Light, camera... Education!: A reflection on the challenges faced by teachers during the COVID-19 pandemic

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ABSTRACT
In 2020, the Brazilian educational system was faced with a huge challenge: to provide quality education through remote teaching, as a consequence of the social distancing forced by the Covid-19 pandemic, a highly contagious severe acute respiratory disease. Although there is much discussion about the use of new methodologies and digital instruments in the school environment, most schools, especially public ones, were not prepared for this context, the pandemic accelerated this movement that made teachers overnight appropriate the most diverse virtual teaching instruments in the search for teaching opportunities for all. It is on this educational movement in the face of remote teaching during the pandemic that this article brings its reflections, through consultation of legal documents on remote teaching and reflections, which pointed out how fragile the Brazilian public education system is and how teachers have been reinventing themselves, in an attempt to promote good education, in the use of various digital tools that are available to teachers currently mentioned throughout the text. Despite all efforts, remote education has not been able to reach everyone much more for economic and political reasons than for the efforts of education professionals.

Keywords: Pandemic, Education, Challenges, Digital methodologies.

1 INTRODUCTION

Education in Brazil, since it began with the Jesuits, has faced structural, material and/or financial challenges. One of the first challenges is related to linguistic and communication issues, in the 21st century the problem of communication still persists. The organization of the Brazilian educational system has been going on throughout history, considering the 471 years going through different proposals of various legislations and guidelines.

With the technological revolution, globalization, the expansion of the internet network, and even all the social change caused, education comes through scholars and researchers scrutinizing alternatives to adapt the educational system to the new society. A slow and arduous process because the school has been shaped in the nineteenth century but has teachers from the twentieth century and students from the twenty-first century, so being able to reconcile all this temporal and cultural difference is challenging and complex.

In addition to all the adversity that Brazilian education has been going through throughout its course, in 2020 a new challenge erupts: remote teaching, a consequence of the social distancing caused by the Coronavirus pandemic that devastated the world, causing a social, cultural, economic, educational reorganization, etc.

What now? How to teach classes at a distance, without preparation or training for this new teaching format? What was that process like for the teachers? What were the new legal guidelines for this teaching that changed overnight? What digital tools have teachers learned to use and incorporate into their classes, in the constant search for the teaching-learning process?

Although discussions about more interactive classes, with a design that was closer to the students' daily lives, were present on the academic benches, the "putting into practice" was still lacking. Faced with this new scenario, teachers needed to reinvent themselves, rolled up their sleeves and learned to use applications and platforms that until then they had heard little about, becoming crucial actors for teaching to become possible within the context of the pandemic.

2 BRAZILIAN EDUCATION IN TIMES OF PANDEMIC

It is not unheard of to talk about the challenges faced by education in Brazil, whether by students or teachers. In 2020, these challenges intensified, when the world was faced with a new virus, the Coronavirus Disease - Covid 19.

> COVID-19 is the infectious disease caused by the novel coronavirus, first identified in December 2019 in Wuhan, China. Currently available evidence indicates that the virus that causes COVID-19 can spread through direct, indirect (through contaminated surfaces or objects) or close contact (within one meter) with infected people through secretions such as saliva and respiratory secretions or their respiratory droplets, which are expelled when a person coughs, sneezes, talks, or sings. People who are in close contact (within 1 meter) of an infected person can get COVID-19 when these infectious droplets enter their mouth, nose, or eyes. (PAN AMERICAN HEALTH ORGANIZATION, 2021).

This virus has affected all spheres of the planet, social, economic, political, and even historical. Education was obviously also affected, schools were closed, first thinking about a certain time and for a short period, something that did not materialize, the Brazilian educational system, especially the public system, was faced with one of its most latent challenges: technology and its use in the school environment.

Since the technological revolution of the mid-1990s, there has been a concern about how this process would be effective in education, especially in basic education, since in this educational modality the traditional methodology is still very rooted in the teaching-learning process.

> The traditional teaching/learning method focuses on the act of transferring knowledge. It considers the teacher seen as the bearer of knowledge that must be passed on to the students, who, in turn, must memorize it to be checked by the teacher. (CARNEIRO, 2012, p. 2).

Today we see students who live in a digital world and connected in their social life, but when they arrive at school they are faced with another reality, digitally disconnected, a totally analog environment for various reasons, whether structural or methodological: "[...] many students have become digital citizens while educator training and classroom practices, at all educational levels, remain in the twentieth century." (SOARES-LEITE and NASCIMENTO-RIBEIRO, 2012, p. 178).

In this new social context in the 21st century, where globalization is installed and the internet is part of the daily life of more than eighty-two percent (82%) of Brazilian households, according to the Ministry of Science and Technology (2021), education could not continue to perpetuate the same way of teaching, however, in public schools there were still until the year 2020 a series of issues that made it impossible to pass through this space from analog to digital.

One of these issues is related to teaching methodologies, a possibility that is currently much addressed and discussed is what Moran (2017) presents, which are active methodologies, but they still need to be studied and understood by most teachers in the public school system.

> Active methodologies are teaching strategies focused on the effective participation of students in the construction of the learning process, in a flexible, interconnected and hybrid way. Active methodologies, in a connected and digital world, are expressed through hybrid teaching models, with many possible combinations. The combination of active methodologies with flexible and hybrid models brings important contributions to the design of current solutions for today's learners. (MORAN, 2017, p. 41).

Authors such as Moran, Bergmann and Sams, Pilatti, among many others, have been studying active methodologies, their applicability in education, as well as presenting possibilities for intervention. These studies have been carried out since the 1980s with the concern of making the student the protagonist in the teaching-learning process.

Digital technologies would contribute to the development of these methodologies, but the entire Brazilian educational system was moving at a slow pace towards promoting a more autonomous teaching-learning process.

However, in March 2020, all public and private schools in the country were closed due to the COVID-19 pandemic and the entire system was forced to rethink its practices and methodologies.

In April of the same year, the National Council of Education (CNE) issued an opinion whose main objective was not to allow students to be left without education. In the Opinion approved by the CNE on 04/28/2.020, document No. 5/2020, it was decided to validate non-face-to-face school activities, through remote teaching, so that students would not miss the school year due to social distancing, imposed by the pandemic.

> The calculation of the workload carried out through non-face-to-face pedagogical activities (mediated or not by digital information and communication technologies) in order to minimize the need for face-to-face replacement [...]. In this sense, the CNE's Clarification Note indicated possibilities for the use of the Distance Education (DE) modality provided for in Decree No.

9,057, of May 25, 2017 and in MEC Normative Ordinance No. 2,117, of December 6, 2019, which indicate PROCESS No.: 23001.000334/2020-21 Eduardo Deschamps and Maria Helena de Castro – 0334 8 also that the competence to authorize the performance of activities at a distance lies with the authorities of the federal, state, municipal and district education. (CNE, 2020, p. 7)tag.

At this time, studies on the use of technology for the sake of teaching and learning, which were moving at a slow pace, needed to accelerate and a differentiated methodology, which seemed so distant, needed to be put into practice, even if teachers did not have enough training for it.

The CNE's opinion did not deal with the mandatory use of digital technologies, but pointed to it as a possibility and for this purpose advised managers to make an effort in this direction.

> In order to have a look at the opportunities brought about by the difficulty of the moment, it is recommended that educational managers make an effort to create or reinforce public online teaching platforms, as far as possible, which serve as a reference not only for the development of learning objectives in periods of normality but also in times of emergency such as this one. (CNE, 2020, p. 23).

Considering that the vast majority of school institutions had a precarious physical and material structure, it would be possible to carry out remote or hybrid teaching so suddenly.

Although 82% of households in Brazil have access to the internet, this access was generally not focused on the educational sphere, that is, students and teachers needed to learn how to use technological devices in favor of the teaching-learning process.

In addition to all the structural and material aspects, precarious training of teachers for the use of technologies in education, there was also a concern within the institutions about how this process would take place? Who would be the interlocutor in asynchronous moments? How to evaluate the learning process? How to maintain the quality of education in this new context?

> If, on the one hand, we have greater flexibility of time, expansion of the geographical reach provided by technologies, more student autonomy; on the other hand, we have the high dropout rates, the frequent feeling of loneliness of students, the concern with maintaining quality, the apprehension associated with the evaluation and, of course, the impossibilities of access linked to the enormous socioeconomic differences among the Brazilian population. (RODRIGUES, 2020, p.1)tag.

Another issue, still very rooted in the educational system, was that until March 2020 there was a restriction on the use of electronic devices by students in schools, according to Bill 2,246/2007 and attached to Bill No. 2,547, of 2007, and No. 3,486, of 2008, of the Chamber of Deputies, which unanimously approved the restriction on the use of cell phones in the school environment, "Art.1º The use of cell phones by students and teachers in the classrooms of basic education schools is prohibited", because they consider the device as a distractor, thus causing a lack of attention and a drop in the quality of education.

And now, due to the Covid 19 pandemic, the student needs to use the cell phone to carry out school activities, and in addition to this current need, the National Common Curriculum Base (BNCC), brings in its text as one of the specific language skills for elementary school,

> Understand and use digital information and communication technologies in a critical, meaningful, reflective and ethical way in the various social practices (including school ones), to communicate through different languages and media, produce knowledge, solve problems and develop authorial and collective projects. (SILVA, 2021).

Since 2018 there has been a document that deals with the use of digital information and communication technologies in school institutions, but as mentioned above, this practice was still far from the school reality.

However, the challenge was posed: teachers and students needed to reinvent themselves, the educational system needed to reorganize itself based on the issue of 200 school days and 800 hours, provided for in the Law of Guidelines and Bases of National Education (LDBEN) 9394/96, in its chapter II, section I, art. 24,

> I - the minimum annual workload shall be eight hundred hours for elementary and high school, distributed over a minimum of two hundred days of effective school work, excluding the time reserved for final exams, if any; (BRAZIL, 2021).

The Federal Government needed to act and enacted Law No. 14,040, of August 18, 2020, which "establishes exceptional educational standards to be adopted during the state of public calamity recognized by Legislative Decree No. 6, of March 20, 2020; and amends Law No. 11,947, of June 16, 2009. (BRAZIL, 2020).

In this Law, the fulfillment of the 200 school days was waived, but it did not exempt the fulfillment of the minimum workload. It also presented some possibilities for organizing school institutions in order to guarantee students access to education during this pandemic period, which could conduct non-face-to-face activities and use information and communication technology resources.

That said, teachers were impelled to carry out their work in the home-office, residences then also became workspaces, teachers had to acquire information and communication technology equipment in order to carry out their work effectively.

In addition to the equipment, teachers had to learn autonomously and often without administrative support how to use different digital platforms that could help in this teaching-learning process different from what they were used to until then, students inside the same classroom, listening at the same time.

Thus, it was necessary to organize the teaching so that the student could understand and carry out the proposed activities with the help of the family, in addition to developing their learning autonomously.

> At the center of this hurricane called COVID-19, in terms of the teaching-learning process, are the teacher and the student. Changes in teaching practice have impacted the student's way of learning. The process that was developed through face-to-face interaction was abruptly replaced by a virtual situation, caused by the imperative of social distancing. Challenges, insecurity, unpreparedness, work overload, uncertainties, anxiety, increased educational and social inequality, among many other words, express the feeling in the current period. (HONORATO & MARCELINO, 2020, p. 218).

The teachers who, until this historical moment, had full mastery and knowledge about their work felt that their certainties were shaken. Being challenged not to use the blackboard, but to work the content in a more dynamic way with shorter and more differentiated texts.

3 DIGITAL TECHNOLOGIES AND REMOTE LEARNING

Given this new educational context, teachers were informed that they should provide home-office service with remote work, using different information and communication technology tools so that they could involve all students.

> In remote education, a temporary adaptation of the methodologies used in the face-to-face regime predominates, with classes being held at the same times and with the teachers responsible for the subjects of the face-to-face courses, as previously mentioned. These teachers are having to customize the materials to carry out the activities, creating slides, videos, among other resources to help students understand and participate in the activities. (ALVES, 2020, p. 358).

For this, teachers needed to learn how to use applications, digital tools, educational or non-educational software and all this in an accelerated way and during the development of the work. They also need to learn how to record and edit videos, compose activities and instructions to mobilize students and families.

> [...] To look for a new way of teaching and learning, based on the context of today's world and considering what we have at home, family involvement and social distancing life. It is necessary to explore new ways of learning and interactions that stimulate curiosity and creativity in students beyond the academic curriculum. (HONORATO & MARCELINO, 2020, p. 212).

Or *Google* It was known almost by all teachers, but they used it to search for information. With the new reality, teachers started to use the platform *Google* to conduct meetings and trainings through the *Google Meet*, learned how to use cloud storage, through the use of the *Google Drive*, organize activities in the *Google Forms*, and even the *Classroom*.

> Google Classroom is an online classroom, which helps teachers in managing activities and creating interactive lessons, helping the student to increase learning through tools available on the Internet. The service also allows you to create different classes, distribute assignments, and send and receive grades and feedback. (FERREIRA, 2020).

Although this classroom is online, something innovative to the education system, care must be taken not to do more of the same, that is, to use the digital space, the Classroom, and transform it into a plastered space, in which the teacher still assumes the role of great transmitter of knowledge and the students mere receivers.

There are numerous tools, platforms and applications that could be used in education to promote teaching and learning, in addition to Google, including: *Kahoot* which is a Norwegian application that can be used for assessment or for organizing quizzes, very dynamic and attractive for students.

Duolingo, an application to work with the foreign language in a playful way, is a very interesting and easy-to-use application. Educreations, in which the mobile phone is transformed into a digital whiteboard, provides a more dynamic interaction with students.

However, not all websites or applications are intended to promote and provide opportunities for learning, there are some applications that aim to replicate face-to-face classroom actions in the virtual environment, such as the application that requests silence in the online classroom, o *Too Noisy*.

In addition to the applications, some software could also contribute at this time of pandemic and non-face-to-face classes: Letra Livre (online), Keduca that presents interactive tests, Geogebra to work on mathematics, and *Scratch* which can be used in all disciplines, it is a block programming software.

However, in order to use any of these tools for the development of teaching-learning, it is first necessary that the teacher knows the tool and masters it minimally. For this to be possible, time is needed and, in some situations, an intervention and interaction with someone who already has this knowledge. In a situation where uncertainty is the watchword, time to first learn and learn and then use a tool is something unrealistic at the moment, teachers need to learn as they use it.

Remote work first needs to be understood at its core. Work can be understood as the performance of activities to achieve a predetermined objective, here the conceptualization of the term or the different approaches that it allows will not be deepened because it is not the proposed objective. Remote is related to distance, so remote work would be remote work to achieve the goal that is student learning, which teachers ended up doing (or tried to do) during this pandemic period.

Thinking about how to organize activities to be sent to the students' residences, which were at the same time challenging so that the students felt provoked, but at the same time simple so that the students could solve without too much difficulty, and still with instructions that were accessible to their families.

Within remote work, there is also a concern to socialize with families the private phone number of teachers, since institutions were not able to provide each teacher with an institutional device or chip.

Souza (2021, p. 3) points out that in the pandemic period, the teacher's working day, which was no longer well defined, worsened, until the year 2020 the teacher took tasks from his work to perform and finish at home. With the pandemic and remote work, the home has become a workspace, the availability of teachers' private phone numbers for parents and students has made the delimitation of schedules even more complex and challenging, because it is necessary to set limits, but it is essential to maintain social contact and interaction with students and families.

Another challenge is the change of routines, the school space is filled with routines, from the entrance to the time of exit. In this new context, routines have been ignored and changed, including the routine of the houses, parents working at home, children studying at home, there are no delimited spaces or still enough to aggregate so many activities. And for the teacher it is no different, when he moves his classroom to his family environment, he needs to reconcile work and family, which ends up generating greater wear and tear.

In addition to the challenges already exposed, teachers also need to worry about dropout students, situations of violence and hunger to which students may be exposed, in addition to issues related to the affective and emotional aspects of both students and teachers, with the loss of loved ones or insecurity about the future.

Not to mention the issues of social differences established in Brazil, cities in which schools still operate with multigrade classrooms in which the teacher is the one who makes and serves the snack, is the one who ensures the cleanliness of the place, in addition, of course, to providing opportunities for student learning. The social differences and inequalities that were already alarming in the country became even more evident in this pandemic period.

Despite all this, there is no turning back from the technologization of education, despite the fact that the process did not occur in the way that was expected: with preliminary studies, preparation, training and training of those involved in the educational system as a whole, to then be put into practice, it is not considered to consider a return to the educational model that was in force until the beginning of 2020. The fear that teachers had of technology and the internet, with restrictions and prohibitions, no longer fits, Castells, (2020) states "We have now fully entered a digital society in which we already lived, but which we had not yet assumed."

A year has passed, and teachers during this period have not remained prostrate, on the contrary, they have been in search of training and knowledge for the use of digital tools and available information and communication technologies, however Moreira and Schlemmer (2020, p. 6) warn:

> Technology alone does not change pedagogical practices, and in order to maximize the benefits of technological innovation, especially those related to DT, it is important to change the way education is thought. It is not a utopia to consider technologies as an opportunity for innovation, integration, inclusion, flexibility, openness, personalization of learning paths, but this reality requires a paradigm shift.

Therefore, it is not enough for teachers to learn how to use information and communication technologies if they do not change the way they understand the educational process and also the teaching-learning process. It is necessary to look for other epistemological bases and other paradigms to sustain the new practices that are necessary, a good proposal would be Edgar Morin's epistemology of complexity or even Bruno Latour's actor-network theory.

> Education should be integrative, in the creation and recreation of knowledge, commonly shared. Pedagogically, education is an open, permanent process that embraces the existentiality of man. The action of questioning and problematizing is the essence of the pedagogical process. (TESSER, 1994, p. 97).

Therefore, it will be incomprehensible that after this pandemic period, all the setbacks overcome and successes achieved, when there is a return to the face-to-face model, the molds that were had until then will be resumed.

> A fundamental point for learning will be the choices about what is essential for students to learn and through which learning paths. [...] There will be a need for an effort to rethink aspects related to content and didactics, seeking active and participatory ways of constructing cognitive mediations. (GATTI, 2020, p. 36).

As mentioned above, it is necessary to study to understand how this education should be organized from now on, which can be added in order to improve the quality of the teaching-learning process, so that the use of technologies is in favor of this process, it will be necessary

> Leave old habits, seek new meanings for school education and new paths. To change horizons and not to reproduce more of the same and to lament losses in relation to a school model that calls for changes: a model with visions that are only short-sighted and competitive. It is the opportunity that is hoped to be used to give new formats and meaning to education in basic school, not only in this transition from the pandemic to the return to schools, but for the future. (GATTI, 2020, p. 37)

The time to think about this organization of education for the post-pandemic is now, one should not wait for the moment to arrive to organize during the experience. When schools were closed due to the Pandemic, there was no time for planning, so it was organized during the walk, but it is already known that there will be a post-pandemic, that is, there will be a face-to-face return and this can already be organized which paths to follow, which are the best methodological routes, which instruments will favor the teaching-learning process.

4 FINAL THOUGHTS

Considering the history of education in Brazil and all the setbacks it has gone through since its inception, whether economic, political or social, there are always two main actors who are rarely consulted when deciding on the necessary referrals.

An educational system that no longer meets the social demand generated by the technological revolution, in which the use of information and communication technological devices becomes accessible to a greater number of citizens, the school is still beginning in the process of modernization.

The pandemic imposed on the world in 2020 caused by COVID-19 puts the existing educational organization in check and teachers need to become experts in the use of technologies to promote teaching and learning, so as not to let one of the basic rights of citizens be fulfilled.

During this research, it was realized that there is no turning back, there is no way after the pandemic for the educational system to put aside everything that was learned and carried out during this period. It is time to reorganize this system, which was thought and elaborated in the nineteenth century, but which no longer meets the imposed reality, there is no way to keep the school closed within four walls, it needs to be flexible and move more and more towards the use of information and communication technologies for the integral development of students.

We believe that the time is now and that before the pandemic passes, it is necessary to rethink this entire process and organization so that teachers and students are not forced to reinvent themselves again.

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