# Challenges of remote learning by university students in the Covid-19 context

# Desafios da aprendizagem remota por estudantes universitários no contexto da Covid-19

# Desafíos del aprendizaje a distancia por parte de estudiantes universitarios ante la pandemia de Covid-19

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**RESUMO**

**Objetivo:** Relatar as experiências de trabalho remoto e EaD de um grupo do PET-Saúde Interprofissionalidade na pandemia. **Método:** Trata-se de um relato de experiência das atividades realizadas por um grupo do PET-Saúde, vinculado a Universidade Estadual de Feira de Santana (UEFS) e ao Centro de Atendimento ao Diabético e Hipertenso (CADH), de março a junho de 2020. As atividades presenciais na UEFS e no CADH foram substituídas por atividades remotas e EaD. A metodologia utilizada envolveu a incorporação de ferramentas virtuais em: 1) Seminários e cursos EaD; 2) Estabelecimento de estratégias de inovação para atuação em saúde; 3) Construção de materiais de Educação em Saúde. **Resultados:** As ferramentas educacionais virtuais permitiram a realização de um trabalho inovador, focado na formação inicial e continuada de alunos, professores e profissionais de saúde. Mudanças no fluxo dos pacientes, produção de cartilha e artigos também foram atividades desenvolvidas. **Conclusão:** O uso de plataformas virtuais e EaD favoreceram o planejamento de ações, proporcionando ganho de conhecimento individual e coletivo, permitindo alterações no serviço, orientação dos pacientes e produção científica.
**Descritores:** Pandemia; Coronavírus; Tecnologia de Informação.

**ABSTRACT**

**Objective:** To report the experiences of remote work and distance education of a group from PET-Health Interprofessionality in the pandemic. **Method:** This is an experience report of the activities developed by a group from PET-Health, linked to the State University of Feira de Santana (UEFS) and the Diabetic and Hypertensive Care Center (CADH), from March to June of 2020. Face-to-face activities at UEFS and CADH have been replaced by remote and distance learning activities. The methodology used involved the incorporation of virtual tools in: 1) Seminars and distance education courses; 2) Establishment of innovation strategies for health activities; 3) Construction of Health Education materials. **Results:** The virtual educational tools allowed the realization of an innovative work, focused on the initial and continuous training of students, teachers and health professionals. Changes in the flow of patients, production of booklets and articles were also developed. **Conclusion:** The use of virtual platforms and distance education favored the planning of actions, providing gain of individual and collective knowledge, allowing changes in the service, guidance of patients and scientific production..
**Descriptors:** Pandemic; Coronavírus; Information Technology.

**RESUMEN**

**Objetivo:** Describir las experiencias de trabajo remoto y AD de un grupo del Programa PET-Salud Interprofesional en la pandemia de Covid-19. **Método:** Este es un reporte de experiencia de las actividades realizadas por un grupo del Program PET-Salud, vinculado a la Universidad Estatal de Feira de Santana (UEFS) y Centro de Servicio a los Diabéticos e Hipertensos (CADH), de marzo a junio de 2020. Las actividades presenciales en UEFS y en el CADH han sido reemplazadas por actividades remotas y AD. La metodología utilizada implicó la incorporación de herramientas virtuales en: 1) seminarios y cursos de AD; 2) Establecimiento de estrategias de innovación para actividades de salud; y 3) Construcción de materiales de educación sanitaria. **Resultados:** Las herramientas educativas virtuales permitieron la realización de un trabajo innovador, enfocado en la formación inicial y continua de estudiantes, docentes y profesionales de la salud. Además, se desarrollaron cambios en el flujo de pacientes, producción de folletos y artículos. **Conclusión:** El uso de plataformas virtuales y el AD favorecieran la planificación de acciones, aportando conocimiento individual y colectivo, además de permitir cambios en el servicio, orientación de pacientes y producción científica
**Descriptores:** Pandemia; Coronavírus; Tecnologia de la Información.

REVIEW

## Introduction

Covid-19, an infection caused by the new coronavirus, had its first cases reported in December 2019 in the Chinese province of Wuhan1. From the increase in the number of cases in the world, the World Health Organization (WHO) registered Covid-19 as a pandemic on March 11, 2020, when it had already reached 114 countries with 118,000 confirmed cases causing several problems in society, mainly in the economy, education and health, with strict population isolation measures to contain a rapid spread of viruses.[1]

The number of people infected by Covid-19 worldwide now exceeds 9 million, in addition to registering until June 27, 2020 at least 474 thousand deaths from complications of the disease. To date, Brazil ranks second in the number of confirmed cases (1,278,562) and in the number of deaths (56,028) with a lethality rate of 4.4%.[2]

The effects of the pandemic have not been restricted to infected people, and therefore, as a preventive measure of Covid-19, the World Health Organization[3] has recommended the social distance that has been followed by different countries, resulting in the interruption of non-essential activities. indefinitely, such as gyms, museums, cinemas, schools, higher education institutions, among others, representing efforts to avoid agglomerations and in an attempt to reduce the spread of the virus. In education, 1.5 billion students had their face-to-face classes suspended or reconfigured around the world, in an attempt to reduce the risk of contagion between students and the rest of society.

Thus, on March 16, 2020, 100 countries announced the closure or closed schools and university centers as a measure to contain the disease, and in 85 monitored countries, 776.7 million children and young people were affected.[4] Following this line, the Ministry of Education (MEC), influenced by the teaching modalities adopted by other countries and trying to minimize the impacts on education during the crisis caused by the pandemic, exceptionally authorized, through Ordinance nº. 345 of March 19, 2020[5], the temporary substitution of face-to-face subjects, in progress, by classes that use information and communication technology means, substituting professional practices for internships and laboratories being prohibited.

Thus, there is a need to implement and re-adapt face-to-face pedagogical mediations through Distance Education (DE). In traditional institutions, this modality has become the main focus of debates in the area of education, bringing challenges and repercussions on the new pedagogical formats from the use of communication and information technologies (TDIC) in the teaching and learning process. In China, for example, the Ministry of Education launched an emergency policy entitled "suspend classes without interrupting learning" in order to adapt teaching activities, in large-scale online mode, while the teaching environments are closed.[6]

The Covid-19 pandemic scenario has led in many countries to the implementation of the home office and online classes at educational institutions such as universities. Thus, computers and computer equipment have been increasingly sought and disputed among family members who need to study and / or work at the same time in the home environment, being a possible limiting factor to access to the information and communication technologies necessary for the learning.

Faced with this situation, this study aims to present the challenges of remote education for university students in the face of the Covid-19 pandemic.

## Method

It is a narrative review developed from readings on the theme, having as guiding principles the theoretical postulates about the challenges of remote learning in the face of the pandemic by Covid-19, published in periodicals and documents from official agencies. This methodology allows to describe the state of the art, in order to condense the knowledge already exposed in the literature, adding the reflections proposed by the authors, as well as contributing to the discussion on a theme, being indicated for themes that need further study, as well as Covid -19.

For the search for journals, the Pubmed and Google Scholar databases were consulted, using the following descriptors: Covid-19, Coronavirus infection, Education, Distance, pandemic. The inclusion criteria adopted were the original studies published in Portuguese and English with a focus on Covid-19, remote learning and university students, as well as those that were within that context, after reading the abstracts. Official agency documents on the topic were also included.

After reading the publications, the topics covered in the scientific literature were analyzed and reflected, seeking to reflect on distance learning in the university context and the challenges imposed by the same in the face of the pandemic by Covid-19.

## Results and Discussion

### Distance learning in the university contexto

Distance education is not a new modality, and differs from traditional and face-to-face teaching in that it has its own characteristics, from the provision of content to the way in which pedagogical mediation takes place, thus representing a change from the traditional teaching-learning model. present in classrooms.

According to Preti (2011)[7], large distance learning institutions emerged in the 20th century, in response to a new globalized, capitalist and neoliberal global context in which knowledge and the economy become interdependent and technological changes have accelerated the lag qualifications, making the market demand from the worker a constant recycling of his knowledge, analytical capacity and decision making.

This type of teaching can be seen as a possibility to offer learning to the population of all age groups, lifestyles, skills and different financial situation. In addition, supported by technological resources and with the insertion of new teaching practices, it allows the development of the individual in an integrated, collaborative and continuous way towards possible equality of opportunities and meeting the accumulation of educational needs, such as literacy for communities which are geographically isolated from large urban centers and in disadvantaged conditions.[8]

Distance education can be defined as a modality in which the didactic-pedagogical mediation in the teaching-learning processes takes place through the use of information and communication technologies, with qualified human resources, using instruments for monitoring and evaluating the knowledge, through the development of educational activities by students and teachers who are located in geographically different places and different times.[9]

For Fernandes et al. (2020)[10], distance learning should not be understood only from the geographical point of view, when the teacher is in one place and the students in another, which is common in courses of this modality. We must consider distance in relation to time. Both students and teachers access courses at different times, where the teacher inserts the corresponding contents and materials at a time and students can access at the same time, or in a period adapted to their routine. This means that each of these participants understand access time in different ways.

This is a teaching modality whose main guiding principle is the student. This is responsible for your pace and workload for the study. Therefore, the student's profile will be a major influencer of discipline and commitment used in the course. Hence the importance of institutions offering distance learning courses to shape subjects according to the majority profile of their students.[11]

Even in the case of a relationship of construction of knowledge through a physical distance between people, it is possible to create interactions that reduce the possible impacts caused by distance. In this sense, several sites offering distance learning courses work on resources that provide environments for interaction and training through virtual means.[10]

These interactions from the virtual environments, make the knowledge go through a construction process that goes beyond the interaction between student and teacher, allowing for an exchange of information, doubts and studies on what is being proposed in the courses.[12]

The student learns based on a triple interaction: student-content (individualized work), student-student (collaborative work) and student - teacher mediator - content, where the teacher plays the role of cognitive mediator, psychopedagogical advisor and content specialist, promoting social interaction in the learning process and providing timely and appropriate help to students when they need it.[13]

However, for this interaction to be possible, the virtual environments must contain tools that allow this dialogue, which is not always observed, since the issues involving the pedagogical organization of the virtual environments still need to be improved, especially in the institutions that are starting with the provision of this type of education. For Amarilla (2011)[14], without integration, there is no way that there can be a significant construction of knowledge, which is one of the reasons for students to abandon courses.

As a strategy to guarantee these significant interactions and the exchange of experiences in the virtual environment, the importance of tutorial mediation in strengthening the self-learning process is highlighted, with the mediator teacher being responsible for monitoring student activities, motivating learning, guiding and providing the student with conditions autonomous learning, even contributing to students' adherence to this new methodological proposal.[13]

**Challenges of distance learning in the face of the Covid-19 pandemic**

During the Covid-19 pandemic, with the suspension of classes from private and public networks in March 2020, it was necessary for education managers to create strategies for the operationalization of distance education, representing a great challenge for teachers and, especially, for students from institutions offering traditional on-site teaching. From that moment on, a number of universities and colleges suspended or postponed pre-scheduled events such as workshops, lectures, conferences, classes, among other activities.

What has been observed is that after the month of April 2020, for Higher Education Institutions (HEIs), the recommendation has been not to suspend academic activities of a theoretical nature through the remote education implementation, from the use of digital technologies, through mediation in virtual learning environments (VLE). This movement made exams, extracurricular activities, graduations and lectures gain a new format and changes in the school calendar.

In Brazil, the Ministry of Education (MEC) sought strategies for educational institutions to adopt during the crisis caused by the pandemic, so as not to completely stop planned activities in the school and academic environment. Thus, through Ordinance Nº. 345 of March 19, 2020, authorized teaching institutions to perform, in an exceptional character, the complementation of on-site classes with theoretical classes using remote learning technologies, not applying to internship subjects and those with laboratory practices, at least that the latter have the support of a virtual laboratory that supports the experience in this environment.[5]

In view of the pandemic scenario, several strategies have been devised to prevent the interruption of educational activities by universities and other higher education institutions. However, some issues are discussed in relation to the implementation of this emergency policy, such as the overload of demands for students, the learning environment to happen entirely at home and the availability of internet access. In reality, students are being challenged to adapt to new models to continue the learning process, minimizing impacts on the quality of classroom education that had been offered a priori.

In health courses, the challenges and repercussions are more evident with the possibility of distance learning. In view of this, Ministry of Education Ordinances No. 2,253 / 2001, 4,059 / 2004 and 1,134 / 2016 made the possibility of offering curriculum components in the distance modality official. This refers to only 20% of the course load and reflects the difficulties of the students' teaching-learning process, considering that about 40% of the course takes place in a practical way, in contact with patients, pathologies and health needs, reigning care in this context.[15-16]

Thus, this new context, marked by insecurities, made managers in the education segment rethink pedagogical strategies in order to preserve the principles of education, their laws and guidelines, considering the possibility of including new Information and Communication Technologies (ICT) ) and the use of digital platforms to address this new urgency that remote education provides.

However, teaching institutions with in-person modality have faced challenges to adapt to this new modality, and in some situations the quality of online teaching has been questioned by university students. Sahu (2020) 17

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explains that many teachers have received training to use online learning platforms, however, there are still some teachers who say they do not have the pedagogical and technological skills necessary to adapt the face-to-face classes to the remote mode due to lack of familiarity with the use of remote technologies.

Thus, Kenski (2003)[18] states that the inappropriate use of these technologies compromises teaching and creates an aversive feeling in relation to their use in other educational activities, difficult to be overcome. In addition, the appropriate use of technologies for educational purposes presents itself as a new requirement of today's society in relation to the performance of educators.

For many students, remote education represents a dilemma and challenge to be overcome, since most of them are considered digital immigrants and are part of a culture in which the learning process and the interaction with the teacher occur in person (SAHU, 2020).[18] Thus, they have been experiencing difficulties in handling teaching platforms or have limited access to computers and the internet outside the university environment, in addition to the lack of necessary guidance to manage their own time and remote study. Allied to this, students still have demands for virtual classes from different disciplines, which can result in even greater emotional and physical stress.

Given this context, it appears that in Brazil, 58% of households do not have access to a computer and 33% do not have internet, according to a survey conducted in 2019 by CETIC (Regional Center for Studies for the Development of the Information Society). Less affluent students are the most affected by the lack of access to technology, which suggests that those most vulnerable groups tend to be the most affected by the closure of universities and suspension of face-to-face classes, increasing social and educational inequalities.[4]

Access to broadband internet and computer equipment is not a reality commonly observed in students' homes. There are students who live in situations of low family income and with numerous social problems involved, and this fact must be treated with evidence, when analyzing the effectiveness of this teaching alternative.[19]

Therefore, the authors reaffirm the importance of accessibility for the efficiency of distance education. The user has the right, in addition to access to the information network, the cancellation of architectural barriers, the availability of communication, physical access, appropriate equipment and programs, with content and presentation of information in appropriate formats. We must consider that in addition to the global crisis in health systems, an economic crisis continues, where many families are without family income, with all resources directed to the basic and essential survival needs.

Due to the recommendation of social isolation, some university students are also unable to seek other alternatives for technological access, such as the home of a friend, family member or Internet café. In addition to teaching difficulties, there are obstacles to the evaluation processes. It is difficult to monitor students' compliance with assessments if they are faithfully meeting the assessment criteria. In addition, it should be noted the difficulty of students accessing them or occasional problems such as interruption of the internet signal at the time of assessment, which affects their grades and performance.[17]

In addition to remote classes, it is important to reflect on students' mental health, which influences the learning process. We must consider that the epidemiological situation evidenced and the rapid increase in the number of

cases and deaths by Covid-19 in the world have caused a mixture of personal feelings of uncertainty, insecurity, anxiety, stress and suffering when faced with the prognosis of infection or the death of someone family or friend and that can lead to unfavorable effects on students' learning and mental health condition.

Some authors reaffirm the need for preparation and training of students and that there are efficient and favorable pedagogical, human and technological conditions for this teaching modality to be implemented, even in an emergency way. There is a need for commitment to offer quality education services, to reduce suffering, exclusions, marginalization, to avoid strengthening the vulnerability frameworks, to sustain the democratic process, to contribute to social emancipation and to enforce the rights of students.[19]

Therefore, transpose the learning process of the face-to-face modality, in which gestures, looks, immediate reactions and other visible expressions predominate, to a form of online teaching in which students and teachers are separated in space, maintaining contact only through the use of Information and communication technology tools require new skills, practices and knowledge to be built together.

## Conclusion

The incorporation of remote activities, in a timely and quick way, as adopted to face the pandemic by Covid-19 brought several challenges to university education, which ranged from the low ability of students with virtual teaching platforms, limited access to the internet and computers , difficulty in reconciling study time with personal demands, in addition to emotional and physical exhaustion of students. Thus, it is hoped that the reflections proposed in this work can contribute to broadening the view of university students in order to encourage and guide them in the use of remote tools and the autonomy to expand their knowledge.

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