

TEACHERS' WORK DURING PANDEMIC TIMES



DALILA ANDRADE OLIVEIRA EDMILSON PEREIRA JUNIOR ANA MARIA CLEMENTINO

TEACHERS' WORK DURING PANDEMIC TIMES

BELO HORIZONTE

Dados Internacionais de Catalogação na Publicação (CIP)

O48t

OLIVEIRA, Dalila Andrade.

Teachers' work during pandemic times – Technical Report / Dalila Andrade Oliveira, Edmílson Pereira Junior., Ana Maria Clementino. – Belo Horizonte, 2021.

il. ISBN 978-65-00-22626-3

1. Teachers' work. 2. Pandemic. 3. Latin American. 4. Education. 5. Remote education. 6. Report. 7. Gestrado. I. Pereira Junior, Edmílson II. Clementino, Ana Maria. III. Universidade Federal de Minas Gerais. IV. Title.

CDU 376



LIST OF GRAPHS

Graph 1 - Distribution of public school teachers from
each country survey ed according to gender and age gro
up16
Graph 2 - Distribution of teachers from each country sur-
veyed according to the stage(s) of Education in which they work
with17
Graph 3 – Association between the age group of teachers
of public schools and the degree of difficulty to handle digital
technologies18
Graph 4 – Self-perception of public school teachers about
houth pandemic affects mental health according to the
country19
Graph 5 – Porcentage of public school education teachers
who were performing non-face-to-face work activities during
the pandemic according to the country20
Graph 6 – Distribution of teachers of public school
according to gender and the fact of having to share
technologies resources at home to develop non-face-
to-face activities and sharing househould tasks with
others21
Graph 7 - Association between the experience or prior
training of teachers of public school for conducting remote ac-
tivities and holding technologies resources necessary to teach
from home
Graph 8 – Porcentage of public teachers who use
each type of technological resources to conduct remote
classes23
~2)
Graph 9 – Distribution of teachers of public basic edu-
cation accourding the dedication, in working hours, for the
preparation of non-face-to-face classes compared to face-
to-face classes24

CONTENTS

INTRODUCTION	9
Goals	12
METHODOLOGICAL ASPECTS	13
FINDINGS	15
Characteristics of respondents	
Evaluation of all respondents	
Management of digital technologies	
Mental Health	
Non-face-to-face activities during the pandemic	
The perception of teachers who were developing remote teaching	
activities about the effectiveness of their work	20
Domestic context	
Preparation for remote teaching and availability of technological resources	
Technological resources used at home	
Variation in working time during the pandemic	_
REFERENCES	_





INTRODUCTION

Declared a pandemic by the World Health Organization (WHO) on March 11, 2020, the Coronavirus health crisis (COVID-19) imposed a series of restrictions on people's mobility in Latin America and the world. Social distancing due to the pandemic has hampered one of the most sacred routines since the 19th century: the school life of millions of children and young people worldwide. According to the World Bank, in just over three weeks, about 1,4 billion students were out of school in more than 156 countries (WORLD BANK, 2021). Despite all that has been said in recent decades about educational reforms for 21st century society, it is observed that no educational system has been prepared to face the exceptionality of this pandemic. According to a United Nations Children's Fund report ((UNICEF, 2020), seven months after the pandemic was declared Covid-19 interrupted the education of more than 137 million children and teenagers in Latin America and the Caribbean. It considers the impacts of Covid-19 on education to be devastating in most countries in the region.

Considering the precarious situation of the public health systems of most countries in the Latin American region, one of the first measures to be taken, as soon as the pandemic was declared, was the suspension of face-to-face classes in order to reduce the risks of population infection. Thus, the school systems were forced to interrupt face-to-face classes and since then principals and education professionals have strived to look for find alternatives of carrying out teaching activities remotely. In most situations, what was observed was the abrupt migration from the face-to-face to the virtual environment, in many cases without the necessary technical support and, obvi-

ously, without prior planning. In an attempt to comply with the curriculum planned for the school year, the transposition of face-to-face work into the virtual environment was observed, without the necessary mediations and adaptations.

The novelty of this context highlighted the already known social and educational inequalities that Latin American region faces, revealing a complex and challenging situation: lack of access and technological support of professionals and students, inexperienced teachers and without prior training towards the use of technologies to perform remote work, and the vulnerable situation of many families of students who, in addition to not being able to offer a minimally adequate environment for study, depend on the school to feed their children.

These challenges are even greater when considering the outstanding social inequality that Latin America presents, being the most unequal region on the planet. According to data from the United Nations Development Program (UNDP, 2019), seven of the world's 20 most unequal countries are located in this territory. Overcoming inequality not only means improving access to income, but also to health, education and decent housing. These conditions, which were already quite alarming, deepened further with the impact of Covid-19.

Just as public schools had their in person classes suspended, higher education also had to interrupt their face-to-face activities. The university has also suffered important impacts of the pandemic, but academic life has not stopped, above all, research in all fields of knowledge has continued very active and thanks to its



development is that some important measures in the containment of COVID 19 have been known.

With the same speed as adaptations were implemented by educational systems, the research groups were compelled to use agile research strategies appropriate to the current context to empirically evaluate the conditions of education provision and, in particular, teaching practice. Before that urgent need, research Teachers' Work during Pandemic Times in Brazil was developed to investigate the effects of social distancing measures due to the COVID-19 pandemic on the work of public school teachers.

The academic discussion about teaching practice gains different approaches with this new scenario. The teaching practice involving the necessary interactions between teacher and student, which traditionally takes place in the face-to-face environment, now requires new behaviors. Teachers face the challenge of seeking other forms of teaching, ranging from activities performed in a virtual environment to the effort to attract the attention of students at a distance. The activities should be less focused on presentations, introducing greater variation of didactic material and forms of evaluation, understanding the development of mediations that favor the more collaborative and cooperative participation of students.

If previously the structure of schools occupied the centrality in studies on the conditions of teaching practice, during the pandemic are the housing conditions of teachers and students that start to determine the greater or lesser access to education. Similarly, if before computer laboratories were highly demanded structures in schools, now the availability of computer with adequate internet network in homes becomes an item of extreme need.

However, the infrastructure of schools remains a matter of great relevance for planning the post-pandemic return to face-to-face education, which would explain to some extent the difficulties encountered in the Latin American context for returning to school. The infrastructure conditions of schools in the Latin American region are quite precarious, according to UNICEF (2020), 4 out of 10 schools currently lack basic hand washing facilities. The conditions of the walls, as well as lighting, ventilation, the size of the rooms and recreation and rest areas, the existence of bathrooms with the proper hydraulic facilities in good condition, among other factors, determine how well a school is equipped to offer good working and learning conditions. These conditions are very diverse among the countries of Latin American region and even within them.

In Brazil, there is a wide variety of infrastructure conditions of schools depending on the geographical location, between regions and states of the country, and urban schools historically tend to present better conditions than rural schools. According to the data of the School Census (2019), there are 86.4% of the schools located in rural areas that have drinking water, 90.2% with a bathroom, 91.8% with electricity and 92.5% with sewage.

Given the pandemic situation and low expectations regarding the return to face-to-face activities under adequate security conditions, the Study Group on Educational Policies and Teachers' Work of the Federal University of Minas Gerais (Grupo de Estudos sobre Política Educacional e Trabalho Do-



cente - GESTRADO/UFMG) decided to carry out the research Teachers' Work during Pandemic to understand how school systems adapted themselves considering the measures of social distancing imposed by COVID-19, to offer learning remotely and how teachers perceived the different characteristics required to perform these activities.

The research had the partnership of Confederação Nacional dos Trabalhadores em Educação (CNTE) to involve teachers in order to answer the questionnaires, as well as to communicate results. The period of data collection, carried out through Google Forms, occurred from June 8-30 2020, and information was gathered from 15,654 teachers from public schools in Brazil.

Because Brazil is a country of political-administrative organization of federative type, the states and municipalities have relative autonomy, so in educational matters they are responsible for the basic level of education (early childhood education, elementary school and high school) of all states of the federation. For this reason, the target audience of the research included teachers from municipal, state and federal public educational systems and who work in the different stages of Basic Education. In addition to regular education, it also included teachers from different teaching modalities: Youth and Adult Education, Special Education, Professional and Technological Education, Rural Education and Indigenous School Education and Quilombola. Geographically, professionals from all States in the country were covered.

From the experience carried out in Brazil and considering the similarity of situations between a

large number of countries in the Latin American region, the Latin American Network for Studies on Teachers' Word (RedEstrado, Rede latino-americana de Estudos sobre Trabalho Docente) decided to conduct the same research in several countries in which it is structured, namely: Chile, Colombia, Costa Rica, Ecuador, Mexico, Paraguay, Peru, and Uruguay. Although the Estrado Network is also organized in Argentina and Puerto Rico, these countries had already conducted similar research in recent periods, so they were not included in this sample.

The Estrado Network, in conjunction with the regional office of the International Education for Latin America (IEAL) sought to expand the research to a larger group of countries in the region: Honduras, El Salvador, Panama and the Dominican Republic.

The proposal was to conduct the research in these countries using the same data collection instrument developed in Brazil with minimal adaptations related to the school organization of each country, which was done with the contribution of the colleagues of the Estrado Network in each country. The goal was to produce a database that allows comparative analyses of the situation of teacher's work in publics schools in the Latin American region. The research was preceded by a wide discussion with union directors within the IEAL in order to seek contributions to the mobilization of teachers in different countries in order to answer the questionnaire.

For the report, results of the research conducted with teachers from public schools (or receiving public funding) from 12 Latin American countries and the previous research conducted in Brazil were selected.



GOALS

Seeking to cover the multiple aspects and impacts on the daily performance (or not) of education during pandemic, the research was conducted based on the objectives described below.

GENERAL GOAL

Analyzing the impacts of social distancing measures due to the COVID-19 pandemic on teachers' work in public schools or receiving public funding at the child, primary, secondary levels in certain Latin American countries.

Specific goals:

- Pointing the activities that are being performed by teachers during the period of social distancing and under what conditions these activities are carried out.
- Detecting the structure that teachers have to perform non-face-to-face activities, the use of technology and equipment use, as well as the support offered by schools and public educational agencies for this purpose.
- Discovering the perception of these teachers about the effectiveness of their work performed during the pandemic.
- Analyze the impacts of activities carried out remotely on teachers' health.

This report is organized into three chapters, in addition to the introduction and final considerations. The first chapter approaches the methodological aspects, presenting how data collection was performed and how the information obtained was treated by the team of researchers. The second chapter brings the results obtained in the research, considering the aspects that involve the entire contingent of participants. And the third and final chapter analyzes the results referring to teachers who, during the pandemic, were performing remote teaching activities, either at home or at school.



METHODOLOGICAL ASPECTS

The research aimed to discover the effects of social distancing measures imposed by COVID-19 on teachers' work in public school or the ones with public funding in the Latin American region, seeking to raise which activities were being developed by teachers and under what conditions. For data collection, following the guidelines and determinations of health agencies and local governments on the need for social distancing due to the COVID-19 pandemic, the application of questionnaires to teachers was performed in a non-face-to-face manner.

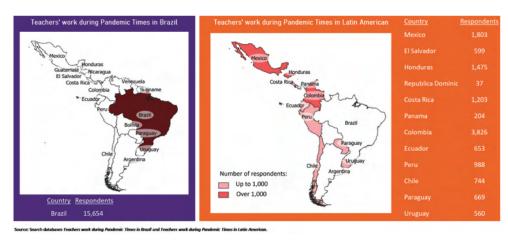
The questionnaire was prepared and adapted to Google Forms. The communication of the research was carried out by RedEstrado in partnership with IEAL and affiliated unions. The unions in each country have committed to mobilize teachers and send the questionnaire to teachers through WhatsApp, email and other social networks. The aim was to obtain the highest possible answers of public school teachers in

the 12 countries participating in the research.

Depending on the inclusion criteria of the participants, this is a quantitative research with non-probabilistic sample design, because a previous number of teachers was not established to answer the questionnaire and not even the relationship of which teachers should be included in the sample.

Data were collected first in Brazil between June 8 and 30, 2020. In other countries, data were collected from October 15 to November 25, 2020.

The survey sample totalized 28,415 respondents in the 13 countries. The number of participants between countries was quite varied, ranging from 37 to more than 15,000 teachers. However, due to the low absolute number of respondents, the results presented during the report will not include the Dominican Republic, since in this country only 37 completed questionnaires were obtained.



After data collection, the consistency analysis of the database was performed, and the questionnaires with incomplete completion and duplicate cases were discarded. Only then the research team began to create this technical report and a series of other publications (reports, articles) on the subject.

 $f = \frac{\ln^{2m}}{y(c-\frac{1}{2})} dx \left(\frac{R_1 - R_2(\frac{M-T^2}{1-cM(x)})}{blx} \right)$ $= X - \left((X - y)^2 \right)$ f(x) dx-Zx f(y)dy-Zy $= \begin{cases} 0 = > m \neq 1 \\ 2\pi \cdot i = > m = 1 \end{cases}$



FINDINGS

The presentation of data from teachers work of public school was organized into three sections: the first made the characterization of the respondent public; the second included all the participants of the research, having or not performed remote teaching activities and the last focused exclusively on teachers who were developing distance learning activities, whose experience in this teaching format was a necessary criterion to be evaluated.

CHARACTERISTICS OF RESPONDENTS

The predominance of female teachers in public school prevailed in all countries evaluated (Graph

1), and the lowest participation of women was recorded in Colombia (62%) and the largest in Mexico (82%).

Another information considered was the age group of teachers, who denoted to Mexico the country surveyed with the highest proportion of professionals in the younger groups: 34% were up to 29 years and another 36, from 30 to 39 years (Graph 1). On the other hand, El Salvador had a contingent of 45% of teachers aged 50 years or older, Panama with 47% and Peru with 48% of teachers in this older age group.





Mexico El Salvador Honduras Femenino 66% 72% Femenino Femenino 82% Masculino Masculino Masculino 18% Até 29 anos Até 29 anos 13% Até 29 anos De 30 a 39 anos De 30 a 39 anos 18% 30% De 30 a 39 anos De 40 a 49 anos De 40 a 49 anos 29% De 40 a 49 anos 50 anos ou mais 50 anos ou mais 28% 50 anos ou mais Costa Rica Panama Colombia Femenino 81% Femenino 75% Femenino 62% Masculino Masculino Masculino 19% 25% 38% Até 29 anos Até 29 anos Até 29 anos De 30 a 39 anos De 30 a 39 anos De 30 a 39 anos De 40 a 49 anos 37% De 40 a 49 anos De 40 a 49 anos 32% 50 anos ou mais 50 anos ou mais 50 anos ou mais 34% Ecuador Peru Brazil Femenino Femenino Femenino Masculino 29% Masculino 34% Masculino Até 29 anos 16% Até 29 anos 5% Até 29 anos 8% De 30 a 39 anos De 30 a 39 anos De 30 a 39 anos 33% 16% De 40 a 49 anos 30% De 40 a 49 anos De 40 a 49 anos 50 anos ou mais 21% 50 anos ou mais 50 anos ou mais Chile **Paraguay** Uruguay Femenino 79% Femenino Femenino 80% Masculino Masculino Masculino 28% 21% 20% Até 29 anos Até 29 anos Até 29 anos De 30 a 39 anos De 30 a 39 anos De 30 a 39 anos 39% 30% 29% De 40 a 49 anos 22% De 40 a 49 anos De 40 a 49 anos 34% 50 anos ou mais 50 anos ou mais 50 anos ou mais 28%

Graph 1 - Distribution of public school teachers from each contry surveyed according to gender and age group

Source: Search databases Teachers' work during Pandemic Times in Brazil and Teachers' work during Pandemic Times in Latin American.

The distribution of teachers according to the stage of Education in which they taught was evaluated, and different formations were found among the countries. Panama was the only country with a majority of respondents working in Childhood Education, whose proportion reached about three out of four teachers (Graph 2). Only Peru and Uruguay had

the highest participation of high school respondents, equivalent to 47% and 71%, respectively. The other nationalities were marked by more respondents from Elementary School, and this participation was most prominent in Paraguay and El Salvador, with more than 90% of teachers.



Mexico El Salvador Honduras 93% 89% 47% 34% 22% 21% 15% 10% 11% Colombia Costa Rica Panama 76% 63% 52% 44% 36% 24% 22% 18% 12% Peru Brazil Ecuador 81% 56% 48% 47% 41% 34% 21% 20% 14% Chile Paraguay Uruguay 90% 71% 55% 40% 28% 14% 13% 6% 6% **Childhood Education Elementary School High School**

Graph 2 - Distribution of teachers from each country surveyed according to the stage(s) of Education in which they work with

Source: Search databases Teachers' work during Pandemic Times in Brazil and Teachers' work during Pandemic Times in Latin American.

This classification considered the different names used in each country surveyed. It is emphasized that the same teacher can participate, at the same time, in more than one stage, so that the sum of the percentages of the steps exceeds 100%.

EVALUATION OF ALL RESPONDENTS

This section covers the entire contingent of public school teachers who participated in the research, who in one way or another were impacted by the COVID-19 pandemic. That is, the aspects evaluated relate both to those who were in remote teaching practice and those who had to interrupt activities in the area.

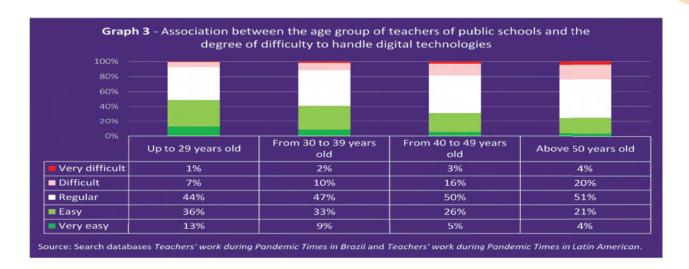
MANAGEMENT OF DIGITAL TECHNOL-OGIES

Several factors contribute to the increase of time to develop non-face-to-face teaching ac-

tivities, among which are the teachers' own skills to deal with digital technologies, previous experience with equipment and other virtual tools, the use he/she makes in his personal life of the Internet, such as participation in social networks.

It is also important to highlight the influence of the generational aspect on the skills to deal with digital technologies, being increasingly common the insertion of them in people's daily lives. The data explain the differentiation of the ability to handle digital technological resources between age groups, and as the age group of teachers increases, the more difficult it becomes to deal with digital technologies (Graph 3). At the other end, while 25% of respondents aged 50 years or older found it easy or very easy to deal with such technologies, among those who are up to 29 years old, this rate reaches 49% of them. That is, almost twice as much.





However, the issue of the work overload of these teachers performing their activities remotely is related to other variables that deserve to be observed. The training that teachers have or have had to deal with educational technologies or so-called "virtual learning environments". This has been a very debated issue in teacher training courses and continuing education programs. In a previous study in which we developed indicators about teaching work in public school in Brazil, we could notice that the measure related to the use of new technologies was influenced by the amount of time spent in education, that is, by the experience of teachers (OLIVEIRA, D. A. et al., 2017). The data showed that "[the] use of new technologies underwent a successive growth, started in the mid-1990s, until culminating, in the last period analyzed, as the item that teachers presented greater preparation at the time of the beginning of their activities in education" (p. 53).

MENTAL HEALTH

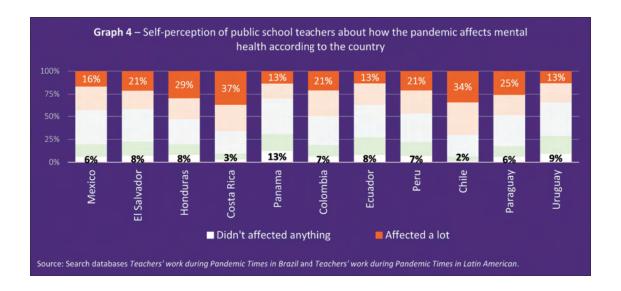
The lack of resources necessary for the full development of activities, combined with insufficient training to deal with technological programs and resources has been a source of suffering for many teachers. They report having fears and anxieties about the situation of the pandemic and insecurity about the future.

The relevance of discussing the conditions of working in the period of social distancing is precisely to contribute to a greater understanding and knowledge of the effects that these conditions in which workers perform their activities can have on themselves and on the expected results. Exposure to the risks of illness and the levels of safety in occupational environments, although virtual, directly influence the lives of the subjects. On the one hand, this is not an easy task because it involves a multitude of conditions that is difficult to map accurately. On the other hand, we know that, as Gollac and Volkoff (2000, p. 8) observe, workers have great difficulty in verbalizing their work, in describing the details that can be translated into words. They tend to internalize, to naturalize the situations they face, which requires the specialist to take a closer look at objective and subjective working conditions.

Teachers' self-perception of mental health due to the pandemic was quite differentiated among the countries surveyed. The worst situations were found in Chile and Costa Rica, where 34% and 25%, respectively, of the respondents consider that they had their health very affected by the COVID-19 pandemic (Graph 4). The most favorable situations for teachers' mental health according to the research were recorded in Panama, Uruguay and Ecuador.

It should be emphasized that this question was not included in the questionnaire of the research conducted in Brazil. Namely, this question is the result of an improvement of the one used to investigate the mental health of teachers in that country.





The specific literature on teaching work indicates that the teacher's well-being is directly related to the bonds he establishes with the students. Tardif and Lessard (1999) consider that the relationship with students is a source of tensions and dilemmas inherent to the teaching profession. On the one hand, contact with students and teaching a subject are the positive and rewarding aspects of work. On the other hand, everything that concerns the control and surveillance, discipline management and conflict resolution belongs to a set of activities quite unpleasant for teachers. Although the authors' findings aim at classroom teaching in Canadian schools in the 1990s, they seem quite adequate to shed light on the phenomenon assisted in the Latin American region with the occurrence of the pandemic.

NON-FACE-TO-FACE ACTIVITIES DURING THE PANDEMIC

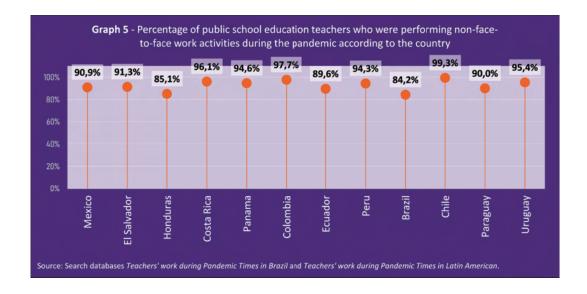
Due to the measures of social distancing imposed by COVID-19, school systems, one at a time, had to adapt to offer teaching remotely. These efforts that aimed at alleviate the losses imposed by the suspension of face-to-face classes forced the readjustment of curriculum planning. Somehow the new context resulted in abrupt changes in the way

of the development of teaching activities, requiring the replacement of the traditional direct pedagogical relationship between educator and educating with non-face-to-face activities.

As warned by the aforementioned study produced by the World Bank, the closure of schools can increase the rate of school dropout, especially those with high vulnerability, in addition to affecting the social protection network, since many children depend on food meals for their survival (WORLD BANK, 2021). We found that the provision of distance education in public systems during the pandemic reached more than 95% of teachers in Uruguay (95.4%), Costa Rica (96.1%), Colombia (97.7%) and Chile (99.3%) (Graph 5). A slower pace to adapt to the new format of education was found in countries such as Brazil (84.2%), Honduras (85.1%) and Ecuador (89.6%), where more than one in ten teachers had their activities paralyzed, without offering any alternative for the development of teaching.

It is emphasized that, in Brazil, the research was conducted in June and, in other countries, in November. That is, about five months later, a period that may have been useful for the reorganization of public networks to offer remote education to students.





The agility of public education systems in offering distance learning is influenced by a number of aspects, which result in different adaptation times between different contexts. The minimum preparation to carry out interaction activities with students involves characteristics such as the quantitative professionals and students, the technological resources existing in schools and the available funding.

THE PERCEPTION OF TEACHERS WHO WERE DEVELOPING REMOTE TEACHING ACTIVITIES ABOUT THE EFFECTIVENESS OF THEIR WORK

This section discusses some situations that interfere in the success of remote teaching activities, based on the perception of teachers of public school in the 12 countries analyzed. The forced experience of teachers in non-face-to-face teaching makes it possible to measure both the facilitating or hindering factors and those resulting from this type of interaction with the students.

DOMESTIC CONTEXT

Because remote teaching is developed by teachers in their homes, it is necessary to consider their domestic conjuncture. Gender information may denote a differentiation from tasks performed at home,

which include housework, cleaning and housekeeping to the preparation of food, in addition to caring for children and sometimes the elderly. Such tasks are traditionally developed by women, although nowadays there has been much criticism of the conditioning of these social roles and some advances have been noticed.

According to the publication Working Situation in Latin America and the Caribbean (Conjuntura Laboral na América Latina e no Caribe), published by Economic Commission for Latin America and the Caribbean (ECLAC) and International Labor Organization (ILO), in 2019, among the most important trends facing the labor market in Latin America is the large increase in women's participation in paid activities. During the last 30 years, the average participation rate of women of 15 years and older in the Latin American labor market increased by 11 percentage points, a higher pace than in other regions of the world. However, there are still large differences between countries, both in the growth rate and in the levels of female work participation, and a significant lower result compared to developed countries. The study highlights that despite a recent reduction, the difference between the participation rate of men and women in the Latin American labor market was 25.9 percentage points in 2018.

¹ HTTPS://WWW.CEPAL.ORG/EN/PUBLICATIONS/45582-EMPLOYMENT-SITUATION-LATIN-AMERICA-AND-CARIBBEAN-WORK-TIMES-PANDEMIC-CHALLENGES

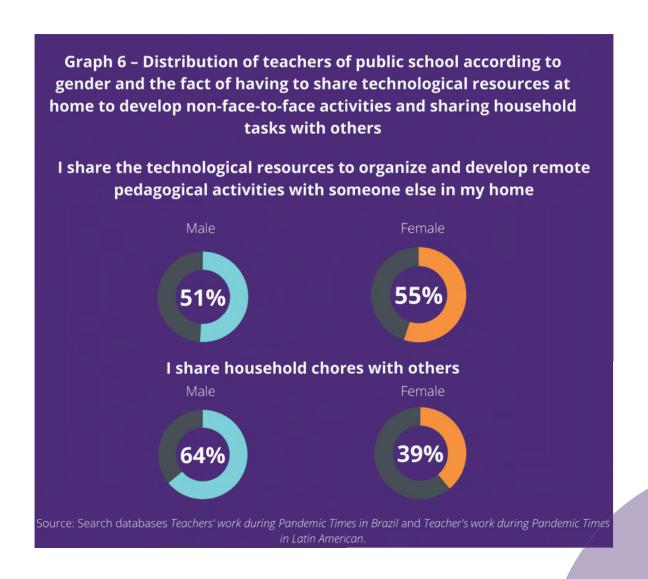
² HTTPS://WWW.UNWOMEN.ORG/ES/NEWS/IN-FOCUS/CSW61/REDISTRIBUTE-UNPAID-WORK. ACCESSED 4/5/2021



Because this is a work with a high predominance of females (Graph 1), this variable cannot be overlooked when analyzing the home office. Even more so when considering the conditions of Latin American countries in which poverty affects many teachers. According to Unwomen between cooking, cleaning the house, fetching water or firewood or caring for children and the older people, women perform at least 2.5 times more domestic work and unpaid care than men. Therefore, they have less time to dedicate themselves to paid work or work longer hours.

Another aspect that is related to gender and the status of working women is access to technological resources available at home. When assessing whether the technological dwellings available in the residences were for the exclusive use of the respondents or if they were shared with other people, the situation was more unfavorable for women, and 55% of them needed to share the resources, against 51% in relation to men (Graph 6). Especially in larger families, the use of these resources can become very limited, as it is common that teaching mothers share equipment with their children who are students, they say. This context elucidates aspects that can hinder remote activities performed by teachers.

According to the research data, to perform the home tasks, such as cleaning the house or preparing food, women say they are much more overloaded than men (Graph 6). While 64% of teachers share this task with other people in the house, only 39% of teachers have help from others. In other words, 61% of female teachers are solely responsible for household tasks.





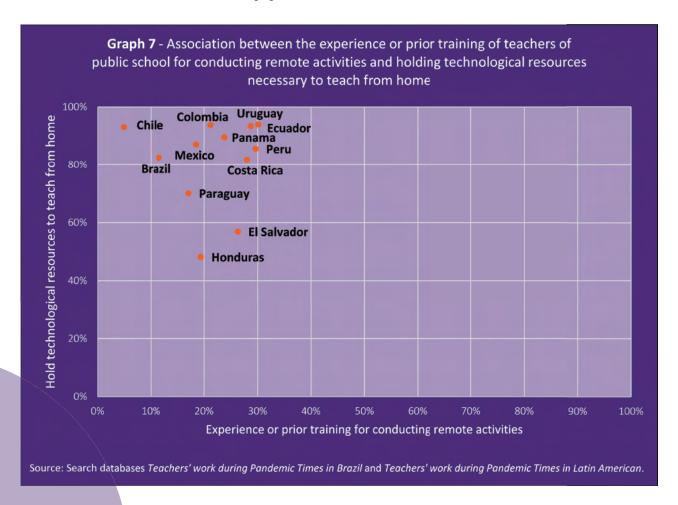
PREPARATION FOR REMOTE TEACH-ING AND AVAILABILITY OF TECHNOLOG-ICAL RESOURCES

The difficulty in handling digital tools and the lack of specific training in the use of technologies for distance education end up demanding more time in the preparation of activities, even those that seemed very trivial when performed in person. In addition to the time dedicated to the content of the subject they teach, it takes a period of time to master programs and applications established for the classes to happen. However, the activities also require the use of other tools that allow participation, for example, in meetings with the school board or with pedagogical teams, discussion forums with colleagues, among other activities that end up revealing the difficulties inherent to the lack of experience and knowledge to deal with digital technologies and their languages, which reduces the ability to use available resources.

However, to conduct distance classes, teachers need to have in their homes a series of equipment and internet service suitable for the activity. Without these resources, they are faced with the total impossibility of enjoying the institutional support offered by educational systems. In other words, the teacher cannot make use of virtual learning environments if he does not have a connection to an internet network.

The research data show that associating the teacher's previous education and the availability of technological resources, the most favorable situations were found in Uruguay and Ecuador (Graph 7). Both stood out in both criteria, and almost all teachers had the necessary technological resources to perform remote teaching activities and about 30% of the respondents reported that they had adequate preparation.

Solely as regards to training, Chile and Brazil presented the lowest rates of teachers who consider themselves prepared to perform non-face-to-face activities. And when it comes to holding technological resources, the most precarious situations of teachers were those from Honduras and El Salvador.





On the preparation of teachers for distance learning activities, it is important to emphasize that despite the constant appeals on the part of a large literature in the educational field for digital training and in-service training focused on the field of new languages and technologies, the results show that in Latin American context this is not yet a reality for the majority.

TECHNOLOGICAL RESOURCES USED AT HOME

The new teaching environment demanded by the pandemic requires teachers to have technological resources to carry out the activities, requiring tools to prepare classes and take them to students. Thus, the lack of technological resources, the lack of an ade-

quate environment, as well as the availability of computer and internet connection, can totally prevent the participation of students, even the most interested.

Holding technological devices that can be used in the performance of remote teaching activities varies among teachers from different countries surveyed. The laptop is an equipment available to 93% of Costa Rica teachers, while only 43% of Honduran teachers have it (Graph 8). More unusual than laptops are PC computers, and Colombia has the largest number, where 57% of respondents have PCs, and Paraguay has the smallest, where only 14% of teachers have them. In the case of broadband internet, the coverage of this service varies from 46% in Paraguay up to 89% in Uruguay.

Graph 8 - Percentage of public school teachers who use each type of echnological resource to conduct remote classes

•					-		
Country	Tablet	Laptop	Cell	PC computrer	Camera	Microphone	Broadband
	Tublet	Edptop	Cen.	r e compación	camera	инегорионе	Internet
Mexico	9%	83%	84%	16%	23%	20%	79%
El Salvador	9%	64%	89%	21%	11%	12%	70%
Honduras	8%	43%	96%	25%	14%	12%	59%
Costa Rica	11%	93%	83%	17%	29%	31%	83%
Panama	13%	75%	83%	16%	18%	19%	73%
Colombia	12%	45%	89%	57%	32%	31%	81%
Ecuador	7%	81%	75%	24%	31%	29%	79%
Peru	6%	74%	87%	30%	24%	24%	60%
Brazil	5%	71%	90%	26%	15%	13%	78%
Chile	11%	59%	78%	41%	33%	35%	86%
Paraguay	4%	59%	94%	14%	5%	12%	46%
Uruguay	4%	66%	64%	16%	14%	14%	89%

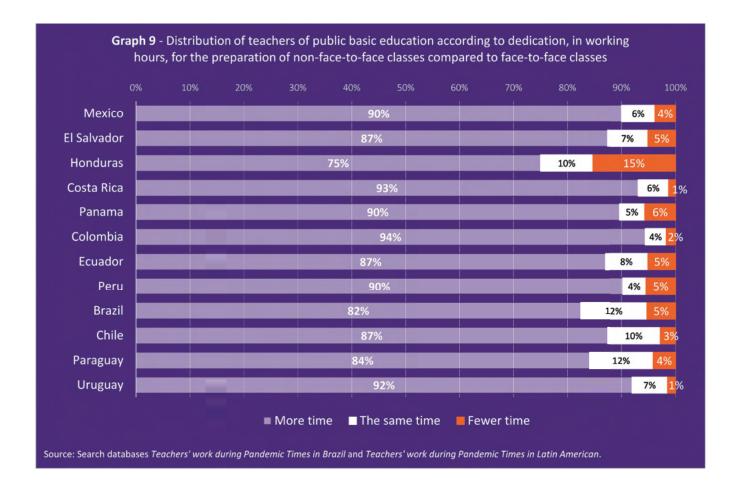
Source: Search databases Teachers' work during Pandemic Times in Brazil and Teachers' work during Pandemic Times in Latin American.

The public education systems have developed, each in due time, to adapt to remote teaching, offering different types of supports, among which are the platforms or pedagogical applications. However, to use them, teachers need appropriate equipment and internet network for this activity, as above mentioned.

VARIATION IN WORKING TIME DURING THE PANDEMIC

Among the countries surveyed, it was common that the workload of teachers dedicated to the preparation of non-face-to-face classes increased (Graph 9). The most favorable situation occurred in Honduras, where three out of four respondents said they spent more time on remote classes. In Uruguay, Costa Rica and Colombia, the rates of public school teachers who began to assume a higher workload to teach remotely reached 92%, 93% and 94%, respectively.





We can consider that many are the factors that have focused on the work overload of teachers during the pandemic: difficulty in adapting face-to-face activities to Virtual Learning Environments; lack of mastery of technological and digital media; difficulty in developing strategies to attract and motivate students. However, it should be considered that this overload may impact the health of teachers. The knowledge accumulated so far about these forms of work does not allow us to prescribe ideal conditions, however, as Gollac and Volkoff teach us (2000, p. 9), good working conditions are those that give the worker the freedom to build a work activity favorable to his health.





REFERENCES

Fundo das Nações Unidas para a Infância. (2020). Educación em pausa: Uma generación de niños y niñas em América Latina y el Caribe está perdendo la escolarización debido al COVID-19. UNICEF.

Gollac, M. & Volkoff, S. (2000). *Conditions de tra*vail. Paris: La Découverte.

Grupo de Estudos Sobre Política Educacional e Trabalho Docente. (2020a). *Trabalho docente em tempos de pandemia*. Base de dados. Belo Horizonte: FaE/UFMG.

Grupo de Estudos Sobre Política Educacional e Trabalho Docente (2020b). *Trabajo docente en tiempos de pandemia*. Base de dados. Belo Horizonte: FaE/UFMG.

Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira. (2019). Base de dados. *Microdados do censo escolar da educação básica 2019*. Brasília: Inep.

Oliveira, D. A., Pereira Junior, E. A., Vieira, L. M. F., Duarte, A. M. C., Silva, A. M. C. J., Duarte, A. W. B. & Jorge, T. (2017). *Indicadores do trabalho docente na educação básica*. Belo Horizonte: Fino Traço.

Programa das Nações Unidas para o Desenvolvimento. (2019). *Relatório do desenvolvimento humano 2019*. Nova Iorque: PNUD.

Tardif, M. & Lessard, C. (1999). Le travail enseignant au quotidien: Contibution à l'étude du travail dans les métiers et les professions d'interactions humaines. Quebec: Les Presses de L'Université Laval.

World Bank. (2020). *Políticas educacionais na pan-demia da COVID-19: O que o Brasil pode aprender com o resto do mundo?*. World Bank Group.



GESTRADO

The Study Group on Educational Policy and Teachers' Work of the Federal University of Minas Gerais (GESTRADO/UFMG) was created in 2002 and is registered in the National Council for Scientific and Technological Development (CNPq) since 2003, as a consolidated group.

GESTRADO brings together UFMG professors who work in graduate programs in Education, Sociology, Information Sciences, Computer Science; professors and researchers from other institutions. It also brings together undergraduate, graduate students – master's and doctorate students – and postdoctoral fellows. Its team is composed of researchers with different levels of activity and training (sociologists, pedagogues, social workers, psychologists, speech therapists, geographers, statisticians, librarians, among others).

The main goal of GESTRADO is the development of research that seeks to analyze the educational policies in action - educational management and teaching work - in different dimensions. Its structure necessarily assumes the integration of thematic axes from

the collective and systematic practice of work, translating into academic and political results.

In addition to research, GESTRADO conducts academic events, publications and student training activities from scientific initiation to post-doctorate.

GESTRADO actively participates in RedEstrado (Red Latino-Americana de Estudios sobre Trabajo Docente); of the Latin American Council of Social Sciences (CLACSO), and was part of the World International Research Network of World Education Research Association (INR/WERA)), named "Educational policy and the restructuring of the teaching profession faced with the challenges of globalization" (2015 – 2018).

Similarly, the Group maintains a continuous dialogue with union organizations that represent education workers, adding efforts in the struggle for teacher appreciation.

www.gestrado.net.br



ESTRADO NETWORK

The Latin American Network for Studies on Teaching Practice (Rede Estrado) was created in 1999, at the initiative of the Working Group "Education, Work and Social Exclusion" of the Latin American Council of Social Sciences (CLACSO) as a locus for dialogue between researchers on the subject. In its 22 years of existence, Red-Estrado has been consolidating itself as an important producer and diffuser of knowledge about teachers' work in Latin American region, articulating researchers connected to universities and research centers, unions and other movements that support teacher appreciation. Currently it is structured in 12 Latin American countries, including Argentina, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, Mexico, Paraguay, Peru, Puerto Rico, and Uruguay.

In addition to comparative research and studies, Red Estrado holds national seminars, debates on specific topics, as well as publications of books and other materials (seminar historical records). Every two years it promotes international seminars in different Latin American countries: Rio de Janeiro, Brazil (1999; 2006); Guadalajara, Mexico (2001); Belo Horizonte, Brazil (2002); Buenos Aires, Argentina (2003; 2005; 2008); Santiago, Chile (2012); Salvador, Brazil (2014); Lima, Peru (2010; 2018). These seminars that bring together an average of 1000 participants from different Latin American countries are important locus for debates about the teaching condition in Latin American context. Red Estrado is not a legal institution and does not have funding from any source. The activities it promotes are carried out from the support of the universities to which its members are connected.

The general goal of the Estrado Network is to contribute to the dissemination of knowledge about teaching practice in Latin America and, consequently, to the construction of more assertive public policies that promote their professional appreciation with regard to their remuneration, training and satisfaction. Hence, The Estrado Network has always had a strong articulation with teaching unions and social education movements, seeking to focus on the educational agenda of the Latin American region.

www.redeestrado.org

Group on Educational Policy and Teachers' Work of the Federal University of Minas Gerais (GESTRADO/UFMG)

COORDINATOR:

Dalila Andrade Oliveira

VICE-COORDINATOR:

Adriana Araújo Pereira Borges, Lívia Maria Fraga Vieira

STATISTICIAN:

Edmilson Pereira Junior

RESEARCHERS:

Adriana Maria Cancella Duarte, Alexandre William Barbosa Duarte, Ana Maria Alves Saraiva, Ana Maria Clementino, Anna Rachel Mendes Gontijo Mazoni, Aylanna Soares Araújo, Celsiane Aline Vieira Araújo, Cláudia Starling Bosco, Danilo Marques Silva, Deise Rosálio Silva, Gustavo Soares Araújo, Henrique Oliveira Rachid Cançado, Jonas Aron Cardoso Diniz, Josiane Pereira Torres, Juliana de Fátima Souza, Kildo Adevair dos Santos, Leonardo de Oliveira Penna, Lucas Felicetti Rezende, Maíra Lana Kascher Santos. Maria Helena Oliveira Gonçalves Augusto, Mércia de Figueiredo Noronha Pinto, Naiane Alves de Almeida, Pedro Henrique Fonseca e Silva, Pedro Henrique Parreiras Campos, Sâmara Carla Lopes Guerra de Araújo, Sofia Constanca Penido Miranda, Sulivan Ferreira de Souza. Tiago Antônio da Silva Jorge



www.gestrado.net.br instagram.com/gestradoufmg facebook.com//gestradoufmg

UFMG Campus Pampulha 6627, Antônio Carlos Ave, Belo Horizonte, MG, 31270-901, Brazil.

