reader reads the text on the screen with computerized voice. It is possible for the user to control what they want to read by

moving the arrows to the relevant area of text with the *mouse* or the arrows on their keyboard (NV Access, 2015).

This screen reader is the most used by the people interviewed, we believe that this is because it is free and also because it is easy to install on computers and *notebooks*. Most visually impaired people use such a screen reader to study PDF texts, among others. The use of screen readers is of fundamental importance when the person already knows how to write and read in their language.

At the end of this research, we believe that our main objective has been achieved. Of the five subjects interviewed, all said that they still use the Braille System, but with less intensity. This confirms that the emergence of digital technology has a great impact on the decrease in the use of Braille by blind people, confirming the growing trend called *debraillization*.

Regarding the space that Braille has in the lives of blind people, it was evident that the use of this System has in fact decreased. Thus, our study is in line with those of Bruno and Nascimento (2019), since when starting to use accessible resources and applications, blind people end up drastically reducing the use of Braille.

## **FINAL CONSIDERATIONS**

After conducting this research, we found that blind people still use the Braille System, however, most have preferred to make use of digital technologies. Regarding the devices used by the people investigated, we found that everyone, even knowing Braille, prefers to use screen readers, such as NVDA on the computer and *TalkBack* on the cell phone. One part stressed that they are aware of the importance of Braille, they also added that in most cities in the interior it is difficult to access places that offer the teaching of this code. All participants in the survey said that the Braille System is the only way for blind individuals to read and write autonomously.

We hope that more research in this area will be carried out, so that the discussion of topics such as: blind person, Braille System, *debraillization* and assistive technology is also expanded. We are aware of the limitations of our work, so we ratify the importance of scientific production in the area. In this context, writing about the Braille System is to give prominence to a group that is still very stigmatized.

It is known that there is already a wide range of legislation, which guarantees rights for people with disabilities, however, it is increasingly urgent to analyze how society has

guaranteed the rights of this group in daily life, because for inclusion to actually happen, it is necessary that schools are inclusive, that people delete the various barriers and that the State fosters public policies that value difference. If this does not happen, we run the risk of continuing to give vent to integration instead of inclusion, to the erection of attitudinal, communicational, urban barriers, etc., to the detriment of the construction of a more humane society that is based on the consolidation of rights. In this context, writing about the Braille System is a way of giving prominence to blind people who are still very stigmatized.

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