REMOTE CLASSES IN PANDEMIC: WHATSAPP AS A TEACHING TOOL IN DAVINÓPOLIS/MA

AULAS REMOTAS NA PANDEMIA: O WHATSAPP COMO FERRAMENTA NO ENSINO EM DAVINÓPOLIS/MA

CLASES REMOTAS EN PANDEMIA: WHATSAPP COMO HERRAMIENTA DE ENSEÑANZA EN DAVINÓPOLIS/MA

John Jamerson da Silva BRITO[1]
Jónata Ferreira de MOURA[2]

ABSTRACT: The Covid-19 pandemic has caused a real change in the way teaching takes place in Brazil and in the world. Thus, the educational systems needed to adapt to this reality by means of remote classes. This article aims to problematize the remote teaching in the municipal network of Davinópolis/MA carried out through the WhatsApp application. The study is based on the Own Practice Research of a teacher from the early years of elementary school in that network. The data reveals not only the lack of innovation in teaching practices, the intensification of this professional's work, and the students' lack of reading and writing skills, but also their autonomy and protagonism, as well as that of their families. This research invites the reader to think more, to fight for public policies that guarantee the dignity of Brazilians and for the non-intensification of the teaching work in this period of the pandemic.

KEYWORDS: Elementary school. Covid-19. Remote learning. WhatsApp.

RESUMO: *A pandemia da Covid-19 provocou alterações na forma como o ensino ocorria no Brasil e no mundo. Com isso, os sistemas educacionais precisaram se adaptar a essa realidade por meio das aulas remotas. Este artigo objetiva problematizar o ensino remoto da rede municipal de Davinópolis/MA, realizado por meio do aplicativo WhatsApp. O estudo pauta-se na Pesquisa da Própria Prática de um professor dos anos iniciais do Ensino Fundamental da referida rede. Os dados revelam não só a falta de inovação das práticas docentes, a intensificação do trabalho desse profissional e a defasagem em leitura e escrita dos/as estudantes, mas também a autonomia e o protagonismo deles/as e de suas famílias. Esta pesquisa convida o leitor a pensar mais acerca da temática, a lutar por políticas públicas que garantam a dignidade do brasileiro e pela não intensificação do trabalho docente neste período da pandemia.*

PALAVRAS-CHAVES: *Ensino fundamental. Covid-19. Ensino remoto. WhatsApp.*

[1] Federal University of Maranhão (UFMA) Imperatriz – MA – Brazil. Master's student in the Postgraduate Program in Teacher Education in Educational Practices. Teacher of the early years of elementary school in the Municipal Secretariat of Education of Davinópolis/MA. ORCID: https://orcid.org/0000-0002-0502-5122. E-mail: jamersonbritobr@gmail.com

[2] Federal University of Maranhão (UFMA) Imperatriz – MA – Brazil. Adjunct Professor at the Federal University of Maranhão (CCSST/UFMA), Postgraduate Program in Teacher Education in Educational Practices. Doctorate in Education (USF). ORCID: https://orcid.org/0000-0002-7733-5568. E-mail: jf.moura@ufma.br

RESUMEN: La pandemia Covid-19 provocó un cambio real en la forma en que se da la educación en Brasil y en el mundo. Como resultado, los sistemas educativos necesitaban adaptarse a esta realidad a través de clases a distancia. Este artículo tiene como objetivo problematizar la enseñanza remota de la ciudad Davinópolis/MA cumplida a través de la aplicación movil WhatsApp. El estudio estar basado en la Investigación de la Práctica Propia de un maestro de los primeros años de Educación Primaria de la referida ciudad. Los datos revelan no solo la falta de innovación en las prácticas docentes, la intensificación del trabajo de este profesional y el retraso en lectura y escritura de los estudiantes, sino también la autonomía y protagonismo de ellos y sus familias. Esta investigación invita al lector a pensar más, a luchar por políticas públicas que garanticen la dignidad de los brasileños y por la no intensificación del trabajo docente en este período de la pandemia.

PALABRAS-CLAVES: Escuela primaria. Covid-19. Enseñanza remota. WhatsApp.

Initial considerations

The year 2019 was marked by the beginning of the Covid-19 pandemic, by the public disclosure, made by the Chinese government, of the first cases of infection in Wuhan, China. Immediately, in 2020, the virus spread around the world, changing behaviors and attitudes of all societies (WERNECK; CARVALHO, 2020). In Brazil, the impact was huge in all sectors, from commerce to industry and essential services (SILVA; SILVA, 2020). And as it could not be otherwise, Education was one of the most affected spheres, due to the paralysis of classroom teaching (BARRETO; AMORIM; CUNHA, 2020; UNESCO, 2020).

The Brazilian government needed to adapt ways of teaching to reach children and young people. The Ministry of Education (MEC) has released ordinances, one of them is No. 343/2020, which allowed the use of digital platforms for teaching in all instances of education, in order to enable school education (BRAZIL, 2020).

The municipality of Davinópolis/MA[3] had its classes suspended in all public and private schools on March 16, 2020, through Municipal Decree No. 010/2020, following guidelines from the World Health Organization (WHO), the MEC and the State Government (DAVINÓPOLIS, 2020a). From March to May 2020, classes remained suspended. However, the Municipal Secretariat of Education (SEMED) remained with its activities, remotely, analyzing, organizing, and seeking methodologies that could be used for the return of classes

---

[3] According to IBGE data (2021), "Davinópolis is bordered to the North by the municipality of Senador La Rocque; to the East by the municipality of Buritirana; to the West by the municipality of Imperatriz; and to the South by the municipality of Governador Edison Lobão. It has an estimated population of 12,916 people in 2020".

online. In June 2020[4], the classes returned to the classroom through the digital platform *WhatsApp*[5] and the Printed Activity Blocks (BAI).

Having exposed the above scenario, this article aims to problematize the remote teaching in the municipal network of Davinópolis/MA carried out through the *WhatsApp* application. The study is based on the Own Practice Research of a teacher of the early years of elementary education of that network and addresses how this return occurred and what are the consequences for school education in the city. It is also based on Ordinance 031/2020[6] (DAVINÓPOLIES, 2020b), which provides guidelines for the organization of non-contact teaching activities for Elementary School and Youth, Adult and Elderly Education (EJAI) during the period of social distance due to the Covid-19 pandemic, in the mentioned network[7].

The Research of One's Own Practice is very significant not only for the object of research, but also for the subjects involved in it. Lima and Nacarato (2009, p. 243, our translation) discuss about this type of research and defend it from at least two perspectives on teaching practices:

> We argue that basic school teachers' research can contribute to the understanding of what knowledge is mobilized in pedagogical action and how it is (re)meant; consequently, it can also contribute to academic research and to the management of public policies, as well as transform these teachers into more critical consumers of academic research.

This type of research is considered new in the field of Human Sciences, but it has been widely used by some teachers. It benefits not only the students who get involved in the research, but mainly the teacher, who also becomes a researcher and reflects on his/her own practice, becoming aware of what needs to be improved.

Next, we will address Ordinance No. 031/2020 (DAVINÓPOLIS, 2020b), dialoguing with authors who have researched remote teaching and the use of digital platforms in learning. Then, we will discuss the experience of the first author of this article as a teacher in two schools in the municipal education system of Davinópolis/MA, using the *WhatsApp*

---

[4] We point out that the town of Davinópolis was one of the first to return with *on-line* classes, being an example to the others in its region.

[5] It is a communicational interface created in 2009, by Jan Koum and Brian Acton, registering in 2015 more than 900 million users and in January 2017 more than 1 billion active globally. Its name originates from the English pun '*What's Up?'*, meaning "what's going on" or "what's new". In 2014, it was bought by *Facebook* and is available for free for *IOS*, *Android*, Windows and *Windows Phone*, *BlackBerry* and *Nokia* platforms, as well as for computers (BOTTENTUIT JUNIOR; ALBUQUERQUE; COUTINHO, 2016).

[6] The ordinance and all the documents from Davinópolis cited and used in this research are in the public domain and can be consulted on the city government's *website*, at the electronic address: http://davinopolis.ma.gov.br. Access: 10 May 2021.

[7] The municipal teaching network is composed of 17 schools, between Urban and Rural Zone (IBGE, 2021).

application in his classes, and his perception of the students' learning. Finally, we will make our comments about the findings of this study.

The use of *WhatsApp* as a tool in remote teaching

During the period of suspension of face-to-face classes, surveys were conducted in the municipality of Davinópolis/MA, through *Google Forms*[8], for families to report their conditions for remote learning and answer whether they had Internet and technological devices. These data are included in Ordinance 031/2020:

> WHEREAS, the participation of parents, teachers, school managers in the survey made available virtually through the link https://docs.google.com/forms/d/1lCNrWOxtq33RFaZ8CkUUbD17sdLYm VtPydJC17jdWL0/edit#responses; WHEREAS, the participations of parents and/or elementary school students who say they are able to follow educational programming for their child by device of: 87.6% by mobile device, 1.2% by tablet, 3.6% by notebook, 2.2% by computer and 5.4% no device; WHEREAS the participations of parents or elementary school students who say 91.2% have device(s) with internet access, 8.8% have no internet access (DAVINÓPOLIS, 2020b, p. 7, our translation).

From then on, the ordinance regulates remote teaching in the municipality through the *WhatsApp* platform, as this is considered the main tool and the one most accessible by families. For families without Internet access, the use of BAI is instituted, according to Article 2: "Schools are authorized to adopt the block of activities and/or the remote class guide, as appropriate, to reach the percentage of students not reached by remote classes through the application and/or WhatsApp" (DAVINÓPOLIS, 2020b, p. 7, our translation).

Although remote learning has been authorized, we suspect that some students did not have equal access to it, due to the lack of equipment or Internet to supply the need. It may seem strange for today, but, as Arruda and Siqueira (2020, p. 3, our translation) show us, it is a reality experienced by many Brazilians:

> Despite this whole scenario of ICT insertion and the use of active methodologies, it should be noted that there are difficulties inherent to online interaction, since part of the population still does not have access to the internet and technological equipment (notebook, laptop, desktop computer), which makes it difficult to carry out activities and virtual meetings between students and teachers in real time.

---

[8] "Google Forms is a free service for creating *online* forms. In it, the user can produce multiple choice questionnaires, ask discursive questions, request numerical scale assessments, among other options. The tool is ideal for those who need *feedback* on something, organize event registrations, invitations, or request evaluations" (BIJORA, 2018).

The vast majority have only the mobile phone, because it has a lower cost, more necessary and useful use for everyday life, while *notebooks* and desktop computers are more expensive and, at the same time, require skills for handling and greater care, which the income of most families in Davinópolis cannot afford. Thus, there is no way to say that remote learning has happened and is happening with total tranquility in this municipality. Being aware of this disparity, let's learn how this type of education works and what its characteristics are.

We can say that remote teaching is an alternative for school education to happen during the pandemic period, in which face-to-face classes are replaced by live classes (*online*) or recorded on the agreed days and times. These classes are built by the subject teachers, having as a reference what is already known by the students so that there is interaction, and they have their own schedule, based on the teaching plan adapted to the emergency situation. In other words, they work based on the contexts, the realities, and the direct interaction of the teacher of the class with his/her students with synchronous and asynchronous meetings. *Online* education:

> [...] is a distance education modality carried out via internet, whose communication occurs synchronously or asynchronously. It can either use the internet to quickly distribute information or make use of the interactivity provided by the internet to realize the interaction between people, whose communication can take place according to different communicative modalities (ALMEIDA, 2003, p. 332, our translation).

In this way, *online* education based on remote classes allows an interaction between the teacher and the student, allowing some similarity with face-to-face classes. Therefore, the teacher plans his/her practice based on the reality and on the contexts already known, with specific activities and exercises, so that the teaching and learning process is more focused on the students' lives and experiences, without leaving aside the historically built knowledge.

In the understanding of Barbosa, Viegas and Batista (2020, p. 263, our translation), there are resources that can be used in remote classes that work similarly to the Distance Education[9] model, "which is the recording and availability of the class, in case the student, at that moment, cannot watch it." This involves the use in real time, by *online* classes, of digital

---

[9] Distance Education is the educational modality regulated by specific legislation and can be implemented at any level of national education. In Distance Education, students and teachers are physically or temporally separated; therefore, the use of information and communication media and technologies is necessary. According to Almeida (2003, p. 330), in Distance Education, "the teacher is present to prepare the instructional materials and plan the teaching strategies and, in most situations, a tutor is in charge of answering students' questions. When the teacher does not engage in interactions with students, which is very frequent, it is up to the tutor to do so".

platforms or else working with programmed and posted content, which will later be accessed by the students, the so-called asynchronous classes. This teaching values contexts and (in)direct interaction, enabling, in many cases, a closer contact, which allows for more real learning between teachers and students.

Therefore, we have, as synonyms, digital platforms and digital environments as tools that create virtual spaces, allowing the interaction of the teacher with the students for the development of remote teaching based on (in)direct interaction through different tools. For

Almeida (2003, p. 331, our translation), digital environments or, as he says

> [...] digital learning environments are computer systems available on the internet, designed to support activities mediated by information and communication technologies. They allow you to integrate multiple media, languages and resources, present information in an organized way, develop interactions between people and objects of knowledge, elaborate and socialize productions in order to achieve certain goals.

In Davinópolis, the digital learning environment chosen was *WhatsApp*. WhatsApp, according to its official *website*, is used by "more than two billion people in over 180 countries. [WhatsApp is free and provides a simple, secure, and reliable messaging and calling service for cell phones around the world" (WHATSAPP, 2021). Therefore, it is widespread because it is free and easy to use. Thus, *WhatsApp is* no longer an instrument disconnected from the educational reality, but a primordial tool in the educational context, especially during the pandemic. Before the emergence of Covid-19, this had already been observed by Bottentuit Junior, Albuquerque and Coutinho (2016, p. 71), who state that the act of using the *smartphone* to open the *WhatsApp* application "may no longer be translated as a disruptive action in the classroom, and can be seen as an educational action, provided that this application is inserted into the school routine as an educational tool, and no longer seen as the teacher's enemy".

As we have previously stated, in the research conducted in Davinópolis, *WhatsApp* would be the best form of *online* communication with children and their families; therefore, for the municipality, the platform came to be considered a digital learning environment. Although it was not created for this purpose, nor does it have tools that favor the application of activities and methodologies that other teaching platforms make possible, *WhatsApp* is the one that best fits the reality of the families of Davinópolis, because it is free, known, and easy to use. Moreover, many families only have data packages from mobile operators, which only allow the use of this particular application through promotions. The low consumption of Internet data is another favorable point considered (DAVINÓPOLIS, 2020b).

Obviously, the *WhatsApp* application has advantages and disadvantages as a digital teaching environment; however, for the researched and experienced reality in question, it is better suited, but for demands of other realities, it can be considered limiting, due to the few possibilities of innovation. However, we understand that the advantages - such as "greater interactivity, increased motivation, and, especially, the possibility of student-student and student-teacher contact beyond the walls of the educational institution, facilitating the exchange of knowledge" (BOTTENTUIT JUNIOR; ALBUQUERQUE; COUTINHO, 2016, p. 81, our translation) - are greater than the disadvantages. However, for the proper use, it is necessary to be cautious and think about how to plan, avoiding distraction, difficulties in monitoring the flow of messages, so that the educational purposes are achieved (BOTTENTUIT JUNIOR; ALBUQUERQUE; COUTINHO, 2016).

We reinforce: the proximity of the students with *WhatsApp* provides better usability, but can also cause distractions; moreover, it is not an educational tool, but a social network of contact and interaction between people beyond the school, which can cause inattention and other parallel actions, while the classes and the activities are performed. Therefore, (re)planning is fundamental in all types of education, but in remote education its importance is greater.

The challenges of remote teaching in Davinópolis/MA: the use of *WhatsApp*

WhatsApp groups have become the classroom; audios and text messages, the main communication tools. This is the scenario of remote classes since June 2020 in the municipal school system of Davinópolis/MA. The fathers, mothers, and other guardians of the students were added to a virtual classroom created on *WhatsApp* for each class. And for those who could not participate in the groups, according to Ordinance 31/2020, the printed planning and blocks of activities were organized "biweekly by the class teachers and their curricular components according to the annual and biweekly planning in order to ensure learning in reading, writing, mathematics and literacy" (DAVINÓPOLIS, 2020b, p. 7, our translation).

Without much understanding of how the classes would occur, the first contact took place in the second week of June 2020, through a video presentation and an invitation for the students to introduce themselves as well, since the classes in which the teacher (the first author of this article) was assigned were his first ones of that year. The classes took place in a specific schedule created for the remote model, so that the teachers' workload was reduced to allow them more planning time.

Figure 1 – School hours of the remote classes for the entire municipal network of Davinópolis from the first to the fifth grade

Morning Shift

Monday - Professor 1
Portuguese – 7:30h - 10:00h
Art – 10:00h - 11:15h

Tuesday - Professor 1
Sciences - 7:30h - 9:00h
Geography - 9:00h - 10:30h

Wednesday - Professor 1
History - 7:30h - 9:00h
Portuguese – 10:00h - 11:15h

Thursday - Professor 2
Math - 7:30 - 10:00h
Physical Education - 10:00h - 11:30h

Friday - Professor 2
Libras - 7:30h - 8:20h
Math - 08:20 - 09:20h
Religion - 09:20 - 10:00h

Afternoon Shift

Monday - Professor 1
Portuguese – 13:30h - 16:00h
Art – 16:00h - 17:15h

Tuesday - Professor 1
Sciences - 3:30h - 15:00h
Geography - 15:00h - 16:30h

Wednesday - Professor 1
History - 13:30h - 15:00h
Portuguese –15:00h - 16:15h

Thursday - Professor 2
Math - 13:30 - 16:00h
Physical Education - 16:00h - 17:30h

Friday - Professor 2
Libras - 13:30h - 14:20h
Math - 14:20 - 15:20h
Religion - 15:20 - 16:20h

Source: Internal circulation material prepared by the Municipal Secretariat of Education (2020)

The classes took place at these specific times when the teacher was available to the class via *WhatsApp* to send materials and ask questions. Initially, we also tried to use *Google Meet* video calls for virtual meetings, but the families reported that they did not have Internet to use it. In addition, there was often only one phone per family; and at class time the mobile device would be at work with someone, so only in the evening would the student see the class group. One of the first problems was, even though the class took place at a specific time, the student might not be *online* to ask questions, since the family had only one cell phone.

This issue was one of the main ones raised by the families, because, many times, they sent assignments at night, or even at dawn, since that was the time they had to do it, and this impaired the teaching process, since, at that moment, the teacher was no longer available to answer questions or correct the activity, which would be done at the class time made available by SEMED. This caused a greater accumulation of activities for the teacher and possible learning difficulties for the students. This finding was also made in the research conducted by

Barreto, Amorim and Cunha (2020, p. 797, our translation), when they state, sadly, that most students in public schools:

> [...] do not have technological equipment in their homes, internet network with good signals that support the demand of classes and virtual activities, adequate spaces for studies. Consequently, this makes them more vulnerable and the losses are enormous, causing learning deficits that take on overwhelming proportions, compromising the school day with the generation of large gaps in the long term.

This problem, having only one mobile phone available, is not exclusive to families in the municipality of Davinópolis, but rather to the poorest Brazilian social class, which has grown in recent years, according to data reported in the national and local news. When we turn our eyes to the discrepancies between public and private institutions, as also reported by Barreto, Amorim and Cunha (2020), these differences increase exponentially, as is the case of the municipality in question, its public network and the families served.

From a reflection on the problems exposed above and on how the sending and the collective construction of the activities should occur, a school routine was elaborated in the *WhatsApp* group to facilitate the organization and the understanding of both the families that would give support and the students. In Figure 2, we describe a model of this routine, by means of a flowchart.

Figure 2 – Flowchart of the class routine in the virtual rooms/ *WhatsApp* groups by the teacher (first author of this paper)
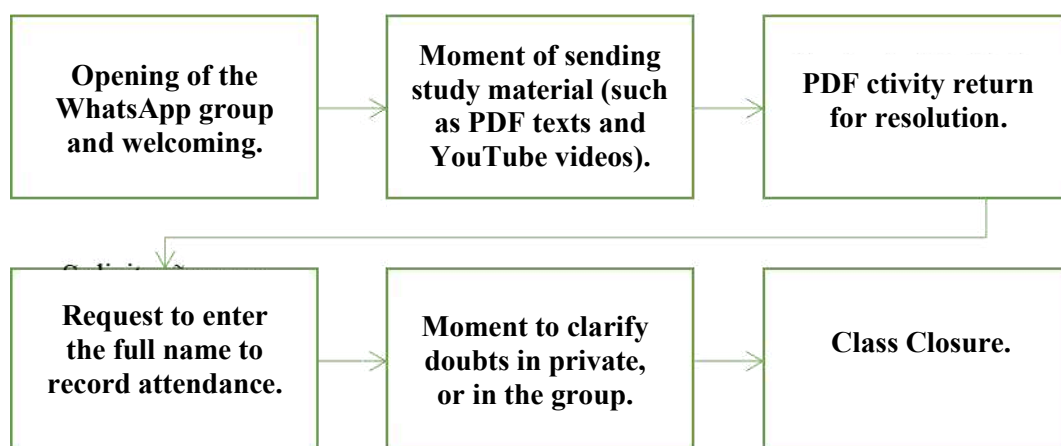
Source: Prepared by the authors (2021)

The routine was established this way in both classes, being the best way found for there to be an organization and, at the same time, a better use of the resources available on *WhatsApp*. The opening happened through text messages; and the materials were usually

taken from the Internet, following the National Common Curriculum Base (BNCC) of 2017 and the textbook.

After posting the materials, audios were sent with guidance on how to proceed in solving the activities. At first, we tried to use our own videos, but they demanded too much time for editing, besides being too big to send by *WhatsApp*, which has a size limit. Thus, audios were the best way found, in partnership with *YouTube* video *links*.

The teachers' lack of training to produce remote classes using *WhatsApp* and the inadequate cell phones of the parents and other caretakers, as well as of many teachers, initially hindered the interaction process. Moreover, the limitations of the *WhatsApp* platform for this use stand out. In this way, the teachers had to learn on a daily basis, with mistakes and successes, through many attempts.

About teacher training for remote teaching with the use of any platforms, including *WhatsApp*, as a tool for classes, the research of Barreto, Amorim and Cunha (2020, p. 266, our translation) reveals that

> [...] the learning experience in this remote model involves the educational institutions, teaching teams, teachers, and students, all experiencing something new and suddenly. We resort to Franco (2015, p. 603) because, in this sense, he considers that the relationships between teacher, student, curriculum and school are relationships that impose a coexistence, tensional and contradictory, between the subject that learns and the teacher who organizes and prepares the conditions for teaching. One of the particularities to be attenuated on this aspect is precisely the importance of the teacher within this scenario, i.e., his/her perception of the process of being and/or feeling qualified for this modern tool in his/her professional practice.

The perception of teaching and learning itself is quite limiting in this model, since, with the classes that the first author of this article worked with, sometimes the feedback did not occur during class time. Moreover, the ways in which they were given back did not favor the perceptions about the students' development.

The corrections of the tasks and the questions occurred in private, because some students were afraid to ask questions in the group. The feedback from the students was done through images; that is, they did the tasks in the notebooks and took pictures, sending the pictures to the teacher through *WhatsApp*; the corrections, then, were done based on these pictures, which made the teacher's feedback very difficult for these students.

There were times when the teacher was unable to make the corrections because he/she did not understand certain words or some of the students' written ideas; and since there were other activities and attributions to be done by the teacher, he/she had to intensify his/her work,

having to go to the students at other times so that they would not suffer. To repeat: most of the time, the corrections were not made during class time, and this was a problem that increased the teacher's workload, wore out his strength, and affected his *métier*, causing problems in the development of the students' abilities.

Reading was also quite compromised in this period, since many students complained of having to read on the cell phone screens, which required a reduction of texts and textual genres. Writing also suffered another impact, because, in this period, the students wrote less, since it was a difficulty to have to copy the contents of the mobile phone or write in the notebook and send a picture of what had been done to the teacher. This whole scenario revealed that,

> [...] at the present moment, these professionals are experiencing new experiences of their work activities, with a little more complexity. Since it requires more complete mental operations for excellence in service delivery. Thus, both teachers and students can, in some way, identify and/or present some difficulties throughout the process (BARBOSA; VIEGAS; BATISTA, 2020, p. 262, our translation).

As the students received textbooks, the problem was solved. Thus, we started to work with/with the textbooks, which, even so, lacked a closer follow-up and another type of planning, since we would not be in presential classes closely observing the students. Besides, there would be the problem of copying, since the books should be returned at the end of the year without any record of the students, and they could not be scribbled in; therefore, the students should write everything in the notebook and take pictures to send to the teacher. In this way, the remote classes continued throughout the year 2020[10].

The evaluations were conducted at the end of each bimester, also following the same methodology of sending in the group and feedback in private. The evaluations were made by means of written tests with the content worked in the bimester and were composed of the sum of the written tests, the assignments, and the research requested from the students.

> In the meantime, it was assigned as a work task to teachers to rethink the ways of evaluating students, noting that the traditional model of test applications is obsolete and incomplete, if compared to the times of the "new normal" in the pedagogical context within the quarantine portraits (BARRETO; AMORIM; CUNHA, 2020, p. 798, our translation).

---

[10] We point out that the school calendar was readjusted starting in the month when classes resumed, adding school Saturdays, and eliminating holidays, thus making it possible for the school year to end in 2020, a feat achieved only by this municipality among the others in its region.

The evaluation process had to be rethought; from this, the evaluations were carried out in a procedural manner, through the development and feedback of the tasks, in addition to a written test with questions about the content seen throughout the bimester. We emphasize that this method was not as effective for evaluation; however, it was one of the criteria requested by SEMED and could not be discarded or replaced. The external power was greater than the one that emanated from the daily remote work in the virtual classrooms. Thus, actions such as seminars, group work and other tasks normally worked had to be left aside, because the *WhatsApp* platform did not allow this interaction, besides the little, or almost no, availability of mobile electronic devices in the students' homes.

What can be said about the remote teaching in the Davinópolis municipal school network, carried out through the *WhatsApp* application? What are its main difficulties? And what are the learning experiences? From the point of view of this research, we can infer that the remote teaching began satisfactorily, with the presence of a reasonable number of students. However, by the end of the year, the students, teachers, and families were already tired, showing the lack of attractiveness and interest of some of them. And since the platform is limiting, the innovation in the teaching carried out by the teacher was one of the challenging marks.

The teacher needed, throughout the year of 2020, to reinvent himself, using visual resources, requesting research, and looking for alternatives so that the classes through *WhatsApp would* not become monotonous, because sending the activities in the group is not such an interactive resource as video or even dialogic contact. This period demanded more time for the teacher to research methodologies and didactic contents that would keep the students connected to the classes and still build significant learning. This professional worked more than his mandatory workload, and, according to Barreto, Amorim and Cunha (2020, p. 798, our translation):

> [...] within the same logic, teachers overcome by other challenges such as maintaining while teaching classes, the online discipline, and the concentration of students in virtual classrooms in parallel the alternatives and available on the internet and the attractive family environments that often cause distractions. In this sense, a greater effort is demanded from the teacher to present diversified resources and educational technologies to mediate their classes, engage students in practical activities with real and current examples about the contents covered, as well as promote a greater participation and protagonism of the students during the classes.

However, it is noteworthy that the autonomy developed by the students was one of the positive points, especially regarding the understanding of the orientations and research using

the Internet and books at home. The students were able to develop these propositions in a satisfactory way, searching for themselves beyond the knowledge and tasks taught by the teacher.

The protagonism of the family and the students as the main actors of the search and construction for their learning was evidenced. Moreover, it became essential a commitment and an adaptation on their part for the investigation and the development of knowledge and abilities that were transmitted by *WhatsApp* messages and could not remain only on the *smartphone* screens.

> In this perspective, the pandemic brought profound changes to students of different levels and age groups in their school routines, implications within a complex process with abrupt adaptations caused by social isolation, learning to deal with remote teaching mediated by various technologies, exercising autonomy in their studies, becoming aware of their protagonism in the learning process, dribbling several difficulties in this path (BARRETO; AMORIM; CUNHA, 2020, p. 799, our translation).

Another positive point that stands out is the tasks through videos. When the children were asked to record videos, reading, explaining, or doing some physical activity, they demonstrated a greater commitment and interest. This resource was widely used as a way to encourage and interact, because it was up to the teachers to seek "ways to offer their students a critical and globalized education, to motivate investigative research, to stimulate connections between different objects and phenomena, to provide opportunities for autonomy [...]" (BARRETO; AMORIM; CUNHA, 2020, p. 799, our translation), a very complicated task during the pandemic.

At the end of the 2020 school year, it was clear that the children would have a large gap in relation to school content, although the commitment of the subjects involved in teaching and learning was remarkable. Math and Portuguese Language contents had to be prioritized, to the detriment of other areas, even because of the few possibilities of developing remote classes for the children of the city of Davinópolis.

The remote classes provoked learning and difficulties in the children's development. Despite all the effort, we noticed the difficulties of conducting many of the classes and, at the same time, of the students' participation, due to the lack of resources or even the lack of time of parents or other responsible people, when there is a resource.

These elements corroborate the research of Barreto, Amorim and Cunha (2020, p. 802, our translation), when, in tone of denunciation, they state: "These strands indicate that equitable and inclusive educational public policies are missing to ensure technological access

with better conditions to all students, as urgent and thought in the post-pandemic future". Thus, the search for alternatives that enable training connected to current issues, equipment acquisition, and access to technologies for the poorest people, becomes urgent not only during the pandemic, but also in the post-pandemic future.

Final considerations

At the end of the research, we must remember that our goal was to problematize the remote teaching in the municipal network of Davinópolis/MA, carried out through the *WhatsApp* application. This task cost us commitment and attention to think about the acts of the teacher, the first author of this article, because it is from his own practice that this was accomplished.

Highlighting the difficulties, we have the fatigue, both on the part of students, teachers, and family members, demonstrating the lack of attractiveness and interest of this modality for some. The lack of innovation was one of the teachers' marks, even though they tried to find alternatives so that the classes through *WhatsApp wouldn*'t become monotonous. Another mark was the intensification of the teaching work, having to attend the students out of class hours and needing more time to research methodologies and didactic contents that would keep the students connected to the classes. The students showed great deficiencies in reading and writing, as well as in mathematical questions.

However, there were positive points, such as the autonomy developed by the students in understanding the orientations and in researching using the Internet and books at home. The protagonism of the family and the students in the search and construction of their learning was evidenced. Another positive point was the video productions recorded by the children, reading, explaining, or performing some physical activity; in these activities, they showed commitment and interest.

It is worth mentioning that the findings of this research are her own, particular to her, and therefore cannot be generalized, since this was not, by any means, our purpose. However, we can think of the many resonances that this research may have throughout Brazil. Many similarities can be felt by the readers/ teachers of basic education who are living, or have lived, the remote teaching in their school systems.

We also understand that there is much to be investigated about remote teaching in Brazilian basic education with the use of various applications. Therefore, this research is an invitation to think more, to fight for public policies that guarantee the dignity of the Brazilian

human being, and to fight for the non-intensification of the teaching work in this pandemic period.

REFERENCES

ALMEIDA, M. E. B. Educação a distância na internet: abordagens e contribuições dos ambientes digitais de aprendizagem. **Educação e Pesquisa**, São Paulo, v. 29, n. 2, p. 327-340, 2003. Available: http://www.scielo.br/pdf/ep/v29n2/a10v29n2.pdf. Access: 16 Apr. 2021.

ARRUDA, J. S.; SIQUEIRA, L. M. R. C. Metodologias Ativas, Ensino Híbrido e os Artefatos Digitais: sala de aula em tempos de pandemia. **Rev. Pemo**, Fortaleza, v. 3, n. 1, e314292, 2020. Available: https://revistas.uece.br/index.php/revpemo/article/view/4292/3577. Access: 16 Apr. 2021.

BARBOSA, A. M.; VIEGAS, M. A. S.; BATISTA, R. L. N. F. F. Aulas presenciais em tempos de pandemia: relatos de experiência de professores do Ensino Superior sobre as aulas remotas. **Revista Augustus**, Rio de Janeiro, v. 25, n. 51, p. 255-280, 2020. Available: https://apl.unisuam.edu.br/index.php/revistaaugustus/article/view/565. Access: 16 Apr. 2021.

BARRETO, J. S.; AMORIM, M. R. O. R. M.; CUNHA, C. A pandemia da covid-19 e os impactos na educação. **Revista JRG de Estudos Acadêmicos**, Brasília, ano III, volume III, n. 7, p. 792-805, jul./dez. 2020. DOI: 10.5281/zenodo.4361693

BIJORA, H. Google Forms: o que é e como usar o app de formulários online. **Techtudo**, 22 jul. 2018. Available: https://www.techtudo.com.br/dicas-e-tutoriais/2018/07/google-forms-o-que-e-e-como-usar-o-app-de-formularios-online.ghtml. Access: 02 May 2021.

BOTTENTUIT JUNIOR, J. B.; ALBUQUERQUE, O. C. P.; COUTINHO, C. P. WhatsApp e suas Aplicações na Educação: uma revisão sistemática da Literatura/WhatsApp. **Revista EducaOnline**, Rio de Janeiro, v. 10, n. 2, p. 67-87, 2016.

BRASIL. Ministério da Educação. **Base Nacional Comum Curricular**. Brasília, DF: MEC, 2017. Available: http://basenacionalcomum.mec.gov.br/images/BNCC_EI_EF_110518_versaofinal_site.pdf. Access: 15 Oct. 2020.

BRASIL; Ministério da Educação. Portaria nº 343, de 17 de março de 2020. Dispõe sobre a substituição das aulas presenciais por aulas em meios digitais enquanto durar a situação de pandemia do Novo Coronavírus-Covid-19. **Diário Oficial da União**: Seção 1, Brasília, DF, v. 158, n. 53, p. 39, 18 mar. 2020. Available: https://www.in.gov.br/en/web/dou/-/portaria-n-343-de-17-de-marco-de-2020-248564376. Access: 16 Apr. 2021.

DAVINÓPOLIS. **Decreto municipal n. 010/2020, de 16 de março de 2020**. Dispõe sobre os procedimentos e regras para fins de prevenção da transmissão da COVID-19 na Rede Escola Pública Municipal de Davinópolis e dá outras providências. Davinópolis, MA: Prefeitura Municipal, 2020a. Available: https://www.davinopolis.ma.gov.br/upload/diario_oficial/95801.pdf. Access: 16. Apr. 2021.

DAVINÓPOLIS. **Portaria n. 031/2020, de 1º de junho de 2020**. Dispõe das orientações para a organização de atividades pedagógicas não presenciais para ensino fundamental 1º ao 9º ano e EJAI. Davinópolis, MA: Prefeitura Municipal, 2020b. Available: https://www.davinopolis.ma.gov.br/upload/diario_oficial/40489.pdf. Access: 21 Dec. 2020.

IBGE. INSTITUTO BRASILEIRO DE GEOGRAFIA E ESTATÍSTICAS. **Davinópolis/MA**. Brasília, DF: IBGE, 2021. Available: https://cidades.ibge.gov.br/brasil/ma/davinopolis/panorama. Access: 16 Apr. 2021.

LIMA, C. N. M. F.; NACARATO, A. M. A investigação da própria prática: mobilização e apropriação de saberes profissionais em Matemática. **Educação em Revista**, Belo Horizonte, v. 25, n. 02, p. 241-266, ago. 2009. Available: https://www.scielo.br/scielo.php?pid=S0102-46982009000200011&script=sci_abstract&tlng=pt. Acessado em: 15 Mar. 2021.

SILVA, M. L. S.; SILVA, R. A. Economia brasileira pré, durante e pós-pandemia do covid-19: impactos e reflexões. **Observatório Socioeconômico da COVID-19**, Santa Maria, jun. 2020. Available: https://www.ufsm.br/app/uploads/sites/820/2020/06/Textos-para-Discuss%C3%A3o-07-Economia-Brasileira-Pr%C3%A9-Durante-e-P%C3%B3s-Pandemia.pdf. Access: 25 Apr. 2021.

UNESCO. **A Comissão Futuros da Educação da Unesco apela ao planejamento antecipado contra o aumento das desigualdades após a COVID-19**. Paris: Unesco, 16 abr. 2020. Available: https://pt.unesco. org/news/comissao– futuros– da– educacao– da– unesco– apela– ao– planejamento– antecipado– o– aumento– das. Access: 25 Apr. 2021.

WERNECK, G. L.; CARVALHO, M. S. A pandemia de COVID-19 no Brasil: crônica de uma crise sanitária anunciada. **Cad. Saúde Pública**, Rio de Janeiro, v. 36, n. 5, jan./maio, 2020. DOI: 10.1590/0102-311X00068820

WHATSAPP. **Sobre o WhatsApp**. Menlo Park, 2021. Available: https://www.whatsapp.com/about/. Access: 16 Apr. 2021.