Teaching performance in virtual learning environments in higher education programs

Desempeño docente en ambientes virtuales de aprendizaje en programas de educación superior

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Abstract

The research presented aims to analyze the teaching performance in virtual learning environments (VLE) in an academic program of a Mexican University. Therefore, the methodological design refers to a qualitative, exploratory-descriptive study, a case study method, with a non-probabilistic sample of higher education teachers. The results show that to achieve the teaching-learning process in students, access to technology as well as the absence of teaching digital skills are permanent problems that need to be attended to.

Resumen

La investigación que se presenta tiene como propósito analizar el desempeño docente en ambientes virtuales de aprendizaje (AVA) en un programa académico de una Universidad Mexicana. Por tanto, el diseño metodológico refiere a un estudio cualitativo, exploratorio-descriptivo, método de estudio de caso, con muestra no probabilística de docentes de educación superior. Los resultados muestran que para lograr el proceso de enseñanza aprendizaje en los estudiantes, el acceso a la tecnología como la ausencia de competencias digitales docentes son problemas permanentes que requieren ser atendidos.

Teaching performance, Virtual learning environments, Academic program

Desempeño docente, Ambientes virtuales de aprendizaje, Programa académico

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Introduction

As a result of the health emergency due to COVID-19 decreed in March 2020, in the educational field the Mexican government adopted measures to suspend activities of face-to-face classes, adhering to the protocols established by the health sector (Gobmex, 2020). In this sense, the implementation of the remote modality was taken as an alternative, adapting to the use of Information and Communication Technologies (ICT).

Hence, face-to-face teaching was interrupted in an unexpected way, moving from face-to-face to non-attendance. The teaching-learning models had to be modified in all areas and educational levels, directly impacting digital skills, methodologies, educational materials, digital tools, among others. The way of teaching changed to various virtual learning environments that both teachers and students have faced. Meanwhile, the question has arisen about the knowledge in the use of digital tools and the ways in which the teaching-learning activity is being developed in the non-face-to-face modality by the teachers. Based on the above, García (2020) states that this has generated challenges in the proper use of ICTs, determining what information on the Internet is true or fake, as well as accentuating the digital gaps that mark the social and economic inequalities that exist in our country.

In this sense, teaching performance in the educational environment requires the incorporation of the use of ICT in the teaching-learning process, in order for teachers to realize the new paradigms that allow them to carry out pedagogical mediations in Virtual Environments of Learning (AVA); Consequently, they are capable of developing new specific technological competencies, their ability to design and put into practice teaching strategies, as well as the design of comprehensive assessment strategies. Saravía (2008) refers that teacher performance is a systematic process through which the teacher's skills, their potential for future development, as well as her performance are evaluated. While for SEP itself (2014), the evaluation of teacher performance is a systematic process that allows making value judgments on the quality of compliance with teaching responsibilities in teaching, learning and development of students, through permanent monitoring .

It should be noted that his analysis has been accentuated as a result of the Covid-19 pandemic, where it is directly linked to his development in virtual learning environments (VLE). Arellano et al., (2016) mention that the above implies promoting strategic thinking in teachers, learning to handle technological tools capable of transforming the institution, orienting themselves towards active, constructive and meaningful learning. In addition to the need for teacher updating in the development of digital skills that allows them to guide students in their learning through constructivist virtual environments.

Hence, this document aims to make an analysis of teacher performance in virtual learning environments in an academic program of a Mexican University, to determine if teachers have the necessary digital skills to operate a teaching model under the virtual modality. Therefore, the antecedents that are supported by empirical evidence that support the problem will be presented. A review of scientific literature is carried out that provides support through current references in specialized databases on teaching performance, virtual learning environments in higher education that allows to give validity and relevance to the study. For this, a methodological design was defined with a qualitative, exploratory-descriptive approach, a case study, where the findings of the instruments applied to teachers of the academic program of a Mexican University will be shown. Consequently, it will be possible to propose pertinent strategies that help to achieve the academic objectives of future school periods, under similar contexts. Finally, a series of conclusions will be presented.

Background

Distance education (DL) favors a change in current relationship models and in the global behavior of society. Integrated telematics systems are changing the concept of education. However, the benefits that technology offers to this educational modality can be affected if it is forgotten that it must be at the service of the educational project and depends on it, and not vice versa, where technology acquires a greater role than the training action itself (UNESCO, 2019).

Therefore, it is not possible to speak of distance education in the 21st century without referring to Information and Communication Technologies (ICT), as well as to computer-mediated communication and virtual training environments (EVF), or virtual learning environments (VLE). Salinas (2018) mentions that although the new learning environments will not radically replace traditional classrooms, they are complementing or transforming them, in addition to diversifying the educational offer of institutions.

During the COVID-19 pandemic, improvisation of academic activities to be carried out digitally and virtually using ICT as a medium has prevailed in educational institutions. Corral and Corral (2020) mention that most of the countries have designed improvised educational programs, which use digital means for their implementation, making it evident that virtual teaching faces a wide variety of obstacles and challenges, since teacher performance depends not only on of their capacities and abilities in the use of ICT and of their training in classrooms, but also of the abilities of students in the use of various technological tools.

Virtual Learning Environments

Valencia, Huertas and Baracaldo (2014) mention that the construct of virtual learning environments (VLE) was born almost at the same time as the use of the term virtual, which refers to the organizations, communities, activities and practices that function and take place on the Internet ; highlighting its potential for making communication between users possible. While Gil (2019) defines them as a "computing environment whose design responds to an educational purpose where it is expected that all participants communicate with each other continuously and in accordance with a group of pedagogical and didactic guidelines whose objective forms part of the learning-teaching scaffolding" (94). Therefore, it can be said that currently the use of VPAs has been accelerated, as a result of the COVID-19 pandemic, contributing to communication between the actors involved in educational processes.

On his part, Gil (2019) in his article entitled Virtual learning environment: benefits and advantages for teaching French as L2, shows the advantages of VLEs in teaching French as a foreign language. The author states that these types of tools greatly facilitate learning L2. In addition to helping to improve oral comprehension and expression, as well as the student's autonomy. Therefore, it is important to highlight that VLEs benefit students by allowing them to develop collaborative work, which has increased in these times of pandemic favoring their meaningful learning.

While Aparicio-Gómez and Ostos-Ortiz (2021) in a study on Emerging pedagogies in virtual learning environments state that emerging pedagogies appear on the stage of virtual learning environments in times of the Covid-19 pandemic. They support the educational process of students by promoting continuous learning with technology and open educational resources, considering the large amount of information available to them. In this sense, the use of ICT in education is becoming more and more necessary, so that all the actors involved interact in these virtual settings (VLE), enabling the educational process; where the teacher can and should rely on other tools that favor its implementation such as design thinking, teachback, flipped learning, gamification, social media, among others. In such a way that I contribute to the strengthening of their digital skills that allow them to facilitate knowledge to students, based on their needs and interests.

While Salvatore, et al. (2020) comment in their article The use of virtual learning environments in higher education, which recognize these virtual spaces that have a specific place and that the distance element (not presence) is present, where an appropriate atmosphere is generated for learn; which allows generating new proposals that enable education and communication between the agents involved in the teaching process. In addition, in this way it becomes evident that the learning experience in the AVA has now become an alternative to implement the educational teaching practice, where virtuality has become a very productive educational experience for the student.

Teaching performance

Gómez and Valdés, (2019) refer to teaching performance (DD) where their evaluation is viewed as a means of professional learning, which enables the teacher to guide and strengthen their educational work. These authors consider DD as a process that needs a specific definition in their starting models, as well as an adequate systematization. Consequently, it is important that every educational institution defines and delimits a teaching framework from which the different actors that participate in self-evaluation, co-evaluation and hetero-evaluation have specific criteria and indicators. In this sense, it is assumed that this will enable the evaluation of teacher performance, which is of utmost importance in educational work, taking into account that it directly impacts the academic performance of students and the teacher's own academic performance.

For their part, Uttl, White and Gonzalez (2016), who carried out a study regarding teacher performance, affirm that the correlation between teacher evaluation and student learning is zero. Hence, they argue that universities should give the appropriate weight to DD evaluations that give them the possibility of making decisions about teaching staff in a fair way, taking into account that this aspect will be reflected inside the classrooms either in the presence or virtuality. In this sense, McKeachi (as cited in Uttl, et. (2016)) proposed that students evaluate the achievement of educational goals and not the teacher's behaviors. In accordance with the foregoing, it is considered that students should be objectively involved in the DD evaluation; accordingly, promote self-reflection, enabling feedback in order to improve the learning process and really evaluate the fulfillment of the goals and not the specific behaviors of the teachers.

According to Stake, (as cited in Gaytán (2012)) the evaluation of the performance of teachers has to respond to the specific problems of the context in which it operates. Taking into account that teaching is a complex activity that must be analyzed from different perspectives.

Hence, Amaranti (2017) points out that for this process the participation of the teacher is essential, as well as the institutional climate where the evaluation is developed. For all the above, it is inferred that DD in times of pandemic must be carefully evaluated, in such a way that the teacher's digital skills must be present at all times.

In fact, a study developed by Almenara and Gimeno (2019) highlights the importance that in order to respond to the needs of an education adapted to the digital age, it is necessary that technological tools and training in digital skills are available to all. teachers, regardless of the educational level in question. In this sense, these authors indicate that investment in the development of digital skills in teachers should be a priority; therefore, HEIs must acquire technology that allows them to develop new forms of teaching and learning that allow them to act in the face of the new normal that they will be facing.

While, Suárez, et al. (2019) in their article Teaching digital competencies and their importance in virtual learning environments agree that the teaching competencies of the 21st century refer to teacher training in the use, application and creation of technology that promotes student processes research, development of critical and ethical thinking; however, strategies must be generated that allow them to be addressed immediately. Consequently, new ways of teaching and learning are developed through the use of digital tools that allow teachers to potentiate innovation in terms of methodologies and use of educational technology.

For his part, Saga (2020) states that the teachers who at the beginning of the pandemic moved towards an online teaching model, did so without practical knowledge of what online education was. This author refers that 88% of the teaching staff had no relevant previous experiences in online teaching. What most of the teachers have done during the confinement period has not been online education, but rather certain ICTs have been used to overcome the current mandate of social distance produced by the pandemic. Teachers have faced a series of challenges and difficulties that affect their teaching performance, including the digital divide, as well as internet access by students.

While Salinas (2018) points out that teachers require a continuous digital training process as part of their professional development. It does not matter the educational level from basic to university, that is, it should not only focus on its field of study, but also on the innovations of the teaching-learning processes and its direct relationship with ICT. Hence, ICTs are the support of virtual learning environments; However, it cannot also be ignored that learning processes are reinforced through traditional teaching models, therefore, academic performance may be a function of the context and the scenario in question.

Praxis

Martínez (2020) in his article entitled Education in the context of COVID-19: minimum requirements for distance education argues that education today presents two challenges. On the one hand, Internet accessibility and the use of technological tools; on the other hand, the accompaniment that the school has with the relatives that allows to give continuity in the training of the students. He particularly focused on the degree of Internet accessibility that students have. While in poverty, the panorama worsened, the limitation was more than 100% of the school-age population that was in extreme poverty and 99% in non-extreme poverty, where they did not have access to the Internet.

Also, another study by the Institute of Research and Statistics. Asociación Gremial del Magisterio de Entre Ríos, Argentina (2020), reveals the teaching work conditions in the context of social, preventive and compulsory isolation provided by the Argentine national government in the framework of the health emergency have been limited, although maintained an asynchronous communication to give continuity to the educational process, it is evident the need to generate the pertinent strategies that allow strengthening the AVA as well as the use of technological tools remained both synchronously and asynchronously and the accessibility to the Internet permanently.

Methodology

Once the research problem that is based on the scientific literature review has been defined, the methodological design of the study will be determined, specifying the approach, method, population, sample, instruments, procedures for collection, analysis of data and interpretation of results (Hernández, Fernández, & Baptista, 2010).

Method, participants and sample

Therefore, the purpose of this study is to analyze the teaching performance in virtual learning environments during the Covid 19 pandemic in the Graphic Design program of the Mexican University. For this, a methodological design was determined with a qualitative, exploratory-descriptive, case study approach. The sample that was used was 65 teachers, who have a higher educational level from different institutions, all assigned to the Graphic Design Degree, incorporated into a Mexican University in the State of Mexico. The teachers were of both sexes and 80% of the teaching staff of the educational program participated, aged between 30 and 45 years. Hence, the sample represented a significant value in this study, exclusion criteria were not generated and those teachers who had the electronic link to fill out the form participated.

An instrument through the Google Forms platform was used as a data collection tool. This was completed online and anonymously during April 2021. It should be noted that the instrument was previously validated by three experts in the field of study of this research, as well as by applying a pilot test to non-belonging teachers to the sample that will allow to give certainty in the understanding of the same.

Results

For the presentation of the results, it is necessary to emphasize that the purpose of this study was focused on analyzing what was the teaching performance in virtual learning environments during the Covid 19 pandemic in the Graphic Design program of the Mexican University. Therefore, the results of the study are presented:

The findings revealed, 95% of the teachers of the Bachelor of Graphic Design fulfilled the remote work through their academic planning. The proctoring tools that the academic staff used the most were Google for education and Microsoft Teams. The most widely used platform was Google classroom, the most widely used means of communication were zoom and whatsapp. 80% of the contents of the learning unit programs were met. 92% consider that teaching performance becomes subjective derived from the conditions experienced by the COVID-19 pandemic. However, 95% of the teachers in this academic program need to develop digital skills. Likewise, 96% maintain that to achieve the teaching-learning process in students, both access to technology, the Internet and the absence of teaching digital skills become an obstacle. Consequently, these results make it possible to have an approach to the reality that teachers of the Degree in Graphic Design live, incorporated into a Mexican University in the State of Mexico, which will allow to propose pertinent strategies that contribute to achieving the academic objectives of future periods schoolchildren.

Discussion and conclusions

In sum, this study focused on analyzing teaching performance in virtual learning environments during the Covid 19 pandemic in the Graphic Design Bachelor program at the Mexican University. In this sense, it is evident that there is enough to say that the teaching performance in virtual learning environments in the Bachelor of Graphic Design program incorporated into the Mexican University is relevant according to the national educational context due to the Covid 19 pandemic.

However, it is a priority to generate strategies that allow teachers, on the one hand, to contribute to the strengthening of their digital skills. On the other hand, permanently and systematically implement evaluations focused on the impact of VPAs, as well as training courses on the use and application of ICT. In such a way that collaborative online learning that directly impacts design students is strengthened.

Finally, it is clear that the COVID-19 pandemic unexpectedly impacted the entire educational field, forcibly moving from a face-to-face educational model to a non-face-to-face one. It has also generated a series of areas of opportunity that must be addressed to improve learning processes in the field of Design and even in other academic programs of higher education that are in similar situations.

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