

# The Use Of Educational Technology During COVID-19 Increases The Use Of Moocs As A Training Tool In Education

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***Summary- Currently universities have been transforming the teaching model, developing Information and Communications Technologies (ICT), during the period of COVID-19 free courses have been offered to expand online learning. The objective is to know whether the use of MOOC courses has increased during the pandemic period and whether it has impacted learning and online skills. The new methodologies have adapted to teaching. Online learning is helping to access educational content and offering the possibility to combine with work.***

***In this article, you're interested in analyzing students' reflections on online teaching versus face-to-face learning. In order to analyze student reflection, quantitative research was conducted involving 150 university students entries registered in MOOC programs; among the results it is highlighted that the use of the courses has increased during this period having a high motivation in the study. In conclusion, it is highlighted that higher education has given a response to COVID by strengthening the new skills of university teachers.***

***Keywords: online learning, skills, e-learning, motivation, MOOC, networked technologies.***

## 1. INTRODUCTION

Education in the face of any crisis is affected by suspending classes, so the COVID-19 crisis has forced teachers to look for alternatives so that no student runs out of learning education, mooc online open courses, offer an alternative to teaching by complementing learning and obtaining a certificate at the end of the course. Education is one of the activities with a disruptive innovation process, about the impact that technology is having on it (Regalado, 2012).

In 2020 it will be characterized by the use of online teaching, because of COVID-19, in Spain on March 14 the state of alarm was decreed which caused the closure of schools, increasing the use of new technologies. (García-Peñalvo, F. J., & Seoane-Pardo, A.M. 2015). Globally, 91.3% have been unable to attend face-to-face classrooms according to UNESCO (2020a). On 3 April 2020, it was agreed that the online evaluation should be adopted as an evaluation methodology, making use of recourse to the provision and aligning itself with quality standards in the European Higher Education Area.

On 3 April 2020, this Network issues an agreement in which, with regard to online evaluation, it urges universities to adopt evaluation methodologies by making the best

possible use of the resources available to them and aligning themselves with the quality standards in force in the European Higher Education Area (EEES)

The use of MOOC courses has increased in recent weeks as the edX Remote Access Program (RAP) has offered all universities free full access to the courses, being available to the entire university community until June 30, 2020.

The first online course named MOOC appeared in 2008. The MOOC concept expresses a way to share knowledge, using digital Internet channels. Since its inception it has generated an expectation throughout the educational community e-learning (García-Peñalvo, F. J., & Seoane-Pardo, A.M, 2015)..

The digital age has been an educational skill in working in digital environments (Eshet-Alkalai, 2004). Following (García-Peñalvo and Seoane-Pardo, 2015) he refers to different topics related to learning communities, where participants are involved in the same goals and goals.

Following Conole (2013), he proposes 12 dimensions for the classification of MOOCs: openness, use of multimedia, density of communication, masivity, degree of collaboration, quality assurance, learning itinerary, quality assurance, degree of reflection, accreditation, formality, autonomy and diversified d.

MOCs are allowing teachers to teach a mass class in the same course, as in a face-to-face class. Through the platform, the learning process tells us the behavior data of the students to know how they interact with the course (Thille et al., 2014), just as the form of learning captures the habits of the study that the student has and be able to link the data to the (grades (Kline, 2017). Following Chao (2017) he says that researchers have begun to make some inferences about student learning through observed data from the platform.

Siguiendo a Parr (2013) La inscripción a los cursos es alta, pero existe una deserción al comparar el número de inscritos con el número de alumnos que completaron el curso. Saber si los MOOC tienen éxito se ha convertido en un desafío de la investigación allowing the development of new strategies that reduce the Jordan dropout rate (2013). In recent weeks of COVID-19, the increase in course completion is being reflected by making the platforms provide methods for evaluation resulting in certificates and validating the skills acquired.

(Williams, Douglas, Yellamraju & Boutin, 2018) "Evidence and justification that support inferences based on analysis of student behavior patterns are often unavailable or based solely on statistical validation techniques that are not specific to the contexts in which one seeks to make inferences about a latent variable, such as motivation or knowledge."

It is noted that the courses do not finish it at 90%, establishing that only 10% finish the course (Cabero, 2015). Researchers show great concern to stop the abandonment of courses, improving the level of knowledge and motivation (García, Tenorio & Ramírez, 2015).

Researchers are concerned about how to curb high abandonment by involving all participants to the maximum (García, Tenorio & Ramírez, 2015), improving the level of knowledge and diversity management of those who follow the courses (De Waard et al., 2011; Kop, 2011; Yousef, Chatti, Wosnitza, & Schroeder, 2015). Some papers discuss the extent to which the MOOC rewards and accreditation system motivates students to complete the course successfully (Sanchez & Scribe, 2014).

Some authors point to the interaction of the success of online courses, although no studies have been conducted to understand the impact of results to improve the methodology, A Vaibhav, P. Gupta, (2014).

MOOCs have been increasing their demand in recent weeks with COVID-19, they have recognized the need to support both students and teachers, other platforms have created structured programs with other degrees such as edX, FutureLearn offering courses for degrees at different universities (FutureLearn, 2019). Student and course success is measured through demodata figure s and overall satisfactionscores Morris, Hotchkiss and Swinnerton, 2015). The student index that completes the course is an impact indicator ( Allione & Stein, 2016 ; Jordan, 2015 ; Pursel, Zhang, Jablokow, Choi and Velegol, 2016).

Motivation is associated with aspects of the student's intentions to finish the course, being an active topic there has been little convergence of focus, some studies take a unique view of the motivation for learning littlejohn, Hood, Milligan and Mustain, 2016. Some authors analyze the intrinsic motivation (Ryan and Deci, 2000), others analyze extrinsic, learning and skills to achieve goals or meet needs intrinsic and extrinsic motivations, research analyzes self-control (Shroff, Govel, Coombes and Lee, 2007). Kizilcec, Pérez-Sanagustín and Maldonado (2017). Motivation is measured indirectly through the future objectives of the students, (Flores-Tena, Ortega Navas, Sánchez Fúster, 2020).

In our country MOOC courses have developed quickly, enriching the training offer of various universities for students for free, Spain is the European country with a higher offer in courses than the United Kingdom that would be the second country (Oliver, Hernández-Leo, Daza, Martín & Albó, 2014: 12), the same authors claim that universities are the ones that offer the most online courses.

Students who have the possibility to access the pedagogy of the courses, aim to assess the quality of MOOCs for the development of different evaluation proposals (Aguaded & Medina-Salguero, 2015; German, Sancho-Vinuesa & Gómez, 2015; Baldomero, Salmerón & López, 2015), the evaluation of students is another of the issues that is being analyzed the most, for this some evaluation tools are analyzed proposing new tools of rubrics (Chauhan, 2014; O'Hote, 2013; Sánchez-Vera & Prendes-Espinosa, 2015; Sancho & Daza, 2014).

Learning organized through social media fosters an enriching experience among teachers and collaborators (Mackness, S. Mak, and R. Williams, 2010; McAuley, Stewart, Siemens and Cormier A, 2010; García-Peñalvo et al., 2014).

The Motivation in obtaining a certificate at the end of the courses has encouraged in recent weeks with COVID-19 to complete the learning to obtain the reconcomtion on a personal level.

## **2. RESEARCH OBJECTIVES**

Once the mooC concepts have been developed, the courses have allowed us to break down barriers and reach all people anywhere in the world, having different languages, the objective of the study is to: Know if more MOOC courses have increased usage during COVID-19

Based on the main objective, the following specific objectives are developed:

1. Analyze their opinions about the use of online teaching versus face-to-face learning.
2. Evaluate the motivation and interaction in the educational community of the different MOOC courses, with the incorporation of the different participation techniques.
3. Evaluate learning through different tools generating various educational resources online.

The analysis sample consists of 150 participants who have formed the research, who had used MOOC courses.

### 3. METHODOLOGY

For the resolution of the study and in order to obtain the necessary information for the research, an aryan question of quantitative methodology was developed.

The proposed model has generated the obtaining of course information on MOOC platforms, but on the various learning platforms and the various tools that have encouraged the participation of questionnaires. The various online platforms have a statistics system that provide information to the teacher about student interaction throughout the course, the platforms also offer information on how to quantify the results showing the use of the course. Moodle offers an API by adding information to write and read logs from the platform, obtaining a complete list of students enrolled in a course, and also exports the data in Excel with different tools that give information analyzing the activity of teachers and students. (Count et al., 2015).

The sample of the study consisted of 150 people who were emailed the questionnaire to know the opinion, the questionnaire consisted of 10 items in order to know their use of MOOC courses during confinement, and to know the motivation of learning over the internet. The questionnaire responses were made up of the Likert scale, with five values from very little agree.

The research has a quantitative nature, for the analysis of the data obtained from the questionnaires being fulfilled by the students building the sample of the study using the statistical package Statistical Package for the Social Sciences (version 24.0 for Windows).

### 4. RESULTS

The results of the use of MOOCs refer to the proposed objective, being positive, it is stated that online courses are learned and taught and more and more people are using it for their learning. Raposo-Rivas et al. (2015).

To know the perception that students had about the methodology of MOOC courses, we obtained the following results: 60.5% say that the course has been very good having the possibility of learning at any time, compared to 20% their response has been normal, and 19% do not motivate them to teach online, it may be because they do not have wifi to connect or do not have a computer.

The second question refers to whether the use of MOOCs is the learning system, or we had the following answers 85% believe that this teaching will be that of the future having a breakthrough in learning to reach all people, 10% see that the use of online platform would be necessary, and 5% recognize that they would need online and some face-to-face classes. See

The question that refers to the motivation that students have in the face of an online course and being able to do it anywhere and at any time of the day, makes them more motivated, most people motivate them and are stimulating them focusing attention for interaction with other people and the promotion of learning, the results were the following 81% say they are very motivated, compared to 19% you need a stipulated schedule to take the course.

With regard to the fourth question we wanted to know the use of time to take a course, the following results tell us that 58% tell us that they dedicate one hour a day, compared to the 23% who spend 2 hours a day, 19% spend three hours a day to finish the course.

Table1. Hours spent on the course

Hours dedicated to the course	
Hours	
1	58%
2	23%
3	19%

Source: Own elaboration

Following the question above, we wanted to know if the time used has a reward in its benefits, obtaining a certificate of the course. The results were as follows: 88% see it satisfactory to take the course, compared to 12% that does not find profit with their time used.

The fifth question refers to whether the course has all the necessary content to carry out the learning, the results were as follows 71% believe that the course has enough content to address the topics, compared to 29% who believe that there are many videos and very little content.

Another question we wanted to know was the use of forums in the course, as they facilitate collaboration between students during the course of the course of the course of the course of the course, avoiding the feeling of loneliness, the results were as follows, most of the users of the course make use of the forum with 83% compared to the 17% who barely uses it.

We wanted to know if the evaluation tests corresponded to the available agenda of the course, the results show us that 69% believe that the tests correspond to the agenda, compared to the 17% who believe that there are several questions that refer to the videos, 14% think there are many evaluation questions.

Another question refers to whether they have completed the course, those who have completed the course are the people who have been the most motivated for various reasons, the main objective in most cases was to get the certificate after the end of the course, the results were the following 78% get the certificate, compared to the 22% that does not finish the course, this may be due to the lack of means or motivation that is in the study.

## 5. CONCLUSIONS

The COVID-19 crisis has changed the form of learning, the teaching that is being developed in our day will encourage students to engage in a new teaching methodology, with the participation of teachers, programming and expected results to overcome the educational crisis.

MOOCs are associated online courses in universities that in recent years have converted online training, becoming part of continuous training, with a new model of learning teaching emerging. The new proposals have been characterized by a large number of participants, whose management and follow-up is complex, the methodology applied is more favorable since teaching-learning is the future of learning.

MOOC courses are constantly changing specializing in various topics, although not all courses are free to obtain the certificate, the methodology of the course is aimed at creating a

learning involved in the exchange of ideas, experiences through different communicative tools available on the platforms (Mackness, Mak, & Williams, 2011).

The study's findings for the use of MOOC courses during the

COVID-19 highlights that quantitative analyses have revealed the diversity of the strategy used by participants in the use of MOOCs.

Participants have been able to choose to connect to learn from anywhere and at different times.

Most users have developed learning through MOOCs to obtain a certificate at completion.

The new skills that have been developed have improved student attitudes such as the participation of the educational community, all competencies have favored the use of the various platforms improving quality in teaching.

Motivation has increased by 81% using the tools for your learning. Increased course usage in recent weeks has improved course completion by reducing course abandonment, as the goal of obtaining a certificate motivates them to complete the course. Obtaining certificates is an advantage to apply methods within the model improving the quality of generated content (Zañartu, 2013).

The hours dedicated to the course have been considered more intense by dedicating between one or two hours a day without entertaining themselves with the peers, which is increased learning.

The content that this imparts in the course have considered it very favorable, since they have used the use of videos for explanations, agenda and evaluations at the end of each module.

The use of forums is the evade facilitating collaboration between students, solving doubts and avoiding the feeling of loneliness, feeling that they have built a learning and a community through their participation in the different forums. The use of forums is a flattering tool of the application since it grants exchange of knowledge and experiences, towards an educational debate (Kop, Fournier&Mak, 2011).

1. At the end of the topics there is an evaluation to verify that, if the agenda of the module has been exceeded, it has been evaluated favourably by users indicating positive to achieve the proposed objectives.

COVID-19 has changed the study habit in students, improving the performance of their learning, it is hoped that the use of online courses will be a learning tool included in the classroom methodology, causing reflection in the education system, with the strategy of promoting teaching and reducing the effect of the educational gap.

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