Social inequalities in remote education in times of pandemic

Desigualdades sociais no ensino remoto em épocas de pandemia
Desigualdades sociales en la educación a distancia en tiempos de pandemia

Erika da Silva Maciel  
PhD in Sciences from CENA-USP. Professor of the Physical Education course at the Federal University of Tocantins (UFT). Coordinator of the Postgraduate Program in Science and Health Teaching at the Federal University of Tocantins (UFT).  
erikasmaciel@mail.uft.edu.br.

Luan Pereira Lima  
Graduated in Physical Education from the Federal University of Tocantins, Master’s in Science and Health Teaching from the Federal University of Tocantins-UFT.  
luanuftedufisica2016@mail.uft.edu.br

Fernando Rodrigues Peixoto Quaresma  
Doctor in Health Sciences from the ABC School of Medicine. Graduated in Physical Education from the Federal University of Tocantins, Master’s in Science and Health Teaching from the Federal University of Tocantins-UFT.  
quaresma@uft.edu.br.

Mailling adress: Federal University of Tocantins, University Campus of Miracema, Avenida Lourdes Solino s/nº, Setor Universitário, 77650000 - Miracema do Tocantins, TO – Brazil.

Received: 02.16.2021  
Accepted: 03.01.2021  
Published: 04.01.2021.

ABSTRACT:  
The year 2020 was marked by the appearance of a new coronavirus, making changes necessary in all areas of citizens’ lives, especially in education, which needed to be reformulated. In Brazil, there are social inequalities that affect access to digital technologies or education itself. The purpose of this study is to verify in the literature what has been produced about remote education associated with social inequalities and what are the impacts of these inequalities on students’ learning in times of pandemic. A bibliographic and exploratory research was used. It is verified with the findings that the lack of access to the internet, in general, and to digital media in a more specific way, can cause lasting impacts on the lives of Brazilian children and adolescents.

KEYWORDS: Remote teaching; Covid-19; Social differences.

Introduction  
The year two thousand and twenty was marked by the COVID-19 pandemic, a disease caused by the SARS-CoV-2 virus. On March 11 (2020) the World Health Organization (WHO) declared COVID-19 as a pandemic, which affects people in different ways and can lead to the death, in particular, of older people or people who already have other comorbidities (CREPALDI, 2020; PEREIRA; MEDEIROS; BERTHOLINI, 2020). COVID-19 has already caused deaths in all age groups (DEMENECH et al., 2020; WILLIAMSON et al., 2020) and made countries around the world organize to try to minimize the damage caused by the pandemic—which until now (January 2021) continues.

Due to the great spread of the disease, in a short time, hygienic measures and social distancing were recommended in order to contain its rapid spread (AQUINO et al., 2020; FERENTZ et al., 2020)—e.g., clean your hands constantly with soap and water; avoid touching eyes, nose, and mouth; use 70% alcohol. However, the disease quickly affected the Brazilian population (FERENTZ et al., 2020).
To get an idea of this proposition, after the first patient detected with COVID-19 (February 26, 2020), a 61-year-old man, who had recently traveled abroad (DIAS et al., 2020), after two months the number of COVID-19 cases in Brazil reached 100,000—with more than 7,000 dead. With such evolution, the fragility of the Health System became clear, which can collapse and affect mainly the most vulnerable classes, as this portion of the Brazilian population lives under precarious conditions of housing and basic sanitation, in addition to crowded situations due to the number of subjects living in the same household (WERNECK; CARVALHO, 2020).

When the contamination spread around the world, several countries closed public spaces, especially those that cause the most crowding (such as shopping malls, clubs, nightclubs, bars, schools), and only essential services (pharmacies, hospitals, emergency rooms, supermarkets) continued in "normal operation" (AQUINO et al., 2020; HOLANDA, 2020).

Isolation was, at that time, one of the only ways to prevent this disease (AQUINO et al, 2020), and the Brazilian population called for a vaccine through social networks. Today (2021), with vaccines available, two situations can be observed: several countries are vaccinating people; on the other hand, some countries, such as Brazil, have not yet started this process and continue to evolve in the number of contaminated (FRANZÃO, 2020).

Although most countries are mobilizing for health and life, based on scientific recommendations, Brazil, on the other hand, is experiencing a real struggle between those who defend social distancing and those who, as well as the current president of the republic—Jair Bolsonaro (supported by one part of the population)—prefer not to follow the care protocols, with the conviction that the disease is not as serious as it appears (GALHARDI; FREIRE; MINAYO, 2020; SILVA; PIRES; PEREIRA, 2020).

Thus, it is clear that the pandemic has also exacerbated the gap between political interests and the country's social needs. Thus, the inequities of the social determinants of health in Brazil are highlighted, as the pandemic is far from being just a health problem, it is a social, political, and economic problem and highlights the need for drastic changes throughout society, especially with regard to the quality of access, information and education.

The aim of this study is to verify in the literature what has been produced about remote education associated with social inequalities and what the impacts of these inequalities on student learning are in times of pandemic.
A qualitative and bibliographic research, to provide the researcher with the broad domain of the subject, and facilitate reflection on the proposed subject, we try to present knowledge drawn from the most recent and consistent bibliographies (SEVERINO, 2007). Also, it is exploratory research, to provide greater mastery and deepening of the subject, with flexible planning - which allows the study of the subject from different angles and aspects (PRODANOV; FREITAS; 2013).

We search for articles published in digital media through the Scielo databases, capes journals, and academic google. We use the following keywords: "Ensino remoto" AND "desigualdades sociais" AND pandemia. Still, legal documents, news, and texts found on the internet of recognized authorship in the area of education (i.e., grey literature) were used in order to solidify the defended arguments.

**Inequalities in Brazil during the COVID-19 pandemic and the impacts on education**

The United Nations Educational, Scientific and Cultural Organization (UNESCO, 2020) declared that school institutions were one of the first to close; in May (2020), 186 countries/regions had closed schools (OLIVEIRA; GOMES E BARCELLOS, 2020). Changes in Brazilian legislation tried to ensure compliance, e.g., the flexibility of school days through Provisional Measure n° 934, April 1, 2020, which waives compliance with 200 school days, however, in the same document, it is ensured compliance with the minimum annual workload, that is, 800 hours (BRASIL, 2020).

Thus, teachers from all segments were "forced" to gradually (abruptly, in some cases) adhere to remote learning, also known as "non-face-to-face classes" or "online teaching" (MARTINS; ALMEIDA, 2020; SAMEER EL KHATIB; CHIZZOTTI, 2020).

The term "DL" should not be used in this context, as this type of class has an entire structure conducive to teaching through the internet, with people trained for such purposes; on the other hand, remote learning (essential because of the pandemic) was something emergency, which, roughly speaking, took place without planning (PRADO-CÔ; AMORIM; FINARDI, 2020; SAMEER EL KHATIB; CHIZZOTTI, 2020).

One of the biggest problems in distance education is that it does not reach everyone (DUTRA, 2020). Many students are without internet access—despite globalization (STEVANIM, 2020). These subjects need to be visualized and public policies need to exist so that the necessary supports are offered. It is clear that much progress is needed so that everyone actually has access to digital technologies and can, in this way, learn virtually. As for public policies in education, Ferreira and Nogueira (2015, p. 1) describe (in Brazilian Portuguese) as follows:
Public policy in the educational area is the bridge that links legal determinations and objectives with the local reality. Thus, such policies have a direct connection with the school, since this is the locus where the reality that needs to be achieved is presented. Thus, every school suffers the consequences arising from public educational policies, either directly or indirectly.

In creating an effective public policy, the local reality must be considered, thus, it is possible to assess whether the objective has been achieved. Thus, although the pandemic is an “equal” problem in all states, regional peculiarities must be considered, as each region has a specific “fighting power”—insofar as it has subjects from different classes that can aggravate the care of the fighting the disease (CARDOSO; FERREIRA; BARBOSA, 2020).

The least favored class that has greater difficulty in accessing technologies are precisely those that most need monitoring (CARDOSO; FERREIRA; BARBOSA, 2020). Most of the students in these classes come from families that have only the mother, who is often the only person responsible for meeting the needs of the house (i.e., the “head of the family”). Thus, these women have reduced time, and consequently, greater difficulty in accompanying their children in their studies (VERZA; SATTLER; STREY, 2015).

In this is a new reality, parents have to do household chores, formal work (inside or outside the home), and help their children with school activities, since in times of pandemic it is the parents, more than ever, who will have to take care of their children’s learning process (ARRUDA, 2020)—without forgetting the fundamental role of teachers, who organize themselves to provide content to students (DUTRA, 2020; SILVA; SILVA NETO; SANTOS, 2020).

There are several difficulties of less favored social class during the learning process, as they are people who live in the same house with a large number of relatives, and who often share the study environment with other people (sometimes there is no place for the studies), it impairs learning (STEVANIM, 2020).

Also, people with less education are more affected by social inequalities and, consequently, their children are excluded from the teaching-learning process by remote means (CARDOSO et al., 2020). Some parents have not completed basic education, how can they help their sons with their studies? (DUTRA, 2020; STEVANIM, 2020). Added to this is the lack of access to the internet, there is the perfect scenario for a complete exclusion of these people from the learning process, from the right to education advocated in the Lei de Diretrizes e Bases (LDB, articles 4 and 5) and Federal Constitution (article 205) (BRASIL, 1996; BRASIL, 1988).
In our society, subjects belonging to lower social classes are more likely to suffer the impacts caused by the pandemic, as they have less access to health care. Such inequalities stem from historical, political, cultural issues—which mainly affect the black population (SANTOS et al., 2020). The media forged a discourse that the pandemic, which started in China but quickly spread across the world, would strike people equally (a disease without distinction of class), but the discourse failed because the smaller the resource financial, the greater are the social inequalities and disparities between the numbers of infected and dead between social classes (OLIVEIRA et al., 2020).

During the pandemic, some laws were changed. The Conselho Nacional de Educação published (April 28, 2020) a position in favor of the possibility of calculating non-face-to-face teaching activities to meet the minimum annual workload; and a proposal on the reorganization of the school calendar, due to the COVID-19 Pandemic, approved by the Ministério da Educação (May 29, 2020). This can be presented as a solution or a problem, as it depends on which subjects are considered, as, when considering those who do not have access to the internet, it is clearly perceived as a major obstacle for this knowledge to reach these people.

The Federal Government, thinking about it (or not), distributed internet chips to low-income students enrolled in Federal Universities, but this is far from enough to reduce the connection problems of marginalized students (due to lack of access to technology). It is still necessary to ask, how will students from other stages of Basic Education be? Can they be without access to this knowledge for how long? what impacts will this have on your future as a student? Since, as they belong to the marginalized class, they have to deal, daily, against a system that hinders their possible financial, social, and cultural.

Access to remote learning in times of pandemic

Due to the COVID-19 pandemic, the themes of remote learning and social inequalities were more investigated in the scientific literature. The School Institution, as a place where many people interrelate, is very prone to the dissemination of the new coronavirus, so the closing of these institutions was essential (i.e., to preserve the health of the elderly, it was also necessary to isolate the younger, as these are vectors of virus transmission, as children and adolescents, if they were going to school, would come into daily contact with teachers, education professionals in general, fathers and
mothers, grandparents and grandparents and relatives in general), considering that the crowding in a classroom favors the transmission of the virus (ARRUDA, 2020).

The advent of the pandemic has changed the way of teaching and learning abruptly for many students, especially those who do not have the financial resources to keep the internet at home (to keep up with classes), because in current times, having the internet is pre-requisite to be able to study. Unfortunately, this is a new reality, however, we cannot leave students who do not have internet access behind, but we also cannot fail to provide remote activities because of them, as that way we would be depriving all other students of one of the fundamental rights (i.e., the right to education), as provided for in article 205 of the Federal Constitution. So, given this, it is necessary to reflect on ways to make remote learning reach everyone (STEVANIM, 2020; BRASIL, 1988).

The current situation of school closures resembles other phenomena that have occurred (e.g., polio epidemic in the United States [1916]; teachers’ strike in a community in Belgium [1990]; hurricanes Katrina and Rita in the United States [2005]), this feat may seem harmless, however, these small stoppages affect the long term—surveys carried out in these populations affected by these phenomena show a delay in relation to those not affected, or even a decrease in the study time of those affected (OLIVEIRA; GOMES; BARCELLOS, 2020).

In view of these results, it is reflected on how closing schools for such long periods will influence the future of young people not only in Brazil but worldwide, so the concern with those who do not have access to the internet still becomes most urgent, as they will be the most harmed.

At the beginning of the proliferation of COVID-19, the forecast was that schools would be closed for at least five months (like the lockdown held in China), however, we realized that much more time was needed for schools to be able to work again (ARRUDA, 2020)—Brazil still has many schools closed and with no forecast for opening. Thus, we show that remote learning is one of the most effective ways to maintain teaching and learning (at least it is expected by us) while preventing people from becoming infected and later being vectors of the disease.

However, each context has to be considered, as each country has specific conditions to offer remote learning. Furthermore, in Brazil, social inequalities are an increasingly latent problem (CARDOSO; FERREIRA; BARBOSA, 2020). Stevanim (2020) describes the story of Emanoel Obolari Protásio (17-year-old), who needs to work in the fields, to help his family and access the internet at home—this person’s reality is the reality of many other Brazilians. In the same work, the author points out that 4.8 million Brazilian children and adolescents, between 9 and 17 years old, do not have access to
the internet at home, and 58% of young people only have access by cell phone—and this device is not suitable for the execution of certain educational activities.

Based on data taken from the last monitoring of the Plano Nacional de Educação (PNE), Law n° 13.005/2014, there was an increase in the number of enrollments in basic education, however, it reflects on the number of students who still do not have access to education, there are still 1.5 million Brazilians out of basic education, reflecting the great social inequalities in Brazil (DUTRA, 2020). After all, is the pandemic causing a big problem in the search for knowledge, or has it just revealed the Brazilian reality, namely: that many are literally isolated from the digital world or do not even have access to education? Thus, considering the Brazilian reality, in addition to thinking about giving access to digital technologies to all, it is necessary, in view of this, at least to provide access to quality education—guaranteed in the Lei de diretrizes e Bases da educação Nacional (BRASIL, 1996).

The pandemic strengthened social inequalities with regard to access to technology, as it was possible to observe how needy our students are both in terms of handling and access to information passed on by teachers to students. Information that is often mechanized, reflecting only traditional teaching, but digitally (CARDOSO; FERREIRA; BARBOSA, 2020; SAMEER-EL-KHATIB; CHIZZOTTI, 2020).

We emphasize that, although there are children and adolescents restricted from access to technology, works are being produced to demonstrate initiatives to try to bring education to various students (e.g., the Maranhão state initiative, which provided classes via radio and television). This data represents an important advance, considering that from the moment other forms of remote learning are offered, students are more likely to have access to this knowledge (DUTRA, 2020).

In China, the government has made a comprehensive investment in technology companies in order to serve students and teachers, providing access to content and communication platforms. The strategies used by China mainly refer to remote classes through various means, namely: television programs broadcast by state televisions and applications and virtual platforms (ARRUDA, 2020).

Remote education left marks of good and evil: for good, because, in many cases, it allows affectionate encounters and good curricular dynamics to emerge in some spaces, study routines and meetings with the class are guaranteed in the context of the pandemic; to the bad, because they repeat massive models and underuse the potentials of cyberculture in education, causing boredom, discouragement and exhaustion in teachers and students (even illnesses are already reported). Furthermore, it causes trauma and reactivity to any technology-mediated education. For our field of studies and
performance, the reactivity that this dynamic has caused greatly compromises responsible innovation in the field of education in cyberculture (SANTOS, 2020). It’s no use using digital technologies to reproduce traditional teaching, which takes place in classrooms, as the use of technologies will be of no use, quite the contrary, this type of traditional teaching used digitally may harm students’ performance—or cause problems (SANTOS, 2020).

The incipience of Brazil in the use of digital technologies is cited by several authors (ARRUDA, 2020; SIILVA et al., 2020; DUTRA; STEVANIM, 2020; CARDOSO et al., 2020) and shows that we need to advance towards education technology that reaches everyone because as much as we are focused on guaranteeing this access only in this period of turmoil, we need to look further, as new pandemics may emerge and we will need to be prepared so that the mistakes made during the current pandemic are not repeated. Remote learning is here to stay, no setbacks are possible, it is necessary to adapt to these technologies, as well as guaranteeing access to them.

In Brazil, there are documents (PNE: 2014-2024) that mention the use of technologies as a resource for in-person classes, some phrases present in official documents can be highlighted, such as: selecting, certifying, and disseminating educational technologies for children’s literacy; foster the development of educational technologies and innovative pedagogical practices that ensure literacy; encourage development, select, certify and disseminate educational technologies for early childhood education, elementary school, and high school and encourage innovative pedagogical practices; universalize, by the fifth year of this PNE, access to the worldwide network of computers in high-speed broadband and triple, by the end of the decade, the computer/student ratio in public schools of Basic Education (BRASIL, 2014).

It is observed that this last strategy is legitimate and it would in fact be important to put into practice, as mentioned in the strategy, the universalization of access to technologies should have taken place by 2019, but what is verified is that it was not achieved (BRASIL, 2014). Thus, it is urgent to rethink new forms of permanent learning and not just for any emergency that may arise.

Conclusion

With what has been exposed in the present work, it appears that Brazil has several obstacles when referring to the implementation of the use of digital technologies for the teaching-learning of students, as we live in an unequal country, where differences are outlined in different areas, mainly, not educational. The lack of access to the internet, in
general, and to digital media more specifically, may cause lasting impacts on the lives of Brazilian children and adolescents.

The COVID-19 pandemic only came to reveal something that would inevitably be exposed: we, Brazilians, are technologically backward; whether due to the lack of technological equipment in schools or due to the lack of internet access due to personal difficulties of children and adolescents.

References


RESUMO:
O ano de 2020 foi marcado pelo aparecimento de um novo coronavírus, fazendo com que fossem necessárias mudanças em todos os âmbitos da vida dos cidadãos, em especial na educação, a qual precisou sofrer reformulações. No Brasil, há desigualdades sociais que afetam o acesso às tecnologias digitais ou a própria educação. O objetivo do presente estudo é verificar na literatura o que tem sido produzido sobre o ensino remoto associado às desigualdades sociais e quais os impactos dessas desigualdades no aprendizado dos alunos em épocas de pandemia. Utilizou-se de uma pesquisa bibliográfica e exploratória. Verifica-se com os achados que a falta de acesso à internet, em geral, e aos meios digitais de modo mais específico, poderá causar impactos duradouros na vida de crianças e adolescentes brasileiros.

PALAVRAS-CHAVES: Ensino remoto; Covid-19; Desigualdades sociais.

RESUMEN:
El año 2020 estuvo marcado por la aparición de un nuevo coronavirus, lo que hizo necesarios cambios en todos los ámbitos de la vida de los ciudadanos, especialmente en la educación, que necesitaba ser reformulada. En Brasil, existen desigualdades sociales que afectan el acceso a las tecnologías digitales o a la propia educación. El propósito de este estudio es verificar en la literatura lo que se ha producido sobre la educación a distancia asociada a las desigualdades sociales y cuáles son los impactos de estas desigualdades en el aprendizaje de los estudiantes en tiempos de pandemia. Se utilizó una investigación bibliográfica y exploratoria. Se verifica con los hallazgos que la falta de acceso a internet, en general, y a los medios digitales de manera más específica, puede generar impactos duraderos en la vida de los niños y adolescentes brasileños.

PALABRAS-CLAVES: Enseñanza remota; COVID-19; Diferencias sociales.