

Teacher training before and during the Covid19 pandemic in higher education

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ABSTRACT

In teacher training there is a before and after the pandemic (Picón, et al., 2020). Although there was a scheme before covid-19 (Mendiola et al., 2020), it has now been detected that said training that was given in person (Suárez, 2020) was insufficient (Cardona et al., 2020) since the health emergency (Garavito et al., 2020) had a precedent that showed a different reality. This research determines the training provided before (Prieto et al., 2020) and after the pandemic (Zavala et al., 2020), the characteristics of groups of teachers who, framed in a digital divide (Fernández et al., 2020) were adapting to forced marches with digital and virtual scenarios (Argandoña et al., 2020) for which they were not prepared (Trejos et al., 2020) and that generated teaching and learning problems with students who claimed to be knowledgeable. of technology (Ardini et al., 2020) but who also attended the paradigm of digital youth who only knew about social networks but not about educational platforms (Sarobe et al., 2020). Studies were carried out on 80 teachers from two higher education institutions and 104 students through probabilistic, homogeneous, expert, systematic random sampling, by quotas, of which 80% were not prepared for virtual classes, 20% who If he considered himself prepared, it is because he was already teaching online classes, among other relevant data declared in this document. This through a cross-sectional study conducted in 2019 and 2020. Therefore, it is considered essential that all teachers and students are always trained on digital educational platforms even when the subjects are face-to-face. Teachers must always be up to date to provide quality education and show that a teacher should always be the best student by being up to date.

Keywords: Teacher training, digital learning, COVID-19, entrepreneurship.

1 INTRODUCTION

1.1 TEACHER TRAINING BEFORE AND DURING THE COVID-19 PANDEMIC IN HIGHER EDUCATION: CHALLENGES AND OPPORTUNITIES

The Covid-19 pandemic has had an unprecedented impact on higher education globally. University closures and the transition to online education have transformed the way classes are delivered and received. In this context, teacher training has become more critical than ever, both for teachers who must adapt to new teaching models, and for students who depend on quality education to achieve their academic goals.

Before the pandemic, teacher training focused on the development of pedagogical skills and the use of educational technologies. However, the current situation has highlighted the need for teachers to

have digital skills, pedagogical skills, and adaptation to change to face new educational challenges. As García-Valcárcel, Muñoz-Repiso and Tejedor (2021) state, "the rapid and radical changes that university education has undergone in the last year have revealed the need for teachers to have training that allows them to face the new educational challenges" (p. 43).

Teacher training during the pandemic has had to be fast and effective to meet the urgent needs of teachers and students. In this sense, online education has played a significant role in teacher training since it has allowed the realization of virtual courses and workshops. For example, González- Sanmamed and others (2021) point out that "carrying out online training programs, based on virtual platforms, can be an effective solution to overcome current limitations and guarantee the continuity of teacher training" (p. 24).

However, online teacher training has also presented new challenges. One of the main challenges is the lack of face-to-face interaction between teachers and students. Online interaction is not the same as face-to-face interaction, since certain elements of non-verbal communication and the personal relationship between the participants are lost. In addition, teachers and students may face technical and Internet access difficulties that make it difficult for them to participate in online courses.

This has been a major challenge for teachers and educational institutions. The pandemic has accelerated the adoption process of educational technologies and has highlighted the importance of teacher training to face new educational challenges. It is necessary to continue working on improving online teacher training and on the search for solutions that allow interaction and effective learning in a virtual environment. As García-Valcárcel Muñoz-Repiso and Tejedor Tejedor (2021) affirm, "teacher training must be continuous and adaptive, capable of adapting to new challenges and opportunities that arise in the educational environment" (p. 45). In this sense, it is important that educational institutions and teachers are open to change and are constantly trained to improve the quality of online education and ensure that students always have access to quality education.

Teacher training before and during the Covid-19 pandemic in higher education has been a challenge for teachers and educational institutions. The pandemic has accelerated the adoption of educational technologies and has highlighted the importance of teacher training to face new educational challenges. It is essential that teachers are constantly trained and open to change to improve the quality of online education and always ensure student access to quality education.

According to González (2020), "teacher training in higher education has had to quickly adapt to the current situation" (p. 15).

On the other hand, Palomino (2021) points out that "teacher training before the pandemic was very different from today, since technological and methodological aspects must now be taken into account to teach virtual classes" (p. 25).

In relation to teacher training during the pandemic, Pérez (2020) states that "it has been a challenge for many teachers to adapt to virtual education, but it has also been an opportunity to innovate and improve their pedagogical practices" (p. 10).

According to Rodríguez (2021), "teacher training during the pandemic has shown the need to develop digital skills in teachers, as well as to promote collaborative work and the use of technological tools for learning" (p. 20).

Teacher training has always been a prominent issue in the field of education since it is a fundamental part of ensuring the quality of teaching. However, the arrival of the Covid19 pandemic has forced teachers to quickly adapt to online teaching, which has highlighted the need for specific teacher training in this area.

In this sense, Mora-Fernández and Romero-Cuevas (2020) highlight the importance of online teacher training before the pandemic since this would have facilitated the transition to virtual teaching in times of crisis. In their study, these authors point out that online teacher training must consider both technical and pedagogical aspects and highlight the importance of the active participation of teachers in the training process.

On the other hand, Hernández-Hernández, Rendón-Ramírez and Carreón-Gutiérrez (2021) conduct an analysis of the challenges and opportunities that online teacher training has presented during the pandemic. In their study, they highlight the importance of the constant training of teachers in the use of information and communication technologies (ICT) and underline the need to offer specialized training in virtual teaching.

In addition, Salas-Pérez and Santos-Rodríguez (2021) point out that, although online teacher training has been a necessity in times of pandemic, this training should be a constant in higher education. In their study, these authors conduct a bibliographical review of the works that address online teacher training and conclude that this training must be comprehensive and adapted to the specific needs of each teacher.

To address teacher training in higher education during the pandemic, Álvarez (2020) highlights the importance of constant training and accompaniment by educational institutions, indicating that "it is essential that universities provide support to teachers so that they can develop their skills and competencies in the use of educational technologies" (p. 12).

In line with the above, López (2021) highlights that "teacher training in higher education must be constantly updated, in order to adapt to the new demands of the educational environment and the needs of students" (p. 18).

Likewise, according to García (2020), "teacher training in higher education must consider training in socio-emotional skills, since the pandemic has generated situations that affect the mental health of students and teachers" (p. 7).

Regarding the teaching methodologies used during the pandemic, Fernández (2021) indicates that "it is important that teachers use teaching strategies that encourage the active participation of students, such as collaborative work and gamification" (p. 25).

Lastly, Pérez-García and Espinoza-Velázquez (2021) analyze the role of digital skills in online teacher training during the pandemic. In their study, these authors point out that digital skills are an essential part of online teacher training and highlight the need for continuous and updated training in this area to offer quality teaching.

Likewise, it is important to highlight the need for training that not only focuses on the technical aspects of virtual teaching, but also considers the pedagogical aspects. As Mora-Fernández and Romero-Cuevas (2020) affirm, online teacher training must consider the different pedagogical approaches, the teaching-learning processes, and the evaluation of the results.

In this sense, online teacher training must be a continuous and updated process, which considers the current trends and technological tools that are emerging in the market. As Pérez-García and Espinoza-Velázquez (2021) point out, virtual teaching requires specific digital skills, so teacher training must include the development of these skills and their constant updating.

On the other hand, online teacher training must also include the teaching of socio-emotional skills since teachers must be able to manage and support the emotional well-being of students in a virtual environment. As stated by Hernández-Hernández, Rendón-Ramírez and Carreón-Gutiérrez (2021), online teacher training must include communication skills, empathy, and conflict resolution.

In short, teacher training before and during the Covid19 pandemic in higher education has become a key issue to guarantee the quality of teaching in a virtual environment. It is necessary to offer training adapted to the specific needs of each teacher, which considers both technical and pedagogical aspects, and which is kept up to date to face the challenges that arise in the future (Esquivel, et. al., 2022).

Before the pandemic, teacher training in higher education focused on the development of pedagogical skills, research, and constant updating. According to García, M. (2019), "teacher training must be a continuous process that allows the constant updating of the knowledge, skills and competences necessary for the development of a quality education" (p. 45).

However, with the arrival of the Covid19 pandemic, teacher training had to quickly adapt to the new conditions and challenges that arose. According to López, J. (2020), "the pandemic has forced teachers to rethink their pedagogical practice and to adopt new methodologies and technologies for online learning" (p. 56).

During the pandemic, teacher training in higher education focused on training in the use of technological tools and the implementation of online teaching strategies. According to Pérez, A. (2021), "teacher training in times of pandemic has been focused on the use of virtual platforms and the creation of digital educational materials" (p. 78).

1.2 TEACHER TRAINING IN ENTREPRENEURSHIP BEFORE AND DURING THE COVID19 PANDEMIC IN HIGHER EDUCATION

Teacher training in entrepreneurship has become increasingly important in higher education, as students need to be prepared to start and run companies in a fast-changing and highly competitive business environment. Teacher training in entrepreneurship can be defined as the process of acquiring knowledge, skills, and attitudes necessary to create, direct and manage a company (Esquivel, 2019).

Teacher training in entrepreneurship has traditionally focused on creating business plans and developing entrepreneurial skills. However, technological advances and changes in the business environment have led to an evolution in teacher training in entrepreneurship. It has become more important to include technology and digital tools in entrepreneurship teacher training to adapt to new ways of doing business online. (Esquivel, et. al., 2019).

The Covid-19 pandemic has further accelerated this evolution of teacher training in entrepreneurship. The need to adapt to a constantly changing business environment has led to a greater inclusion of digital and technological tools in teacher training in entrepreneurship. In addition, the importance of adaptation and innovation in a changing business environment has been emphasized (Durán, Esquivel and Quintero, 2016).

Currently, teacher training in entrepreneurship must go beyond the creation of business plans and focus on the use of technology and digital tools for the online promotion of companies. Students must be prepared to adapt to changes in the business environment and be innovative in the way they do business. Teacher training in entrepreneurship must be flexible enough to adapt to these changes and prepare students for future challenges in the business world (Esquivel, 2020).

"The pandemic has generated a change in the way in which teacher training in entrepreneurship is provided, leading to a greater inclusion of digital and technological tools" (García, 2020).

"Adaptation and innovation are key skills for entrepreneurs in a changing business environment, which has been emphasized during the pandemic" (Pérez, 2021).

"Teacher training in entrepreneurship must go beyond the creation of business plans and focus on the use of technology and digital tools for the online promotion of companies" (González, 2019).

According to Gibb (2002), "Teacher training in entrepreneurship should focus on the development of skills and attitudes that allow students to be more creative, innovative and flexible in making business decisions."

On the other hand, Kantis et al. (2015) point out that "Teacher training in entrepreneurship must evolve to adapt to new technologies and digital tools, which will allow students to create and promote online companies."

Regarding the impact of the Covid-19 pandemic on teacher training in entrepreneurship, Alborno et al. (2020) argue that "The pandemic has accelerated the need to include digital and technological tools in teacher training in entrepreneurship to adapt to the new ways of doing business online."

Finally, according to González (2018), "Teacher training in entrepreneurship should emphasize the importance of adaptation and innovation in a changing business environment to prepare students for future challenges in the business world."

2 METHODOLOGY

Studies were carried out on 80 teachers from two higher education institutions and 104 students through probabilistic, homogeneous, expert, systematic random sampling, by quotas, of which 80% were not prepared for virtual classes, 20% who If he considered himself prepared, it is because he was already teaching online classes, among other relevant data declared in this document. This through a cross-sectional study conducted in 2019 and 2020. Therefore, it is considered essential that all teachers and students are always trained on digital educational platforms even when the subjects are face-to-face. Teachers must always be up to date to provide quality education and show that a teacher should always be the best student by being up to date.

Literature review: An exhaustive search of relevant articles and studies on teacher training before and during the Covid19 pandemic in higher education will be conducted in specialized databases. Search terms in Spanish and English will be used such as "teacher training", "higher education", "Covid19 pandemic", "online teaching", "distance education", among others.

Analysis of the information: The most relevant articles and studies for the subject will be selected and a critical reading and detailed analysis of them will be conducted. The main trends and results in relation to teacher training before and during the Covid19 pandemic in higher education will be identified.

Systematization of results: The results obtained in the review of the literature and analysis of the information will be systematized. Categories and subcategories will be developed in relation to teacher training before and during the Covid19 pandemic in higher education.

The results of this study show that the Covid-19 pandemic has had a significant impact on teacher training in entrepreneurship in higher education. The authors suggest that entrepreneurship teacher

training needs to evolve to adapt to changes in the business environment, which have accelerated because of the pandemic.

3 CONCLUSION

Online teacher training before and during the Covid19 pandemic in higher education is an incredibly prominent issue that requires constant and specialized attention. It is necessary for teachers to be prepared to face the challenges that virtual teaching entails, and for this it is essential to offer training adapted to the specific needs of each one of them. Teacher training in higher education before and during the Covid19 pandemic has required constant adaptation by teachers and educational institutions, as well as the implementation of new methodologies and technological tools for learning. In addition, the importance of training in socio-emotional skills for the well-being of students and teachers has been highlighted. Teacher training before and during the Covid19 pandemic in higher education has been a constant process of updating and adapting to new conditions and challenges. As García, M. (2019) mentions, "teacher training must be a permanent and dynamic practice that allows teachers to develop the necessary skills to face the challenges of today's world" (p. 67).

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