

Virtual platforms in higher education during the pandemic in Ecuador

Plataformas virtuales en educación superior durante la pandemia en Ecuador

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ABSTRACT

The main objective of this paper is to analyze the virtual platforms in Higher Education in times of pandemic in Ecuador, with higher education being one of the sectors within the groups of the fragile area that was exposed to the disease of the COVID -19 pandemic. The methodology used in its approach is qualitative with a non-experimental design of a cross-sectional nature that had an exploratory scope under the analytical-synthetic, inductive-deductive method; the instruments used as a strategy is the use of documentary and bibliographic research. It was determined that the use of virtual platforms in Higher Education is indeed among the groups that will have, according to the projections analyzed, one of the greatest effects on the teaching-learning process of students' online classes after the COVID-19 pandemic. As a relevant conclusion, it is determined that the use of virtual platforms fundamentally helped the educational training process in the transmission of knowledge. Therefore, it is recommended that the higher education community make use of information and communication technologies for the teaching and learning process.

Keywords: Platform, virtual, Higher Education, pandemic, technology, COVID-19.

RESUMEN

El principal objetivo de este trabajo es analizar las plataformas virtuales en la Educación Superior en tiempos de pandemia en el Ecuador, siendo la educación superior uno de los sectores dentro de los grupos de la frágil zona que estuvo expuesto a la enfermedad de la pandemia COVID -19. La metodología utilizada en su enfoque es cualitativa con un diseño no experimental de carácter transversal que tuvo un alcance exploratorio bajo el método analítico-sintético, inductivo-deductivo; los instrumentos utilizados como estrategia es el uso de la investigación documental y bibliográfica. Se determinó que efectivamente el uso de plataformas virtuales en la Educación Superior se encuentra entre los grupos que tendrán, según las proyecciones analizadas, uno de los mayores efectos en el proceso de enseñanza-aprendizaje de las clases en línea de los estudiantes luego de la pandemia de la COVID-19. Como conclusión relevante se determina que el uso de plataformas virtuales ayudó fundamentalmente al proceso de formación educativa en la transmisión de conocimientos. Por lo que se recomienda que la comunidad de educación superior haga uso de las tecnologías de la información y la comunicación para el proceso de enseñanza y aprendizaje.

Palabras clave: Plataforma, virtual, Educación Superior, pandemia, tecnología, COVID-19.

INTRODUCTION

The current situation of the global health crisis, produced by the development of the COVID-19 disease, has affected all social sectors, in the 21st century, a severe economic, social, health and education crisis, never seen before. This disease, caused by the outbreak of the SARS-CoV-2 virus as pointed out by Hermi and García (2020), originated in China where the first cases, identified on December 1, 2019, were a group of workers at a seafood market in Wuhan, the poor sanitary conditions in the care and handling of wild animals were discussed.

The first case was described on December 8, 2019, on January 7, 2020 the Ministry of Health of China identified a new coronavirus (nCoV) as a possible etiology, by January 24 in China 835 cases had been reported (534 from Hubei) and over the weeks it spread to other parts of China.

On January 13, the first case was reported in Thailand, on January 19 in South Korea, and then in numerous countries

around the world, due to which the World Health Organization (WHO) has declared since March 2020 as a new global pandemic.

Infection with the new coronavirus (2019-nCoV), renamed SARS-CoV-2, and identified in 2019 in Wuhan (China), is the cause of the so-called coronavirus disease 2019 (COVID-19). It has now spread, producing a global pandemic, according to the World Health Organization (WHO).

Humanity is suffering from a serious situation today: almost 2 million people have been affected by a distressing disease, COVID-19, caused by a little-known virus, SARS-CoV-2, which has caused around 126,604 deaths, including young people, although the impact is greater in the elderly and those who have risk factors that make them more vulnerable such as high blood pressure, diabetes mellitus, among others.

The World Health Organization refers to the fact that SARS-CoV-2 is not going to disappear, which implies that humanity will have to prepare itself to prospectively face this reality, which further complicates the epidemiological situation of different countries.

The coronavirus pandemic has affected activities in the public and private education system, causing the closure of all educational units temporarily and postponing the start of the new school period, due to the fact that they were not prepared for the confinement and social distancing measures. Velásquez (2020).

For these reasons, academic units had to test new online and/or distance education strategies, in order to continue with the teaching-learning process of both students and teachers. (Picardo, 2020).

As in other countries in the Latin American and Caribbean region, the COVID-19 pandemic has resulted in a significant alteration in the work of higher education institutions in Ecuador.

Education has a fundamental role in the development of society, its recognition dates back to 1949, when the Member States of UNESCO dedicated great efforts to generate recommendations, debates, world conferences and scopes on its importance (Montreal (1960), Tokyo (1972), Paris (1985) and Hamburg (1997), this being the most significant in the consolidation of higher education worldwide.

The evolution and innovation of higher education has made it possible to continue with the trends that lead to new plans, programmes, policies, instruments and technologies that make it possible to promote and achieve major changes in the framework of higher education.

The higher education sector was also unprepared for disruption such as the one brought about by the COVID-19 pandemic. The lockdowns, as a measure to contain the pandemic, have led to an accelerated deployment of online education solutions to ensure pedagogical continuity in higher education as well. The obstacles are manifold, from technological and pedagogical to financial.

This brief analysis is based on the work developed by the International Institute for Higher Education in Latin America and the Caribbean of the United Nations Educational, Scientific and Cultural Organization (UNESCO IESALC, 2020), to document how the higher education sector and its actors have been affected by the pandemic. Focusing on the teaching function of higher education, it describes the immediate effects of the crisis, what impacts it is having and how the sector is responding to the enormous challenges posed; At the same time, it also includes some principles on which exit planning from the crisis should be based.

Based on the above arguments, and in agreement with Bravo-García and Magis-Rodríguez (2020), the virtual education modality was the one that was most used in times of pandemic due to COVID-19, in higher education; For this reason, it is indicated that: "The importance that online education has acquired in 2020 is an unprecedented fact that will mark a before and after in pedagogical practices and in the current global education systems. It has also highlighted the social, cultural and economic inequalities of more than 180 countries that have fallen victim to the COVID-19 pandemic."

Higher education is the funnel that has yet to be evaluated: that of the resulting balance, in terms of quality and equity, after the change in methodologies in the provision of the service to guarantee its continuity. But, in the specific field of higher education, the transition to emergency distance education has been accompanied by other impacts that are no less important for the different actors, although probably less visible and documented yet.

The use of virtual platforms in higher education brings with it a debate in areas such as socio-emotional, employment, finance and, obviously, about the functioning of the system as a whole, fundamentally.

In the field of higher education, due to the COVID-19 pandemic, there has been an increase in ICT on different platforms such as the creation of Virtual Learning Environments (VLEs), Zoom, Hangouts Meet, Microsoft Teams, Moodle and many others that allow teachers and students to connect to receive their classes virtually. But not everything has a positive impact on technology, since many of its users do not have the necessary electronic equipment and this causes students to be

unable to access virtual study platforms.

Within the pedagogical role, online education, far from being a previously planned solution for which the required capacities existed in the different actors and in the systems as a whole, has been, in reality, the only emergency solution to try to guarantee pedagogical continuity.

Inevitably, it is conceivable that the adoption of this continuity solution will result in negative results, both in terms of the quality of learning and equity. Three reasons would justify this hypothesis. The first reason is technological, since the solution adopted assumes that both students and teachers have the required equipment and connectivity. The latest figures available from the International Telecommunication Union paint a grim picture: in Latin America, only 52% of households have technological equipment and broadband connectivity.

One of the biggest challenges that both faculty and students had to face was the use of new technological platforms with which they have not been adapted.

The universities chose to use virtual platforms such as Moodle 3.8.2 and Zoom to be able to teach their synchronous classes, so at the same time as coordinating the start of their academic activities, a training on the Moodle platform was carried out for teaching staff, the teaching-learning process in the higher education system changed to the virtual modality due to a greater use of information technology (ICT) (University of Guayaquil, 2020).

The use and management of virtual platforms has been a personal and professional challenge that all teachers have set themselves, as well as students, to get out of the box of the "comfort zone" and learn new techniques and skills to adapt to the new world of teaching and learning synchronous classes. As long as face-to-face classes are resumed, the experience in the management of technological skills and the knowledge that has been acquired, will lead to a teaching of continuous improvement as a human being who is more empathetic with students and a degree of the professional with a self-critical criterion in the face of the vicissitudes of the threat of this global pandemic called COVID-19.

METHODS

The methodology that was implemented is a qualitative approach that corresponds to the use of a non-experiential design of a transversal nature of exploratory scope under the implementation of the analytical-synthetic and inductive-deductive method. Which is proposed by Gómez et al. (2017), the instruments used as a strategy in the use of documentary and bibliographic research. A non-experimental design was used. As a result of the fact that the development of a phenomenon over time is studied, in this case the current situation of the impact of the use of virtual platforms in times of pandemic. As it is an exploratory research, it is intended to analyze the object of study through an observational study through the implementation of the methods described above.

As it was a review article as a research strategy, documentary and/or bibliographic review was used as a technique and instrument, to verify from other studies and research the impact of virtual platforms in times of pandemic in higher education, with its advantages and disadvantages

RESULTS AND DISCUSSION

According to the regulations of the academic regime of Art. 73.- Online modality. - The online modality is one in which the learning components are in contact with the teacher; practical-experimental; and, autonomous learning of all credits, are mediated in their entirety by the use of interactive multimedia technologies and virtual learning environments that organize the interaction of the actors of the educational process, synchronously or asynchronously, through digital platforms.

It is determined that the use of virtual platforms brings with it a series of curricular, pedagogical, didactic and evaluative changes, transitions to face the dynamics of education around a formative project based on these technologies, whose epistemological and methodical value lies in granting an active role to the learner to generate their own learning through constructivist or connectivist referents (Bustos, 2005; Rama, 2013).

On the other hand, according to De Benito and Salinas (2005), higher education institutions must assume these changes in a transitive, flexible and systematic way linked to the training needs of the educational community in which ICTS are articulated. To this end, efforts are made to offer suitable learning environments that allow students to face complexity and solve problems based on what they have learned throughout their professional training. This is a superfluous factor, if

you will, as long as there is no reflective process capable of guiding the action of teachers and their role of empowerment in educational transformations in times of pandemic.

In the teaching-learning process, information and communication technologies play an important role as support in the interaction with didactic activities that integrate the visual, novel and interactive; encourages the use of apps, platforms and social networks; promotes new forms of teaching; it facilitates the search for information and communication, the development of practical activities of the teaching work such as videoconferences, which constitute a service that allows a group of people to be put in contact through interactive sessions so that they can watch and listen to a conference (García et al., 2018, para. 17).

Regarding the teaching staff, UNESCO-IESALC (2020) indicates that teaching staff suffer significant effects in terms of work and professionalism, given that it must be taken into consideration that not all universities have strategies for continuity of teaching activity and that contracts may be terminated; therefore, with the cessation of face-to-face teaching activity, there is a threat to those Contract teachers who are only class instructors and now with the rise of the virtual modality could be at risk of being out of work.

According to Bustamante (2020), in this new stage they are looking for the correct application of the concept of gamification, which is the form of learning mediated by technology, where the teacher cannot stand in front of a screen to give a two-hour master class because the students get bored and where he indicates that the contact should be more didactic. In the best-case scenario, as indicated by the (Aranguren, 2015). The constant use of technological devices and being in front of a screen most of the time, either for academic activities or other leisure, can cause visual or physical health problems due to a sedentary lifestyle. With regard to higher education, considering the numbers indicated and the official projections, it is possible that most of the professors will either be left with visual or physical health problems due to a sedentary lifestyle.

Higher education is developing in a turbulent environment that requires changes in its structure and internal functioning, as well as in the dynamics of its projection towards a new society, still in a process of gestation, it requires a constant renewal of knowledge and a greater speed and fluidity of educational processes, by virtue of the advances of digital information and communication technologies that allow us to be within reach of the world and get fast databases. ISBN970-704-070-X National Association of Colleges and Universities.

On the other hand, Hernández (2020), rector of the University of Specialties Spiritus Sant - UEES, comments that both teachers and students have had a great challenge in this new normal, where teachers and students meet virtually and use technological tools to achieve learning and dynamism.

According to Hernandez, it can be pointed out that Higher Education in Ecuador is experiencing A new era of the technological world, never before seen at the same time faced the challenge of this new change (Macias & Mendoza, 2016), in order to learn from this new reality and the static culture in which it found itself, for the continuity of the students' training and to continue contributing to the Social and Country Progress.

Based on the arguments of other researchers, it can be stated that: Virtual education represents the emergence of a new educational paradigm for which there must be a pedagogical support with conceptual charts and innovative mind maps since it is a new way of establishing the communicative encounter between the actors of the process. (Gutiérrez, 2016, p. 87). In addition, and as indicated by Exposit and Marsollier (2020): "The challenge for education systems in recent months has been to maintain the vitality of education and promote the development of meaningful learning. To this end, it has relied on two key allies: its teachers and virtuality, in more precise terms, teachers through virtuality." (p. 2).

FINAL CONSIDERATIONS

At the beginning of the study, when formulating the research problem, the main objective of the study was proposed, such as:

The impact of the use of virtual platforms in Higher Education in times of pandemic in Ecuador. Therefore, the challenges of Higher Education in the face of COVID 19 in Ecuador to modernize technological resources and advance in the academic offer in this new modality.

In light of the findings and evidence, it was possible to determine that the different virtual platforms such as teams, zoom, among others, were the most used by students at the higher education level; This meant that both the students and teachers had to adapt to this new modality of studies such as virtuality. In this area, an important change in teaching and learning methods was felt, favoring educational training; Otherwise, if these mechanisms did not exist, education would have been paralyzed with future consequences.

In this context, and according to UNESCO-IESALC (2020), the greatest impact is on students: the loss of social

contact and socialization routines that are part of the daily experience of a higher education student will have a cost and as noted by the Inter-American Development Bank (2020), The psychological effect of confinement will impact the learning capacity of students, since many of them live in environments that are not favorable to be able to adapt to virtual formats, considering the conditions of their home, the availability of the network and that of the proper access to the required technologies.

In terms of public policies, UNESCO-IESALC (2020) reports that decisions have been taken to continue maintaining educational activity in university institutions, in which the health crisis in Ecuador has coincided at a time when the Secretariat of Higher Education, Science, Technology and Innovation - SENESCYT is promoting distance education and, consequently, various activities were being developed in the technological area.

Another perspective that is important to take in to account and that has also been analyzed by international organizations is the case of emotional and psychological health that comes from the stress of confinement as a result of the pandemic, an issue that, although it can be promoted and reinforced through teleworking. Under these arguments, the UN (2020) points out that in terms of the fact that they are usually overloaded with trades for teachers, they are not properly prepared in the new virtual reality of doing work behind a screen. Every crisis leads to seeing an opportunity, but at the same time, it is important to be innovating for when it comes, the proper use of technology is also one of the conditions that allows the student to save costs.

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