

Remote teaching and accessibility in deaf education: an analysis of the "*Se Liga Na Educação*" platform

ABSTRACT

André Luis Santos de Souza

andreconatus@gmail.com

0000-0002-5293-816X

Universidade Federal do Rio de Janeiro,
Rio de Janeiro, Rio de Janeiro, Brasil.

Ana Carolina Carmo Leonor

ana.carmoleonor@gmail.com

0000-0002-6178-1504

Universidade Estadual de Londrina,
Londrina, Paraná, Brasil.

Ana Luisa Borba Gediel

ana.gediel@ufv.br

0000-0001-5755-2592

Universidade Federal de Viçosa, Viçosa,
Minas Gerais, Brasil.

Reflecting on the impact of school closures and the temporary substitution of the face-to-face system for the remote learning system exposed challenges and obstacles to be faced in the educational sphere. The adjustment to this new reality has exposed the great inequality in terms of resources for the implementation of the remote system. Based on decolonial theory, we sought to reflect critically on the colonial history of educational exclusion of Deaf subjects. analyze the bilingual didactic material produced by the Secretary of Education of the State of Minas Gerais and made available online in order to serve Deaf students during the remote period. As a methodological path, the video lessons of the platform "*Se liga na Educação*" were investigated, to identify and understand the material aimed at Deaf students, who use Libras as their first mother tongue (L1). We conclude, with the analysis of the video lessons, that the material in Libras can be considered both a legal and sociocultural advance in the context of education for deaf students. However, there are still many gaps that make it impossible for deaf students to have equal access to school content. It was observed that the lack of subtitles in the videos created some barriers. In addition, it was identified a gap related to the absence of programmatic content defined by the National Curricular Bases, in the case limited to some content of the Portuguese language and the discipline of *Libras*.

KEYWORDS: Remote teaching. Libras. Digital Platform.

INTRODUCTION

With the advance of cases of contagion and death of the new coronavirus, which causes the COVID-19 disease, on January 30, 2020, the World Health Organization (WHO) declared a Public Health Emergency of International Importance. From that moment onwards, a sanitary protocol was established and measures for distancing and preventing contagion were established. Among these measures, there was the request for the closing of schools and universities due to the requirements for social distancing.

In Brazil, as provided for in Ordinance No. 343, published on March 18, 2020, in the Official Gazette of the Union (*Diário Oficial da União* — DOU), “the replacement of classroom classes by classes in digital media for as long as the New Coronavirus — COVID-19 pandemic situation lasts” was filed. In its 1st article, the ordinance authorizes the use of digital technologies of information and communication (*tecnologias digitais de informação e comunicação* — TDIC) in teaching and learning processes (BRASIL, 2020). This was a gradual action, which took place in public and private schools in all Brazilian states throughout 2020 and 2021.

It is undeniable that the advances in TDIC have had a significant impact on Brazilian society. Communication technologies made possible new sociological phenomena, such as interactions and social actions at a distance (CASTELLS, 1999). Even before the pandemic period, Gadotti (2000) described a new globalized and computerized world, which required many areas, such as education, to review concepts, methods, and paradigms to meet the demands of teaching, taking into account digital technologies and learning strategies.

Reflecting on the impact of closing schools and the temporary replacement of the on-site system for the remote education system exposed challenges and obstacles faced by educational managers, students, and families. The adaptation to this new reality opened wide the great inequality in terms of resources for the implementation of the remote regime. Stevanim (2020) describes that the educational context unveiled social inequalities now also placed in terms of digital inequalities, due to the lack of access to computers, tablets, and cellphones connected to the internet.

Disparities involving social class, ethnicity, regionalities, rural/urban, linguistic, and cultural learning specificities were accentuated during remote teaching activities (CARNEIRO, L., 2020). The remote period also sparked discussions from different social movements, considering that access to education must occur fully according to the basic learning needs of the student. The demands of the movements are legitimate and follow the parameters of universal access to education as a right for all people, regardless of their condition (UNESCO, 1990; BRASIL, 2007).

In addition to UNESCO guidelines, Brazil has a legal trajectory that seeks equity in access to education for all people. Federal Law No. 9394 of 1996, which deals with the Guidelines and Bases of Education in the special education modality, aimed at meeting the differentiated teaching-learning needs of students with disabilities (BRASIL, 1996).

With the advent of the 21st century, Brazilian policies began to be constructed concerning the sociocultural context of the Deaf, based on bilingual experiences.

The term “Deaf community” is considered emic and the word “Deaf” with an uppercase letter refers to those people who recognize themselves as an ethnic, linguistic, and cultural particularity (PADDEN; HUMPHRIES, 2006).

In the case of assistance to Deaf students, linguistic and cultural specificities must be taken into account. In this sense, a bilingual and bicultural perspective focused on the education of the Deaf is adopted (QUADROS, 2006). From this perspective, it is necessary to use teaching and learning strategies according to the student’s native language, in this case, the Brazilian Sign Language (*Libras*) as their first language and written Portuguese as a second.

Nationally, Law No. 10436 was approved in 2002, which recognized *Libras* as a form of communication and expression, as well as other associated linguistic resources (BRASIL, 2002). This can be considered one of the greatest achievements of the Brazilian deaf community and an incentive for the movement to seek the expansion of its rights. The legal framework was succeeded by Decree No. 5626, of 2005, which established the inclusion of *Libras* in the academic curricula of all undergraduate courses in Brazilian Higher Education Institutions and regulated bilingual education (BRASIL, 2005).

The legislation opens ways to foster inclusive education and, at the same time, provides guidelines for bilingual education. Bilingual education is still seen as the education desired by the Deaf (SILVA *et al.*, 2018). However, inclusive basic education often presents challenges and limitations to foster a bilingual perspective.

Faced with the demands of educational equity from Deaf students, the existing challenges were added to the new ones imposed by the pandemic. In this sense, this article questions the actions aimed at ensuring the accessibility of Deaf students to contents aimed at public Basic Education, including Elementary School II and High School, in the context of remote education in the State of Minas Gerais.

The government of the State of Minas Gerais created a platform entitled “*Estude em casa*”, which presents a set of materials and alternatives for the non-presential study regime. From there, it is possible to access the television program called “*Se Liga na Educação*”, which is broadcast by *Rede Minas*, in the morning shift, from Monday to Friday. *Rede Minas* is a Brazilian open public television network headquartered in Belo Horizonte, the capital of the state of Minas Gerais. It belongs to the *Empresa Mineira de Comunicação*, a state government agency. On the Platform, it is also possible to access textbooks called “*Planos de estudos tutorados*” aimed at Elementary School II and High School, in addition to practical guides designed to support the organization, management of remote activities, and accessibility for people with disabilities. Furthermore, it is possible to find videos of classes recorded in *Libras* and made available online through *YouTube* links.

Therefore, the data snippet and analyses used in this study refer to the videos available on the Platform tab entitled “*Se liga na Libras*”. Through it, it is possible to access videos containing bilingual content. The platform “*Se Liga na Educação*” was selected as the object of study for this article. We sought to analyze the bilingual teaching material produced by the Department of Education of the State of Minas Gerais and made available online to assist Deaf students during the remote period.

As a methodological approach, from a critical decolonial analysis, the video classes referring to the contents developed for students of Elementary School II and High School made available in *Libras* were investigated. The study sought to identify and analyze the material aimed at Deaf students, who have *Libras* as their first language (L1). In the selection of videos, the inclusion criterion for analysis was if the videos had *Libras* as their main language; the videos excluded from the analysis were those recorded in Portuguese as the main language, even with the window in *Libras*.

With the videos selected and cataloged, the legal frameworks and the discussion of the decolonial critical aspect were revisited, to reflect on the advances and limitations found in the “*Estude em Casa*” platform and, consequently, the accessibility for Deaf students enrolled in the regular network teaching during the remote period. The decolonial perspective (MIGNOLO, 2014; SCHUBERT; PEREIRA, 2019; WALSH, 2009; WALSH *et al.*, 2018) supports the resolution of the objective of this research, in the sense of critically reflecting on the colonial history of educational exclusion of Deaf subjects.

DECOLONIAL ASPECTS AS A TRANSFORMING MEANS OF EDUCATIONAL PRACTICES

The field of education in Brazil has been re-discussing classic themes such as curriculum, didactics, teacher training, school culture, and so on. Discussions about the challenges to overcome inequalities and racial, gender, sexuality, and religious discrimination have been the agenda of social, political, and educational movements. Thus, by reframing the practices in the educational space, rights are expanded and recognized, valuing differences and seeking to promote justice and social equity. The actions carried out by different social movements and endorsed by intellectuals of decolonial theory approach the pointed questions that problematize Eurocentric theoretical views (WALSH *et al.*, 2018).

Reflecting on decoloniality, it is necessary to understand how people are inserted in society and placed in certain positions and social conditions. According to Mignolo (2014), it is a structure that keeps us and classifies us as beings with varied distinctions, such as linguistic, race, class, gender, and creed. These social markers of difference serve to oppress and justify processes of domination by one social group over others.

The colonial heritage marked the understanding of deaf people from the perspective of disability, not recognizing these subjects as bicultural/bilingual (BISOL; SPERB, 2010). From the epistemological proposal provided by decolonial discussions, it is possible to see the Deaf as a particular cultural ethnic linguistic group. There is, therefore, a conceptual and pragmatic change in the way this group of students is perceived. They start to be understood in the school environment no longer from the perspective of oralism and training, but from a bilingual perspective.

Taking into account the education of Deaf students from an inclusive and bilingual perspective, it is worth highlighting the colonizing linguistic oppression of the spoken language and the majority culture of listeners. This oppression makes access to primary knowledges of basic education difficult since, without an

adequate linguistic construction, the processes of construction of meanings are impacted (ALVES *et al.*, 2019).

In Brazil, social, political, and intellectual movements linked to deaf communities achieved legal recognition of *Libras*. Through Law No. 10436, this language was recognized with the composition of its own grammatical structure, used as a means of communication/expression for the Deaf (BRASIL, 2002). From that moment, with the recognition of the linguistic status of *Libras*, language users have been seeking to break communication and social barriers, changing society's perception of identity concerning the Deaf.

Schubert and Pereira (2019) present the challenges and limitations of bilingual education. The authors point out that there are some bilingual practices, but no established format. Among the bilingual practices, teacher education aimed at teaching Deaf people through higher education courses (SCHUBERT; PEREIRA, 2019, p. 172), which according to Gediel (GEDIEL *et al.* 2020) recognizes that teacher education needs to be attentive to the bilingual and bicultural perspective. In teacher training and other educational practices, there is a need to break paradigms and naturalized notions to overcome hierarchically pre-established standards (PARDO, 2019). In this way, studies that follow a decolonial orientation seek to break through pre-established structural paradigms, which can cause changes in entrenched patterns that lead to inequalities (WALSH, 2009).

Historically, women, less wealthy social classes, homosexuals, ethnic and linguistic minorities, and people with disabilities have been routinely marked by educational practices that have no direct relationship with the world experienced and perceived by them (BOVEDA, M; MCCRAY, E., 2020). In this logic, the school environment is not capable of being linked to the sociocultural and linguistic contexts linked to social minorities. Specifically, the social reality of the Deaf, in most cases, is not represented in educational curricula, nor in school practices, causing these students to be excluded from the teaching-learning process (MARILENE, D.; MEYER, V, 2016; ZANACANARO, L.; ZANACANARO, T., 2016).

Therefore, even with the existence of a set of laws and decrees, the process of inclusion of Deaf students goes beyond legislation and official documents, it requires pedagogical practices and teaching materials that take into account the student's linguistic and cultural identity. In this sense, through the use of *Libras* as the language of instruction, the teaching-learning process of school contents must also consider materials suitable for the particular needs of these students. The student must be recognized as central to the educational process, adapting the curricular contents and methodologies according to their reality and not the other way around.

METHODOLOGICAL COURSE

This study is based on exploratory qualitative research. According to Minayo (2012), the methods and techniques linked to qualitative research preserve their characteristics in an investigative and interpretive way (MINAYO, 2012). In this sense, the investigative movement allows the construction of an object and theme of study far from certain common-sense value judgments, seeking to deepen the understanding of its submerged complexity. Therefore, the theoretical-methodological efforts of the research must consider the intersectionality

between epistemology, methodology, and adequate theory to help in data analysis. This type of research is important for critical data reconstruction, which allows for deductive and inductive inferences and conclusions (HELDER, 2006).

For data collection, the online platform of the Secretary of Education of the State of Minas Gerais was used. Specifically, the “*Se liga na Educação*” platform and the bilingual video classes produced to serve Deaf students during remote teaching. It is noteworthy that research in virtual environments is expanding and advancing in its systematic in mobilizing techniques and instruments for collecting and analyzing data extracted online (GELLER, 2004).

In the first stage of the research, the mapping, cataloging, and description of the materials present in the online platform took place. The selection of data had as a parameter to analyze all the videos that had *Libras* as their main language and related to the contents of the *Libras* and Portuguese language subjects, aimed at students from Elementary School II and High School. Videos produced in Portuguese as the main language were not analyzed, even when the videos had a window in *Libras*.

Thirty-four videos were identified and cataloged that had *Libras* as their first language, available on the platform “*Se liga na Libras*”. The videos, when accessed on the platform, are reproduced through the YouTube channel “*Estúdio Educação MG*”, currently with 87.4 thousand subscribers. Based on this corpus of data, analyses based on the decolonial theory were drawn.

The analysis content was divided according to the level of education: Elementary School II and High School. The material used and made available by the State was investigated according to the educational specificities of Deaf students, seeking the potential and gaps in the teaching and learning process of these students in regular classrooms in the current context of remote learning.

CRITICAL ANALYSIS OF THE VIRTUAL PLATFORM AND BILINGUAL VIDEO CLASSES

On the “*Estude em Casa*” platform, in the “*Se liga na Libras*” index, there are bilingual video classes. Through hyperlinks, it is possible to access the videos hosted on *YouTube*. The videos are identified according to the discipline, the level of education, and the topic addressed. A total of 34 bilingual videos were identified, 21 of which were aimed at Elementary School II students and 13 aimed at high school audiences. Below is the chart containing the identification of the video classes cataloged by year/grade, subject, and content:

Chart 1 – Elementary School II Content

Item	Grade/Year	Discipline - Content
1	4th Year	Portuguese L2: Complaint Letter - Lesson 1
2	4th Year	Portuguese L2: Comic Strip - Lesson 2
3	4th Year	Portuguese L2: Text - Lesson 3
4	4th Year	Portuguese L2: Textual Structure - Lesson 4
5	5th Year	Portuguese L2: Cartoon - Lesson 1

6	5th Year	Portuguese L2: Personal Letter (Part II) - Lesson 3
7	5th Year	Portuguese L2: Critical Review - Lesson 4
Item	Grade/Year	Discipline - Content
1	4th Year	LIBRAS: Cultural History
2	4th Year	LIBRAS: Cultural History
3	5th Year	LIBRAS: Deaf Community
4	5th Year	LIBRAS: Folktales in Libras - Lesson 2
5	6th Year	LIBRAS: Deaf Movements - Lesson 1
6	6th Year	LIBRAS: Deaf Movements - Lesson 1
7	6th Year	LIBRAS: Narrative in Libras - Lesson 2
8	7th Year	LIBRAS: - Deaf and Sign Language - Lesson 1
9	7th Year	LIBRAS: - Deaf and Sign Language - Lesson 1
10	7th Year	LIBRAS: - Classifiers - Lesson 2
11	8th Year	LIBRAS: - Pronouns - Lesson 2
12	8th Year	LIBRAS: Deaf Culture History
13	9th Year	LIBRAS: - Adverbs of Time - Lesson 2
14	9th Year	LIBRAS: Sports Life - Lesson 1

Source: Charts produced during the selection and processing of the analyzed data from the “*Se liga na Educação*” Platform (2021).

Chart 2 – High School Content

Item	Grade/Year	Discipline - Content
01	1st Year	Portuguese L2: Social Media - Lesson 1
02	1st Year	Portuguese L2: Class of words: Verbs - Lesson 2
03	2nd Year	Portuguese L2: Using Email - Lesson 1
04	2nd Year	Portuguese L2: Writing an Email - Lesson 2
05	3rd Year	Portuguese L2: Curriculum - Lesson 1
06	3rd Year	Portuguese L2: Address - Lesson 2
Item	Grade/Year	Discipline - Content
07	3rd Year	LIBRAS: What is meant by Deaf Culture - Lesson 1
08	2nd Year	LIBRAS: Sign Languages in the World - Lesson 2
09	2nd Year	LIBRAS: <i>Libras</i> - Lesson 1

10	2nd Year	LIBRAS: Sign Languages in the World - Lesson 2
11	3rd Year	LIBRAS: What is meant by Deaf Culture - Lesson 1
12	3rd Year	LIBRAS: 3rd Year High School - What is meant by Deaf Culture - Lesson 2 (part 2)
13	1st Year	LIBRAS: Deaf protagonism - Lesson 2

Source: Charts produced during the selection and processing of the analyzed data from the “*Se liga na Educação*” Platform (2021).

Regarding the contents of Elementary School II (*Ensino Fundamental II* — E.F. II), 21 videos were identified: 7 from the Portuguese language subject and 14 from the contents related to the *Libras* subject. Materials for 4th and 5th year students were found from the Portuguese video classes. Regarding the content of *Libras*, video lessons were found for students from the 4th, 5th, 6th, 7th, 8th, and 9th grades.

From the content related to the Portuguese subject, 4 video lessons were identified for the 4th year students, with content related to the “Complaint Letter - Lesson 1”, “Comic Strip - Lesson 2”, “Text - Lesson 3” and “Textual Structure - Lesson 4”. For the 5th year students, 3 video lessons were pointed out: “Cartoon - Lesson 1”, “Personal Letter (Part II) - Lesson 3” and “Critical Review - Lesson 4”.

Among the videos related to the *Libras* subject, video lessons for 4th grade students were identified, which mobilized the contents: “Cultural History”; 5th year “Deaf Community” and “Folktales in *Libras*”; 6th year “Deaf Movements” and “Narrative in *Libras*”; 7th year “Deaf and Sign Language” and “Classifiers”; for 8th year “Pronouns” and “Deaf Culture History”; 9th year “Deaf Culture History” and “Sports Life”.

Of the material related to High School (*Ensino Médio* - E.M), a total of 13 videos were found, with 6 video lessons designed for the Portuguese language subject and 7 video lessons for the *Libras* subject.

In the Portuguese language content of the first year, the following video lessons were found: “Social Networks - Lesson 1” and “Class of words: Verbs - Lesson 2”. For the second year, the lessons included the themes “The use of E-mail - Lesson 1” and “Writing an E-mail - Lesson 2”. For the third year, the available contents were the video lessons: “Curriculum - Lesson 1” and “Address - Lesson 2”.

As for the contents related to the *Libras* discipline, the video lessons are distributed as follows: 1st year presents a video entitled “The deaf protagonism - Lesson 2”; for the 2nd year, the following titles were made available “Sign Languages in the World - Lesson 1” and “*Libras* - Lesson 1”; for the 3rd year, “What is understood by Deaf Culture - Lesson 1” and “What is understood by Deaf Culture - Lesson 2”.

Videos in *Libras* do not have a logical sequence of organization on the site, not presenting materials based on pre-established parameters, grouped by educational levels or themes, for example. The human-computer interface is not easy to assimilate, which interferes with the quality and effectiveness of the tool (PRATES; BARBOSA, 2007), making it difficult to organize and understand it by content, level of education, and discipline.

The online platform “*Estude em casa*” has two types of interfaces: an administrative one that allows personalized access by teachers and staff; another, interactive, which directly serves the browsing and access of students. The students' access interface is through the “*Se Liga na Educação*” tab, which hosts the material related to all the curricular content stipulated in the guidelines present in the National Common Curriculum Base [*Base Nacional Comum Curricular - BNCC*] (BRASIL, 2020), with video lessons in: Portuguese Language, Literature, English, Art, Physical Education, History, Geography, Sociology, Philosophy, Mathematics; Biology, Physics, and Chemistry. This content is aimed at all students and has the Portuguese language as L1 and a window in *Libras* for deaf students. It is possible to watch classes synchronously, which directs to YouTube. These classes are recorded and are available for later access.

In this way, the main content available on the website, through “*Se liga na Educação*”, is in accordance with the guidelines of the BNCC, regulated by the National Education Plan (*Plano Nacional de Educação - PNE*) which provides guidelines for the years 2014 - 2024 (BRASIL, 2014), and with the Law of Guidelines and Bases of National Education (BRASIL, 1996), also respecting the Inclusion Law, as the recording of synchronous classes allows for editions containing interpretation and translation into *Libras*, displayed in a window in the lower right corner of the screen, according to legal assumptions and orientations (BRASIL, 2005; 2009).

In the tab “*Se liga na Libras*”, dedicated to Deaf students, the bilingual video classes that have *Libras* as L1 are located. There are classes, in this section, referring to the Portuguese Language and *Libras*. The initiative to create video classes with *Libras* as a first language is an advance in the recognition of the struggles of social movements, since the production of adapted material for Deaf students, by the State Department of Education, expands the dissemination of the language of signs and deaf culture.

This initiative made it possible, in addition to the dissemination of sign language, to mobilize themes involving notions about deaf identity and culture, as can be seen in the classes: “LIBRAS: What is understood by Deaf Culture”, “LIBRAS: Deaf Culture History”, and “LIBRAS: Deaf Community”. This process makes explicit the legal recognition of diversity, leading to reflection on the breaking of certain already established social structures, as stated by Walsh (2009). In the case of education aimed at the Deaf, the expansion of bilingual educational practices.

However, disparities were found on the platform in relation to the content available in Portuguese as L1 and in *Libras* as L1. There is a significant difference between the material available on the virtual tabs “*Se liga na Educação*” and “*Se liga na Libras*”. In the case of video classes in *Libras*, content referring only to the Portuguese Language and *Libras* subjects was identified, with no content for Literature, English, Art, Physical Education, History, Geography, Sociology, Philosophy, Mathematics, Biology, Physics, and Chemistry.

The lack of content coverage does not guarantee the equity of educational access from a bilingual perspective, since, according to educational guidelines, high school students must have access, at a minimum, to math and English content, and for elementary school II students the access to the subjects of art, physical education, English language, mathematics, science, history, and geography is guaranteed (BRASIL, 2016).

Another point of analysis is the lack of sequence between the contents available on the tab “*Se liga na Libras*”. For example, in the case of classes for students in the 5th year of Elementary School II in the subject of Portuguese, lesson 1 on “Cartoon” and lesson 3 on “Personal letter (part 2)” were identified. In this sense, it can be intuited that two causes justify the lack of sequence: (i) an error in the nomenclature of the lessons; (ii) the lack of videos referring to lesson 2 on “Cartoon” and to the first part of the lesson on “Personal letter”, which are not available on the website.

Thus, there is a lack of continuity in the approach to the objects of study or sequential planning of classes, which contrasts with what Masetto *et al.* (2000) describe concerning learning strategies through ICTs, which should facilitate the teaching process. The verification that the video classes are randomly distributed on the platform and that the organization is not grouped, making it difficult for the user to find a lesson, which can generate doubts and confusion for not following a logical sequence.

Another gap related to the videos that had *Libras* as L1 is linked to the lack of subtitles in Portuguese, which can generate some barriers, such as: (i) when the student does not have the linguistic acquisition of *Libras* or is in the process of learning it; (ii) the fact that most deaf students have hearing parents who do not use sign language; (iii) due to the lack of face-to-face linguistic mediation by the interpreter.

Schubert and Pereira (2019) describe the challenges for the construction of bilingual education that goes beyond content flexibility, requiring a structural change to adapt to inclusive educational proposals. Many Deaf students are in the process of acquiring *Libras* and the school is one of the few opportune environments for learning and using the language, promoting the construction of a deaf identity (ALVES *et al.*, 2019). Therefore, having access to materials only in *Libras*, without the mediation of interpreters or subtitles to support teachers or tutors in this process, can distance the Deaf student from understanding the content.

It was concluded with the analysis of the video classes, aimed at Deaf students, that the material in *Libras* can be considered both a legal and a sociocultural advance in the context of special education. However, there are still many gaps that prevent equitable educational access, where these students do not have the same possibilities of accessing curricular content in their natural language. This fact makes Deaf students distance themselves from the possibilities of having their rights to truly bilingual and equitable education. If, on the one hand, the initiative of the Secretary of State of Minas Gerais promotes the popularization of *Libras*, of deaf identity and culture, on the other hand, the contents do not include the minimum required by BNCC.

FINAL CONSIDERATIONS

The initiative of the Government of Minas Gerais to produce a platform suited to the demands of the BNCC, regulated through the PNE 2014-2024, was an important step to support the resumption of activities during the remote period in a pandemic moment.

The different TDICs embedded in the “*Estude em casa*” platform, such as the tutored plans, the television program, the evaluation materials for early childhood education, elementary and secondary education, brought support at a time when everyone was reinventing themselves. Teachers transforming their homes into virtual classrooms, as well as students and their families transforming private environments into classroom spaces. At the same time, uncertainties related to basic survival needs also affected teaching and learning processes. Teachers and students dealt with the health, social and economic crisis, which reaffirmed social inequalities and generated digital inequalities.

In this study, 34 video classes were analyzed that had *Libras* as their first language, available on the platform “*Estude em Casa*” on the tab “*Se liga na Libras*”. From the selection and cataloging of the videos, the legal frameworks and the discussion of the decolonial critical aspect were revisited to reflect on the advances and limitations found in the bilingual teaching material available on the platform during remote learning.

The bilingual video classes did not cover all the subjects of Elementary School II and High School, according to the guidelines of the BNCC. Some subjects did not present a sequence in their contents available in the virtual environment. Furthermore, the videos did not have a translation and subtitles in Portuguese, which could be an obstacle for those Deaf students who did not know all the signs of *Libras* or were learning it.

Decolonial theory allowed us to perceive the material critically and reflexively, analyzing gaps to better visualize possible paths for the deconstruction of structurally established social and linguistic barriers. This theoretical framework shows us how much we are still stuck in an existing educational model, which still needs many struggles from social movements in search of educational policies that seek a new perspective of education, with other markers of differences in opposition to hegemonic educational logics.

ENSINO REMOTO E ACESSIBILIDADE NA EDUCAÇÃO DE SURDOS: UMA ANÁLISE CRÍTICA DECOLONIAL DA PLATAFORMA "SE LIGA NA EDUCAÇÃO"

RESUMO

O fechamento das escolas e a substituição temporária do sistema presencial para o sistema de ensino remoto devido a pandemia COVID-19 expôs desafios e obstáculos a serem enfrentados na esfera educacional. A adequação para esta nova realidade escancarou a grande desigualdade em termos de recursos para a implementação do regime remoto. Com base na teoria decolonial, buscamos refletir de forma crítica em relação ao histórico de exclusão educacional dos alunos Surdos. Assim, analisou-se o material didático bilíngue produzido pela Secretaria de Educação do Estado de Minas Gerais e disponibilizado online na para atender os Surdos durante o período remoto. Como percurso metodológico foram investigadas as videoaulas da Plataforma "Se liga na Educação" para identificar e compreender o material voltado para os alunos Surdos, que utilizam a Libras como a primeira materna (L1). Concluímos com a análise das videoaulas, que o material em Libras pode ser considerado um avanço tanto legal quanto sociocultural no contexto da educação para estudantes surdos. Entretanto, ainda há muitas lacunas que impossibilitam um acesso equitativo aos conteúdos escolares dos alunos surdos. Observou-se que a falta de legendas nos vídeos pode criar algumas barreiras. Além disso, identificou-se uma lacuna relativa à ausência dos conteúdos programáticos definidos pela Base Nacional Comum Curricular, no caso limitando-se a alguns conteúdos da língua portuguesa e da disciplina de Libras.

PALAVRAS-CHAVE: Ensino Remoto. Libras. Plataforma Digital.

ACKNOWLEDGEMENT

We thank Teachers College – Columbia University for financial support and the Lemann Foundation for scientific support.

REFERENCES

ALVES, S. D. *et al.* Práticas de leitura e escrita no Ensino Superior por uma acadêmica surda usuária de Libras na perspectiva da Educação de Jovens e Adultos. **Rev. Bras. de Educ. de Jov. e Adultos**. Salvador, vol. 7, ahead of print, 2019. Available at:
<https://www.revistas.uneb.br/index.php/educajovenseadultos/article/view/9842>
Access on: Mar. 3rd, 2022.

ASSÊNSIO, C. B. Comunidade Surda - notas etnográficas sobre categorias, lideranças e tensões. 2015. Available at:
https://www.teses.usp.br/teses/disponiveis/8/8134/tde-01032016-145531/publico/2015_CibeleBarbalhoAssensio_VCorr.pdf . Access on: Mar. 30th, 2022.

BISOL, C.; SPERB, T. M. Discursos sobre a Surdez: Deficiência, Diferença, Singularidade e Construção de Sentido. **Revista Psicologia: Teoria e Pesquisa**. Brasília, v. 26, n. 1, p. 7-13, jan. 2010. Available at:
<https://www.scielo.br/j/ptp/a/SQkcz9tT9tyhYBvZ4Jv5pfj/abstract/?lang=pt>.
Access on: Mar. 30th, 2022.

BRASIL. Convenção sobre os Direitos das Pessoas com Deficiência. **Protocolo Facultativo à Convenção sobre os Direitos das Pessoas com Deficiência**, Brasília, 2007. Available at: <http://portal.mec.gov.br/>. Access on: Nov. 10th, 2021.

BRASIL. Portaria nº 343, de 18 de março de 2020. **Diário Oficial da União, Brasília**, DF, 18 mar. 2020. Edição: 53, Seção: 1, p. 39. Available at:
<https://www.in.gov.br/en/web/dou/-/portaria-n-343-de-17-de-marco-de-2020-248564376>. Access on: Mar. 14th, 2021.

BRASIL. Lei nº 9.394, de 20 de dezembro de 1996. **Estabelece as diretrizes e bases da educação nacional**. Brasília, DF, v. 134, n. 248, 23 dez. 1996. Seção I, p. 27834-27841. Available at:
<https://www.jusbrasil.com.br/busca?q=Art.+62+da+Lei+de+Diretrizes+e+Bases+Lei+9394%296> . Access on: Apr. 20th, 2020.

BRASIL. Lei nº 10.436, de 24 de abril de 2002. Dispõe sobre a **Língua Brasileira de Sinais** – Libras e dá outras providências. Brasília, DF, 25 abr. 2002. Available at:
http://www.planalto.gov.br/ccivil_03/leis/2002/l10436.htm. Access on: Aug. 15th, 2021.

BRASIL. Decreto nº 5.626, de 22 de dezembro de 2005. **Regulamenta a Lei no 10.436, de 24 de abril de 2002**, que dispõe sobre a Língua Brasileira de Sinais - Libras, e o art. 18 da Lei no 10.098, de 19 de dezembro de 2000. Brasília, DF, 23 dez. 2005. Available at: http://www.planalto.gov.br/ccivil_03/_Ato2004006/2005/Decreto/D5626.htm. Access on: Aug. 15th, 2021.

BRASIL. Decreto nº 6.949, de 25 de agosto de 2009. Promulga a **Convenção Internacional sobre os Direitos das Pessoas com Deficiência** e seu Protocolo Facultativo, assinados em Nova York, em 30 de março de 2007. Organização das Nações Unidas – ONU. Diário Oficial [da] República Federativa do Brasil, Brasília, DF, 26 de ago. 2009. Available at: http://www.planalto.gov.br/ccivil_03/_Ato2007-010/2009/Decreto/D6949.htm. Access on: Apr. 9th, 2021.

BRASIL. Lei nº 13.005, de 25 de junho de 2014. Aprova o **Plano Nacional de Educação - PNE** e dá outras providências. Brasília, DF, 25 jun. 2014. Available at: http://www.planalto.gov.br/ccivil_03/_ato2011-2014/2014/lei/l13005.htm. Access on: Aug. 15th, 2021.

BRASIL. Ministério da Educação. Base Nacional Comum Curricular (BNCC). Brasília, 2020. Available at: <http://basenacionalcomum.mec.gov.br/>. Access on: Mar. 30th, 2022.

BRASIL. Ministério da Educação. Secretaria de Educação Fundamental, PCN. **Parâmetros curriculares nacionais: introdução aos parâmetros curriculares nacionais / Secretaria de Educação Fundamental**. – Brasília: MEC/SEF, 1997. Available at: <http://portal.mec.gov.br/seb/arquivos/pdf/livro01.pdf>. Access on: Oct. 5th, 2021.

BRASIL. Medida Provisória Nº 746, de 22 de setembro de 2016. Institui a **Política de Fomento à Implementação de Escolas de Ensino Médio em Tempo Integral**, altera a Lei nº 9.394, de 20 de dezembro de 1996. Diário Oficial da União, 23 set. 2016. Brasília, DF, 20 dez. 2016. Disponível: DIÁRIO OFICIAL DA UNIÃO. Disponível: <https://www.in.gov.br/en/web/dou/-/portaria-n343-de-17-de-marco-de-2020-24856437>. Access on: Sep. 27th, 2021.

BOVEDA, M.; MCCRAY, E. D. Writing (for) our lives: Black feminisms, interconnected guidance, and qualitative research in special education, **International Journal of Qualitative Studies in Education**. 2020. Available at: <https://doi.org/10.1080/09518398.2020.1771465>. Access on: Oct. 1st, 2021.

CASTELLS, M. **A sociedade em rede**. São Paulo: Paz e Terra, 1999.

CARNEIRO, L. *et al.* Uso de tecnologias no ensino superior público brasileiro em tempos de pandemia COVID-19. **Research, Society and Development**, v. 9, n. 8, 2020. Available at: <https://rsdjournal.org/index.php/rsd/article/view/5485>. Access on: Sep. 26th, 2021.

GADOTTI, M. **Perspectivas atuais da educação**. Porto Alegre: Artes Médicas, 2000. Available at: <https://www.paho.org/pt/covid19/historico-da-pandemia-covid-19>. Access on: Sep. 26th, 2021.

GEDIEL, A. *et al.* A disciplina de Libras como espaço de reflexões críticas e decoloniais na formação de professores. **Gláuks - Revista De Letras E Artes**, Viçosa, v. 20, n. 1, p. 172-197, 2020. Available at: <https://www.revistaglauks.ufv.br/Glauks/article/view/185>. Access on: Nov. 15th, 2021.

GELLER, M. **Educação a Distância e Estilos Cognitivos: construindo um novo olhar sobre os ambientes virtuais**. 2004. Tese (Doutorado em Informática na Educação) - Universidade Federal do Rio Grande do Sul, Porto Alegre, 2004.

HELDER, R. R. **Como fazer análise documental**. Porto, Universidade de Algarve, 2006.

MASETTO, M. T. *et al.* **Novas tecnologias e mediação pedagógica**. Campinas: Papirus, 2000.

MARILENE, D.; MEYER, V. A importância da LIBRAS para inclusão escolar do surdo. In: **Cadernos PDE: Os desafios da escola pública paranaense na perspectiva do professor PDE**. Org. Governo do Estado do Paraná, Paraná, v. 1. 2016. Available at: <https://www.passeidireto.com/arquivo/86295162/a-importancia-da-libras-para-inclusao-escolar-do-surdo>. Access on: Nov. 10th, 2021.

MINAYO, M. C. S. (Org.). **Pesquisa Social**. Teoria, método e criatividade. 31ª ed. Petrópolis: Vozes, 2012.

MIGNOLO, W. Educación y decolonialidad: aprender a desaprender para poder reaprender. [Entrevista cedida a] Facundo Giuliano e Daniel Berisso. **Revista del IICE**, Buenos Aires, n. 35, p. 61-71, 2014. Available at: <http://revistascientificas.filo.uba.ar/index.php/iice/article/view/1961/1807>. Access on: Jun. 30th, 2021.

PADDEN, C.; HUMPHRIES, T. **Inside Deaf Culture**. Cambridge, Massachusetts: Harvard University Press, 2006.

PARDO, F. S. Decolonialidade e ensino de línguas: perspectivas e desafios para a construção do conhecimento corporificado. **Revista Letras Raras**. Campina Grande, v. 8, n. 3, p. 200-221, set. 2019. Available at: <http://revistas.ufcg.edu.br/ch/index.php/RLR/article/view/1422>. Access on: Sep. 4th, 2021.

PRATES, R. O.; BARBOSA, S. D. J. Introdução à Teoria e Prática da Interação Humano-Computador fundamentada na Engenharia Semiótica. In: KOWALTOWSKI, T.; BREITMAN, K. (orgs.) **Jornadas de Atualização em Informática**, JAI, p. 263-326, 2007.

QUADROS, R. M. **O bi do bilingüismo na educação de surdos**. In: QUADROS, R. Surdez e bilingüismo. Porto Alegre: Editora Mediação, 2006, v.1, p. 26-36. Available at: <https://www.cultura-sorda.org/wp-content/uploads/2015/03/MuellerdeQuadros-2005.pdf> . Access on: Mar. 3rd, 2022.

SCHUBERT, S. E. M; PEREIRA, M. F. R. Limites e possibilidades de formação de professores para a educação bilíngue de surdos: superação do colonialismo. In: (org) SCHUBART, S. *et al.* **Avaliação, políticas e expansão da educação brasileira**. Ponta Grossa: Atena, v. 12, p. 388–416, 2019. Available at: <https://www.atenaeditora.com.br/post-artigo/24639>. Access on: Apr. 5th, 2020.

SILVA, C. M. *et al.* Inclusão Escolar: Concepções dos Profissionais da Escola sobre o Surdo e a Surdez. **Psicologia: Ciência e Profissão**, São Paulo, v. 38, n. 3, p. 465-479, jul./set. 2018. Available at: <http://www.scielo.br/pdf/pcp/v38n3/1982-3703-pcp-38-3-0465.pdf>. Access on: Oct. 5th, 2021.

STEVANIM, L. F. Exclusão nada remota: desigualdades sociais e digitais dificultam a garantia do direito à educação na pandemia. **RADIS: Comunicação e Saúde**, Rio de Janeiro, n. 215, p. 10-15, ago. 2020. Available at: <https://www.arca.fiocruz.br/handle/icict/43180> . Access on: Mar. 3rd, 2022.

WALSH, C. Interculturalidade Crítica e Pedagogia Decolonial: In-surgir, re-existir e re-viver. In: V. M. Candau (org), **Educação intercultural na América Latina: Entre concepções, tensões e propostas**. Rio de Janeiro: 7 letras, p. 12-42, 2009.

WALSH, C. E. *et al.* Colonialidade e pedagogia decolonial: Para pensar uma educação outra. **Education Policy Analysis Archives**, v. 26, n. 1, p. 112, 2018. Available at: <https://dialnet.unirioja.es/servlet/articulo?codigo=6584832>. Access on: May. 22nd, 2021.

UNESCO. **Declaração Mundial sobre Educação para Todos**: satisfação das necessidades básicas de aprendizagem. 1990. Available at:

<https://www.unicef.org/brazil/declaracao-mundial-sobre-educacao-para-todos-conferencia-de-jomtien-1990>. Access on: Sep. 27th, 2021.

ZANACANARO, L. A.; ZANACANARO, T. M. A educação de surdos sob a perspectiva da inclusão: reflexões sobre a adaptação de conteúdos. **Revista Sinalizar**, Goiás, v.1, n.1, p. 1-11, jan. jun, 2016. Available at: <https://www.revistas.ufg.br/revsinal/article/view/36178> . Access on: Mar. 3rd, 2022.

Received: Oct. 8th, 2021.

Approved: Oct. 19th, 2021.

DOI: 10.3895/rbect.v15n1.14798

How to cite: SOUZA, A. L. S.; LEONOR, A. C. C.; GEDIEL, A. L. B. Remote teaching and accessibility in deaf education: an analysis of the "Se Liga Na Educação" platform. **Brazilian journal of Science teaching and Technology**, Ponta Grossa, Special Edition, p. 138-154, Apr. 2022. Available at: <<https://periodicos.utfpr.edu.br/rbect/article/view/14798>>. Access on: XXX.

Mailing address: André Luis Santos de Souza - andreconatus@gmail.com

Copyright: This article is licensed under the terms of the Creative Commons-Atribuição 4.0 Internacional License.

