


## "Lost virtually everything he had learned": Some thoughts on the impact of the pandemic on literacy and child development

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### ABSTRACT

This paper discusses the impacts of social isolation and remote learning on the school life of children in the literacy phase during the COVID-19 pandemic, in the years 2020 and 2021, in Brazil. From the contributions of Historical-Cultural Psychology, an analysis of how remote teaching impacted the process of school literacy was carried out, so we used as a methodological procedure the application

of a questionnaire, elaborated through the Google Form, which was sent to family members/guardians who, during remote education, had children enrolled in the final years of Early Childhood Education and the initial grades of Elementary School I in the State of São Paulo. The questionnaire was completed in August 2002. And the results revealed that remote teaching harmed the process of literacy and school development, whose greatest impact is related to the delay and difficulty in the process of acquiring reading and writing. Child behaviors of loss of motivation and interest, as well as attentional difficulty and anxiety during the remote teaching process, were also evidenced. Another important factor was the fact that the lack of follow-up of students by those responsible for child care during such activities at home, brought reflections on the importance of valuing the school context, a social institution that shares and teaches the knowledge necessary for literacy and human development.

**Keywords:** School education, historical-cultural psychology, pandemic, remote learning.

## 1 INTRODUCTION

### 1.1 PANDEMIC, REMOTE LEARNING, CONTRADICTIONS, AND POSSIBILITIES

At the end of 2019, humanity faced an epidemic, caused by a viral agent similar to the flu, with symptoms of cough and fever, but with an ability to drastically affect the respiratory system, which can lead to the infected person dying. Since its transmission happens through interpersonal contact, the World Health Organization issued a pandemic alert and <sup>1</sup> it was necessary to comply with several measures to control viral proliferation on a global scale, such as social isolation and changes in work and education environments that went from face-to-face to remote (TOMAS, 2022).

Brazil was one of the nations most affected by the virus, the population, mostly the working class, suffered from high rates of hospitalization, when there were beds, resulting in many deaths<sup>2</sup> (TOMAS, 2022).

<sup>1</sup> A disease becomes a pandemic when it reaches global levels, that is, when a certain agent spreads in several countries or continents, usually affecting a large number of people, according to the World Health Organization.

<sup>2</sup>As of December 2021, the numbers of those infected and killed by COVID-19 in Brazil are heartbreaking: more than 22 million infected and more than 620,000 deaths. Learn more at: <https://covid.saude.gov.br/>

Faced with this scenario, many changes occurred, such as the establishment of distancing between people and the closure of several commercial establishments (malls, supermarkets, among others) during the implementation of the quarantine; mandatory mask-wearing indoors and outdoors. Given this, each Brazilian state began to determine and establish its social distancing measures to try to stabilize and minimize the high rates of contagion and avoid the collapse of health networks.

In the State of São Paulo, in which this research was conducted, the Government established quarantine in mid-March 2020 and instituted the São Paulo Plan in<sup>3</sup> all 645 municipalities of the state.

Thus, the regions and cities were periodically classified according to the number of infected, hospitalizations and deaths.

The quarantine began with the determination of the general closure of services in environments with movement of people, and could only open services considered essential (such as pharmacies, supermarkets and gas stations), it is noteworthy that school institutions did not enter the framework of essential services in the year 2020.

Its functioning began to happen remotely, that is, students and teachers did not go to school, they remained developing school activities at home, which generated a great impact on the personal routine and the very format of the teaching and school learning process.

In January 2021, the process of immunization of the population with the vaccine against COVID-19 began, and at the end of March 2021, school institutions were included by the government of the State of São Paulo in the group of essential services, however, immunization for Basic Education teachers in this State only happened in June, July and August 2021.

It wasn't until the 2022 school year that school units returned to regular operation but permeated by fear, anxiety and contradictory news about the pandemic and its immunization.

The fact is that the pandemic caused the greatest interruption in the history of world education and, in Brazil, which already had serious problems regarding the school structure and numerous challenges regarding the contents and ways of teaching, there was an intensification of school problems.

Thus, the Brazilian educational system had to reinvent and readapt to continue the school years in the pandemic period. A new mode of education was instituted, remote teaching, classes became asynchronous or synchronous and content reached students through digital platforms such as *Google Meet*, *Google Classroom* or other means of educational platforms.

After the Ministry of Health's ordinance of March 2020, which established remote teaching in the pandemic period, Brazil's Secretariats of Education, in a few weeks and a hurried manner, had to reorganize their school plans to continue school activities and ensure student learning in a non-face-to-face manner. In it, remote teaching from the use of online platforms, recorded video classes and sharing

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<sup>3</sup>See more at: <https://www.saopaulo.sp.gov.br/planosp/>

of digital materials was the strategy adopted by the state departments of education (CIEB, 2020).

In April 2020, the CNE, through opinion No. 5/2020, took a position saying that non-face-to-face pedagogical activities would be computed for purposes of compliance with the minimum annual workload.

The agency highlighted that these activities could be developed by digital means (video lessons, content organized in virtual teaching and learning platforms, social networks, electronic mail, and blogs, among others); through television or radio programs; the adoption of printed didactic material, with pedagogical guidelines, distributed to students and/or their parents or guardians; and by the orientation of readings, projects, research, activities and exercises indicated in the didactic materials (BRASIL, 2020).

For Behar (2020, p. 1), due to the exceptional nature of the pandemic context, this new school format is called Remote Teaching (RE), that is, "a teaching modality that presupposes the geographical distancing of teachers and students and was adopted temporarily at different levels of education by educational institutions around the world".

Remote learning exalts the real-time transmission of classes. The concept is that teachers and students of a class have interactivities at the same times that the classes of the discipline would occur in the face-to-face model.

Generally speaking, this means maintaining the classroom routine in a virtual environment accessed by different people in different locations.

According to the CNE / CP, opinion No. 05/2020, remote teaching consists of non-face-to-face activities that can occur through "printed material and delivered to parents or guardians", also focusing on that student who does not have access to quality internet and much less technological instruments, giving him the right to education according to the caput of article 205, of the Federal Constitution of 1988.

According to Garcia et. al (2020), although they are directly related, distance learning is not the same as remote learning or vice versa.

Remote learning allows the use of platforms already available and open for purposes other than strictly educational, as well as the insertion of auxiliary tools and the introduction of innovative practices. The variability of resources and strategies, as well as practices, is defined by the familiarity and ability of the teacher to adopt such resources (GARCIA et al., 2020, p. 5).

It is important to consider that Brazil was one of the few countries that did not put education as an essential service, this only happened after a year and a half of the pandemic, like the state of São Paulo, which we consider neglect in education, because, while hotels and bars were already

being released by the rulers and health surveillance, Education wasn't<sup>4</sup>.

The difficulty of access to digital media is a problem because Brazil is a country with different and discrepant social realities.

This research was developed in the State of São Paulo, where there is greater technological development and access to information technologies, however, this is not the reality of most Brazilian states.

It is necessary to emphasize that not everyone in modern society has the opportunity to participate in social practices mediated by technology, either due to lack of access to the internet or lack of technological competence, thus causing a digital divide that directly affected education during the pandemic.

Following the theme of technological infrastructure, there is also a lack of teacher training to deal with technologies, that is, Brazil is already a country that historically invests very little in teacher training and school structure (BARBOSA, 2014).

The teacher is not yet ready to face the new technological era, so a revision in the school curriculum at graduation is necessary so that the teacher does not present unprepared to teach.

It is also necessary to implement continuing education for the teacher, because the school requires, but does not provide the necessary help to level a room with good and interested students.

According to Barbosa (2014), the barriers that prevent a permanent aggregation of Information and Communication Technologies (ICT) in the pedagogical scope go beyond the difficulties related to school infrastructure.

Technology, by itself, will not arouse in the student a supposed interest and identification, favoring learning.

What is seen, in many schools, is the transfer of learning models taken as traditional to digital media and, often, with fragile interventions of teachers, unprepared and even inhibited in the face of technologies.

The use of technologies needs to be a learning vehicle capable of reconstructing knowledge critically and reflectively, recreating teaching practice.

However, the fundamental challenge of Brazilian education has become the adaptation to the new scenario imposed by the pandemic. One of the measures taken was the inclusion of emergency remote teaching in schools as an alternative to the interruption of face-to-face activities.

On June 1, 2020, the Ministry of Education pronounced on the pandemic ravaging the country and published in the Official Gazette the following text:

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<sup>4</sup> As the SP Plan points out: <https://www.saopaulo.sp.gov.br/planosp/>.

Following article 2 of Law No. 9,131, of November 24, 1995, the Minister of State for Education partially approves the CNE/CP Opinion No. 5/2020, of the Full Council, of the National Council of Education-CNE, which approved guidelines with a view to the reorganization of the school calendar and the possibility of calculating non-face-to-face activities, to comply with the minimum annual workload, due to the pandemic of the novel coronavirus-Covid-19, and fails to approve item 2.16 of said Opinion, which it submits for re-examination by the National Council of Education, considering the reasons contained in Technical Note No. 32/2020/ASSESSORIA-GAB/GM/GM, as stated in Process No. 23001.000334/2020-21 (BRAZIL, 2020, p. 32).

In addition to the schools that had their activities suspended on March 17, 2020, across the country, another rule emerged jointly regarding the ban on opening establishments, which came into effect as a way to prevent the spread of the coronavirus, which causes COVID-19, allowing people to work from home, many of them, for the first time.

A survey conducted by the United Nations Children's Emergency Fund (UNICEF), in partnership with Cenpec Education, found that children aged between six and ten years were the most harmed by school exclusion during the novel coronavirus pandemic. About 41% of the 5.1 million students No access to education in November 2020 they had this age group (Asscom| Tiradentes Group)

## 1.2 THE REALITY OF BRAZILIAN EDUCATION AND LITERACY RESEARCH IN THE PANDEMIC

Education in Brazil has its great differences, the main one between public and private schools. On the one hand, public school is a service provided by the government free of charge and a universal character (for all school-age children).

The gratuity of this service is possible thanks to the taxes collected by the State and support for the services of the community.

On the other hand, private schools, although guided by public educational policies, are not part of the public services of the state and become part of an education provided by a private for-profit business entity.

The maintenance of a public school depends on funds sent by the federal, state or municipal governments, according to the different spheres responsible, meanwhile, private school is maintained by the payment of students' tuition, they correspond to "educational establishments belonging to entities of the private or cooperative sector" (COTOVIO, 2004, p. 22) in which both the properties and the management are the responsibility of non-state entities.

It is not appropriate, in this work, to investigate the differences between public and private schools in Brazil, however, it should be noted that students who attend private schools often have access to technological equipment and the internet with greater frequency and quality than public school students.

However, in remote teaching, issues related to equipment and the internet have proved to be a challenge for both teaching modalities, especially when it comes to children's literacy.

Even though a significant portion of children were enrolled in school years essential for literacy, the alternative found by the rulers was remote teaching and teachers and school staff needed to rely on the support of the family.

Knowing that several children went through the process of literacy during the period of remote teaching and the acquisitions of this phase of life so essential, both for later school acquisitions and for all their development, it causes us disturbance to analyze how school learning has been configured through the direct responsibility of parents or guardians since the figure of the teacher has become distant.

Thus, through the voice of the family members who accompanied the children or tried to follow up in the period of remote teaching, we investigated the impacts of the lack of school for teaching and learning in the initial years of literacy, since there was no mediation of the teacher, emphasizing the greatest challenges that families faced during this period of social isolation.

For many families, the experience of remote teaching provided a certain empathy about the work of the teacher, that is, there was an appreciation, even if apparent, about the need of the school and the importance of the teacher for learning and child development.

In this study, we investigate, through questionnaires, the impact of remote teaching during the COVID-19 pandemic, through the conception of the families of children in the process of literacy.

The questionnaire was answered in August 2022, by 71 parents or guardians of students from public and private schools who had under their care children enrolled in the initial grades (6 to 9 years of age) during the pandemic period, the answers were later tabulated in graphs and tables for analysis.

The questionnaire aimed to raise opinions, beliefs, feelings, interests, expectations, and situations of family members in the face of remote teaching, therefore, through the use of this instrument, it was possible for parents and guardians of the children to expose their view on this modality and opine on its impact on the process of literacy and education of the child.

During stages of the research, firstly, the investigative purpose and ethical aspects were presented, and the participants were invited to answer online the questionnaire developed through the *Google Form software*.

The structure of the questionnaire aimed to explore what were the school level in which each child would be inserted, who was responsible for helping them during remote classes, the age of those who assisted if they had access to the internet if the child was from the municipal or private network, what were the negative or positive impacts if the child was able to learn through this procedure and what had been the greatest challenge in helping the child during that process.

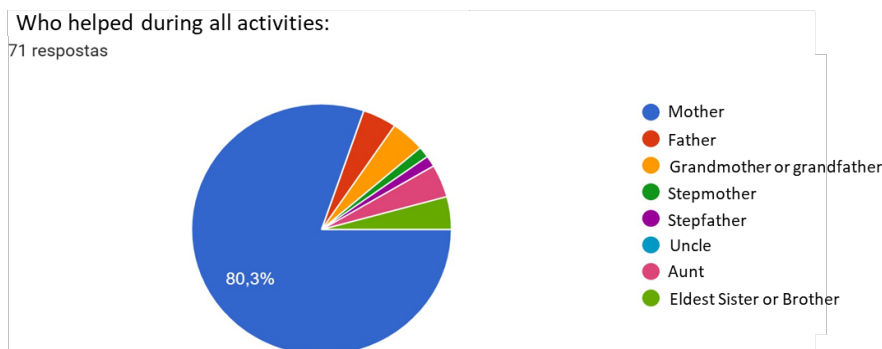
Chart 1 shows the questionnaire answered by the participants.

Table 1 – Questionnaire

<p>1. Who helped during all the activity? a. mother / b. father. / c. grandfather(ó)/ d. stepmother. / e. stepfather/ f. tio(a)/ g. older brother.</p> <p>2. Age? A.20 to 30 years/ B. 31 to 40 years/ C. 41 to 50 years/ D. 51 years +</p> <p>3. What is your child's grade? a. Early Childhood Education / b.1st year of elementary school / c. 2nd year of elementary school / d. 3rd year of elementary school / and .4th and 5th year of elementary school.</p> <p>4. Did you have access to the internet? a. YES/ b. NO</p> <p>5. Does your child study in the municipal or private network?</p> <p>6. Has teaching impacted your child's learning process? a. Much/b. little/c. Nothing</p> <p>7. Are the impacts positive or negative?</p> <p>8. Describe the impacts of remote learning :(if positive, describe the positives. If it is negative, describe the negative points).</p> <p>9. Was your child able to learn/learn during remote learning? Yes, it did. No, it didn't.</p> <p>10. What was your biggest challenge in helping your child through this literacy process remotely?</p>
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We present, below, the responses of family members and those responsible for monitoring the remote teaching of the child in the years 2020 and 2021. The first question of this study refers to the person who assisted the student in remote teaching activities, as shown in Graph 1.

Figure 1. Who assisted the child during remote learning activities?



Source: Prepared by the authors (2022).

As we can see, 80.3% of the children were helped by their mother, however, other people in the family circle were also placed in the role of auxiliary adult in remote education, such as the father with

4.2%, grandmother 4.2%, stepmother 1.4%, stepfather 1.4%, uncle did not receive a vote, aunt 4.2%, older sister 4.2%. It is clear the participation of the family during the literacy process, even more so in the period of remote teaching in which this became more present.

According to data from the Brazilian Institute of Geography and Statistics (IBGE, 2019), in 2019, women who worked outside the home (in formal jobs) had a load of 18.5 hours/week, performing care work or household chores, while men in the same situation performed only 10.3 hours/week.

Therefore, child care and domestic chores are seen as being attributions that are related to motherhood and not to fatherhood, denoting the sexual division of labor in the domestic sphere, something already pointed out by studies that sought to investigate the involvement of men and women in domestic work, in the family and the care of children (BRUSCHINI; RICOLDI, 2012).

Women, at the height of the COVID-19 pandemic, intensely tired, found themselves worried about maintaining their jobs, workload and family income, as well as the school monitoring of their children, without being able to count on a face-to-face support network.

According to the UN (2020), especially domestic violence, increase due to increased tensions at home and can also increase the isolation of women. Survivors of violence may face additional obstacles to fleeing violent situations or accessing life-saving protection orders and/or essential services due to factors such as restrictions on movement in quarantine.

From this perspective, the *Home Office* emerged as a possibility to continue the work of adults and transferred the obligations of the office into the home, contrary to the previously defended idea that the issues of the domestic environment interfere in daily work (ARAÚJO, LUA, 2021, p. 1).

Another factor that occurred during the time of social distancing was that women began to stay more indoors together with their partners, which often caused an increase in domestic violence against women. (VIEIRA; GARCIA; MACIEL, 2020, p. 5). Although it is not the scope of this research, we believe it is necessary to highlight this Brazilian reality.

According to the data analyzed by the survey of *Gender and Number and SOF (Sempreviva Feminist Organization)*, 91% of women believe that domestic violence has increased or intensified during the period of social isolation.

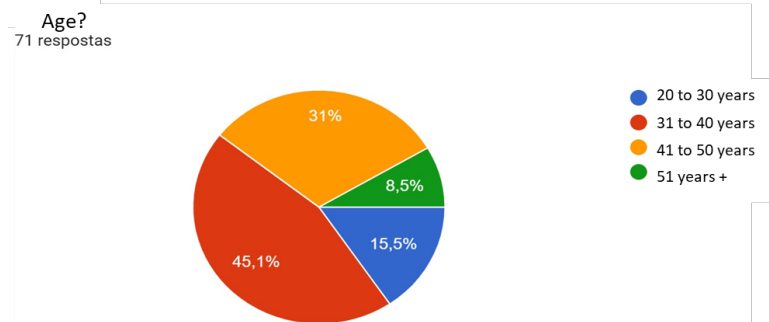
When asked about their personal experiences, 8.4% of them said they had suffered some form of violence in the period. The percentage increases among women in the lowest income brackets. Among women with a family income of up to one minimum wage, 12% claim to have suffered violence (ANDES, Sindicato Nacional, 2020).

The next question dealt with the identification of the age group of each person who provided some kind of assistance. Among the 71 responses, 45.1% of the people were between 31 and 40 years of age, 31% of the helpers were between 41 and 50 years old, 15.5% were between 20 and 30 years old,



and lastly, 8.5% were 51 years or older.

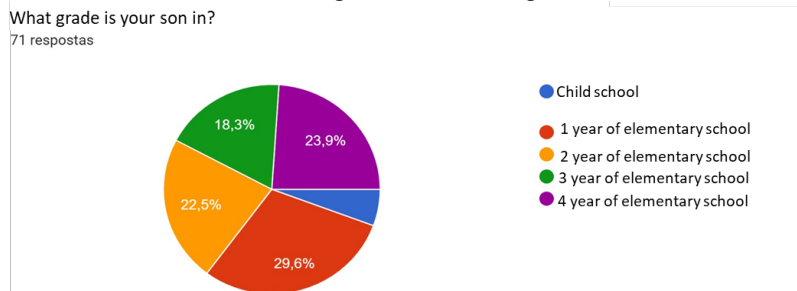
Figure 2. Age group of the family member responsible for helping the child



Source: Prepared by the authors (2022).

Subsequently, when asked which school stage their child would be in, 29.6% were in the 1st year of Elementary School, 23.9% in the 4th and 5th year of Elementary School, 22.5% in the 2nd year of Elementary School, 18.3% in the 3rd year of Elementary School and only 5.6% in Early Childhood Education.

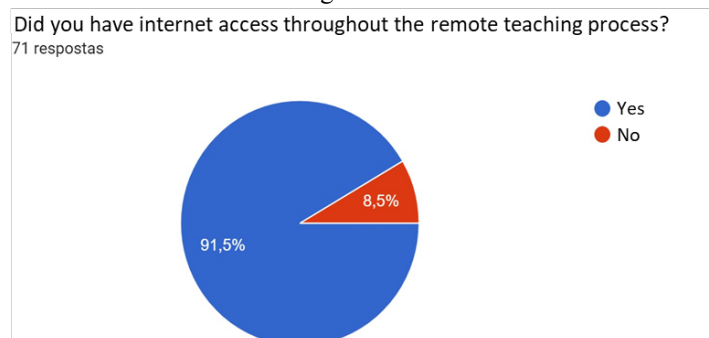
Figure 3. School stage



Source: Prepared by the authors (2022).

We also investigated the child's access to the internet during the entire period of remote education, we found that 91.5% had access to the Internet and the other 8.5% did not have access, as shown in the following graph.

Figure 4. Internet access

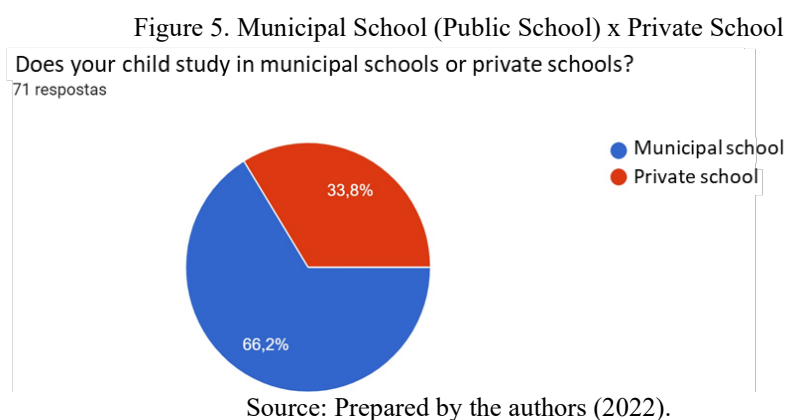


Source: Prepared by the authors (2022).

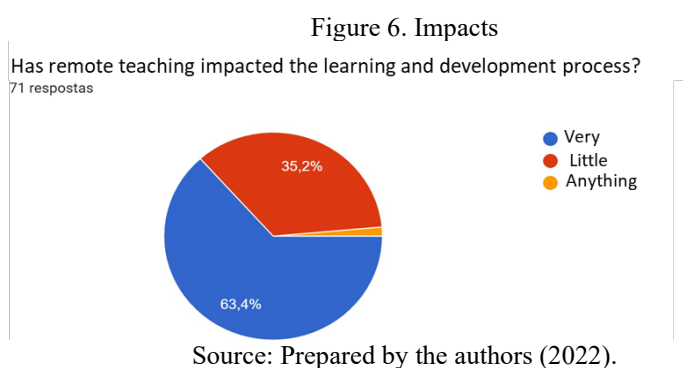
According to Machado (2020), the obstacles are numerous and faced by school communities, it is clear the unavailability of digital equipment (computers, cell phones and tablets) and adequate internet for access to classes by the population in a situation of social vulnerability.

Although in this research most of the answers evidenced an access to the internet, it cannot be forgotten the situation that many families that need to follow the activities of their children often end up having to share the equipment for two or more children.

The subsequent question referred to the child's school network (municipal school or private school) and revealed that 66.2% studied in the municipal school system and the other 33.8% were enrolled in private schools, according to Graph 5.

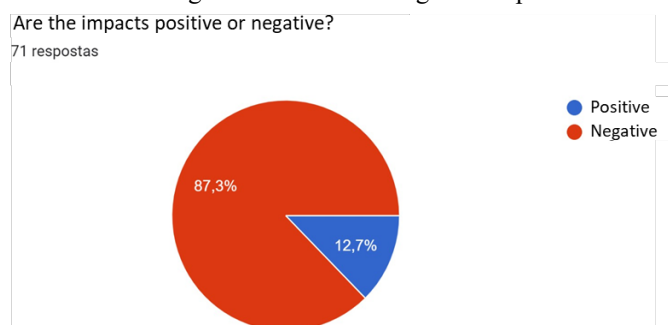


Regarding the impacts of remote teaching on the teaching and learning process, 63.4% of the questionnaires scored that they were very impacted, 35.2% little impacted and 1.4% realized that it did not impact anything, according to Graph 6.



When asked if the impact of remote learning was positive or negative, we obtained the answer: 87.3% negative and 12.7% were positive.

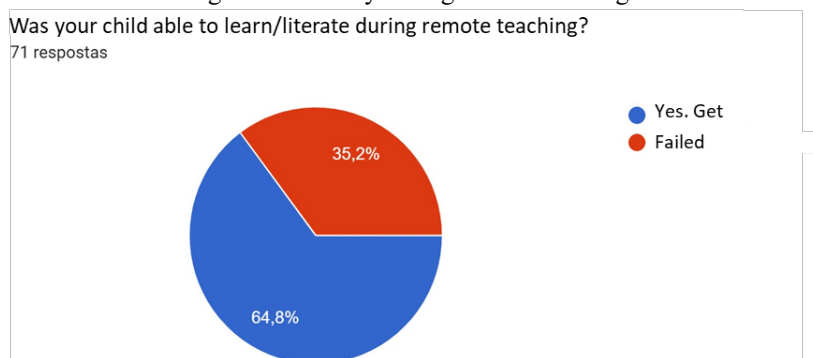
Figure 7. Positive or negative impacts



Source: Prepared by the authors (2022).

The next question was whether the child was able to become literate/learn during the remote learning period, and we obtained 64.8% of the answers that "yes", the child succeeded and 35.2% "no" were able to become literate/learn.

Figure 8. Literacy during remote learning



Source: Prepared by the authors (2022).

As an open question, we asked about the positive and negative points in remote teaching, and the answers were categorized in Chart 1:

Table 1. Demerits

Related to the general delay of teaching	Related to teacher explanations and didactics	Related to non-cognitive development	Related to behavioral problems	Related to internet access and the work of the person in charge
Literacy delay	Without the teacher's auzilio it was difficult	Lack of concentration, focus and discipline	A lot of stress, and dispersion during class.	No internet access
Literacy delay	Reduced content	Lack of attention		Do not know how to explain the content to the child
He lost practically everything he had learned in reading and writing	Very bad explanation	Difficulty concentrating	Not wanting to study because you're at home	Difficulty in reconciling teaching with the routine of home
He didn't learn mathematics	Lack of professional accompaniment	Lack of attention	Laziness	In the worst way inside the home with the parents also unfolding with

**Emerging Issues Related to the Corona**

*"Lost virtually everything he had learned": Some thoughts on the impact of the pandemic on literacy and child development*

				remote work, the child had to fend for himself.
Delayed learning of cursive letter and literacy	Could not keep up with the proposed teaching, currently is at a level below	Can't pay attention	Lack of interaction with friends	Difficulty accessing the internet
Literacy delay	It had no material	Dispersion in classes	Lack of social interaction	
Difficulty in reading, remote classes did not meet the needs	We don't have the same didactics that teachers have, I think it slowed down the literacy process	Tiredness and difficulty concentrating	No focus on studies	
Didn't learn enough for next year	We do not have the didactics of the teacher	I didn't focus on the explanation, because I thought that studying was only in school	Too much time in front of the computer	
Difficulty of the child in learning to write correctly,	Nothing replaces the face-to-face class	Difficulty keeping the child's concentration	Anxiety crisis	
Slowed down his learning even with the help of his parents		Lack of discipline	Too much time in front of the computer	
Difficulty reading and writing.		Lack of attention and concentration	Anxiety	

Source: Prepared by the authors (2022).

Literacy is a phase that requires a greater approximation between students, an experience that was absent during *online* activities.

Learning and writing are distinct processes, however, they complement each other, before learning to write it is necessary to learn to read. Thus, both are important for the teaching-learning process of reading and writing.

Throughout this process, students must have contact, manipulate, enjoy and create different texts, which circulate in their community in a non-simulated way and that have meaning for them.

They must understand the objectives of the different textual genres and their particular characteristics.

By carrying out activities that involve reflection on these aspects, we enable children to raise their level of literacy and can make effective use of written language in different social contexts (BRASIL, 2012b, p. 21).

When the child is delayed or difficult in reading and even in writing they end up being impaired in all areas, because, according to Ribeiro (2005, p. 73), "children with reading and writing difficulties are often at a disadvantage in all curricular areas, which sometimes leads to the existence of insurmountable repercussions".

In line with Graph 7, the open question about the positive and negative points, as observed in

Chart 1, reveals many complaints about remote teaching, so we divided into the categories: general delay of teaching/literacy; teachers' explanations, school and family didactics; development of psychic functions; behavioral problems; Internet access and work of family members.

Only three responses pointed out positive points: "monitoring the child's performance", "greater family life" and "having more contact with the child".

The last question, also open, is related to the greatest challenge in helping the child during the literacy process remotely, so we categorized the answers from: class schedule/remote activity; family environment and lack of school routine; lack of didactics and school knowledge of the family; lack of attention and child behavior; lack of socializing with other people.

Table 2. Challenges of remote learning

Schedule class / remote activity	Family environment and lack of school routine	Lack of didactics and school knowledge	Lack of attention and childish behavior	Lack of socializing with other people
Work schedule kind of difficult and ends up with no time to teach.	Lack of routine that the child has at school	Teaching math content in a way that I learned and the child is learning in another way.	Difficulty in helping in reading, in putting rules.	My daughter not being able to socialize with classmates
Missing to follow the classes with the child	The lack of discipline, because the school environment is essential for learning	A lot I didn't know	Not having the autonomy to study alone in front of the computer.	School as a socializing space, where children learn from peers and the teacher becomes a tool.
Time to help you	Do not have a suitable environment to study	I couldn't get attention	Make the child focus on studying	
Synchronize work, assignment and classes.	Establish a routine,	Keep his attention during the study.	Difficulty maintaining concentration	
Doing what was passed due to my work	Having to invest in a mobile device for each of my 4 children	A lot of things I couldn't explain.	Lack of patience	
Trying to synchronize my schedules with those of classes	Teaching in the evenings for both him and my daughter (that's when I got home)	Lack of appropriate didactics	Move you to do the activities	
The lack of time		Lack of material to assist in the study	Exhausting, valuing teachers, they are heroes.	
Need to work		Understand the given task	Hold the child's attention and interest	
Not being in touch with online classes		Unable to explain	He said I wasn't a teacher, he debated with me because he thought I was teaching wrong.	
Work on the child's least class schedule		Difficulty teaching	Holding attention was the biggest difficulty	

Time not available		Not knowing how to explain it the way it was past	Lack of attention	
Time, because he worked even more than before, fulfilling all the activities imposed by the school was almost impossible, even because little could explain the content.		Need to review and recycle myself with material and didactics to help. Need to hire an assistant educator so that my daughter could achieve the minimum expected learning.	I need to be practically 100% available, and next to him during classes for him to co-continue to do the activities, because when he was alone, he was distracted and could not carry out the lessons.	
		Lack of preparation to move the child forward. Many times, I didn't know how to drive to make him understand the matter.		

Source: Prepared by the authors (2022).

In this question, it was possible to verify the difficulty of the families concerning the knowledge of what should be taught as well as the didactics of teaching.

It is also interesting that the answers bring the challenge of time to be able to teach the children, which became an impediment for the families who continued to work and the time they had to stay at home and perform other activities with the children was focused on school activities.

Finally, one of the answers notes the need to value the school as an institution and the work of the teacher as necessary for teaching and human development. "I ended up valuing even more this profession so beautiful, which is to be a teacher is very difficult you have to deal with each child with their difficulties and respect their time of literacy, I as a mother do not have patience these teachers are angels."

We noticed that family members felt a great difference in the child's school learning, pointing out defections and difficulties, as well as in other aspects of development as reported, anxiety, inattention, difficulty in relationship with peers, among others.

However, when we start with the specific knowledge of education and child development, it is difficult to estimate the deficit caused by the shutdown of face-to-face classes.

Therefore, we present below a theoretical discussion on the constitution of human development and the importance of the mediation of the teacher and the school context for it to happen.

### 1.3 THE DEVELOPMENT OF THE CHILD IN THE SCHOOL PERIOD AND LITERACY

We defend, as pointed out by the Historical-Cultural Psychology, that the psychic development of the child happens through a dialectical process, between internal and external/social processes.

It is through the dialectic between the external and internal environment that internalization takes place, a process characterized by Vygotsky (1931) in his formulation of the general genetic law of development.

The author defends the thesis that in the human psyche social relations are transported to the interior and converted into psychological structures of the personality, in such a way that the passage of the external elements to the internal world modifies and transforms all its psyche and its subsequent social relations.

Historical-Cultural Psychology defends that the typically human characteristics are instituted from the appropriation by the human being, of the cultural collection, since we are not born human, but we humanize ourselves in the course of life.

Humanization is a dependent process, conditioned and subjugated to the conditions that are present in the relationship of the person with the world, that is, in the activity of the subject with the social world (MARTINS, 2015).

Humanizing oneself implies, therefore, the conquest, in each one of us, of the properties conquered by human beings in the historical process of cultural objectification.

This means that it is necessary to provide each individual in particular, each being that arrives in our world, the possibilities and conditions for them to appropriate and develop what the human race has already conquered and developed (DUARTE, 2013).

Thus, if we wait only for biological maturation, without the social conditions of development, it will not be possible to develop the maximum possibilities of humanization.

To elucidate how human characteristics are produced and appropriated, Vygotsky (1930, 1999) proposes the overcoming of naturalizing and mechanical explanations about the psyche and unveils the peculiarities of the complex psychic functions typically human, elucidating the process of formation of conduct and personality in man.

Vygotsky differentiates two types of functions existing in our psyche: elementary and higher. They are called elementary functions, or primitive, those that constitute the biological basis of the psyche, and that through the activity mediated by the cultural context are becoming more complex, mediatizing themselves, instituting themselves as **higher psychic functions**. It is worth mentioning that it is not the structure of the function that changes, but the functional interrelationship that it establishes with the other functional processes of the psyche, as the person inserts himself into a socially produced universe (MARTINS, 2015).

The new functions that are formed, the higher ones, are typically human and of a social and historical nature.

They are functions that have been qualified, from transformations conditioned by the activity that sustains the relationship of the individual with his cultural environment, of social work, which enable the complexification of human consciousness, that is, they have in human activity the base factor for their development (VIGOTSKI, 1931).

Thus, higher psychic functions are developed culturally through interpsychic activity, that is, within social relations.

The complexification of human behaviors derives from the appropriation/objectification of the human race, and such functions permeate the complex, typically human behaviors.

It is also worth noting that the development of higher psychic functions does not occur uniformly: the transformations that occur within the psyche occur in different rhythms and proportions, both from the organic and psychological point of view, because, equally, the activities performed by the individual do not homogeneously mobilize the psychic system.

Human acts require more decisively certain domains, sometimes others, so it is possible to verify that it is the richness of the person's bonds with the physical and social reality the engine of psychological development (MARTINS, 2015).

Vygotsky (1931) defends the thesis that the human psyche has a social nature, arguing that the historical development of man does not happen directly and evolutionarily, but rather mediated by multiple factors, both material and intellectual.

Thus, it proclaims that the determining factor for the formation of the human personality are the historical-social relations, through the intersection of the lines of natural and cultural development, without this meaning the suppression of biological determinations: "the course of development does not ascend in the natural to the cultural, but continuously and permanently imbricates these two lines" (MARTINS, 2015, p.79).

Every function in the cultural development of the child comes into play twice, on two planes, first on the social plane and then on the psychological plane, at first among men as interpsychic categories and then within the child as an intrapsychic category.

This fact also refers to voluntary attention, logical memory, the formation of concepts and the development of the will. (VIGOTSKI, 1931, p. 225).

To the extent that biological development occurs in a cultural environment, it becomes a historically conditioned biological process. In this path, what differentiates man from animals is the capacity for meaning, that is, the ability to create and employ signs. Vygotsky postulates that the **use of signs** is what distinguishes natural behaviors, arising from evolution and common to men and animals, from those social behaviors, typically human.



Therefore, the mediation by the signs transforms spontaneous behaviors into volitional behaviors, the psyche starts to have a qualitatively superior behavior, freeing itself from the biological determinants (MARTINS, 2015).

Signs are important psychological tools that mediate the relationships between human beings, enabling the organization, transmission, appropriation and objectification of social life, and thus modifying the human psyche.

It is from the development of external practical activities, coordinated by the sign in the condition of communication between men, that the specific human particularities develop and are instituted as achievements of the individual.

At first, the sign is a means of communication, becoming, later, a means of conduct of the personality. It is configured as an artificial stimulus that guides psychological conduct, helping in the process of mastering one's behavior.

The codes of the language are examples of means and resources used for an "inner activity, directed to dominate, the human being himself: the sign is oriented inward" (VIGOTSKI, 1995, p. 94).

The use of signs enables the social group to introduce norms, values and actions of conduct to other human beings, and from the point of view of psychic functioning, causes modifications that restructure the entire interfunctional system of consciousness.

This is because it instigates modifications and ruptures in the way of operating of specific functions, transforming spontaneous expressions into volitional expressions (VIGOTSKI, 1931).

The development of higher psychic functions involves a group of phenomena that initially seem distinct, but in reality, are completely united.

On the one hand we have the external elements: tools and signs that produce psychic transformations, such as drawing, speech, writing, mathematics. And on the other hand, we have the internal elements, which are the human psychic functions themselves, such as memory, perception, attention, thought.

The internal elements are modified in connection with the external elements, and both of them, taken together, form what we conventionally qualify as the process of development of the higher forms of conduct of the child (VIGOTSKI, 1931).

With the internalization of the signs, the development of the psyche is requalified, being possible, through them, to dominate the culturally mediated conducts in social relations.

For Historical-Cultural Psychology, "the higher psychological functions arise as specific neoformations internally linked to the development of the child's symbolic activity" (ASBAHR; MEIRA, 2014, p.104), which, in turn, is established from the internalization of the symbolic universe.

New formations are called the **new psychic formations, which restructure the personality and activity of the child; emerging from the social situation, they modify the consciousness of the child and his relationship with the environment, altering the entire course of his development in a certain period of child development.**

We have as an example, voluntary attention, which as a psychic function does not develop spontaneously or by maturational ways, but is formed by a long process of mediation, which necessarily needs pedagogical actions so that attention, of elementary and involuntary beginning, becomes voluntary and conditioned and the child can have control of his attentional conduct.

By highlighting the role of external means and signs in the process of (trans)formation of the psyche, Vygotsky (2021) brings us a perspective according to which the internal development of the child psyche is directly intertwined with school education.

The formation of higher functions is conditioned to school education as the school is configured, in our society, as an institution that enables the appropriation of the objectifications of culture, with emphasis on systematized knowledge (MARTINS, 2015).

Thus, Vygotsky argues that properly organized teaching promotes the formation and development of human psychic capacities. To explain the relationship of child development with that of school instruction, Vygotsky (2021) brings the concept of current or actual level of development, and **zone of imminent development.**

The first concept refers to the development of psychic functions that have already finished their development cycle: the current level of development can be identified, for example, with an evaluation or test that shows the current state of the child, portraying what the child can do alone and without the help of an adult or partner.

The zone of imminent development, on the other hand, reflects what the child cannot yet do alone, but with the help of someone more capable. It is a decisive concept for understanding human development, because it causes upheavals in every study of the relationships between the process of instruction and development of the child.

This concept shows that "what the child does today with the help of adults, tomorrow he will be able to do independently" (VIGOTSKI, 2021, p.258). Like this:

First of all, it alters the traditional point of view on the question of how pedagogical conclusions should be made based on developmental diagnoses. Earlier the question was presented as follows. With the application of tests, we define the level of mental development of the child that pedagogy must consider, without exceeding its limits.

Thus, already in the presentation of the problem was the idea that the instruction should be guided by yesterday of the development of the child, by the stages traveled and finalized. (VIGOTSKI, 2021 p.259).

Therefore, Vygotsky concludes that only instruction that advances development can promote

it. Conversely, if school instruction is oriented towards the development cycles already completed, it will be ineffective and will not guide such a process.

In the author's perspective, school instruction should focus on the zone of imminent development, setting the process of child development in motion. Referring to the law of internalization and the idea of mediation of psychological processes by cultural signs, we can understand that teaching is a condition for interpsychic functions to become intrapsychic, requalifying both the psyche and its social relations.

Vygotsky (2021) concludes that only instruction/teaching, which advances development, can promote it. Conversely, if school instruction is oriented towards the development cycles already completed, it will be ineffective and will not guide such a process.

Also, from the above, we can understand that it is not enough that human culture is placed for the child for his psyche to develop. Since development is not an evolutionary and spontaneous process, but historical-social, a mediated activity must occur, that is, that the activity of the child is shared with the adult and guided by him: it is through intentional and socially organized mediation that transformations in the development of the child will be produced.

School education should focus on the Imminent Development Zone, setting the process of child development in motion. Referring to the law of internalization and the idea of mediation of psychological processes by cultural signs, we can understand that teaching is a condition for interpsychic functions to become intrapsychic, requalifying both the psyche and its social relations (TOMAS, 2022).

In the school context, the child learns and develops through the process of appropriation of experiences and scientific knowledge that will happen through the mediation of the teacher, who must organize, systematize the teaching contents and the pedagogical activity with a view to the intervention in the Zone of Imminent Development of the students.

The teacher must be aware of who the student is and what are the implications of what he teaches for the process of child development.

The pedagogical practice must be coherent with the development of the child and, above all, be focused on the acquisitions that the child has not yet achieved, but with the mediation of the teacher will be about to achieve, that is, it must be thought within the Zone of Imminent Development of the student.

This means that the development process itself is dependent on the laws of teaching, that is, it is subordinated to the pedagogical practice.

About the periodization of development, the entry of the child in elementary school, demarcates a qualitatively new change in the psyche of the child, which starts to have as its main activity, which

guides and guides its development, the study activity.

At school, the child has duties to fulfill, tasks to perform, and for the first time in his development, he has the impression that he is performing truly important activities.

Elkonin (2019) understands that the activity of studies differs from other activities, because it can modify the subject itself and not the objects with which it deals, that is, it requalifies its psyche, its consciousness.

The child's literacy process is a primary vehicle for propagating children's language skills, both in the preschool years and during the initial and subsequent schooling.

From the historical-cultural point of view, the evolution of man is the result of the evolution of culture and history, since they are forms mediated by signs and instruments that happen first in the relationship between social and historical subjects that, later, is internalized by the subject with the mediation of language and culture.

In this sense, Vygotsky (2021) considers symbolic writing a culturally elaborated construction, not only a motor activity, as it is part of a system of symbols and signs whose domination refers to a critical point in the cultural development of the child, and should not be achieved mechanically, but a long process of complex behavioral functions.

In the first school years, it is essential to build in children the interest in the study, to contribute so that they learn to direct their behavior towards the appropriation of new knowledge, making the contents meaningful for the children.

In the teachings on the influence of the school for the organization of the higher psychic processes for the acquisition of scientific concepts, Vygotsky (2021) observed that the scientific knowledge of one discipline influences the others.

Each discipline has its relationship with the course of development and the child, in the educational process, assimilates certain contents, before learning to use them consciously and freely.

Therefore, the very content taught—for example, letters and numbers—can be a driver of higher psychic functions, complexing these functions.

Davidov and Markova (1987) analyze that school education in the early years, in addition to the teaching of reading, writing and calculus, needs to prepare children for a complex and prolonged study. For these authors, this means that already in the first school years, children must have indispensable psychic development and good ability to study.

For Facci (2004), the teacher must have clarity of how teaching influences the intellectual development and psychological characteristics of students, the development of higher psychological functions and that he studies ways to value the effectiveness of the various teaching methods in the development of thought, memory and other mental processes.

Given the above, we emphasize that the school, the web of relations contained in it, the culture and the history mediated under forms of school contents, is fundamental for the development of the child that the human formation.

#### 1.4 SOME EMERGING CONSIDERATIONS FOR EDUCATION DURING AND AFTER THE PANDEMIC

From the results obtained, we conclude that remote teaching had its vulnerabilities throughout the process in which face-to-face teaching had to be left aside, this includes the pedagogical unpreparedness of the child's tutors, the lack of attention of the children during the video lessons, the difficulty in literacy and even the lack of school interaction and also a certain absence in the mediation between teacher and student.

Initially we could question political positions that placed education as a non-essential item, that imposed digital platforms even knowing that the country was far from having a true digital inclusion and that many teachers did not have knowledge and training in Information Technologies. In this way, and understanding the abyss referent to social and educational inequality in Brazil, we could question why there was no suspension of the school year.

Emerging situations arose as a result of the conduct of remote teaching, and we can cite some observed, such as the gaps in the learning process due to the difficulties of effective mediations of school contents, essential for literacy.

Given this, we resort to the discussion sobre the National Pact for Literacy at the Right Age (PNAIC), a public policy that emerged in 2012, based on the Literacy Program at the Right Age (PAIC), in which a literacy cycle was decreed that is established in the 1st year and that is completed in the 3rd year of elementary school.

On the other hand, the National Common Curricular Base (BRASIL, 2017) establishes that children's literacy will have to occur until the 2nd year of elementary school, to guarantee the fundamental right to learn to read and write.

It is even more urgent to ensure the construction of knowledge to literacy, since we realize that the current educational scenario is with great impediments to guarantee these rights to the learner.

This scenario has caused school complaints post-pandemic to increase considerably.

Even though face-to-face classes have already resumed at the beginning of the first semester of 2022, one can observe how great and laborious the role of teachers will be at this time, as students need more recovery policies in learning than actions that pathologize the gaps in their development.

Another emerging factor in the current post-pandemic period is the epidemic of anxiety disorders, attentional difficulties and children's dependence on electronic equipment, as pointed out by

the research of Campos et. Al. (2023).

It is a fact that the pandemic period has considerably affected mental health and social relationships, and children have also been greatly harmed, it is necessary to rescue the interest of children in the study activity, it is necessary to reduce the time of children with electronic equipment, it is necessary to rescue a non-violent, non-individualistic social coexistence, which also develops in children respect for others, empathy and sorority.

This is a simple work that contributes with reflections to think about the post-pandemic and review the human development itself in the school connection.

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