TECHNOLOGICAL MEDIATION AND EDUCATIONAL PROCESS IN TIMES OF COVID-19 PANDEMIC

MEDIAÇÃO TECNOLÓGICA E PROCESSO EDUCACIONAL EM TEMPOS DE PANDEMIA DA COVID-19

MEDIACIÓN TECNOLÓGICA Y PROCESO EDUCACIONAL EN LOS TIEMPOS DE PANDEMIA DEL COVID-19

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ABSTRACT: The Covid-19 pandemic caused sudden changes in the social, political, economic, and educational fields in Brazil and worldwide. One of the measures implemented is the shutdown of schools during physical isolation, which challenged them to assume distance learning on an emergency basis, mediated by digital technologies. In this sense, this article aimed to analyze how the school can fulfill its political and social function in the context of the pandemic crisis. From the methodological point of view, it is an exploratory study with a qualitative approach with secondary and empirical data from UNESCO. There was also a mapping of Brazilian states on the conduct of education during the coronavirus pandemic. The results indicate that the new coronavirus pandemic has had different implications for social life; emergency remote education implemented in most Brazilian states did not count on the participation of the school community.

KEYWORDS: Covid-19 pandemic. School. Technological mediation.

RESUMO: A pandemia da Covid-19 provocou no Brasil e no mundo mudanças repentinas nos campos social, político, econômico e educacional. Dentre as medidas implementadas, o isolamento social implicou no fechamento das escolas, que passaram a ser desafiadas a assumirem o ensino remoto emergencial, mediado pelas tecnologias digitais. Nesse sentido, pretendeu-se com este estudo verificar como a escola pode cumprir a sua função político-social no contexto da crise da pandemia. Quanto à metodologia, trata-se de um estudo exploratório de abordagem qualitativa que envolveu o uso de dados secundários e empíricos da Unesco e, ainda, a realização de um levantamento que mapeou a maneira como os estados no Brasil estão

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conduzindo as atividades escolares. Os resultados atestam que a pandemia da Covid-19 exerce impactos diferenciados na vida social e que a oferta do ensino remoto pelos estados tem sido encaminhada por meio de diferentes propostas; entretanto, verificou-se que, de modo geral, as iniciativas governamentais não têm promovido efetivamente a participação da comunidade escolar.

PALAVRAS-CHAVE: *Pandemia Covid-19. Escola. Mediação tecnológica.*

RESUMEN: *La pandemia de Covid-19 ha provocado en Brasil y en el mondo cambios repentinos en los campos social, político, económico y educacional. Dentro las medidas implantadas, el aislamiento social ha implicado en el cierre de las escuelas, que pasaran a ser desafiadas a asumir la enseñanza remota de emergencia, mediada por las tecnologías digitales. En eso sentido, pretendemos con este estudio verificar: ¿Como la escuela pode cumplir su función político-social en el contexto de la crisis de la pandemia? Con respecto a la metodología, tratase de un estudio exploratorio de abordaje cualitativo que envolvió el uso de datos secundarios y empíricos de Unesco y, además, la realización de un levantamiento que ha mapeado a la manera como los estados Brasileños están conduciendo las actividades escolares. Los resultados atestan que la pandemia de Covid-10 ejerce impactos diferenciados en la vida social y que la oferta de la enseñanza remota entre los estados ten sido encaminada por medio de diferentes propuestas; todavía, hemos verificado que de modo general, as iniciativas gubernamentales non tiene promovido efectivamente la participación de la comunidad escolar.*

PALAVRAS-CLAVE: *Pandemia Covid-19. Escuela. Mediación tecnológica.*

Introduction

The current context marked by the Covid-19 pandemic has caused a series of effects in the social, political, economic and educational fields in Brazil and in the world. Among the actions to contain/minimize the spread of the virus, the Ministry of Health (MS) and government authorities decreed social isolation, which resulted in the closing of schools and universities. This decision has raised some questions, including: what are the consequences of closing schools? Social isolation or physical isolation? What is the role of the school and what can it promote in the context of crisis? What contributions can the school make in facing the pandemic? What actions can be implemented in the pandemic and post-pandemic by Brazilian state governments?

It is a complex scenario that demands a rescue of the social function of the school, the recognition of its relevance in society in times of crisis, the understanding that isolation must be physical and not social; and, still, the opening to revisit the role of the school in confronting the challenges faced in contemporary society, understanding that the school cannot remain aloof from what happens in Brazil and in the world.

In addition to the perspective of the school in its institutional character, it is also necessary to look at the educational policies that emerge as an emergency in all countries of the world. Data from the United Nations Children's Fund - UNICEF (2020) show that 90% of young people remain without access to school, due to social isolation.

There were also numerous challenges to plan the reopening of schools, especially due to the high rate of spread of Covid-19, which has led most countries to adopt remote education measures, mediated by digital technologies. In this regard, this article intends to understand how the implementation of these policies takes place, to answer the questions: what is the level of participation of the school community in decisions about remote return in the initiatives of Brazilian state governments? How can the school fulfill its political-social role in the context of the Covid-19 pandemic crisis?

It is pertinent to understand these aspects, as didactic-pedagogical actions are influenced by education models mediated by implemented technologies. It can be a massive model, in which a central agency is responsible for disseminating school content; it can contain elements of informational decentralization, as it allows the use of applications with direct access between teachers and the school community (social networks, exclusive chats, etc.), or it can be a network model, in which the microuniverses of schools develop didactics procedures constructed by subjective approach. In the latter, subjects emerge as active participants in the knowledge production process, as they connect and collectively build knowledge.

It appears that the relationships between remote education models and the subjects involved *with* and *in* the educational process reveal the type of expectation of the school in the lives of those involved, as well as indicating ways and possibilities for thinking about education in a post-pandemic context.

In this sense, research on the role of the school, among them, Monteiro (2020); Pereira, Narduchi and Miranda (2020) affirm that society and school will no longer be the same after the Covid-19 crisis. It can be said that understanding this transformation is important for the subjects who discuss and develop school practices. As can be seen, the health crisis can also enunciate an educational crisis of great proportions, insofar as the temporary physical distancing comes to be configured in a permanent distancing from the students, to be the object of study in future post-pandemic research.

Theoretical-methodological procedures

This topic presents the methodological path adopted that culminated, among other actions, with the writing of this article. Regarding the methodology, exploratory research with a qualitative approach was chosen, organized in two stages: the first consisted of the use of secondary and empirical data, part of which was extracted from the website of the United Nations Educational, Scientific and Culture - UNESCO (2020)[4]. This is a survey carried out with students, parents and teachers from around the world on the following questions: schools and universities are closed: how do you deal with this?[5] Learning never stops - testimonies from students, parents and teachers[6].

Based on the contributions of Unesco (2020), it was considered relevant to apply the research in Brazil, specifically in Minas Gerais, a state in which researchers work exercising teaching, research and extension activities. Therefore, the questions were sent via email to the target audience residing in the state. Of the total 60 emails sent, 37 replies returned; these were read and categorized. In view of the limits of this article, some testimonies that were selected are presented. Thus, the following criteria were used: authorization for the publication of testimonies by the participants; the submission of the response within the requested deadline, and the diversified selection of municipalities in the state.

The second stage, characterized as an exploratory study, consisted of a literature review carried out in the Brazilian Scielo databases and in the Capes journal portal from March to August 2020, which took place through the combination of the following descriptors: *pandemia Covid-19* (Covid-19 pandemic); *função político-social da escola* (political-social function of the school) and *mediação tecnológica* (technological mediation), in order to verify how the theme has been approached by researchers in the field of education. Also in this part, a survey was carried out that aimed to map how the states in Brazil are conducting school activities in the context of the coronavirus pandemic.

In this sense, the information collected was: adhesion or not of the 27 state networks and a district education network to emergency remote education; types of media used in the remote education model; evidence of participation of the school community in the definition of the emergency school return model; analysis on the attendance to equity and guarantee of access to material options for all students of the respective networks and, finally, a preliminary analysis

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[4] Available: https://en.unesco.org/. Access: 22 Apr. 2020.
[5] Available: https://pt.unesco.org/covid19/educationresponse/learningneverstops. Access: 22 Apr. 2020.
[6] Available: https://en.unesco.org/covid19/educationresponse/learningneverstops/testimonies. Access: 22 Apr. 2020.

of the data on student access to materials available by the respective public education networks analyzed.

Finally, in the data analysis, the contributions of Bardin (2011) were used as a reference, whose treatment involved: pre-analysis, exploration of the material, and inference and interpretation of results.

What do students, parents and teachers say and think about the Covid-19 pandemic?

This topic presents secondary data from a survey carried out by Unesco (2020) and published on its institutional website on the adverse consequences of the closing of schools and universities caused by Covid-19 in the world. In this proposal, students, parents and teachers share their stories about how they are coping and continue to learn during school closings. Thus, using the survey carried out by Unesco (2020) as a reference, it was considered relevant to expand the consultation in Minas Gerais, to obtain data from the educational community on the repercussions of the pandemic in the country. The choice of this state is justified by the fact that researchers have ongoing research and extension projects in state schools.

Asked about the closing of schools, some students in their statements revealed that,

> *Our school was closed, but our teacher created a channel in the Telegram app to send our homework and explain lessons to us. It's a good alternative, but I really miss going to school, our teachers and my friends.* **(Teeba, student, Bagdad, Iraq).**

> *While schools are closed, my brothers and I are using our free time together to do a lot of creative things. Other than that, we are taking online courses so that we can study at home, since we cannot go to school.* **(Marietta, student, Greece).**

> *This pandemic scenario demonstrates the size of inequality present in Brazil, especially in education. Several public schools are not offering online classes and are completely shut down. This situation differs from private schools that are offering online classes, not to mention that many public school students also do not have access to computers and cell phones, which makes teaching at home difficult. It would be up to the federal, state and even municipal government to try to reduce this problem. [...] what is clear is that students from public schools will suffer much more from this pandemic compared to students from private schools.* **(Leonardo, student, Belo Horizonte, MG –** our translation**).**

As can be seen, the testimonies of the students attest to the relevance of the school and the teachers. For many children, adolescents and young people, school is a space for interaction, dialogue and learning. Teachers are a reference, influence and inspire behaviors, attitudes and, consequently, life projects (MONTEIRO, 2020; BADIN; PEDERSETTI; SILVA, 2020).

It can be said that, in the context of the Covid-19 pandemic, many teachers are present, interacting with students, recording classes, preparing activities synchronously and asynchronously (MONTEIRO, 2020; UNESCO, 2020; XIAO; LI, 2020). However, these activities are being offered, in general, mainly to students in the private network. Leonardo's testimony highlights the social inequality present in Brazil. While private network students learn through different resources, many public network students do not have access to the internet and are therefore deprived of these learning opportunities.

Parents also spoke about closing schools; for them,

> *I value the education of my grandchildren, as I didn't have the opportunity in life to study and today I think it's sorely missed. At home, I try to encourage everyone to study through books and the internet. I see that at the moment this is the only way to teach them.* **(Teresinha, grandmother, Betim, MG).**

> *I'm a parent and teacher and I've been taking classes at home, I believe that the biggest contribution is affective, a way to keep the teacher-student relationship active. About the educational and evaluative aspect, there are losses. My son would do the Enem this year, I realize that homeschooling is not meeting his demands.* **(Hugo, father and teacher, Vespasiano, MG).**

> *I'm living worried and insecure about the future, I try to adapt to each day that passes, as it was an unprecedented fact that caused a great impact on people's lives and at school, it is certainly bringing the maturing of relationships in family life.* **(Fernando, father, Ibirité, MG).**

> *What worries me is the way in which the current government acts in this situation. There is no deep reflection on the impact of the pandemic, especially for students from the popular classes. And irresponsibly authorizes remote classes, without safeguarding basic principles: universalization, equality of conditions and quality [...].* **(Miryam, mother, São Joaquim de Bicas, MG - our translation).**

In this unprecedented crisis, parents had to learn to deal with unpredictability, preserving life above all. Thus, the testimonies of the parents reveal that the pandemic demanded changes in behavior and had a direct impact on social and family life. Parents were challenged to school their children at home. However, they did not receive guidance and support to carry out this complex task. Myriam's testimony draws attention to the principle of the Federal Constitution of 1988 (BRASIL, 1988), article 205, "education is a right for everyone and a duty of the State and the family", even in times of pandemic.

One of the challenges of education in this context is the opening of a broad debate with the school community about the solutions presented to the health crisis. In this sense, remote activities and/or pedagogical activities forwarded through digital platforms or social networks can be relevant alternatives, provided that access to the internet is guaranteed and that such

activities are planned to meet the pedagogical, psychological and affective demands of students. It is also necessary that the federal government and the state and municipal spheres invest in education to guarantee quality education for all.

For the teacher,

> *The spread of the coronavirus led to the loss of a school year and the loss of student efforts. It is imperative that we all play our roles to ensure education for our students remotely.* **(Faten, school principal, Iraq).**

> *As a teacher, I encourage students all over the world to cheer up and hope we can overcome that. I am doing everything necessary to teach students and the general population about the steps to be taken to protect themselves from this deadly virus.* **(Paul, teacher, Kenya).**

> *The impact of the quarantine has not yet been devastating for our students. We have an extremely dedicated team that is working daily from home and creating a collaborative virtual classroom.* **(Marieta, teacher, Spain).**

> *I am a teacher in the state network and I am at home due to social isolation. It has not been easy, we are unsure [...]. At the school where I work, the pandemic interrupted everything. The crisis is general, we have a government that does not value education or its professionals. We are living through difficult times and we often feel unmotivated [...].* **(Darlan, teacher, Santa Luzia, MG).**

> *The suspension of classes in schools and universities as a result of Covid-19 does not affect students equally, there are realities and social, cultural and economic contexts that reveal conflicting and, why not, antagonistic situations. I'm a basic education teacher and I'm experiencing different situations related to my work. On the one hand, private education, in which I am a mediator between the online teaching platform and students. Recently, the government started implementing remote classes. Classes are recorded and broadcast on a television network, without observing the specificities of schools and students. In short, the pandemic, together with the interruption of classes, contributed to widening the educational gap between private and public education, further expanding the inequalities that are so present in our country.* **(Glícia, teacher, Belo Horizonte, MG –** our translation**).**

Teachers also reveal in their testimonies that the Covid-19 pandemic imprinted a sense of urgency never experienced in recent history. The suspension of the school routine, which involves, among others, the teacher-student relationship, interaction between peers, pedagogical activities, has raised the debate on the role of the school during the pandemic and post-pandemic (ESTELLÉS; FISCHMAN, 2020).

In this sense, this context reaffirms the social role of the school for the development of socio-emotional skills, based on the guiding principles present in the Federal Constitution of 1988 (BRASIL, 1988), in the Law of Guidelines and Bases of National Education - LDB n. 9394/1996 (BRASIL, 1996) and in the Common National Curricular Base - BNCC (BRASIL,

2017; 2018). One of the possibilities for the school to remain present would be through emergency remote classes (ARRUDA, 2020). The teacher could be present with the students to motivate them, awakening hope in overcoming the crisis. Humanized dialogue is pedagogical and, still, skills, competences and attitudes are not learned in lectures, they are acquired from experiences. It is important to highlight that pedagogical managers and coordinators can act by stimulating the commitment and motivation of teachers, fundamental conditions in times of crisis for the well-being of teachers and guaranteeing the quality of the pedagogical work carried out with students.

As indicated in the statements by Faten and Paul, the way in which the teacher builds the dialogue with students will be decisive in this context. It is important to guarantee reception, integrity and mental health. In the context of the pandemic, one of the school's priorities is to ensure survival and care. For this reason, thinking about educational projects that start from the problems experienced can be a relevant alternative (COUTO; COUTO; CRUZ, 2020).

As can be seen, Darlan and Glícia work in public schools in Brazil and reveal in their testimonies aspects of the crisis caused by the pandemic, which show, among others, the working conditions in public schools. It can be said that the school is the only safe and accessible learning space for a significant percentage of students in the public network. As precarious as they are, schools and their teachers are still the ones that welcome them, identify problems and make them believe they can be someone.

It is worth noting that data from the Continuous National Household Sample Survey – 2018 continuous PNAD show that about 20% of public school students do not have internet access, and half do not have a computer, nor adequate space at home for study. The government will have to consider and correct this problem so as not to leave out of education a huge portion of students, otherwise social inequalities will be severe.

And, still, is defended the need for public policies that invest in online education, accessible to all. For that, it will be important: access to computers and internet; initial and continuing formation of teachers in the field of digital technologies; planning activities suitable for this context, ensuring monitoring and evaluation of pedagogical proposals.

In the second question, students, parents and teachers were invited to share their experiences on how they are coping and continuing to learn during the closing of schools and universities by Covid-19.

Some testimonials report that,

> *Lately, people's everyday lives have changed rapidly since Covid-19 began to expand across the world. Therefore, it was decided that some very drastic measures should be taken for the benefit of humanity. These measures, however, disturbed the entire population of the world. Schools and universities were closed and this affected students' education. However, with the use of online technologies and platforms, things have become easier. [...] many people do not realize the danger. As a result, the virus expands rapidly. In neighboring countries, cases and deaths from the virus continue to increase [...]* **(Vivian, student, Greece).**

> *It is also clear that school-age children are hit hard by the block in many countries due to the Covid-19 pandemic. It hurts to see children miss the opportunity to get an education. Teachers are also sad to see their students out of school, with fear and uncertainty about when they [will] return to school. As a teacher, I encourage students around the world to be excited and hope that we can overcome this crisis. I am taking all necessary measures to educate students and the general population about the steps to be taken to protect themselves from this deadly virus. I use social media and other online platforms to create awareness about the pandemic. [...].* **(Paul, teacher, Kenya).**

> *This week my daughter's classes returned. I am distressed because I am unable to help her. I only have elementary school II, at the time I left school to work. I also assess that the home environment is different from the school environment. My daughter is smart, but she is distracted. She misses school monitoring. I'm worried because I see that she will not achieve what I expected in learning.* **(Aguinaldo, father, Rio Acima, MG –** our translation**).**

The testimonies of Vivian, Paul and Aguinaldo highlight the relevance of the use of digital technologies by the school. Thinking about digital technologies for learning implies understanding that technologies will not revolutionize teaching and schools, but the way in which technologies are used for interaction between students and teachers can mean new learning opportunities. That is, the evolution of interaction and communication processes in teaching depends on the people involved in the process (COSCARELLI, 2016; GOMES, 2016; RIBEIRO, 2016).

Consistent with this perspective, when designing teaching projects on digital networks, it is important to remember that teachers and students are sociocultural subjects and will learn better involved in a cooperative system, based on the exchange of knowledge, knowings and practices (NOVAIS, 2016).

It is important to highlight that the interest in collective learning that takes place remotely increases the responsibility of teachers and students, it will require going beyond the available information, seeking new knowledge, problematizing issues and socializing discoveries.

Other teachers revealed that,

> *Throughout the social isolation in this pandemic period, courses, lives, lectures and other forms of sharing were offered using the internet and social networks. Schools kept teachers giving classes through web conferences, facebook, whatsapp and other digital channels. So the learning did not stop. Taking due care with access to the information disclosed so, in fact, they become knowledge for the continuous development of the subjects.* **(Maria Aparecida, teacher, Lagoa Santa, MG).**

> *Learning is constant and, due to isolation, we have the opportunity to intensify our family, affective, emotional relationships, reflect on the knowledge that constitutes our identity. It is a pity that the owners of capital, Brazilian rulers (with some exceptions) are not concerned with life in the first place, but with profits. There is a stupid dichotomy, a false dilemma created between economics and life, as if it were possible to separate these things. If we had a system in which life was more important, people could receive more support through public policies.* **(Alex, teacher, Contagem, MG –** our translation**).**

For teachers Maria Aparecida and Alex, learning is continuous. The Covid-19 pandemic has posed a wide range of political, economic, social and educational challenges. In this context of uncertainties and insecurities, students, parents and teachers are reinventing actions and practices.

In Brazil, these challenges take on complex contours, considering that millions of people live in poverty. Physical isolation caused the suspension of economic activities and increased the fragility of the social protection network. For a significant portion of the population, the effects produced by isolation are serious and irreversible.

As can be seen, it is in this context marked by the crisis that education and school, understood as a right, must act; among the possibilities, it is urgent to expand the scope of educational intervention in order to eliminate/minimize the effects of the pandemic.

Given the above, it can be said that learning is continuous and is necessary as an action built on interaction mediated by the other. Social networks and digital technologies, when available, may favor this process that demands, among others, resignification of the role of the school, valuing education professionals, ensuring the educational process in defense of life (GOMES; TAVARES; MELO, 2019).

Dimensions of continuity of school practices mediated by digital technologies in the context of Covid-19

Covid-19 brought an unprecedented fact in history since the establishment, worldwide, of the school institution as a reference for the formation of new generations: in mid-April of this year, for the first time, more than 90% of students from 188 countries were prevented from attending school institutions due to the need for physical isolation. In June, 63% of students

from 129 countries were still out of school due to the health crisis, according to data from Unesco (2020).

From a historical point of view, society tends to adapt to different crises with the knowledge that is contemporary with it – that is, the equipment available for use and appropriation.

It is noteworthy that in contemporary society there are digital information and communication technologies (DICT) that have a global reach and that have become the center of debates as possibilities for support to break the physical isolation. Data from the United Nations (ONU, 2020) on Education reveal that most countries have defined the use of DICT as a policy for maintaining school activities.

In the digital survey carried out, several countries were consulted to try to understand how the DICT were incorporated and appropriated. By establishing a comparison with Brazil, it was possible to identify national guidelines in conducting educational responses to the Covid-19 crisis. The research involved the following countries: Portugal, Spain, United States, Italy, Germany, United Kingdom, China, Australia, Chile, Mexico, Uruguay and Argentina.

These countries were found to have common educational responses at the national level, with guidelines for parents, teachers and the school community on procedures for maintaining the school's connection with students. However, Brazil stood out for the lack of a national orientation of the educational system for the Covid-19 crisis, revealing, among other aspects, the lack of leadership; the inexistence of national policies of the Ministry of Education (MEC), under the government of President Jair Bolsonaro.

Emergency remote education

The term "emergency remote education" has been identified in numerous country initiatives. According to Hodges *et al.* (2020), digital online remote education diverges from Distance Education, as it proposes uses and appropriations of technologies specifically for school attendance in the context of face-to-face education.

Although both presuppose technological mediation in the processes of teaching and learning, Arruda (2020, p. 265, our translation) considers that,

> Distance Education involves previous planning, consideration of student and teacher profile, medium and long-term development of teaching and learning strategies that consider the synchronous and asynchronous dimensions of Distance Education, involves the participation of different professionals for product development.

For Hodges *et al.* (2020), remote emergency education does not have such properties, as it is a response to the Covid-19 crisis that changes the way of accessing curriculum content to an alternative form to classroom education, in different times and planning.

The Distance Education or emergency remote education models are diverse, in the sense of integrating or not digital technologies and/or analogue technologies, and also in the sense of involving a massive or dialogic didactic-pedagogical perspective.

The model of using only digital technologies does not guarantee equity, since, according to data from Unesco (2020), there are millions of young people without adequate access to computers and the internet. It is expected that from an emergency perspective, in which it is not possible to immediately resolve historical structural problems, analog technologies will be integrated to ensure that a significant percentage of young people have access to school. Consistent with this perspective, analog technologies can involve broadcast TV, conventional radio, and printed material.

In the case of massive and dialogical didactic models, the first presupposes an organization through centralized transmission by an educational agency and distributed to thousands or millions of people. Although dialog options are opened, such as comments on Youtube pages, for example, it is not dialogic, as there are no teachers monitoring students in a tool that presents thousands of simultaneous comments.

The dialogic perspective involves numerous technologies for sharing teaching materials, but the mode of transmission involves the teacher who accompanies his students. In this model, the teacher will accompany their original in-person classes and become the interlocutor of the teaching material with the students. One of the positive aspects of this type of approach is that it reduces the chance of the student to disconnect from the remote class with a click, according to Bauman (2018), disconnecting from the other or from content accessed by digital networks.

However, this model assumes that the faculty of a network has technical and pedagogical preparation to work at distance. For Arruda (2018), most teachers from the countries of the Organization for Economic Cooperation and Development (OECD) did not have access to adequate training to work with digital technologies. Also, Gatti (2010) states that, in Brazil, teacher education curricula do not involve even 1% of their total workload for technological teacher formation. In the context of the pandemic, Gatti (2020, p. 32, our translation) identified challenges to be overcome, including "the conditions and formation of teachers for remote school education work and for the use of media, for the development of forms of active involvement of students", among others. Thus, both authors encountered

numerous obstacles in implementing remote education when they were in a situation of total isolation.

As can be seen, the data presented here attest that Covid-19 on the one hand affects the school in an intensive and unplanned way, on the other hand, can transform the school and its subjects, as it requires rethinking the uses and the forms of appropriation of technologies due to the experiences lived during the pandemic period.

Experiences with Emergency Remote Education in Brazil: Preliminary Analysis

It was verified, through the study carried out, that in Brazil there is no national policy regarding the implementation of actions to alleviate the physical isolation of the school community. According to Arruda (2020) and Monteiro (2020), the MEC has generated more conflicts than proposed solutions, and is absent from these discussions. An analysis at the state level was then chosen to understand the Brazilian educational responses to Covid-19.

For this purpose, 26 web pages of the state departments of education and a web page of the Federal District were consulted, to map and understand the responses of these agencies assumed at the educational level in the context of Covid-19. Thus, the data were organized based on parameters that allowed a better understanding of the guidelines issued by these bodies, such as: institutional policy for the provision of Emergency Remote Education, technologies used, policy of free access for students and teachers and use of existing teaching materials or creation of new ones. Initially, information was sought about the adoption or not of remote education as a procedure to maintain ties between students and schools.

It was found that only the state of Roraima did not have information on the implementation of remote classes in basic education due to Covid-19. It was not possible to identify any policy that favored the bond: the focus of all initiatives was on the curriculum content, that is, on its replacement and on the reorganization of school calendars through remote education.

Among the states that started remote activities, only Alagoas did not indicate the use of video classes transmitted by Open TV. These classes are still posted on Youtube channels. To analyze the access to the videos, a survey of the Youtube pages of the following states was carried out: Minas Gerais, São Paulo, Rio Grande do Sul and Pernambuco.

It is noteworthy that in the states analyzed, the videos had high access rates, reaching views close to one million just in the first two weeks after the proposal was launched. In the survey carried out between the 22nd and 28th of May 2020, it was found that a remote class

video did not exceed 1000 views. This data reveals a possible abandonment of the remote classes initiative offered by Brazilian states.

All states and the federal district that offer remote education have websites or mobile apps with content. However, it was verified the existence of a platform called *Rede Escola Digital* [Digital School Network] (developed in partnership by Natura Institute, Lemann Foundation, Telefônica Vivo Foundation, Inspirare Institute, Vanzolini Foundation). This platform, used by most Brazilian states, does not have school content aimed at different levels or curricular components. The platform is literally empty.

There are still indications of access to printed materials, but it is not clear how many young people got such access and how many were left out.

There is still no information on costs of implementing remote education. It is noteworthy that there is at least one public channel – TV Escola – and another linked to private foundations – Canal Futura – which has been transmitting educational content in video and text format for free for some years.

Finally, it was also found that emergency remote education policies did not promote the participation of the school community. The actions were published on the pages of the education departments as "executive" actions.

It can be said that this is the biggest mistake, because, by not involving teachers and promoting mass education, through massive transmission of video classes, the actions of the states lose in terms of mobilization of the educational community involved in the teaching and learning processes.

It is important to emphasize that teachers are a reference in students' lives. Their presence in the school space or in remote education can contribute to the maintenance of affective bonds between teachers and students and among peers, and consequently, promote greater engagement in didactic-pedagogical initiatives (UNESCO, 2020; MONTEIRO, 2020).

In this sense, the survey carried out allowed the identification of an education model that privileges individuality and does not promote communication between subjects. A page on Youtube does not promote approximation, users, in general, are not always those in the circle of coexistence in the school environment. These actions can result in high school dropout rates, in addition, this absence will increase inequalities in the education of the poorest students who, by not having a teacher in the teaching and learning processes, will be harmed in relation to their right to education.

The importance of pedagogical mediation in Emergency Remote Teaching

The bibliographic survey carried out attested that most initiatives in Remote Emergency Education in the state education systems in Brazil favor technology, equipment and means of transmission to the detriment of the participation and involvement of the subjects of the educational process. Thus, there was little investment in pedagogical mediation – the guiding axis of the teaching-learning processes.

For Masetto (2000), pedagogical mediation is the attitude, the behavior of the teacher who is seen as a motivator of learning, as a mediator between the student and knowledge, highlighting the dialogue, the exchange of experiences, the debate, the proposition of situations of learning and affectivity in these interactive, dialogic relationships.

On this issue, Vigotski (1998) states that we become human due to our ability to use symbolic instruments to complement our cognitive activity. In this sense, the analyzed proposals carry a transmissive concept of content, common in periods when interaction was limited due to the conditions of the technologies of the time, television and radio, for example.

Based on a context in which the premise of contemporary digital technologies is the exchange of experiences and dialogue, it is strange that remote education initiatives give up the resources currently available, as indicated in the collected data.

The conception of mediation present in the analyzed proposals does not involve mediation between the subjects, but the technical use of equipment as the main support for teaching and learning, which weakens the teacher's role and strengthens the use of pre-prepared materials, presented in a transmissive way.

Given the above, it is not yet known what the consequences of applying this model will be, but it is possible to recognize the fragility of educational proposals that prioritize equipment to the detriment of people. Despite the urgency posed by the pandemic, the proposals for return through remote learning had limitations regarding a pedagogical model that favors human interaction over the machine, the object.

More than 12 months have passed since the pandemic and, despite this significant temporality, no changes were identified in the states regarding the technical model implemented. The challenges that present themselves to the school, therefore, are no longer just a matter of complying with the calendar and transmitting content but require thinking about a pedagogical model that involves the subjects of the educational process, since the challenges for Brazil to advance in vaccinations in 2021 indicate a return to face-to-face teaching mixed

with remote teaching. That is, possibly this format will remain for another year or two. Maintaining the technical model can be extremely harmful to Brazilian education.

Given the above, the school cannot, therefore, be excluded from its place of promoting dialogue, mediation and the construction of different types of knowledge.

It is a school that, despite the crisis, remains the same in its social aspect, as it reinforces its importance to students and consolidates itself as an institution, a central place for the formation of new generations.

School in the Context of the Covid-19 Pandemic: Social Function, Challenges and Perspectives

The implementation of Emergency Remote Teaching in the context of the Covid-19 pandemic reaffirms the relevance of the school and its social function in contemporary times. Based on the literature review carried out, the school emerges historically because of the need to preserve and reproduce the culture and knowledge of humanity, beliefs, values and social achievements, conceptions of life and the world, of groups or classes. It remained and modernized as it was able to become an instrument in the production of new values and beliefs, in the dissemination and socialization of social, economic and cultural achievements.

It can be said that public, open and egalitarian schools, since its creation, have provided children, adolescents and young people with access to knowledge and cultural goods of humanity. Through the school, subjects can perceive themselves as integral parts of a social whole, situated in their historical-social reality. In addition, for students from popular communities, the school has been a unique space-time to provide resources and possibilities for the fight against social exclusion.

As a social institution, the school is inserted in the historical-social context, in a reality in which it can exert influence, and is characterized as a democratic school, an institution of culture whose role is to socialize the knowledge, sciences and arts produced socially.

For Libâneo (2012), the educational process that is developed at school through teaching consists in the reconstruction of knowledge and experiences accumulated by generations throughout the historical-social development. Thus, the purpose of the teaching-learning process is to stimulate the reconstruction of systematized knowledge, capacities, skills and attitudes necessary for learning, with a view to preparing for further studies, for the world of work, for the family and for the other demands of social life.

An approach to the school originated in the Sociology of Education, however, seeks to combine the external analysis of the school with internal actions. The basic proposal is to defend the school as a space for experiencing new social relationships, that is, the ways in which social relationships are organized and occur at school appear as a pedagogical path for the formation of students. School education would be centered not on formal knowledge, but on the process of its acquisition and on the social relations developed there (CHARLOT, 2009; 2013; DUBET, 2011; 2008; 2004).

It is a proposal that defends a cooperative pedagogy, emphasizing coexistence practices between teachers and students, focused on social problems that occur outside the school in social practices, including inequalities, conflicts, technological and environmental issues and diseases in general, and in the current context, the Covid-19 pandemic. In this sense, in the sociocultural approach, schools are spaces-times for the creation of interactive and problematizing pedagogical situations. This approach emphasizes social and cultural factors in the knowledge process, in contrast to the emphasis on formal content, the psychological focus of learning (FORQUIN, 1993; FRIGOTTO; CIAVATTA, 2003; FREIRE, 2004).

It can be said that the institution of school inserted in society will always reflect the social, economic, scientific and cultural circumstances of each stage of the evolution of societies. Therefore, any reflection on the school cannot fail to consider the historical-social context of its insertion.

In this sense, the challenge for the school is to respond not only to students who seek a set of knowledge in it, but also to the enormous challenge of forming critical and participatory subjects. It is in the positive response to this challenge that the formative function of the school is verified. In fact, in a society in permanent scientific and technological evolution, actively responding to formative demands is something complex, which requires planning by education professionals working in schools (GOMES, 2014; 2017).

This complex scenario will tend to be attenuated with a significant articulation between the school and the community, always integrating, and as much as possible, the resources and knowledge available through partnerships in projects with positive impacts on both the school and the community. It is, therefore, in this complex context, marked by the confrontation of the Covid-19 pandemic, that the teacher will be able to develop work that promotes the formation of students and enhances favorable conditions for the critical analysis of what happens in Brazil and in the world, and in addition to inspire among students' ways of thinking and acting actively in this context of crisis in health and education.

Consistent with this perspective, it was found that the Covid-19 pandemic has provoked the resumption of the pedagogical sense of school, and the analysis of basic learning demands for survival and for people's immediate basic needs. It is a school committed to human life and the development of students' citizenship.

It is relevant to investigate in this crisis scenario: what answers will the school give? For Silva (1996) and Apple (2010), curriculum and school can be instruments for problematizing the social, political, economic and educational issues that afflict us in order to minimize the undesirable effects on human life.

In his studies on school curriculum, Libâneo (2006; 2012) highlighted that within the framework of neoliberal policies for schools, at least two models result: the instrumental curriculum, based on a pedagogy of results; and the social promotion curriculum, which values the adoption of forms of organization of human relations, aimed at coexistence and social integration. The author found that the implementation of these curricula in Brazil resulted in at least three types of curriculum organization in education systems: those that combine these two models; those that focus more on the instrumental curriculum and those that elect the social protection curriculum. The choice of one of these models by the state and municipal school systems differs according to the ideological and political preferences of educational leaders.

Education research on educational policies and policies for the school and the classroom advocate a public, compulsory and free school pedagogically organized and inclusive. However, when it comes to transforming this position into forms of organization, functioning of the school and pedagogical and didactic actions, divergences and disagreements arise.

Thus, it can be said that socio-critical approaches diverge in relation to the school's objectives, the conception of knowledge and the way in which school processes and social diversity are articulated. The field of disputes between them is demarcated by existing tensions between the social and democratic requirement of formal schooling for all children, adolescents and young people and, at the same time, the need for schools to organize themselves adequately to accommodate social diversity and cultural expressed by individual and social differences among students (PIMENTA, 2013; LIBÂNEO, 2012).

Consistent with this perspective, a curriculum based on critical knowledge is advocated, centered on cultural and scientific formation that highlights the universality of school culture, due to the universal right to knowledge. This option implies recognizing that the sociocultural practices that children, adolescents and young people share in the family, in the community and in the various instances of daily life are also decisive for the appropriation of knowledge and for the formation of personal and cultural identity.

As can be seen, the crisis caused by the Covid-19 pandemic highlights, in a way, the crisis of the school, and therefore, it stimulates the reinvention of this institution based on three principles: rethinking the school based on other social practices; to give meanings and senses to teaching practices, considering the challenges of life, and also to think about the school based on a situated political pedagogical project, based on a critical approach that considers current challenges and proposes the defense of life and social rights.

Final considerations

This article sought to answer the following research questions: what is the level of participation of the school community in decisions about remote return in the initiatives of the governments of Brazilian states? How can the school fulfill its political-social role in the context of the Covid-19 pandemic crisis? It was found that the school, through its teachers, can take on a movement of change and transgression that requires overcoming a passive school approach to commit to a school approach that encourages reflective thinking and problematization. And, thus, favoring the formation of critical, autonomous subjects, capable of challenging dominant values, building a territory of relationships, dialogues, confrontations and practices, thus being space-time to encourage students' commitment to the development of their country and to your local community.

From the above, it can be said that the school has a fundamental role in the formation of students; however, the Covid-19 pandemic and physical isolation posed new challenges. It is relevant to discover alternatives that can be mobilized, bearing in mind demands for the reinvention of the school so that it responds to the challenges of contemporary society.

Finally, it was found that the contexts of the Covid-19 pandemic and post-pandemic instigated critical rethinking about the social function of the school. In this sense, only physical isolation is recommended and not social isolation, and it also presupposes putting into debate the exercise of educational practice, reviewing ways of organizing space-times, relationships, knowledge, languages, methodologies and evaluation, that is, it deals with a provocative context that urges us to analyze the ways in which the curriculum and teaching can be reorganized in and by the school.

In conclusion, the invitation to resume the school's role in the face of the Covid-19 pandemic in the contemporary context is a warning to remember that other crises will come; also, it is worth remembering that education is a field of struggles, of articulation of forces, of

positions, remembering that crises will be overcome/minimized through dialogue, participation in collective work at school, always in defense of life and inclusive practices.

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