DOI: https://doi.org/10.36489/saudecoletiva.2021v11iCOVIDp7105-7122

The impact of emergency remote teaching on teachers' work in the COVID-19 pandemic

Impacto de la teledocencia de emergencia en el trabajo del profesorado durante la pandemia del COVID-19 Impacto do ensino remoto emergencial no trabalho docente durante a pandemia de COVID-19

ABSTRACT

Objective: Understand the potentialities and weaknesses of adapting the new teaching methods and the organizational process of the teachers' work. Method: This is an exploratory research, with a qualitative approach. Participants were selected by theoretical sampling from the institution's Biological and Health Sciences center and the period of response collection was during the months of September and October 2020. In addition, the data were organized and analyzed using the Bardin method. Results: The research has 49 participants, with ages ranging from 28 to 67, 34 female and 15 male. Analyzing the answers, four categories were identified: Recognizing the teachers' main adaptations; identifying the student/teacher relationship; evaluating the impacts on academic-professional training and identifying positive points of remote teaching. Conclusion: The student-teacher interaction has changed due to the distance, however, there have been other advances such as the use of new technologies. **DESCRIPTORS:** Coronavirus Infections; Faculty; Higher Education.

RESUMEN

Objetivo: Comprender las potencialidades y fragilidades de la adaptación del nuevo modelo de enseñanza y el proceso organizacional de trabajo de los docentes. Método: Se trata de una investigación exploratoria con un enfoque cualitativo. Los participantes fueron seleccionados por muestreo teórico del Centro de Ciencias Biológicas y de la Salud de la y el periodo de recogida de respuestas fue durante los meses de septiembre y octubre de 2020. Además, los datos se organizaron y analizaron mediante el método de Bardin. Resultados: La investigación cuenta con 49 participantes, con edades comprendidas entre 28 y 67 años, 34 mujeres y 15 hombres. Al analizar las respuestas, se identificaron cuatro categorías: Reconocer las principales adaptaciones de los profesores; identificar la relación alumno/profesor; evaluar los impactos en la formación académica-profesional e identificar los puntos positivos de la enseñanza a distancia. Conclusión: La interacción alumno-profesor ha cambiado debido a la distancia, sin embargo, ha habido otros avances como el uso de las nuevas tecnologías.

DESCRIPTORES: Infecciones por Coronavirus; Docentes; Educación Superior.

RESUMO

Objetivo: Compreender as potencialidades e fragilidades da adaptação do novo modelo de ensino e o processo organizacional de trabalho dos docentes. Método: Trata-se de uma pesquisa de caráter exploratório, com abordagem qualitativa. Os participantes foram selecionados por amostragem teórica do Centro de Ciências Biológicas e da Saúde da instituição e o período da coleta de respostas foi durante os meses de setembro e outubro de 2020. Ademais, os dados foram organizados e analisados utilizando o método de Bardin. Resultados: A pesquisa possui 49 participantes, com idades variando de 28 e 67 anos, sendo 34 do sexo feminino e 15 do masculino. Analisando as respostas, identificou-se quatro categorias: Reconhecendo as principais adaptações dos docentes; identificando a relação aluno/professor; avaliando os impactos na formação acadêmica-profissional e identificando pontos positivos do ensino remoto. Conclusão: A interação aluno-professor sofreu alteração devido o distanciamento, porém, houve outros avanços como a utilização de novas tecnologias.

DESCRITORES: Infecções por Coronavírus; Docentes; Educação Superior.

RECEIVED ON: 06/02/2021 **APPROVED ON:** 06/07/2021



Academic of the Medicine Course, Unicesumar University. Scholarship from the Institutional Program of Scientific Initiation Scholarships PIBIC/ICETI - Unicesumar.

ORCID: 0000-0003-2071-2569

artigo

Cavalini, G.R.; Ogatha, B.H.; Lorencete, D.V.; Buzzo, L.S.; Victorino, S.B.Z.; Charlo, P.B.; The impact of emergency remote teaching on teachers' work in the COVID-19 pandemic

Bruno Hideki Ogatha

Academic of the Medicine Course, Unicesumar University. Scholarship from the Institutional Program of Scientific Initiation Scholarships PIBIC/ICETI - Unicesumar.

ORCID: 0000-0002-8853-4124

Daniel Valques Lorencete

Academic of the Medicine Course, Unicesumar University. Scholarship from the Institutional Program of Scientific Initiation Scholarships PIBIC/ICETI - Unicesumar.

ORCID: 0000-0002-4650-6889

Lucas Sonoda Buzzo

Academic of the Medicine Course, Campus Unicesumar Maringá. ORCID: 0000-0002-9270-0914

Silvia Veridiana Zamparoni Victorino

Co-advisor, Doctoral Student, Professor of the Medicine Course, Unicesumar University, Maringá (PR). ORCID: 0000-0003-4322-3901

Patrícia Bossolani Charlo

Advisor, Doctoral Student, Professor of the Nursing and Medicine Course, Unicesumar University, Maringá (PR). ORCID: 0000-0002-8262-2086

INTRODUCTION

owadays, the importance of higher education in the educational training of individuals is indisputable, its contribution is through the qualification and training of human beings, in which they need to be able to act competently in the competitive labor market, and have a vision critique of the constantly changing reality, thus demanding from the individual knowledge capable of interpreting the facts and information generated by these transformations, through the domain of technical language acquired at the university. ¹⁻²

Added to the economic bias, the learning process in higher education is important for society, as it shares and interacts in the social and home environment of the population. The link of this interaction is in the production of knowledge by professors and students that are extremely relevant for solving the problems that affect the population. ³

The teacher, then, is at the forefront of the activities developed by his students, regardless of the teaching method, in person, at a distance, hybrid or emergency remote, in which the use of Information and Communication Technologies (ICT) provides the construction of constitutive elements such as: the expansion of access to information and student autonomy in their teaching and learning process. ⁴

The teacher's role is linked to the quality of training of their students, a fundamental aspect of the learning process. The importance of valuing the teacher is widely studied, mainly in the involvement of pedagogical practices and scientific productions, which contribute to the nation's intellectual and economic progress and development. ^{2,5}

In 2020, the professor was encouraged to look for new work methodologies, close to distance learning modalities, with the temporary suspension of in-person classes, following the recommendations of the World Health Organization (WHO), due to the emergence of the first cases of Covid -19 (coronavirus disease 2019) in Brazil. ⁶⁻⁸

With this, educational institutions adopted the recommendations of the Ministry of Health (MS), suspending classes and changing the modality of face-to-face teaching to emergency remote classes, in which teachers are carrying out their activities conducting teaching through work in the Home Office system. This fact requires resilience on their part, and the improvement of new skills, in order

to gain knowledge of new tools that provide quality in teaching/learning. 9-10

Thus, the present work asks itself how the higher education professors have adapted to the social distancing and the change in the teaching modality? Therefore, the objective of the study was to understand the strengths and weaknesses of adapting the new teaching model and the organizational process of the work of teachers.

METHOD

This is an exploratory research, with a qualitative approach, developed in a private higher education institution, located in the northwest of the state of Paraná for over thirty years, in constant growth and development, with on-site and distance learning modalities, and which adapted to the requirements of the Ministry of Education for the preparation of emergency remote classes.

Participants were selected by theoretical sampling from the institution's Center for Biological and Health Sciences. As an exclusion criterion, it opted for professors on maternity leave, vacations and medical certificates. Data collection was carried out via a virtual platform, containing questions to iden-

tify the sociodemographic profile and a guide of questions that guided them to fulfill the proposed objectives. The period for the collection of responses on the form was during the months of September and October 2020.

Data were organized and analyzed using the Bardin method, following the choice of indexes and categories for the preparation and codification of data. The MAXQDA Plus 2020 Student software was used to select the key information extracted from the answers and to make it operational, under license number 258245855, whose final results were presented using the Word Cloud (Figure 1). Such software performs the lexical analysis of words and enables the analysis of the narratives produced. 11 Participants were identified using the initial E of respondents and numbers from 1 to 49 sequentially, for example E1, E2.... E48, E49, this process was carried out in order to ensure confidentiality and anonymity.

The ethical precepts of the research were respected, in line with the guidelines established by Resolution 466/12 and 510/16 of the National Health Council. The authorization of the study was made by the directors of the Center for Biological and Health Sciences of the University of Education Superior and the Permanent Committee for Ethics in Research with Human Beings (CEP) of UniCesumar under opinion number 4.194.905 and CAAE 35917220.6.0000.5539.

The Free and Informed Consent Form (FICF) was available on the link of the form in which the participants authorized the development of the research, which was sent via e-mail to the professors after acceptance and completion of the form.

RESULTS

The present research obtained a total of 49 participants, with ages ranging from 28 to 67 years old, 34 females and 15 males. Regarding the area of initial training, it obtained higher rates in the dentistry course, considering the specialization levels, 23 interviewees have a master's degree, 20 have a doctorate, 3 post-docs, 2 residents and 1 specialist. However, many of these professionals work in courses in different areas such as health sciences, humanities and engineering, noted the prevalence of professors working in medicine and dentistry courses, according to Chart 1.

Chart 1 – Characterization of the professors of the Higher Education Institution in northwestern Paraná, 2020.											
IDENTIFI- CATION	SEX*	AGE	GRADUATION	HIGHEST DEGREE	TEACHING MODE	TRAINING FOR ER	WAS THE TRAINING EFFECTIVE?				
E1	F	49	Dentistry	PhD	Presential	2016 - 2017	No				
E2	F	43	Nutrition	Master's	Presential	2020	Yes				
E3	F	56	Doctor	PhD	Presential	l didn't perform	Yes				
E4	F	42	Pharmacy	Post-Doctorate	Presential	2020	Yes				
E5	F	41	Dentistry	Master's	Presential	2020	Yes				
E6	F	35	Nursing	PhD	Presential	l didn't perform	No				
E7	M	44	Dentistry	PhD	Presential	2020	No				
E8	F	35	Biological Sciences	PhD	Presential	2018 - 2019	No				
E9	F	29	Psychology	Master's	Presential	l didn't perform	No				
E10	F	38	Biological Sciences	PhD	Presential	2018 - 2019	Yes				
E11	F	41	Nursing	PhD	Presential	2020	Yes				
E12	M	48	Biological Sciences	PhD	Presential	l didn't perform	No				
E13	F	42	Nursing	Master's	Presential	2020	No				
E14	F	39	Dentistry	Master's	DL	2020	No				
E15	М	52	Dentistry	Master's	Presential	2020	Yes				
E16	M	28	Dentistry	PhD	Presential	2020	Yes				
E17	F	42	Complete Higher Education	Master's	Presential	2020	No				
E18	F	43	Complete Higher Education	Specialization	Presential	2020	No				
E19	F	55	Physiotherapy	Master's	Presential	2020	Yes				
E20	М	42	Dentistry	PhD	Presential	l didn't perform	Yes				

Cavalini, G.R.; Ogatha, B.H.; Lorencete, D.V.; Buzzo, L.S.; Victorino, S.B.Z.; Charlo, P.B.; The impact of emergency remote teaching on teachers' work in the COVID-19 pandemic

E21	F	44	Physiotherapy	Master's	Presential	l didn't perform	No		
E22	F	38	Biological Sciences	PhD	Presential	2020	No		
E23	F	32	Dentistry	PhD	Presential	2020	Yes		
E24	M	34	Dentistry	Master's	Presential	2020	No		
E25	F	50	Physiotherapy	Master's	Both	2018 - 2019	Yes		
E26	F	35	Physiotherapy	Master's	Presential	2020	No		
E27	F	33	Dentistry	Post- Doctorate	Presential	2020	Yes		
E28	F	29	Biomedicine	Master's	Presential	2018 - 2019	No		
E29	F	67	Biological Sciences	Master's	Presential	2020	Yes		
E30	M	39	Nursing	Master's	Presential	l didn't perform	No		
E31	F	38	Biological Sciences	PhD	Presential	l didn't perform	No		
E32	M	36	Doctor	PhD	Presential	l didn't perform	No		
E33	F	45	Biological Sciences	PhD	Presential	l didn't perform	Yes		
E34	F	40	Nursing	Master's	Presential	2018 - 2019	No		
E35	M	36	Complete Higher Education	Residence	Presential	2020	No		
E36	F	45	Dentistry	Master's	Presential	2020	No		
E37	F	40	Dentistry	Master's	Presential	2020	No		
E38	M	43	Law	PhD	Presential	2018 - 2019	No		
E39	M	49	Civil Engineering	Master's	Presential	2020	No		
E40	F	29	Pharmacy	PhD	Presential	2020	Yes		
E41	F	44	Psychology	Master's	Both	2020	Yes		
E42	F	48	Psychology	Master's	Presential	2020	Yes		
E43	F	37	Psychology	Master's	Presential	l didn't perform	No		
E44	M	29	Biology	PhD	Presential	l didn't perform	No		
E45	F	35	Law	Post- Doctorate	Presential	l didn't perform	No		
E46	M	49	Psychology	PhD	Presential	l didn't perform	No		
E47	F	57	Pharmacy	PhD	Presential	l didn't perform	No		
E48	M	53	Medicine	Residence	Presential	2018 - 2019	Yes		
E49	M	39	Biological Sciences	Master's	Presential	2018 - 2019	Yes		
Source: Researchers' data, 2020. *F= Female; M= Male									

Respondents shared the main strengths and weaknesses presented in changing the teaching modality, and the inclusion of the effects in Home Office work. The word cloud

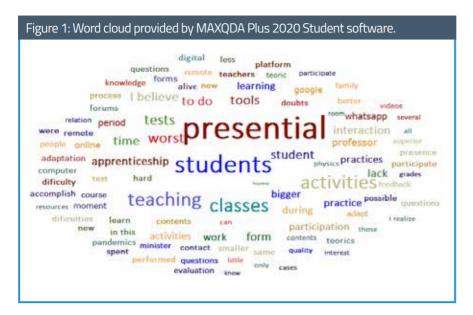
(Figure 1) represents the most frequent words, which were directly related to the perception of teachers about the teaching model implemented (both in relation to their work and student learning), the adaptations that these individuals had what to do to practice their labor actions and their relationship with

students during this period, providing support for the categories identified: Recognizing the main adaptations of teachers; Identifying the student/teacher relationship; Assessing the impacts on academic-professional training and Identifying strengths in remote education.

Recognizing the main adaptations of teachers

The moment experienced by the teachers was unique in modern history, never before these teachers were relocated to a mandatory Home Office work regime related to public health and safety issues. There were two points of change: first, the classes started to be taught entirely in remote format; and these professionals started to work from home, in which they had to reconcile the professional environment with the domestic one, including the family relationship.

Reconcile the home (home, household chores) with the office (work) and vice versa. It has been



very difficult to isolate myself from the family during remote activities, sometimes I have to use the kitchen. With 3 children at home, situations of neglect of their demands are not rare. (E7)

In addition, in some cases, it was necessary to adapt the material they used to teach the classes, as well as adapting the tools used to the online environment, which ended up demanding more time from these professionals, time that surpasses what was used by professors to move from their homes to the teaching institution.

I spend more time because I had to create new classes and adapt with online tools [...] (E14)

Added to the factors presented above, the period experienced was extremely atypical, there was a lot of information about the pandemic, in the press vehicles this was the main subject discussed. More than half of the professors said they felt more anxious, especially in the first days of the Home Office, among them, some said that their performance at work was affected.

At the beginning of the pandemic was a feeling of great anxiety, im-

possible not to affect performance. After the first few weeks, I started watching the news less, focusing on the present, on the possibilities, thanking what I have, it became easier to go through the period. (E43)

Thus, it is evident that several adaptations were necessary during the period. Several aspects of the work were affected or changed. Tools that were used as the whiteboard were abandoned, while others emerged as those being used to transmit the lessons.

Identifying the student/teacher relationship

The change in the teaching modality resulted in changes and adaptations also for the students, one of these changes was the change in the relationship between student-teacher, who molded themselves and started an interaction remotely, through online tools. Therefore, this contributed to a lower participation of students during classes, which ended up generating discontent and mistrust, among teachers, if the students were really watching and enjoying the classes.

[...] Often the interaction of students is small and this ends up

being frustrating [...] (E24)
[...] Talking sitting down, without
using the board and still teaching
the notebook screen and believing
that there is a student watching
on the other side [...] (E12)

This situation ended up creating a distance between professors and students, who no longer have direct contact with each other. Among all participating teachers, most reported that the relationship and communication with students were affected, due to the means of communication used at the time.

[...] only institutional email and chat and during live classes, as instructed by the institution [...] (E21)

This change in the student-teacher relationship generated a great impact on student learning, who, in the view of most teachers, are acquiring less knowledge during remote education, as the new forms of student assessment have allowed for a lack of care between the student and the subject taught, therefore, there is the possibility of consultation during the tests. Therefore, this generates a false impression that students are really absorbing and learning the contents of the classes, since their grades in the assessments no longer allow teachers to have this perception.

[...] There is an illusion in the relationship between learning and grades, one notices higher grades from students who often have difficulties in written and/or verbal communication and who in previous years would hardly reach the grades that have been recorded. In addition, the presence of students live has been small compared to face-to-face teaching, so that the doubts that arise in the classroom and joint problem solving have been harmed [...]. (E45)

Cavalini, G.R.; Ogatha, B.H.; Lorencete, D.V.; Buzzo, L.S.; Victorino, S.B.Z.; Charlo, P.B.; The impact of emergency remote teaching on teachers' work in the COVID-19 pandemic

Assessing the impacts on academic and professional training

From the perspective of teachers, adherence to emergency remote teaching entails not only consequences for the moment, but also has consequences for the future, in the academic training of students. Due to the change in the interaction at the time of class, the teacher is no longer able to perceive the "gaps" in the knowledge of students and direct their efforts in what students have the most difficulty, since the student-teacher contact suffered a great distance.

[...] For good teaching, contact with students is necessary, as the teacher can feel the students' reactions when questioning about their prior knowledge. Teachers are able to conduct a good survey of prior knowledge, which does not occur in remote learning. There is greater and better debate of ideas in face-to-face teaching, which contributes to the sedimentation of knowledge [...] (E17)

In addition, courses in the health area have many practical classes that, at the moment, are impossible to take place. However, unlike theoretical classes, which have the alternative of taking place remotely, practical classes do not have this possibility. This generates a great deficit in student learning, in which they cannot associate theoretical content with practical content, due to their absence.

[...] The theoretical-practical disciplines are complemented by practice, which is not happening. This hinders the fixation of theoretical content and future performance in internships and, consequently, training [...] (E26)

However, potentialities in emergency remote teaching were identified, there are those teachers who have the perception that the academic training

of students is not being harmed, as they believe that it does not matter what mode of teaching is being used, since teaching and the student's education also depends on the dedication and commitment of the student, that is, those who are making an effort in remote education will be able to have a good academic education in the same way as they would be in face-to-face teaching.

[...] The moment requires adaptations. Nobody expected something like this to happen. As much as face-to-face teaching brings many more possibilities, remote teaching for this moment was crucial to achieve the year's goals. Students who attended and participated in the classes are able to learn, even if the environment is not ideal [...] (E43)

Furthermore, teachers are using some strategies, during remote classes, to mitigate the impact on students' academic education, which not only helps to maintain an excellent academic background, but also to increase students' interest in remote classes.

[...] I'm inviting professionals to talk about the practice, giving examples and doing case studies [...] (E9)

Identifying strengths in remote learning

In an atypical moment, it was possible to identify the use of instruments to assist the teaching-learning process, such as classes dedicated exclusively to students solving their doubts, with teachers of the respective subjects, questionnaires during classes, in order to make the class more dynamic, started to be used more frequently. What helps in the training of students, and also improves the work of teachers.

"I can pass the content on to students using slide sharing, and despite not having contact with students, which undoubtedly facilitates their learning, I try to streamline classes with activities, answer questions during and at the end of classes, in addition to taking a class on questions during the week of the exam, and all of this, in addition to helping the students, helped me to improve as a teacher." (E40)

The use of virtual tools for events, meetings, lectures, which were rarely performed before, the distance facilitates their scheduling and also the participation of those involved, saving travel time.

[...] Some things like meetings, lectures with professionals from a distance, can be done using the tools learned in this period. (E4)

As well as the events described above, another potentiality of remote learning is the possibility of the classes taught to be recorded and later made available to students, in this way, if for some reason their absence was necessary or, if the student wishes to review the content, they can watch it later.

Possibility of recording lessons and being able to be played at different times. (E35)

The listed potentials can provide a better adaptation, concomitantly with the weaknesses that were overcome, which enables a reorganization of the work process with coherence and efficiency.

DISCUSSION

With the advent of the pandemic caused by the new coronavirus, the process of change in the way teachers work happened completely suddenly. The adaptation period came quickly. As verified in this research, the interviewed

professors, the vast majority only taught in-person classes, of this same audience, part of them underwent training to perform the teaching activities online, however, some reported that this same training was not effective. This is consistent with the results found by the National Confederation of Education Workers (CNTE - Confederação Nacional dos Trabalhadores em Educação), in a survey on the experience of active teaching teachers, from kindergarten to high school, and among these professionals, only a minority of them they had had experience with remote classes before the suspension of in-person classes due to the pandemic. 12

Part of the teaching work prior to the pandemic was already carried out at home, that is, tests to be corrected or lesson planning. However, now the situation is different, the entire service is being carried out in the home environment, which was not necessarily prepared to accommodate this activity. ¹³

It is evident that many teachers had to purchase some equipment to carry out their activities, such as computers, desks, and quality internet. Thus, showing that the Home Office work modality reduces the company's organizational costs, therefore, it would be feasible for part of this economy to be used to facilitate the adaptation of the worker to the Home Office. ¹⁴

The use of platforms to interact, generate, access and disseminate information was already a practice that had been growing even before social isolation was imposed. The importance of these tools and virtual environments is already recognized and used by students and teachers around the world. 15 In this sense, it is hoped that this type of interaction continues to gain more space, which implies that it will be necessary to acquire knowledge of how to use these platforms and adapt to them. Undeniably, the obligation to hold meetings, classes, lectures at a distance, made it evident that, in fact, some of these activities do not necessarily need to be in person, therefore, knowledge of how to handle online communication platforms will be essential. ¹⁶

A major concern
both among
students and
professors, during
this period of
adherence to
emergency remote
teaching, is the
academic training
of students.

On the other hand, it was possible to observe weak points that were generated by the replacement of the face-to-face model by emergency remote teaching. One of the components of the obstacles generated by the pandemic is the social distancing, which made the contact between student-teachers no longer occur in person and began to occur through ICT, such as email and chats during live classes. This ended up generating a limitation, more specifically, cultural, as in Brazil face-to-face contact is valued, and emergency remote teaching made teachers and students carry out their activities in a solitary way, physically. ¹⁷ Therefore, the absence of classmates and, mainly, the teacher can considerably affect the students' performance. 18

In addition, many teachers showed dissatisfaction for not showing the real learning of students during classes, due to the absence of face-to-face contact, which generated feelings of dissatisfaction and frustration on the part of teachers, in which even disagreeing with this teaching method, they must use it, given that they are employed through a contract that requires the fulfillment of their workload. 13 Teaching is not a solitary job, as it depends on a meeting of student and teacher efforts, who together build learning through a socializing exchange that the class provides. Unfortunately, however, emergency remote learning may not be able to provide this encounter and learning.18

However, even with the social distancing and the decrease in student--teacher contact, the pandemic showed that the academic training of students does not depend only on their teacher, but also on their own commitment. The student is not forced to learn, as this is up to him, so he must also engage in the learning process. Citing an analogous case of Distance Learning (EaD), in which students have a study, mostly individual, since in this modality there is a need for engagement, discipline, organization and commitment, on the part of the student, for the advancement of your learning. This requirement of the student's commitment to their study was only highlighted during the pandemic, as it is already necessary nowadays, due to the great demand of the labor market, which provides better conditions for those who stand out among the rest. 2,19

A major concern both among students and professors, during this period of adherence to emergency remote teaching, is the academic training of students. To design and develop an online course, which has good quality, takes months, and emergency remote teaching, on the other hand, was developed and used very quickly in Brazil. ²⁰ Consequently, there was a decrease in the quality of teaching, and a great weariness, on the part of students and tea-

Cavalini, G.R.; Ogatha, B.H.; Lorencete, D.V.; Buzzo, L.S.; Victorino, S.B.Z.; Charlo, P.B.; The impact of emergency remote teaching on teachers' work in the COVID-19 pandemic

chers, due to the excessive demand for time and energy that the new model requires, which contributes even more to a lower yield and results when compared to face-to-face teaching.18

Therefore, this generates a concern among those involved in education, as evidence shows that there will be numerous gaps that will be created, due to the absence of interaction between student-teacher. 21 Citing a similar case, from courses in the health area, mainly medicine, 22 which requires a practice that relies on both technical knowledge and humanized and comprehensive care skills, in addition to requiring the development of effective communication skills, which are acquired during the interaction between student-teachers during classes, and which currently the remote learning model, does not allow it to occur effectively. However, this situation is explainable, since emergency remote education would not be a long-term solution, but a temporary one, until the end of the pandemic caused by the new coronavirus. 20

However, it is possible to identify positive points in this transition from face-to-face to remote teaching, such as the undeniable fact that some activities do not need to take place in person to be successfully carried out. In addition, at some institutions, online classes are recorded and available for students to revisit this content, which is also beneficial for students who have a necessary absence. However, learning through videos is a constant challenge, which leads

One of the positive points that emerged from the experience of migration to remote learning was that education, in the general sense,

the teacher to the challenge of researching, aiming for progress in the class itself, making it increasingly dynamic, seeking to make it attractive and easy to understand for the student who is watching live and also for those who will be watching later. 23-24

One of the positive points that emerged from the experience of migration to remote learning was that education, in the general sense, has resilience. In some places faster than others, but little by little, most Brazilian institutions returned to activities, at least partially. Thus, this adaptive capacity validates the definition of resilience, which is the capacity (physical, biological, political, social and psychological) to face, win and be strengthened or transformed by adversity experiences. 25

CONCLUSION

The health crisis caused by the new coronavirus, led to a process of adaptation in the workday of professional teachers, in an unexpected and unprecedented way, but necessary so that the academic year of thousands of higher education students was not compromised. However, it is concluded that the changes in routine associated with a fusion of the work environment with the domestic one generated several weaknesses and potential, such as the need to acquire new materials, for example.

Concomitantly to this, the student-teacher interaction has changed due to the distance, commitment and exhaustion caused by remote learning, the use of new technologies and the placement of extra measures, such as the participation of several professionals in classes, presented great advances to the learning process.

However, the pandemic and the essential measures have not come to an end, which suggests the continuity of the study to improve knowledge about teaching and the organizational process of teachers.

REFERENCES

- 1. Schutzer H, Campos SCA. Educação superior e qualificação para o desenvolvimento econômico nacional. Rev Brasileira de Planejamento e Desenvolvimento, 2015 [acesso em 12 de agosto de 2020]; 3(1): 147-164. Disponível em: https://periodicos.utfpr.edu.br/rbpd/article/view/3588/3604.
- 2. Silva MF, Mendoza CCG. A importância do ensino, pesquisa e extensão na formação do aluno do Ensino Superior. Rev Científica Multidisciplinar Núcleo do Conhecimento, 2020 [acesso em 12 de agosto de 2020]; 8(6): 119-133. DOI: 10.32749/nucleodo-

conhecimento.com.br/educacao/pesquisa-e-extensao.

- 3. Pinho MJ. Ciência e ensino: contribuições da iniciação científica na educação superior. Avaliação: Revista da Avaliação da Educação Superior. 2017 [acesso em 12 de agosto de 2020]; 22(3):658-675. https://doi.org/10.1590/s1414-40772017000300005.
- 4. Pinto ACS, Scopacasa LF, Bezerra LLAL, Pedrosa JV, Pinheiro PNC. Uso de tecnologias da informação e comunicação na educação em saúde de adolescentes: revisão integrativa. Rev de

REFERENCES

- Enfermagem UFPE Online, 2017 [acesso em 12 de agosto de 2020]; 11(2): 634-44. https://doi.org/10.5205/1981-8963v11i2a11983p634-644-2017.
- 5. Nagib L, Silva D. Adoção de metodologias ativas e sua relação com o ciclo de vida e a qualificação docente no ensino de graduação em ciências contábeis. Rev Contabilidade & Financias. 2019 [acesso em 12 de agosto de 2020]; 31(82):145-164. https://doi. org/10.1590/1808-057x201909030.
- 6. World Health Organization. Coronavirus disease (COVID-19) Pandemic [acesso em 15 de abril de 2020]. Disponível: https:// www.who.int/emergencies/diseases/novel-coronavirus-2019
- 7. Ministério da Saúde. Boletim COE COVID-19 número 13 [base dedados online]. Brasília: 2020 [acesso em 08 agosto 2020]. Disponível em: https://portalarquivos.saude.gov.br/images/ pdf/2020/April/21/BE13---Boletim-do-019.
- 8. Gusso, HL; Archer, AB; Luiz, FB; Sahão, FT; Luca, GG, Henklain, MHO; et al. Ensino Superior em tempos de pandemia: diretrizes à gestão universitária. Educ. Soc., 2020 [acesso em 08 agosto 2020]; 41: 1-27. Disponível em: https://doi.org/10.1590/ es.238957
- 9. Luna, RA. Home Office um novo modelo de negócio e uma alternativa para os centros urbanos. Revista Pensar Gestão e Administração, 2014 [acesso em 08 agosto 2020]; 3 (1): 1-11. Disponível em: file:///C:/Users/Desk-User/Downloads/HomeOffice-umnovomodelodenegcioeumaalternativaparaoscentrosurbanos.pdf.
- 10. Silva AKL, Falcão JTR, Torres CC, Caraballo GP. Os Impedimentos da Atividade de Trabalho do Professor na EAD. Psicologia: Ciência e Profissão, 2017 [acesso em 12 de agosto de 2020]; 37(3): 683-696. http://dx.doi.org/10.1590/1982-3703004162015.
- 11. Jesus, GJ; Oliveira, LB; Caliaria, JS; Queiroz, AAFL; Gir, E; Reis, RK. Difficulties of living with HIV/Aids: obstacles to quality of life. Acta Paul Enfermagem, 2017 [acesso em 08 agosto 2020]; 30 (3): 301- 7. Disponível em: https://doi.org/10.1590/1982-0194201700046
- 12. Grupo de Estudos Sobre Política Educacional e Trabalho Docente (Gestrado/UFMG). Trabalho Docente em Tempos de Pandemia: relatório técnico [base de dados online]. Belo Horizonte: 2020 [acesso em 08 agosto 2020]. Disponível em: file:///C:/ Users/Desk-User/Downloads/cnte_relatorio_da_pesquisa_ covid_gestrado_v02.pdf
- 13. Alves, L. Educação remota: entre a ilusão e a realidade. Interfaces Científicas. 2020; 8 (3): 348-365. Disponível em: https://periodicos.set.edu.br/index.php/educacao/article/ view/9251/4047
- 14. Rafalski JC, Andrade AL. Home-Office: aspectos exploratórios do trabalho a partir de casa. Temas em Psicologia, 2015 [acesso em 12 de agosto de 2020]; 23(2): 431-441. http://dx.doi. org/10.9788/TP2015.2-14.
- 15. França, T; Rabello, ET; Magnago, C. As mídias e as plataformas digitais no campo da Educação Permanente em Saúde: de-

- bates e propostas. Saúde debate, 2019; 43 (Especial): 106-115. Disponível em: https://doi.org/10.1590/0103-11042019s109.
- 16. Góes, CB; Cassiano, G. O uso das Plataformas Digitais pelas IES no contexto de afastamento social pela Covid-19. Folha de Rosto, 2020 [acesso em 08 agosto 2020]; 6 (2): 107-118. Disponível em: https://doi.org/10.46902/2020n2p107-118
- 17. Vergara SC. Estreitando relacionamentos na educação a distância. Cadernos Ebape.Br, 2007 [acesso em 12 de agosto de 2020]; 5(esp): 1-8. https://doi.org/10.1590/S1679-39512007000500010
- 18. Cunha, LPF; Silva, AS; Silva, AP. O ensino remoto no Brasil em tempos de pandemia: diálogos acerca da qualidade e do direito e acesso à educação. Revista Com Censo. 2020 [acesso em 08 agosto 2020]; 7 (3): 27-37. Disponível em: http://periodicos. se.df.gov.br/index.php/comcenso/article/view/924/553
- 19. Felicetti, VL; Morosini, MC. Do compromisso ao comprometimento: o estudante e a aprendizagem. Educar em Revista, 2010 [acesso em 08 agosto 2020]; 26 (2): 23-44. Disponível em: https://www.scielo.br/pdf/er/nspe2/02.pdf
- 20. Hodges, C; Trust, T; Moore, S; Bond, A; Lockee, B. Diferenças entre o aprendizado online e o ensino remoto de emergência. Revista da Escola, Professor, Educação e Tecnologia, 2020 [acesso em 08 agosto 2020]; 2: 1-12. Disponível em: https://escribo.com/revista/index.php/escola/article/view/17/16
- 21. Gomes, VTS; Rodrigues, RO; Gomes, RNS; Gomes, MS; Viana, LVM; Silva, FP. A Pandemia da Covid-19: repercussões do ensino remoto na formação médica. Revista Brasileira de Educação Médica, 2020 [acesso em 08 agosto 2020]; 44 (4): 1-2. Disponível em: https://doi.org/10.1590/1981-5271v44.4-20200258
- 22. KAWAKAMI, Roselma Marcele da Silva Alexandre; TOMA-ZONI, Ana Carolina; VANIN, Camila Natália; SOUZA, Fernanda Gonçalves; PASQUALOTTO, Isabella; GATTAS, Marina Bernardes. Experiências e desafios da formação médica durante a pandemia da COVID-19. Saúde Coletiva (Barueri), [S.L.], v. 11, n. 61, p. 4906-4917, 1 fev. 2021.
- 23. Pazzini DNA, Araújo FV. O uso do vídeo como ferramenta de apoio ao ensino-aprendizagem. Santa Maria: Universidade Federal de Santa Maria, 2013 [acesso em 12 de agosto de 2020]. Artigo Científico de Conclusão do Curso de Especialização em Mídias na Educação. Disponível em: https://repositorio.ufsm.br/ bitstream/handle/1/729/Pazzini_Darlin_Nalu_Avila.pdf?se-
- 24. Anais VII CONEDU Edição Online; 15 a 17 de outubro de 2020; Campina Grande (PA), Brasil. Realize Editora, 2020 [acesso em 12 de agosto de 2020]. Disponível em: https://editorarealize.com.br/editora/anais/conedu/2020/TRABALHO_EV140_ MD1_SA_ID5382_03092020142029.pdf
- 25. Silva EGJ, Eulálio MC, Souto RQ, Santos KL, Melo RLP, Lacerdo AR. A capacidade de resiliência e suporte social em idosos urbanos. Ciênc. saúde coletiva, 2019 [acesso em 12 de agosto de 2020]; 24(1): 7-16. https://doi.org/10.1590/1413-81232018241.32722016