LITERACY IN NETWORK: AN INVESTIGATION ON THE REMOTE TEACHING OF LITERACY IN THE COVID-19 PANDEMIC - TECHNICAL REPORT (PARTIAL)

PRESENTATION

We present the first report of the LITERACY IN NETWORK RESEARCH that has remote teaching in the field of literacy as one of its objects of study during the Covid-19 pandemic[1], which required emergency health measures and public educational policies, in view of the current school year and the need to maintain links between schools, children and their families. As a measure to prevent the contagion and spread of the virus, there was a need to suspend face-to-face activities and quickly adapt the teaching format by public and private systems to different alternatives to attend the children, which, in most cases, meant , in general, the replacement of classroom teaching by remote teaching. However, far from a simple adaptation to the format, this alteration caused pedagogical and curricular adaptations to the remote teaching model and has been a great challenge for those who work on the front line of education and, especially, of literacy, due to the great social inequality that demarcates the conditions of access to Digital Technologies (DT) and the conditions of accomplishment in the domestic environment, both of the professional exercise, by the teachers, and the day-today school activities, by the children. In light of this, we invite readers to learn about the first results of the research, carried out with teachers from public and private schools, working in Childhood Education and in the early years of Elementary School in Brazil.

GENERAL CHARACTERISTICS OF THE RESEARCH

The goal of the LITERACY IN NETWORK research is to deeply understand the situation of children's literacy in Brazil during the Covid-19 pandemic. Registered in Plataforma Brasil, under the code 36333320.0.0000.5151, it is conducted by the collective LITERACY IN NETWORK, formed in the first semester of 2020, consisting of 105 researchers (s) from 28 universities, located in all states and regions of the country, who sign this report, under the coordination of Professor Dra. Maria do Socorro Alencar Nunes Macedo, from the Federal University of São João del-Rei.

The collective LITERACY IN NETWORK is responsible for the entire methodological design of the research, for the elaboration of data collection instruments, as well as for its application and analyzes made public in this report. The target audience of the research is made up of Basic Education teachers who work in Childhood Education and in the early years of Elementary School (1st to 5th year) working, primarily, in public schools.

1   The World Health Organization (WHO) declared, on January 30, 2020, that the outbreak of the disease caused by the new coronavirus (Covid-19) constituted a Public Health Emergency of International Importance - the Organization's highest level of alert, as provided in the International Health Regulations. On March 11, 2020, Covid-19 was characterized by WHO as a pandemic (WHO / PAHO, 2020), defined by the organization as "the worldwide spread of a new disease [...] when an epidemic, an outbreak that affects a region, spreads across different continents with sustained transmission from person to person".

The first stage of data collection occurred through a *Google forms* questionnaire applied online, between June and September of 2020. The instrument contains 34 questions distributed in two main topics: i. literacy during the pandemic; ii. the reception of the Federal Government's National Literacy Policy (PNA) (BRASIL, 2019). In this report, we present data on the first focus of the investigation.

The topics covered were divided into two blocks of questions: the first, related to the general professional profile of the teachers, including information on the work shifts, the type of link with the education networks, the time of experience in teaching, gender, race, academic background, stage of education in which they work, geographic location, among others. The second block deals with questions about remote education, including access to technologies, preparation for working in remote classes, the biggest challenges of non-classroom teaching in literacy, the most used tools/media/materials for remote work, the reception of the PNA, among others.

The sample is made up of 14.730 teacher-respondents, after deducting duplicate responses, distributed across all regions of the country. In the publicizing of the questionnaire, we count on the collaboration, in some states and municipalities, of the National Union of Municipal Education Directors (UNDIME), the Education Offices and the networks of literacy teachers already established in the country with the National Pact for Literacy in the Right Age (PNAIC). We also disclosed, by email, on the social networks of researchers and their research groups, on the pages of most of the universities involved.

Below we present part of the results achieved in this first moment. A team of statisticians, in partnership with LITERACY IN NETWORK, works on the database with the aim of further deepening the understanding of the phenomenon with aiming a publication in 2021. In this report, we present an overview of the trends already observed in a first movement of analysis.

PARTICIPANTS' PROFILE

Brazil has approximately 48 million students in the 180,6 thousands of schools of Basic Education. The most offered teaching stages are Early Childhood Education, with 114.851 schools, and the initial years of Elementary Education, with 109.644 schools. This contingent of schools attends 8.972.778 children in Early Childhood Education and 15.018.498 in the early years of Elementary Education (INEP, 2020).

Around 85% of teachers in basic education - Early Childhood Education and in the early years of Elementary School - are women who, in addition to carrying out teaching activities (which at the moment are demanding extensive restructuring in their dynamics), need to reconcile, more still, the private space of the house, as well as the demands of domestic-family life, with the demands of work. This situation causes an immense burden on the multiple roles that these teachers assume simultaneously and at a peculiar moment in social life marked by limits, fears and losses in the midst of social isolation.

The respondent target audience is distributed, according to Graph 1, among the five regions of the country, but, as noted, it is mainly concentrated in the Northeast Region, which accounts for 61% of the research data.

Graph 1 - Distribution by region
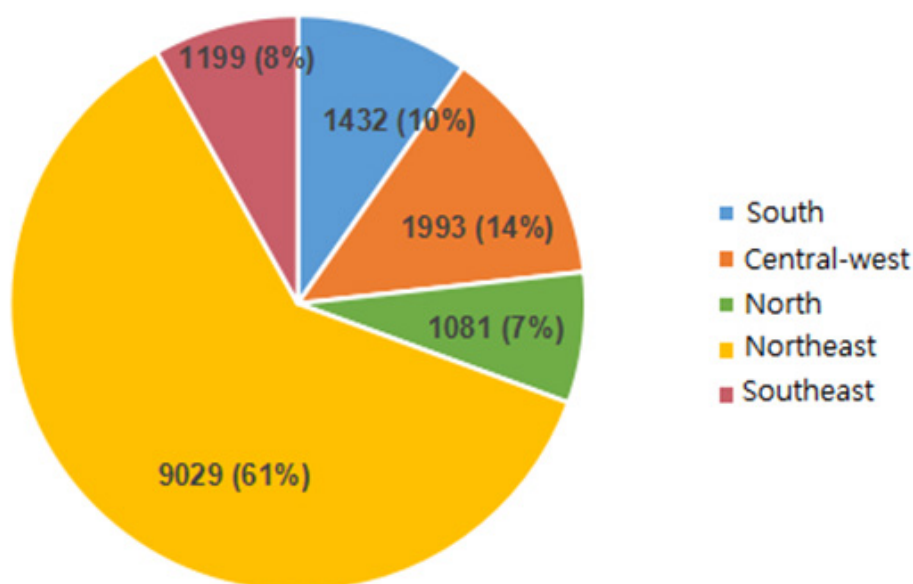
From the participating states, Ceará and Alagoas account for 18% and 16% of the data collected respectively, adding up to a third of the total. Of the 18 states in which the questionnaire circulated being directed by our team, five of them had more than 1.000 participants (Ceará, Alagoas, Piauí, Rio Grande do Sul and Mato Grosso do Sul), a similar response to the Research by Rede Gestrado (2020).

From the respondents, 94% are female, confirming a basic feature of the profile of teachers of Early Childhood Education and of the early years of Elementary School. Most teachers are married women (57%). Thus, in addition to teaching activities, which, at this moment, are demanding the recon-figuration of pedagogical actions, the production of different knowledge and the appropriation of new skills that are necessary when teaching in the non-classroom modality (and in a family environment), they assume other functions such as mothers, wives, caregivers, performing a multitude of tasks that constitute second or third work shift.

Regarding race, Graph 2 indicates the predominance of Pardo with 53.81%.

Graph 2 - Race
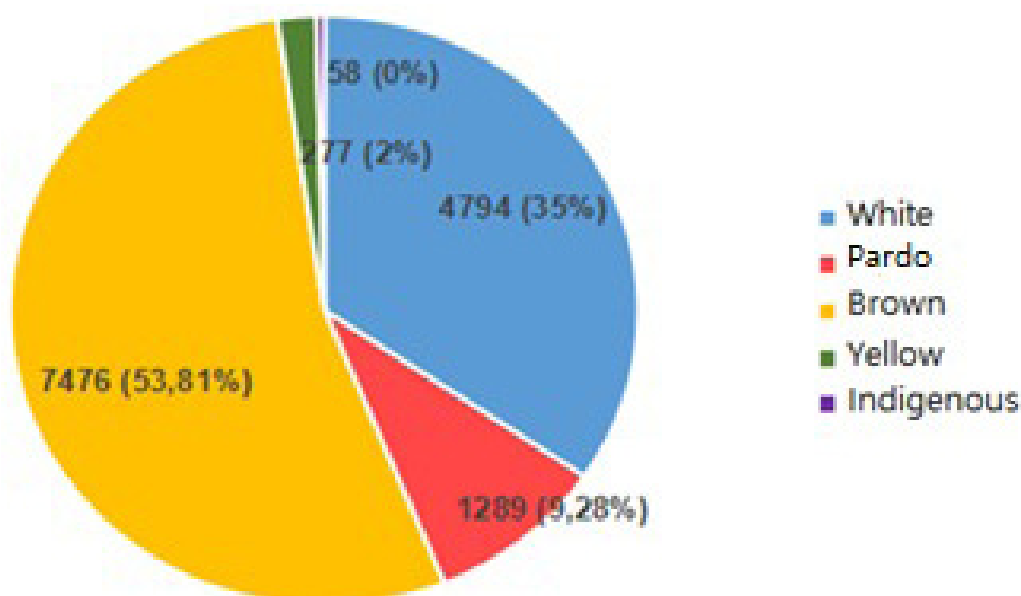
As for academic training, 91% have completed Higher Education, as shown in Graph 3. Of this total, 54% have postgraduate studies at a specialization level, 3% have master's degrees and 1% have doctorates. Only 0.5% can be considered lay teachers, who have completed only elementary school.

**Graph 3** – Academic education
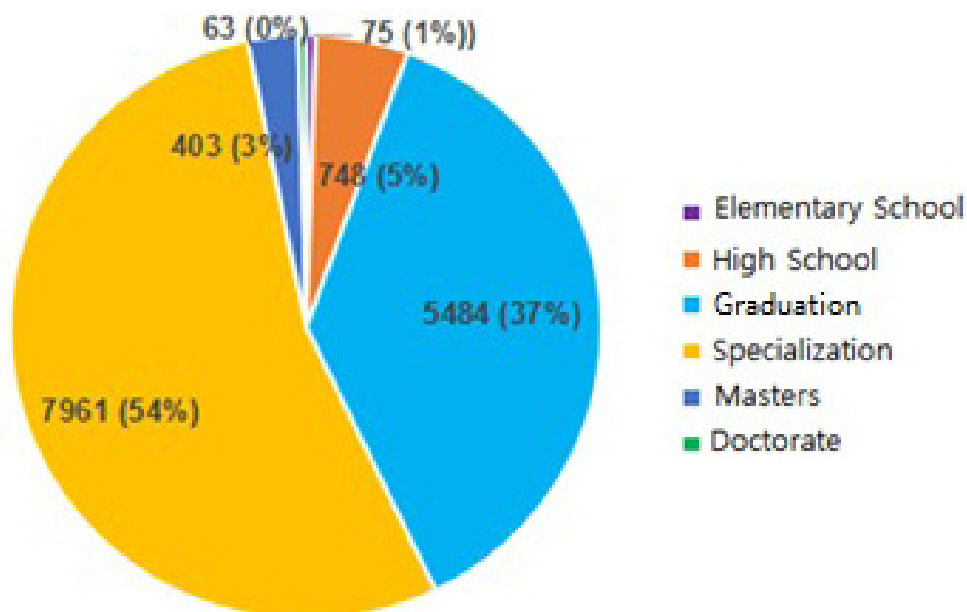
Still on academic background, the data show that 80% of teachers are Educators. The others are licensed in other areas of knowledge, including Languages, History, Biology, Philosophy, Geography, the same trend observed by Macedo and Mortimer (2006) and Macedo (2019).

Graph 4 – Graduation courses
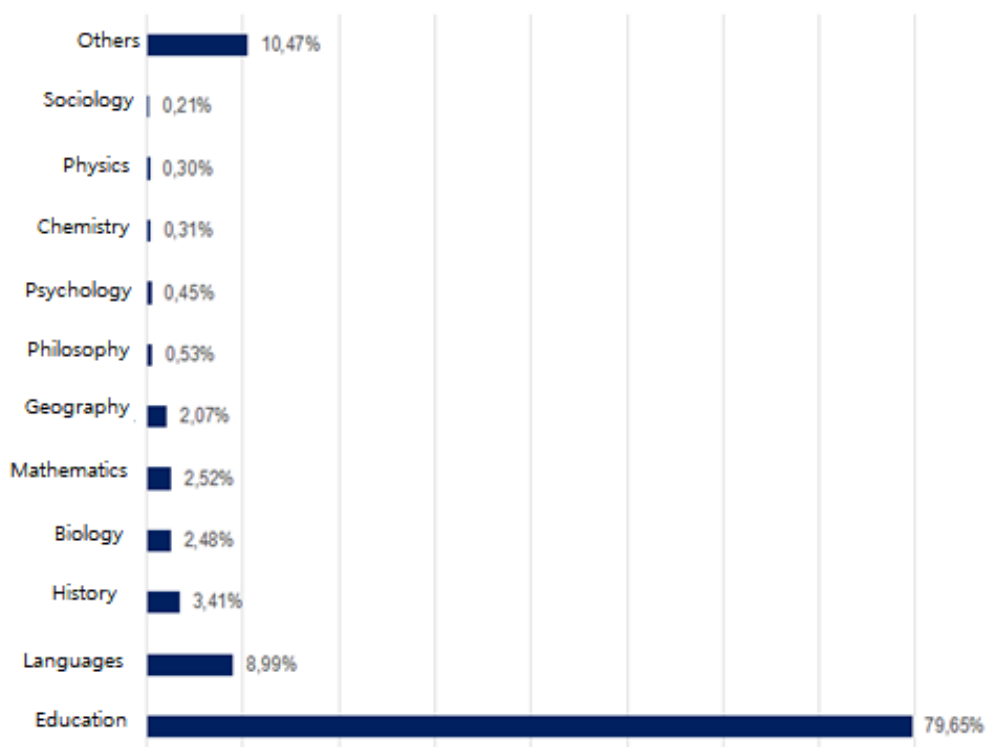
In addition to the role of teacher, exercised by most participants (85.4%), the study shows that they also exercise the role of coordination, direction and library teacher. This data indicates that the knowledge about literacy during the pandemic was produced in this research from the experience of those who are really in charge of this challenge, that is, the teachers.

Graph 5 - Role held at school
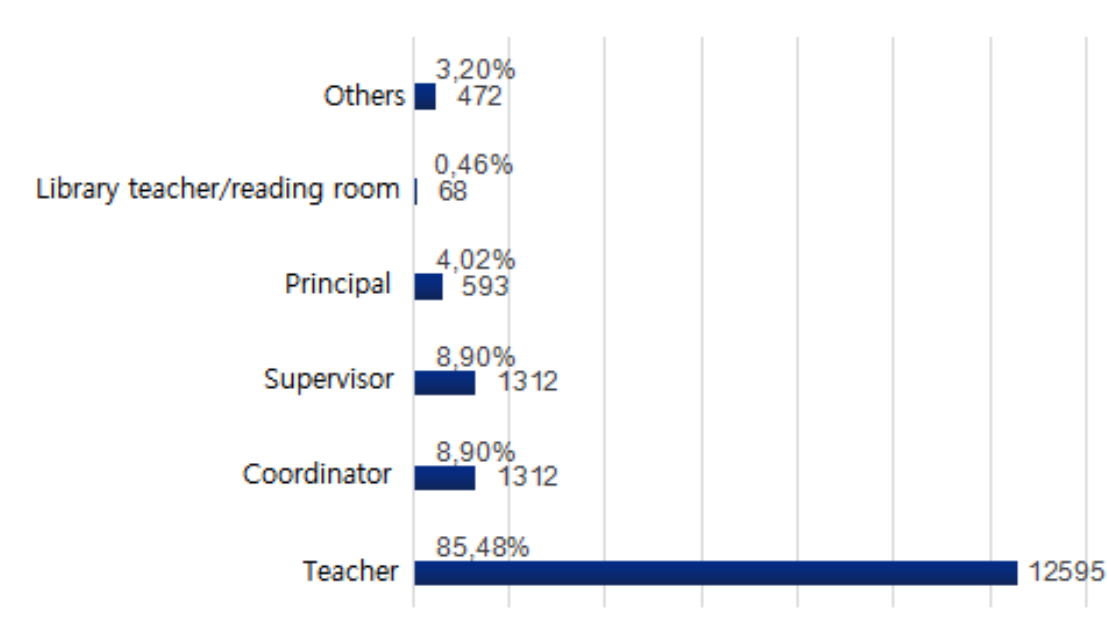
The vast majority of teachers, around 93% of the total, work in the city education networks, and in Graph 6 it is possible to observe in which grades they work. Just over 50% work in Early Childhood Education, in the daycare center - children aged 0 to 3 years (20,1%) and in preschool - children aged 4 and 5 years (30,2%). The others work from the 1st to the 5th grade of Elementary School, showing a balanced sample between the two stages, in different years/classes.

**Graph 6** - Teaching stage in which they operate
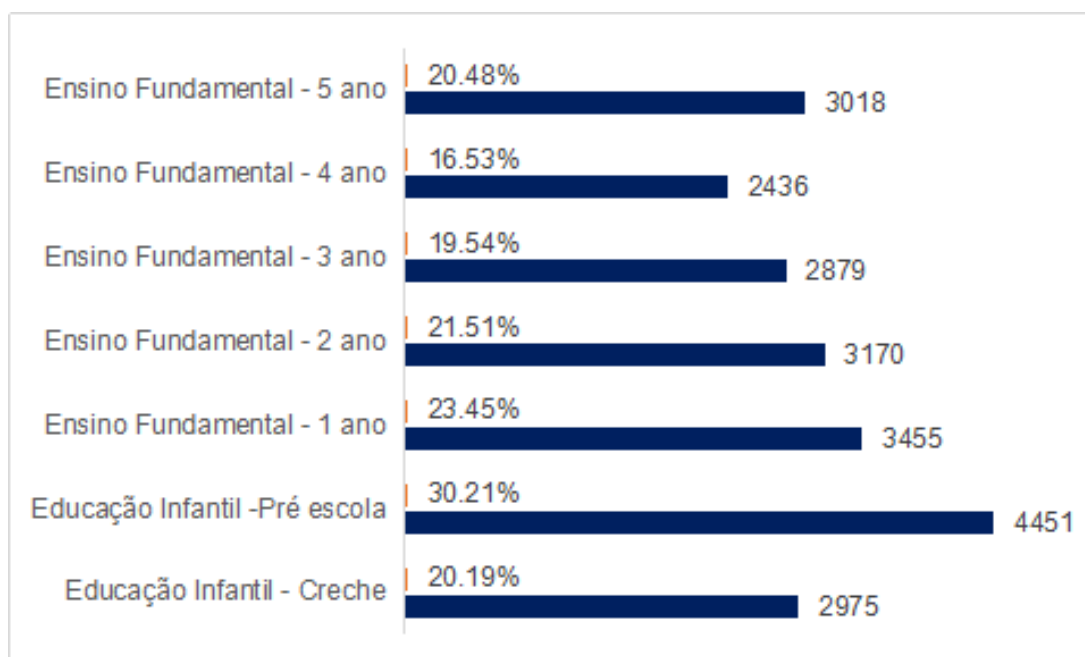
The data show that 48,9% of the teachers work in one shift, approximately 49,1% work in two shifts and only 2% work in three shifts. Of the informants, 65% are teachers approved in public selections and are effective in their education networks, while 28% are temporary. The data indicate that approximately 44% have worked in the teaching profession for more than 16 years. Only 18% can be considered beginners, with up to five years of experience. It is possible to consider that this variation in the time of experience may have influenced the implementation of different strategies to face the challenges of literacy in the context of the pandemic.

Graph 7 - Time of teaching experience
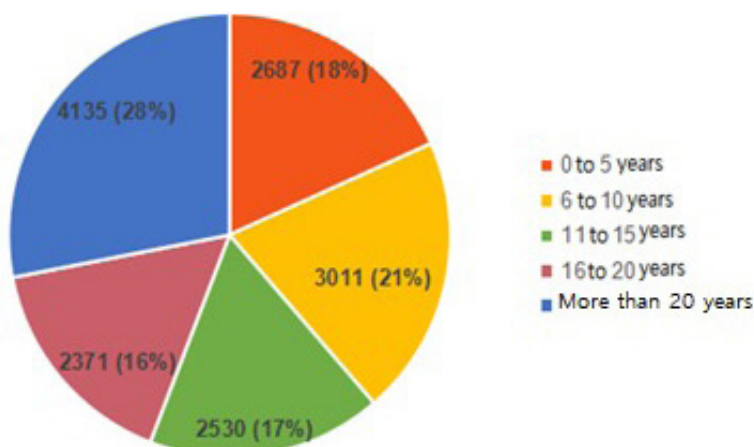
The data on continuing education are revealing: 48% participated in the training developed under the National Pact for Literacy at the Right Age (PNAIC) held between 2013 and 2018 and 22% participated in the training provided by the Pro-Literacy Program, between 2006 and 2012 Around 16% participated in the Literacy Teacher Training Program (PROFA), probably those with the longest teaching experience, given that this program was offered by the Ministry of Education in 2001, almost two decades ago. The data also indicates that teachers in Early Childhood Education and in the early years of Elementary School have made investments in their training and professional development. An expressive group of respondent teachers participated in the national continuing education policies in the last two decades. This trend is similar to the profiles of Basic Education teachers already outlined by Macedo and Mortimer (2006) and Macedo (2019).

Graph 8 - Continuing education
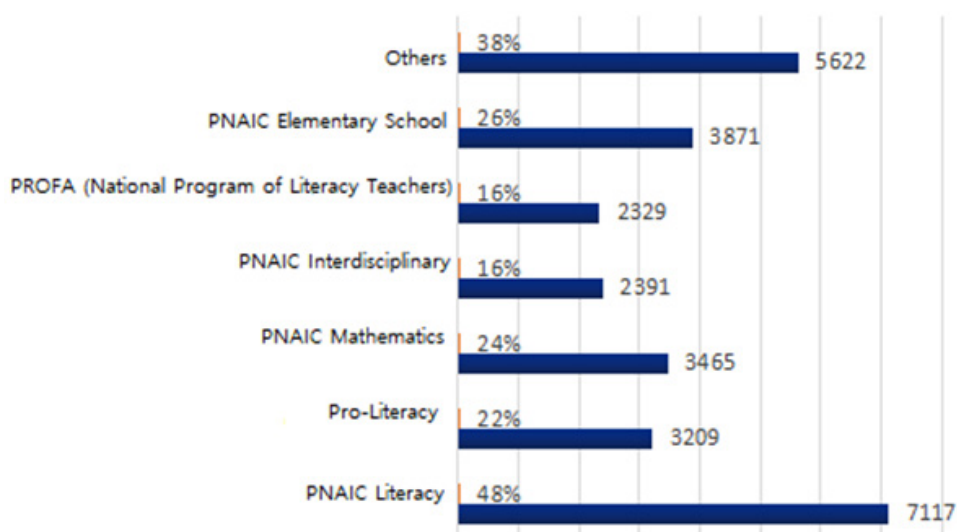
REMOTE TEACHING

With regard specifically to remote education, the data show that 90,8% of the teachers in these two school stages are working remotely, a trend that is close to the 84% identified by the research of Rede Gestrado (2020). Two questions from the questionnaire asked participants to rate their experience with remote work. In Graph 8, it is evident that teachers are acting remotely during the pandemic. For 54,9%, remote education was a possible alternative - "middle ground" - in the current context, to guarantee some link between the school and the children. Even considering that it was possible to choose more than one possibility, it is evident the recognition that the school would indeed need to implement an alternative to continue the work. For 44,6%, remote education is considered a good solution to the problems of the pandemic, which does not mean ignoring the fact that, at the same time, it does not fully provide, the achievement of school objectives because, in view of the specificities of the literacy process, it is not possible to effectively literate without face-to-face classes, in addition to generating work overload for teachers and families and not being adequate to the teaching stage with which they work, as shown in Graph 8.
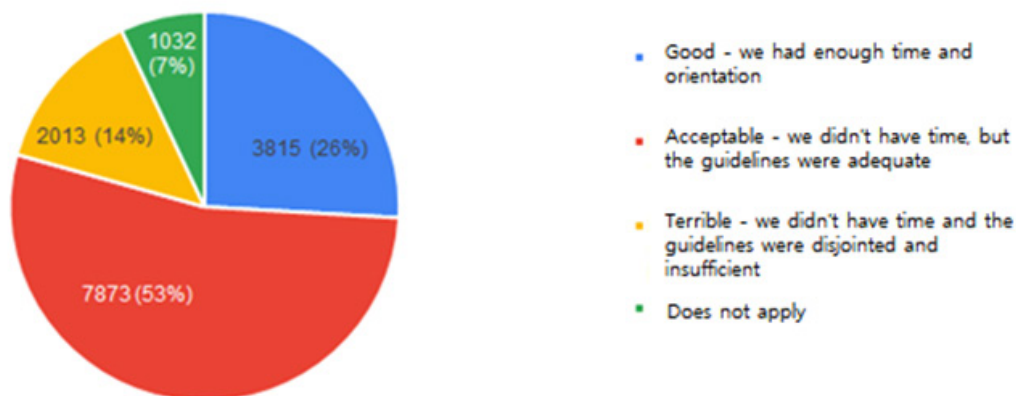
Graph 8 - Evaluation of remote education
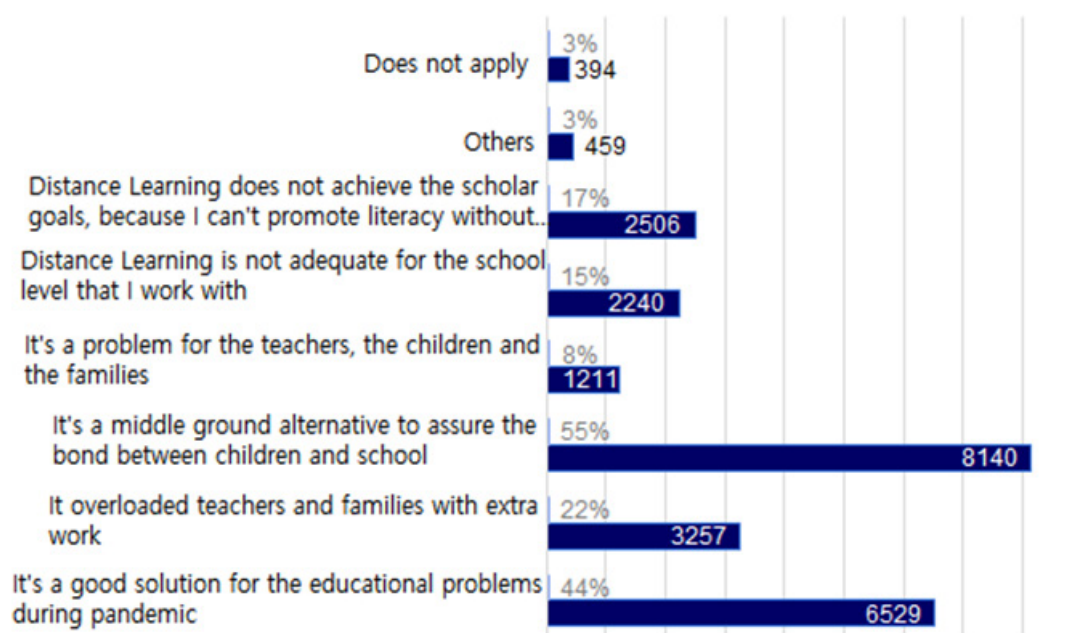
Regarding the assessment of preparation for remote work, in Graph 9 it is observed that most teachers recognize that it was reasonable, which meant they did not have enough time, however, the guidelines proved to be adequate. Among the participants, 26% say they had a good preparation, that is, enough time and guidance. We consider this data surprising, since the context of the pandemic demanded a set of changes in the ways of alphabetizing children in the various education networks. Evidently, this data requires a more in-depth analysis[2] for an understanding of who are the teachers who had a good preparation for remote education: in public or private networks, in big cities or in the countryside, in which regions and states of the country? The same is true for the 14% who say they had terrible conditions for preparing for work, with insufficient time and with disjointed and insufficient guidelines.

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2   A qualitative analysis is underway by the collective Literacy Network in a second stage of the research.

Graph 9 - Preparation for remote work

- Good - we had enough time and orientation
- Acceptable - we didn't have time, but the guidelines were adequate
- Terrible - we didn't have time and the guidelines were disjointed and insufficient
- Does not apply

In order to further deepen the knowledge of the investigated reality, we asked about the materials that were being used for remote education and which platforms were used. Graph 10 shows *WhatsApp* as the main tool used in recent months. Although we put this application together with the *Google Classroom* platform, the qualitative data from the second stage of the research (in progress) indicates that the remote classroom, in this pandemic, is reduced to the cell phone screen connected to the *WhatsApp* application to 71,58 % of teachers, which is an indication of the precarious conditions of virtual connectivity of teachers and students. Surprising, still, is the use of printed resources as an aid to remote teaching (in many contexts, remote teaching is restricted to sending printed activities for children to perform at home, under the guidance of parents and/or guardians), around 55,89%, a trend also observed in the qualitative analyzes of the cases being investigated. The use of printed materials can be related to the school tradition itself, whose practices are based on these didactic supports, but can also be linked to the social inequalities that affect our students, largely excluded from the technological tools and the socio-cultural and cognitive instruments essential to their participation in remote synchronous processes. Only 15,86% indicate that they use platforms provided by the education networks themselves.

Graph 10 - Tools and platforms used in remote education
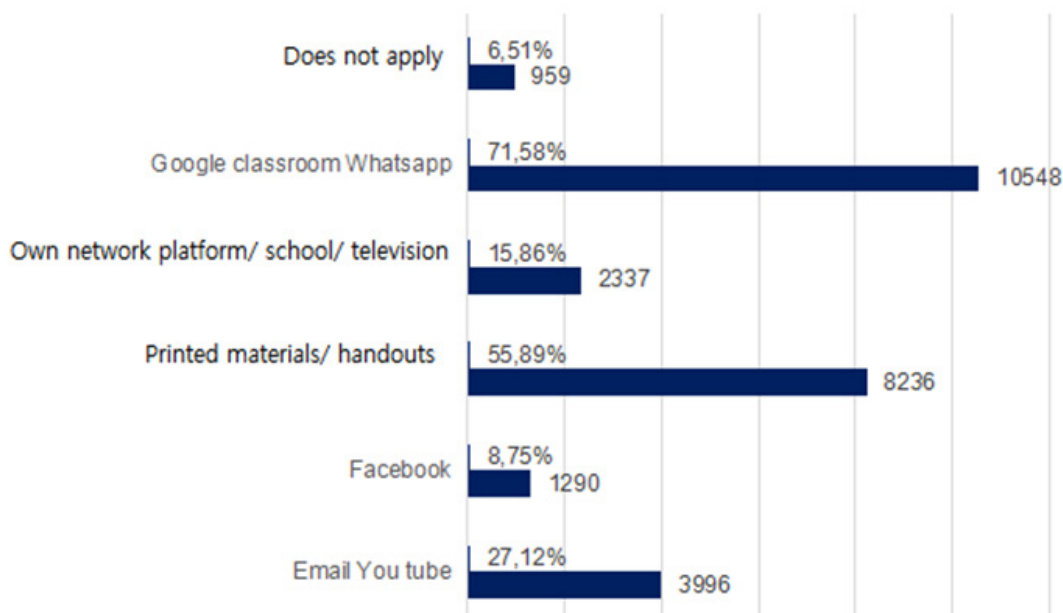
The answers to the central question of this research are presented in Graph 11, which give visibility to the challenges of everyday literacy in the context of the Covid-19 pandemic, the role of teachers and the possibilities that are part of the practices that have been produced.

Graph 11 - The biggest challenge of remote work with literacy
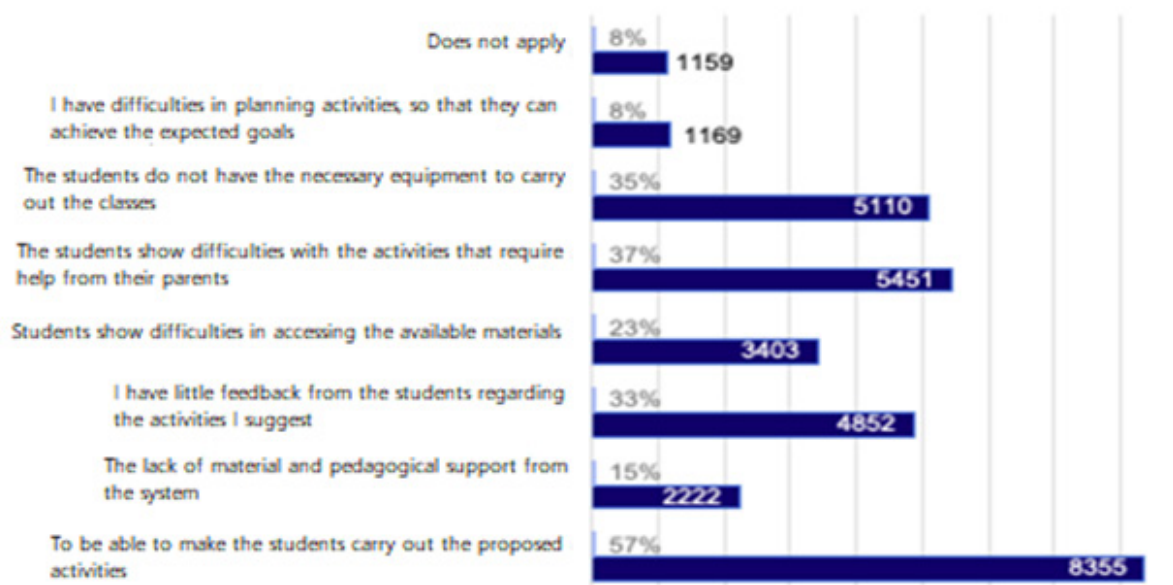
By the graph shown, it is observed that for 57% of the respondent teachers, the biggest challenge is to make the students perform the proposed activities. Other equally relevant responses that consolidate the previous statement indicate that for 33% the challenge is to obtain more feedback from students in relation to teaching proposals, in addition to their own difficulties with activities that require the monitoring of parents and/or guardians. These data give centrality to the importance of face-to-face teaching work, the power of teacher-child and children's interactions with each other, the networks of relationships and learning that take place in the classroom and which were obstructed by the social distancing imposed by the pandemic.

Still on student participation in remote activities, Graph 12 reinforces the data discussed here. For 44,6% the majority of their students carry out the proposed activities, while for 42% only a few give feedback on the activities. It is noteworthy that only 7% of the teachers indicate that all students perform the activities, which reveals that, despite the large percentage of affirmative responses in relation to the development of remote activities, this alternative is not democratic and accessible – as it should be – at least to most students, considering the role of the school in promoting learning. Thus, even taking into account that even in face-to-face teaching, processes and advances are not made homogeneously in all classes and that not all students carry out activities in the same way, this data reveals that remote teaching, given the uneven conditions of its realization – for teachers and children – it is not an alternative to guarantee the school's role in promoting the socialization of knowledge. And even though only a minimal part of the sample indicates that no student is performing the activities, the data previously mentioned points to a worsening of the situation of teaching and learning of children in their literacy process.

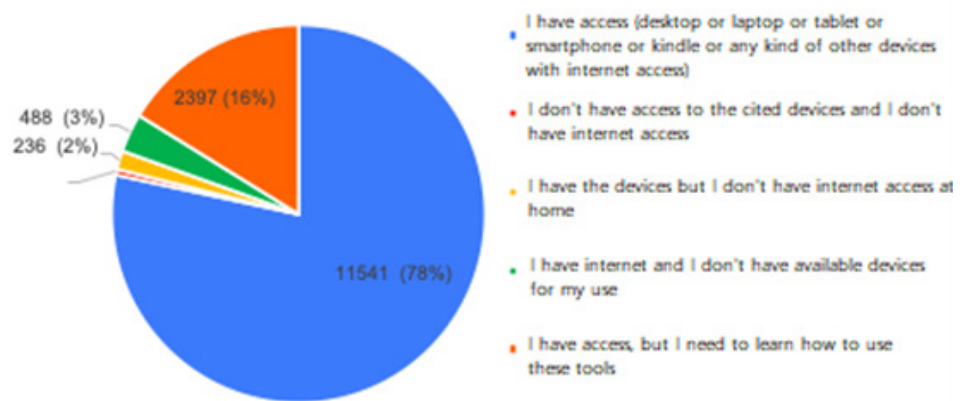**Graph 12** – Students' participation in remote education
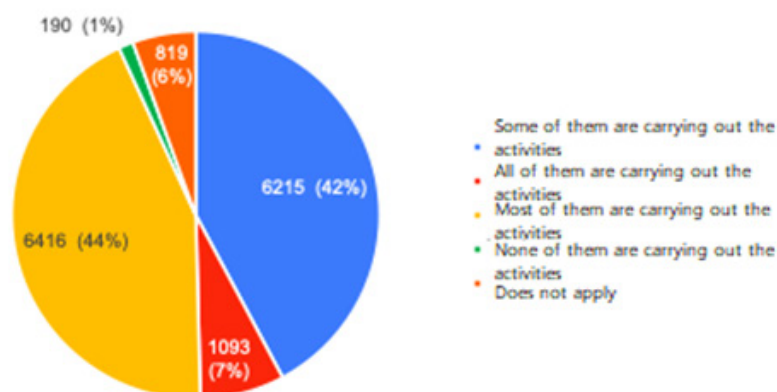
Regarding planning for remote work, Graph 13 indicates the variety of sources and supports that teachers use to plan pedagogical practice. The textbook as the main source (57%) draws attention, followed by the activities researched on the Internet (43%) combined with materials built by the networks for this purpose, such as educational books and websites. It means that the teaching strategies created by the teachers to face the challenge of remote literacy are multiple and varied. In addition, it indicates that the textbook continues to be the printed educational resource most used in the activities proposed in both face-to-face and remote education.

Graph 13 - Resources used in planning
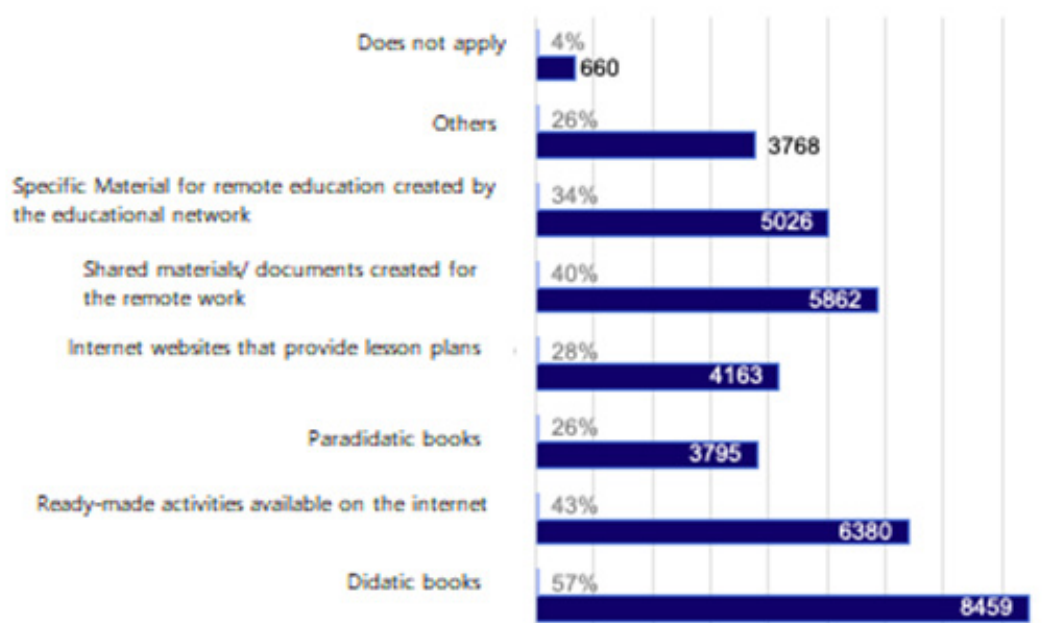
Considering that remote education, as evidenced by the research, is taking place predominantly through the Internet, although with significant help from printed material, we asked how teachers access to technologies and the Internet at home. Graph 14 indicates that the vast majority, 94%, have access to a computer, Internet, tablet or smartphone. However, 16% have access, but do not know how to use these technologies. For 21% of this sample, being able to access the technologies, having Internet available at home and learning to use these tools made remote work an even greater challenge.

Graph 14 – Access to Internet and technologies.

Pie chart legend:
- I have access (desktop or laptop or tablet or smartphone or kindle or any kind of other devices with internet access)
- I don't have access to the cited devices and I don't have internet access
- I have the devices but I don't have internet access at home
- I have internet and I don't have available devices for my use
- I have access, but I need to learn how to use these tools

Values shown: 2397 (16%), 488 (3%), 236 (2%), 11541 (78%)

IN SUMMARY

The data presented in this report represent an initial analysis effort. They show a complex and multifaceted picture of remote education in Early Childhood Education and in the early years of Elementary Education during the Covid-19 pandemic in Brazil. We have around 91% of the teachers in these two segments working remotely during the year 2020. A significant part of them affirm that this solution is reasonable, as it allows the link between children and the school to be maintained in some way. On the other hand, the teachers' biggest challenge is to make students respond to the demands placed, perform activities, especially when they depend on the help of parents or guardians, showing that remote education, especially in the literacy process, is not done without systematic and competent mediations so that children's needs are met and that they can advance in their learning. Teachers use a variety of resources to carry out remote teaching, using textbooks and other resources, such as activities taken from the Internet, use of educational books, among others, indicating that individual learning needs may not being attended to, since the most cited materials are produced in a standardized manner, without considering specificities.

The vast majority have access to new technologies and the Internet, however, a significant portion faces some kind of problem, either because they have the equipment, but they do not have Internet at home, or the other way around. There is also a share of 16,2% who have access to the Internet and have the tools but do not know how to use them. A more detailed study of this database may show the profile of these teachers by State, by Education Network, Region, allowing us to deepen the knowledge of Basic Education in this historic moment that we are going through.

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