

TRANSDISCIPLINARY PERSPECTIVES IN PANDEMIC TIMES: Remote education in response to the teaching crisis

PERSPECTIVAS TRANSDISCIPLINARES EM TEMPOS DE PANDEMIA: O ensino remoto em resposta a crise do ensino

PERSPECTIVAS TRANSDISCIPLINARIAS EN TIEMPOS DE PANDEMIA: La enseñanza a distancia en respuesta a la crisis docente

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ABSTRACT:

The collapse caused by the coronavirus pandemic has provoked improvised responses that range from nonsense to ingenious in colleges, schools and universities that struggle to continue teaching. This article aims to present an analysis of the challenges faced by educational institutions and stakeholders at this time of pandemic, in the struggle to seek educational goals appropriate to the circumstances of crisis, through online education that was not so highly valued. For the development of the research, books, articles and websites about remote education in response to the crisis, in times of coronavirus, were used as a source, thus composing the theoretical framework. Through reading and analyzing the works, the studies were later synthesized and interpreted. Online education, despite being an alternative for the continuity of the teaching and learning process, will continue to be important in connection with face-to-face teaching even after the pandemic. However, it generates another and new challenge that will consist in the evaluation and management of learning results.

KEYWORDS: Coronavirus; Face-to-face teaching; Distance learning; Online Teaching; Emergency Remote Education.

Introduction

This is a critical moment under attack by an unexpected and fearful invisible enemy called Covid-19, a virus that threatens the survival of humanity. In these circumstances, there are people struggling to study and there are stoic people trying to teach. This fact brings the discourse of the heroism and optimism of the academic community.

Publications in scientific journals on the topic addressed are almost nonexistent or probably in full development. Here, information from experts who have made public their observations about a reality that begins to pass at the same time as this analysis is written has been incorporated and discussed. This is a line of research that is being born, but which will attract many researchers who will generate new knowledge on the subject. In times of coronavirus, online education must give its best response to the crisis.

According to Tomazinho (2020) universities around the world are rapidly moving classes to the online teaching modality, but the fact that students will learn as much as in physical classrooms has become a relevant globalized research issue.

Students still receive the required number of class hours, but no face-to-face contact with teachers. In Brazil, the Ministry of Education-MEC (2020) announced that university education will be developed with remote education. This global shift to online learning follows the example of China's universities, where the outbreak began. So, the rapid global adoption of remote education is incredible.

According to Roesler (2020) before the coronavirus, the use of online learning in higher education had shown a slow pace of change and is also affecting business schools and their students globally. Covid-19 is closing campus, disrupting study hours and creating a challenging environment for anyone considering a master in business. The campuses of business schools around the world are closed to prevent the spread of coronavirus and are adapting their teachings for online classes (Roesler, 2020).

For Santos, Campos Mello, Ribeiro and Clementino Sampaio (2020) from London to Lisbon and from Boston to Brazil, online teaching in business schools went viral. And while there is no doubt that the current crisis is accelerating the shift to online classroom after years of slow adoption, there is also a sense that we have moved to the point that there is no return in terms of a shift to digital delivery. For the author, at some point there will be some return to previous practice, but this forced experiment will have a lasting effect.

Although the relative merits of remote and traditional education are the subject of much discussion, online learning is quickly becoming the only option, as many schools require online learning in all classes due to the new coronavirus, although this practice does not occur with the same intensity in underdeveloped countries. Even the campus where no case of Covid-19 has been detected is prophylactically canceling classes.

Many schools, colleges and universities that canceled classes on campus require online instruction to continue, which means that remote education is not a consideration, but a necessity. The question is not just how to do it, but how to do it as quickly as possible.

The main objective to be highlighted in this research, after experience in the bibliographic reference consulted, is to bring dialogue to the teaching class and all those involved in the educational process, envisioning whether online learning after this time of pandemic could make university education more accessible, less expensive, interactive and student-centered. However, perhaps it would be extremely misleading to present it as a simple and practical solution, capable of immediately replacing face-to-face teaching for a significant period of time.

Remote teaching concept

Remote teaching is being used in various educational institutions as a way of teaching without the direct presence of students. It appears as a means of teaching to avoid discontinuity of learning.

For Marina (2020) remote teaching is a process that several educational establishments currently have adopted so that students do not go without learning the subject given by the teacher through communication networks and information not in person.

This teaching is carried out taking into account digital media, on the one hand the teacher and on the other hand the student in a distant way.

In another view, Illionos State Board of Education (2020) clarifies that remote teaching is that which is transmitted by the teacher distant from his student and takes place in a way that makes the student learn without obstacles. In the same sense, Sae Digital (2020) emphasizes that the indirect class is given at specific times established through a distance context in which the teacher is not in front of the student. The most important thing is that there is teaching and learning so that knowledge is realized.

In another aspect, the Universidad de Chile (2020) informs that the online class is an asset especially for the students, since it causes them to be a little more independent and promoters in the knowledge making the learning become more accessible.

The assimilation of knowledge by digital means should be assumed by students as a new way of learning in a more productive way. Remote education is a format of schooling mediated by technology, maintaining the conditions of distance between

teacher and student. This teaching format is made possible by the use of educational platforms for sharing school content.

The above concepts converge in the conception that remote teaching and learning takes place through information and communication technologies without the physical presence of the actors.

Remote teaching before the pandemic of the coronavirus

For Sartori (2015) distance learning, also known as online learning and technology-mediated instruction, like any course in which students separate from each other or personally from the faculty, for more than a third of instruction and involves the use technology to support regular and substantive interactions between students and faculty members. Currently, many colleges in different fields are required to teach undergraduate and graduate courses through distance learning, although they may still have little training on how to do education mediated by online technology.

On the other hand, it should be remembered that it is conceptualized as learning with electronic support, which is based on the internet for teacher/student interaction and the distribution of support materials. From this simple definition comes an almost infinite number of ways to teach and learn outside traditional classrooms and away from the university campus. In this regard Nova and Alves (2008, p.33) said that:

“With Distance Learning (EAD), students can participate of a virtual roon of any place with internet access and alectricity. Can include audio, video, text, animations, trainig, environments virtual and chat teacher. It is a rich learning environment, with much more flexibility than a traditional classroom.”

Therefore, when using its full potential, it has been shown that distance education can be more effective than pure classroom instruction. It has the potential to be attractive, fun and tailor-made to adapt to almost anyone's schedule, as long as it is treated correctly.

Nova and Alves (2008, p.35) report that before the coronavirus pandemic, the global educational technology sector, which includes online learning, grew by 15.4% a year, with respectable companies like Google and Microsoft investing heavily in the sector. The United States is the largest market, with rapid growth, also in India, China and South Korea, according to a report by the Market Intelligence Resource dedicated to the international education sector-ICEF Monitor 2.

Consequently, factors such as convenience, geographical distance and the need to work while studying are driving most of the growth in online learning, especially in the higher education sector.

According to Nova and Alves (2008) the global education sector has been one of the last to adopt digital technologies and only about 3% of all spending on education worldwide went to digital initiatives. The growth of online teaching and learning has been slowed by cost concerns; lack of reliable access to digital devices and high-speed internet connections, especially among poorer families or countries; and widespread attitudes that online learning was inferior to traditional learning methods. Surprisingly, this pandemic forced everyone to experiment and improvise with digital learning.

Remote teaching during the coronavirus pandemic

Achieving best practices in online education takes a lot of time and resources. According to Sartori (2015) it takes hundreds of hours to properly design and implement an online course. Institutions and teachers do not have hundreds of hours in this crisis. Globally reported states of emergency demanded a rapid response. However, even within the crisis, one of the main goals is to create the best possible experience for students in an incredibly turbulent period.

Both academics and primary school students may not have the necessary training for quality online learning. According to Sartori (2015) the development of online courses involves a team of specialists that includes teachers, educational designers, programmers and illustrators. The team must collectively follow the systematic design processes.

In another perspective, Guimarães (2018) mentioned that when facing the challenge of remote education (ER), most academics will record their lectures using a webcam and the same slides as the previous classroom teaching. Some choose to teach live using telecommunications tools, giving the same lectures online during normal class hours.

According to Guimarães (2018) recently, the United States Department of Education collected 99 studies that were carried out over a decade and found that "under normal conditions" a combination of classroom and online teaching works best. When it is just a choice of one or the other, students stated that online learning can be as effective as face-to-face. At the same time, it points out that recently it is estimated that there are more than 1.5 million students in Brazil enrolled in online classes and it is almost a third of all university students.

So while "going virtual" may seem innovative and new to some, it is not as threatening to students. According to the author, there are three keys to success: interaction with content, interaction with tutors and interaction between peers.

Better online learning allows users to interact with each other and not just sit and listen to an online conference. It also allows participants to interact with teachers, just as they would in a live classroom.

On the other hand, Santos, et al (2020) note that the interruption caused by the coronavirus pandemic has provoked improvised responses that range from nonsense to ingenious in schools and universities that struggle to continue teaching, even when their students have been reflected as tiny images on your computer monitors.

Distance learning consists of using digital technologies to transform the learning experience. That is not what is happening. What is happening now is that the institutions had a few days to quickly put everything that is done in the classroom in virtual rooms.

Unfortunately, what people are confusing with online education are meetings between teachers and students with long classes in videoconference rooms (Santos, et al 2020). This causes a pessimistic scenario in which students will hate the experience and never want to do it again.

Some qualified researchers, such as Santos, et al (2020), stated that it is not only the students who will move this needle, but also the teaching staff as a whole. Together with their students, the teachers were thrown to the bottom of the pool for digital learning and asked only to swim. "Some will sink, others will crawl to the edge of the pool and get out and never go back to the pool. But many will find out what to do, how to swim and keep floating." (P. 16).

This situation, which has required creativity in the delivery project, will have a lasting impact on the way we operate and think about this delivery. Furthermore, it is worth mentioning that there is an incredible learning experience during the Covid-19 outbreak represented by students and everyone involved in the delivery. educational process that come together to support each other during the crisis.

The moment requires rapid and profound changes in the educational field. Several students are at home learning different academic contents even without the proper and planned technological preparation of the teacher.

According to Reich, Buttimer, Fang, Hillaire, Hirsch, Larke, Littenberg-Tobias, Moussapour, Napier, Thompson and Slama (2020), today many students study virtually through technological tools. Most of the teachers were taken by surprise in the face of

this pandemic and were subject to learn to handle with the computer means in their day to day and for this reason they were required to rehabilitate themselves in teaching students at a distance.

Although online classes are taking place, there was not enough time for teachers to plan their activities properly and this can create stress for both students and teachers. It is important to note that the ER needs planning in order to occupy a vast place.

Guimarães (2018) argues that effective online instruction depends on well-designed course content, motivated interaction between tutors and students, well-prepared and fully supported tutors, in order to create a sense of online learning community and fast-forward technology. In doing so, an ongoing discussion of effective strategies that can improve the success of universities and teachers in the transition to online teaching is expected to be encouraged.

The educational world will no longer be the same due to this pandemic, since remote classes are becoming a relevant teaching tool for teachers to instruct students.

Considering that the world is already different, Martins (2020) says that all countries on the planet quickly changed their education system due to the viral pandemic. Therefore, virtual technological tools today have a major impact on the teaching and learning system, so that students learn the content taught by teachers digitally whether they are improved or not. In the same version, Britihs Council Argentina (2020) describes that the disease of the new coronavirus appeared suddenly all over the world and affected the teaching and learning process. For this, online education needs people capable of teaching digitally and differs from regular education.

The same is true in higher education. Bernardes (2020) explains that remote education contrasts with the usual class, since it focuses on the student, making him an independent subject and able to respond to the challenges that learning presents, contributing to his self-worth.

The fact that some students already have mastery of technological means, this can facilitate their use in relation to those who do not, because they do not have them. The new communication and information technologies (NTIC) are not comprehensive for students.

Many students do not have a communication network in their homes to communicate with teachers and colleagues (Neto, 2020). It is an evidence that there are

several students and even teachers who do not yet use computers, the internet. Thus, they face many difficulties in learning and teaching from a remote point of view.

In the view of Gewehr (2016), most students use communication and information networks in non-school contexts and within this subject were informed of the knowledge passed on by teachers.

Despite online teaching facing many difficulties in Angola, due to the way and lifestyle that conditions the quality of life of many families, the competent bodies are concerned with online education and learning in this pandemic phase. This teaching occurs due to an agreement established between the Educational Entities of Angola and Public Television. Therefore, during online classes, according to Oliveira, quoted by Jornal de Angola (2020), parents are required to follow the students' learning and explain the subjects given, as well as recapitulate them. Refers to teleaulas. Continuing, he emphasized that parents who do not have televisions can follow classes on the radio daily.

Emergency remote teaching and online learning

Well-planned online learning experiences are significantly different from online courses in response to a crisis or disaster. Colleges and universities working to maintain education during the Covid-19 pandemic must understand these differences in the assessment of this emergency remote education (ERE) that has been presented.

Due to the Covid-19 threat, colleges and universities face decisions on how to continue teaching and learning, keeping their teachers, staff and students safe from a rapidly moving and misunderstood public health emergency. Many institutions have chosen to cancel all face-to-face classes, including labs and other learning experiences, and have ordered teachers to teach their courses online to help prevent the spread of the virus that causes Covid-19 (Santos, et al, 2020, p .12).

According to Chipaco (2020) in the emerging remote classroom (ARE), teachers change the context of teaching because it is a short-term digital situation. Teachers, once forced to learn to handle with technological tools to teach classes quickly in pandemic times, so that students are not left without learning. Continuing the author states that the temporary remote class is an exchange of teaching procedure as an optional form due to the covid-19, from which it will be possible to make a connection between the two teaching systems, the classroom and the non-classroom, when the disease situation is less acute.

In a more particularized way, the temporary education emerging in the opinion of Behar (2020) is a procedure from which the teacher teaches away from the student at a given time. This occurs in several school establishments on the planet, so do not stop classes. According to Arruda (2020), the emerging remote class is still a difficulty for the Brazilian population since it is not comprehensive for everyone. To this end, there is much to be done in order to enable students in the most remote areas to also benefit from technological learning tools.

For Wahab (2020) remote education at higher level is an emerging need in order to create more confinement and distance between people. In this sense, teaching becomes online through huge technological focuses as an investigative medium.

The author points out that online teaching can allow the flexibility to teach and learn anywhere, anytime, but the speed with which this change in online education must occur is unprecedented and impressive.

While campus staff and support groups are generally available to help teachers learn and implement online learning, these teams often support a small group of teachers interested in teaching online. In the current situation, these individuals and groups will have severe limitations in offering the same level of support to all teachers in such a narrow window of preparation.

For Roesler (2020) many active members of the academic community have been hotly debating terminology on social media, and "emergency remote education" has emerged as a common alternative term used by researchers and scholars in online education to establish a clear contrast with what many know as remote quality class.

In Roesler's (2020) perspective, some readers may disagree with the use of the term "teaching" about options such as "learning" or "instruction". Instead of discussing all the details of these concepts, "teaching" was selected for its simple definitions: the act, practice or profession of teacher and the concerted exchange of knowledge and experience, together with the fact that the first tasks performed during emergency changes in the delivery mode they are those of a master / tutor/teacher.

According to Santos, et al (2020) the online class including distance learning and teaching has been studied for decades. Numerous studies, theories, models, standards and assessment criteria focus on quality remote learning, online teaching and online course projects. What is known from research is that effective remote learning results from careful instructional planning, using a systematic model for design and development. The planning process and the careful consideration of different decisions have an impact on the quality of instruction and it is this careful process that will be

absent in most cases in these RE times. It is necessary to recognize that everyone will do their best, trying to take only the essentials, while trying to build a career during this emergency. Therefore, it is essential to distinguish between the normal type of adequate online instruction and what is done in a hurry with minimal resources and in a short time, during the ERE.

In this context, Roesler (2020) argues that unlike the experiences planned from the beginning and designed to be online, the ERE is a temporary change of information that standardizes instructions for an alternative way of working, due to the circumstances of crisis. It involves the use of totally remote teaching solutions for instruction or education that would otherwise be taught in person or as combined or hybrid courses and that will return to this format as soon as the crisis or emergency has subsided.

The primary objective in these circumstances is not to recreate a bureaucratic educational ecosystem, but to provide temporary access to instructional supports quickly and easily to set up during an emergency or crisis. When ERE is understood in this way, it can be easily differentiated from online learning (Roesler, 2020).

In another sense, the author points to many historical examples from other countries that responded to the closure of schools and universities in times of crisis, implementing models such as mobile learning, radio, blended learning or other solutions that are contextually more viable.

In the current situation, campus support teams that are routinely available to help teachers learn and implement online learning will not be able to offer the same level of support to all teachers who need it. Faculty support groups play a crucial role at this time.

The move to ERE requires teachers to take more control of the course design, development and implementation process. With the expectation of rapid development of online teaching and learning events and the large number of teachers in need of support, faculty development and support teams must find ways to meet the institutional need to provide educational continuity, while that help teachers develop skills to work and teach in an online environment. As such, institutions must rethink how educational support units do their jobs, at least during a crisis (Santos, et al, 2020).

Remote teaching and new communication technologies

When looking at remote teaching, one cannot fail to focus on new digital media. According to Massala (2020) in Kenya several teachers have arranged many ways to be

able to teach their students remotely, through WhatsApp. There was also a teacher who presented slides using audio video and later shared with her students explaining the contents and clarifying the concerns presented by them.

Mobile phone applications can also be used as a means of teaching and remote learning.

According to McAleavy and Gorgen (2020) currently, audiovisual devices also serve as elements of communication and information of teachers towards students. This time, they boost, carry out and optimize teaching and learning. Teachers should see them as teaching aids to students. Although the authors, in a more profound way, affirm that the RA are much more focused on higher education institutions, the ER shows that the current technological tools should also be used in elementary schools. In the same sense, Villafuerte (2020) emphasizes that schools of general education and higher education were concerned with finding ways to prevent teaching and learning activities from stopping. However, a large part of Higher Education Institutions already used digital means of teaching normally. Schools at lower levels of education are the ones that were most unaware of the technological tools of communication and information and that is why teachers and their students had more difficulties in dealing with remote education, because they found something different.

The use of digital media in remote education is just as vital in both elementary and higher education, although its application is more complex in the former.

Luciano, cited by the Movement for Innovation in Education (2020) indicates that technological tools are automatic, since the teacher saves more time and his explanations are more profitable. It means that digital instruments are faster and facilitate the teacher's work by saving time and energy.

Moran (2017) stated that teachers who show interest and manipulate computer equipment and other digital instruments well, interact with their students. Likewise, Vieira Martins and Pedon (2015) said that well-handled digital tools bring teachers and students closer together. It can be said that the new information and communication technologies when well handled can make teaching and remote learning efficient as it can happen in traditional or face-to-face classes.

The master must have adequate technological training to correspond with the students' expectations. The same idea was shared by Neto (2020) who said that teachers when adopting new teaching means, nowadays it is important that technological means are the domain of teachers and students and that is why there is an urgent need to improve in this sense so that the interaction is insightful.

Improvement should not only be limited to teachers, but also to administrators, directors, students and other stakeholders linked to the teaching and learning process.

Caetano (2020) states that online teaching employs new teaching technologies that should be extended to public offices, educational institutions and teachers. In the same perspective, Nogueira (2020) points out that the remote class in the period of the covid-19 worried the state teaching entities, to undertake teaching through electronic means at a distance, such as television, radio, new information and communication technologies (NTIC) and the internet connection network.

It means that remote education was boosted through the media and digital networks, together with educational institutions. It is a current trend in countries around the world to increasingly intensify non-face-to-face education through new sources of online communication and information.

For Paladini (2008) remote classes are also important because they provide new forms of learning and are progressing day by day worldwide. This idea converges with that of Carine Heck, Santos Coelho, Schardosim Simão, Silva, Silva and Sommer Bilessimo (2016) in stating that the transmission of remote knowledge gives way to new methods of teaching and learning at the level of school institutions.

Despite the teaching being online, the teacher when teaching through technologies must know how to differentiate students according to their skills, that is, always take into consideration the learning pace of each student, since learning occurs in a different way.

According to Natália Couto (2020) the remote class must be well taught by the teacher and teach the most essential, as there are many students who do not have the same knowledge base.

It is known that not all students learn the contents a priori, some are slower and others are faster. Even being online it is up to the teacher to clarify the contents to students with more difficulties.

Remote education is a short class, from which the teacher explains the contents in a very brief way.

For Armelini and Alorno (2020) in remote education, the teacher seeks the best ways of transmitting knowledge for the student to learn, increasing more and more his interaction and contribution to enrich the class.

It means that, as in the classroom, the teacher when giving classes online should make the subject more simple, accessible and synthetic.

Remote education is now part of all education systems. Since it is an immediate solution for teaching. Radio broadcasting as well as television are also incorporated as means of information and communication of remote pedagogy.

Conclusion

Therefore, online teaching is not a substitute for face-to-face teaching, but it is being used in various parts of the world to streamline and continue the teaching and learning process.

Online teaching offers a moment of reflection. The Covid-19 pandemic could be a way to test the merits of digital delivery and win over skeptics, especially teachers and principals, some of whom now have to give lectures or classes online for the first time. It is also an unexpected opportunity to foster innovation that can transform online education in the future, including giving all students access to the virtual form.

Face-to-face teaching in connection with online teaching can contribute to quality teaching. It would be beneficial if the subjects of teaching and learning could now involve digital and face-to-face classes.

It is crucial to create material conditions that adapt to the reality of each society, so that the internet network is vast, containing more affordable prices and that it reaches the most remote areas of various parts of the world, so that teachers and students can enjoy it.

It was possible to perceive that according to the researches carried out, the educators who teach online courses feel that the students learn as much, as in the classroom.

Given the spread of the coronavirus outbreak, this sudden global shift to online learning will not stop in a week or two. Universities will need to carefully consider how to assess and manage student learning outcomes, which will lead to a whole new set of challenges.

The perceived ease and usefulness of online teaching is largely influenced by users' initial experiences. This has a significant impact on your actual adoption. The idea that the remote classroom is being implemented quickly at the expense of quality is something to worry about, as the remote classroom can be dismissed as soon as the coronavirus outbreak ends, which would not be applauded.

The online connection needs to be carefully planned and the faculty members on the front lines of this movement need more support than a simple operational warning justified by an emergency declaration.

In any case, the pandemic reveals how distance learning is still in its infancy. The pandemic quickly shows the side effects of institutions run by inexperienced leaders in the field of remote classroom, who are tasked with formulating policies that treat it as a crisis management tool. Things could have developed differently if online teaching had previously been treated as a vital part of standard teaching and learning.

The research makes us realize that there is a big difference between the classes that were designed to be digital from the beginning under normal conditions and what is happening now. The current classes present more as a product of panic than planning. What is being created is not the ideal of how remote instruction should be, nor is it representative in everything that is possible, but obviously nobody at the moment has the calm, the time and the skills to think about it.

Everyone involved in this abrupt migration to online learning must realize that these crises and disasters also create disruptions in the lives of students, teachers and their families in general, outside of their interaction with the university. Therefore, all this work must be carried out with the understanding that the switch to Emergency Remote Education is unlikely to be the priority for everyone involved.

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RESUMO:

O colapso causado pela pandemia do coronavírus tem provocado respostas improvisadas que vão do contrassenso ao engenhoso nos colégios, escolas e universidades que lutam para continuar ensinando. Este artigo tem como objetivo apresentar uma análise dos desafios enfrentados pelas instituições de ensino e intervenientes neste momento de pandemia, na luta para buscar metas educacionais adequadas às circunstâncias de crise, através do ensino online outrora não tão valorizado. Para o desenvolvimento da pesquisa foi utilizado como fonte livros, artigos e sites sobre o ensino remoto em resposta à crise, em tempos de coronavírus, compondo assim o referencial teórico. Através de leitura e análise das obras, posteriormente foi feita a síntese e interpretação dos estudos. O ensino online apesar de ser alternativa para a continuidade do processo de ensino e aprendizagem continuará a ser importante em conexão com o ensino presencial mesmo depois da pandemia. Porém, gera outro e novo desafio que consistirá na avaliação e gerenciamento dos resultados de aprendizagem.

PALAVRAS-CHAVES: Coronavírus; Ensino Presencial; Ensino à Distância; Ensino Online; Ensino Remoto Emergencial.

RESUMEN:

El colapso provocado por la pandemia del coronavirus ha provocado respuestas improvisadas que van desde el disparate hasta el ingenio en colegios, escuelas y universidades que luchan por seguir enseñando. Este artículo tiene como objetivo presentar un análisis de los desafíos que enfrentan las instituciones educativas y los actores en este momento de pandemia, en la lucha por buscar metas educativas adecuadas a las circunstancias de crisis, a través de una educación en línea que no fue tan valorada. Para el desarrollo de la investigación se utilizaron como fuente libros, artículos y sitios web sobre educación a distancia en respuesta a la crisis, en tiempos de coronavirus, componiendo así el marco teórico. A través de la lectura y el análisis de las obras, los estudios fueron posteriormente sintetizados e interpretados. La educación en línea, a pesar de ser una alternativa para la continuidad del proceso de enseñanza y aprendizaje, seguirá siendo importante en relación con la enseñanza presencial incluso después de la pandemia. Sin embargo, genera otro y nuevo desafío que consistirá en la evaluación y gestión de los resultados del aprendizaje.

PALABRAS-CLAVES: Coronavírus; Ensino Presencial; Ensino à Distância; Ensino Online; Ensino Remoto Emergencial.