University Students Perceptions on the Free Mass Training Courses Online

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Abstract: This research explores the opinions, focused on advantages and weaknesses, which university students have about MOOCs (Massive Open Online Courses) today. The study constituted by perceptions is exposed by 53 students of Degree on Social Education of the Pablo de Olavide University. Through a methodology of qualitative quality, the following advantages were found: free (22.27%), favor the formation of disadvantaged groups (17.54%), have a flexible time (12.80%), help the development of virtual collaboration networks and communities (11.37%), with the availability of the university content and resources (7.11%), obtaining certificates (5.69%) and discussion forums to solve doubts (5.21%). The weaknesses of the results of MOOCs: the lack of an adequate tutorial follow-up (16.36%), present a saturation of information (14.09%), a high abandonment rate (11.36%) and an 11.82% indicate that generally the organization chart and the structure of these courses are related to the standard form with a poor pedagogical design. Likewise, 9.55% thought that the system of insufficient evaluation is based mainly on automated questionnaires.

Key-words: Higher Education, MOOC, Virtual Education, Educational Innovation, Lifelong Education.

1. Introduction

The evolution and insertion of information and communication technologies (ICT) have managed to be a core of transformation, where the application, generation and accumulation of knowledge increases

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exponentially globally (Martínez-Domínguez, 2018). In this massive panorama arise the open online courses (MOOCs): Massive Open Online Courses) in Higher Education have aroused great interest in these years (Karsenti, 2013).

MOOCs arise from a social philosophy of open learning and connect with a trend that has had and has different names under the concept of "Open Information": Open Source, Open Standards, Open Access, etc. Open education is not a new idea, but in many countries it is considered a right, and public education guarantees that right to all citizens (UNESCO, 2002, 2012).

The education of the 21st century demands a formative action that enhances creativity and the continuous search for knowledge, as well as its construction and reconstruction from all areas and areas of the human being (Marín-Díaz, 2017).

In turn, today's society experiences the dynamics of technological advances and their vertiginous changes. For example, in the last decades of the twentieth century the spread and popularity in the use of the Internet and mobile devices was witnessed; and at the beginning of this century, the increase in the number of users is perceived, due to the ease of access to such resources due to the decrease in their costs.

This situation has significantly modified the forms of social communication, consumption habits and the processes of obtaining and exchanging information (Madrigal-Lozano et al., 2016). Finally, we consider, in accordance with Martín-Padilla (2017), under this socio-technological landscape so-called MOOC shines with its own light.

The term “MOOC” (Massive Open Online Course), was introduced in Canada by Dave Cormirer and Bryan Alexander who coined the acronym to designate an online course conducted by George Siemens and Stephen Downes in 2008. The course entitled "Connectivism and Connective Knowledge" was conducted by 25 students who paid their tuition and earned their degree, but was followed free of charge and without accreditation by 2,300 students and the general public through the Internet. And it is based on directed learning platforms, from the principles of ubiquity, self-evaluation, modularity and video simulation (Vázquez-Cano, López-Meneses and Sarasola, 2013). In addition, it is a relatively recent phenomenon (Graham and Fredenberg, 2015).

In 2008, the worldwide phenomenon of MOOCs appeared as an important development of online education (Mackness, Mak and Williams, 2010). And they are being considered by many researchers as a tsunami that is beginning to affect the traditional structure of university and training organization (Boxall, 2012) or a revolution with great potential in the educational and formative world (Bouchard, 2011; Aguaded, Vázquez-Cano and Sevillano, 2013).
In the scientific literature, MOOCs are described as virtual social connectivity environments over an area of study with an open teaching (McAuley et al. 2010; Vázquez-Cano, López-Meneses and Barroso, 2015; Aguaded, Vázquez-Cano and López Meneses, 2016). Likewise, these amplify access to training by offering learning opportunities regardless of affiliation to a particular institution (Durall et al., 2012), this can be a turning point in Higher Education (Vázquez-Cano et al, 2014; López-Meneses, 2017). In turn, the number of massive open and online courses (MOOC) has grown exponentially in a few years since they were introduced (Bartolomé and Steffens, 2015) and is the subject of didactic and formative reflection among different authors (Zapata, 2013; Ramírez -Fernández, Salmerón and López-Meneses, 2015) and by Higher Education institutions in the globalized world (Haggard, 2013). This implies an innovative model of mass education that exploits in a paradigmatic way the potential and relevance that Information and Communication Technologies currently have in society (Pérez-Parras and Gómez-Galán, 2015).

MOOCs displace - some would say "exceed" - the hierarchical relationship between teachers and students, so that the learning process is shared (hence the references in the MOOC literature to the idea of a "distributed responsibility" in learning), and the students also become content generators and connections between different aspects of the course (Vázquez-Cano and López-Meneses, 2014; Vázquez-Cano, López-Meneses and Barroso, 2015).

In this sense, mass and open training is a challenge for university institutions and the teaching community that must redefine the current methodological paradigm to enter a more open, interactive, collaborative and ubiquitous new curricular forms, in symbiosis with a more dynamic evaluation, holistic and human inserted in more flexible and diversified curriculum adapted to the labor ecosystem to promote and facilitate the students the implementation of their own competence itinerary for their academic and professional development (López-Meneses, 2017).

In accordance with different authors (Castaño y Cabero, 2013, Kregor, Padgett and Brown, 2013; Yuan and Powell, 2013; Siemens, 2013 and Gómez-Galán, 2014) the following characteristics of MOOCs can be established: they are massive courses, means that all students who wish to enroll can participate in them, mainly without restrictions of any kind and allows the large-scale interactive participation of hundreds of students. They are scalable, not being exclusive like those that have hundreds or thousands of people.

The mass consideration refers to both the number of students that the course can receive and the impact of it, and the students can, from it, create different subnets based on their geographical location, language, interest, etc. They are open since, in principle, they are accessible for free. They are
available online and all learning activities, content, communications, etc., are developed in a virtual environment. And, of course, these are courses, since they are structured in a temporary, orderly and sequenced manner, with a beginning and an end.

Currently, in Higher Education, MOOCs are reflected as the revolution of university education (Pappano, 2012; Little, 2013) and it is obvious that their use in the university scientific community can be an increasingly sustainable curricular option for the expansion of scientific knowledge and university praxis in the new massive democratic learning scenarios (León-Urrutia, López-Meneses and Vázquez-Cano, 2017).

Definitely, a MOOC is a way to learn, ideally it is an open, participatory, distributed course and a lifelong learning network, it is a way of connection and collaboration, it is a shared work (Vizoso-Martín, 2013) and it is obvious that its use in the university scientific community may be an increasingly sustainable curricular option for the expansion of scientific knowledge and university praxis in the new massive democratic learning scenarios. (López-Meneses, Vázquez-Cano & Román, 2015).

2. Study Scenario

It is analyzed an experience of an university innovation on the perception of 53 students, related to the advantages and disadvantages of MOOCs in the social and educational fields, corresponding to the 2017-18 academic year.

This university educational action takes place during the month of February in the subject: "Information and Communication Technologies in Social Education", corresponding to the first year of the degree of Social Education Degree of the Faculty of Social Sciences of the Pablo de Olavide, from Seville (Spain) with a charge of 7.3 ECTS Credits (European Credit Transfer System).

With respect to the study program, this subject belongs to the area of Didactics and Educational Organization and is organized around various thematic blocks.

In our case, it corresponds to the fourth core of contents called: "Social / cross-cutting issues", specifically to Theme 8: "The MOOCs and their impact on the social and educational field". Figure 1 shows the conceptual scheme of the content blocks of the subject.
The innovative experience suggests that the students of the first Social Education Degree course realize a reflection on the strengths and weaknesses of MOOC courses in the socio-educational fields. In this sense, each student prepared a personal edublog for the subject on the activities carried out in it, being one of its tabs the MOOCs where they had to respond to said reflection, among other aspects. Next, an edublog prepared by a student of the Degree on Social Education with the subject: “ICT and Social Education” corresponding to the academic year 2017-18 (Figure 2) is presented as an example.

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**Figure 1.** Content blocks that constitute the subject: "ICT and Social Education". URL: http://bit.ly/2xwjh4x

**Figure 2.** Edublog of a Social Education Degree student academic year 2017_18
URL: https://marines3000.blogspot.com/p/mooc.html
Below we can see the didactic objectives, the development of the research and the most relevant results achieved during the development of this innovative university experience developed at the Faculty of Social Sciences of the Pablo de Olavide University of Seville.

3. Objectives

This research was structured according to the following priority objectives:

- Analyze student opinions regarding the strengths of MOOC courses in the socio-educational fields of the first course of the subject about Information and Communication Technologies (ICT) in Social Education corresponding to the Degree in Education Social, in the academic year 2017/18.
- Know the main weaknesses of MOOC courses from the perspective of the student of the subject about Information and Communication Technologies (ICT) of the 2017/18 academic year.
- Know and use edublogs as teaching resources in the socio-educational field.

4. Research methodology

The research methodology was qualitative and descriptive. The sample was formed by a total of 53 students of the degree of Social Education Degree of the Faculty of Social Sciences of the Pablo de Olavide University of Seville of the academic year 2017/18.

To analyze the different documents prepared by the students (comments made in the individual edublog) throughout the didactic experience, we take as a frame of reference the guidelines established by different experts (Bogdan and Biklen, 1992; Miles and Huberman, 1994 and Monje, 2011).

In the first phase, the data was reduced by categorizing and coding the information obtained. Categorization involved simplifying and selecting the information to make it more manageable. To do this we follow the following steps:

- Separation of units to identify significant segments of information on the reflections made on the advantages and weaknesses of MOOC courses in socio-educational fields.
- Identification and classification of units to conceptually group them into groups that shared the same topic with meaning.
- Synthesis and grouping of the different information units.
During the coding, each textual unit was identified with its corresponding category through a mixed procedure (inductive-deductive) to then proceed to its frequency count and percentages.

Finally, the analysis process was completed with a second phase in which the different categorized information units were interpreted to facilitate the inference and interpretation phase of the results set out below.

5. Results of the innovative university experience

In this section, the analysis and interpretation of the 53 contributions made by the students of the first Social Education Degree course of the 2017/18 academic year is carried out.

In the first instance, the advantages of MOOC courses shown by the 53 students corresponding to the 2017/18 academic year are shown in Figure 3.

![Figure 3. Frequency of responses of students of Social Education Degree (2017/18) concerning the possibilities of MOOC courses.](image)

The students corresponding to the 2017/18 academic year showed the following advantages related to MOOCs: Gratuity (22.27%), favors the training of disadvantaged groups (17.54%), hourly flexibility (12.80%), energizes the development of networks and virtual communities of collaboration (11.37%), with the availability of university content and resources (7.11%); Obtaining certificates (5.69%) and discussion forums to answer questions (5.21%). And with less than 5% they say that there is a wide
variety of scientific topics located in different MOOC platforms, it helps the initial and permanent training of teachers, there is no enrollment limit and they offer multimedia materials that can be saved in the computer to your study.

Consequently, when the results obtained are glimpsed, the student of this academic degree expresses the main advantages of MOOC courses as free and flexible hours to perform them. In addition, they offer a sustainable and promising approach to online learning to students around the world (O'Connor, 2014; Ossiannilsson, Altinay, and Altinay, 2016; Sirignano, Gómez-Galán, and López-Meneses, 2018). These are characteristics that are present in practically all the works analyzed and cited in the review of the scientific literature. It is a differentiating element of MOOC courses.

Finally, as expressed by more than 17% of the students of the academic year, in accordance with Vázquez-Cano, López-Meneses and Sarasola (2013) they can help the digital inclusion of groups at risk of exclusion and marginal groups and with more than 7% state that they provide a great diversity of interesting and high quality content as indicated by other authors (Sandeen, 2013, Gillani & Eynon, 2014, Jordan, 2014, Engle et al., 2015).

In this sense, the massive nature of this type of training can mark a before and after in the coverage of teachers' needs, especially in Africa and Asia, which is where it is most needed (Silvia-Peña, 2014).

Once the corresponding perceptions of the student with the strengths of the MOOC courses have been analyzed, the percentage analysis of the 53 students of the 2017/18 academic year linked to the main weaknesses of the MOOC courses is shown in Figure 4. Among them, the lack of adequate tutorial follow-up (16.36%).

In sequence, 14.09% state that MOOCs have a saturation and dispersion of information to the detriment of the quality of the course. 11.82% indicate that generally the organization chart and structure of these courses are designed in a standard way with a poor pedagogical design: Likewise, 9.55% thought they showed an insufficient evaluation system, based mainly on automated questionnaires.

In turn, 25 students (11.36%) thought they had a high drop-out rate, as well as, they are not adapted to mobile devices (7.27%), and with less than 6% they expressed that they implied great autonomy with the inconvenience of its massive nature, the additional cost for obtaining the official certificate, can mean new business models for university institutions and the inconvenience that these online courses need Internet connection. We consider these results to be very important for understanding the nature of the MOOC phenomenon. It has undoubtedly been one of the most relevant innovations in the field of pedagogy in recent years.
Figure 4. Percentages of student responses related to the weaknesses of the MOOC courses of the 2017/18 academic year. Own elaboration

6. Conclusion

Universities are the techno-cultural institutions for the expansion and dissemination of global knowledge, the empowerment of citizenship, educational innovation, the transfer of knowledge and energizing professional development, social cohesion and integration in the technological and economic fabric of the Knowledge Society for development and human progress (López-Meneses, 2017).

In this sense, this new training modality of knowledge expansion can help the transformation of classrooms, limited in time and reserved access to information on some occasions to a social elite, to transcend to new ubiquitous, connective learning scenarios, informal, and horizontal that can facilitate the digital inclusion of the most disadvantaged and the birth of interactive virtual communities of collective intelligence.

But, we must be aware that, after a first period of convulsion and impact in the formative world of Higher Education, it has evidenced a series of deficiencies as expressed by the student body and that is corroborated with other authors: the high dropout rate, the poor interactivity among its participants, the recognition of official training credits, the tendency to monetization, etc. (Aguaded, Vázquez-Cano y Sevillano, 2013; Daniel, Vázquez-Cano y Gisbert, 2015; León-Urrutia, Vázquez-Cano y López-Meneses, 2017).
At the same time, training, research and technological innovation are backbone axes for the improvement of the quality and competitiveness of a country, in addition to the sustainable development of citizenship. In this sense, the Universities are the techno-cultural institutions for the expansion and dissemination of global knowledge, the empowerment of citizenship, educational innovation, the transfer of knowledge and energizing professional development, social cohesion and integration in the technological fabric and economic of the Knowledge Society for development and human progress (López-Meneses, 2017; Ponce, Pagán-Maldonado, and Gómez-Galán, 2018; Gómez Galán, Martín Padilla, Bernal Bravo, and López-Meneses, 2019).

In the current technological, social and communicative network, Universities must adapt the training processes (as the vast majority are doing), taking into account, among other aspects, the characteristics and current needs of students, facilitating the incorporation of flexible scenarios and be open for training and learning that will help transform traditional communication models (characterized by the passivity of students) by others in which they can actively participate in the construction of knowledge and where they are aware of their own training process in acquisition of competences and capacities (Cabero, Ballesteros and López-Meneses, 2015).

We speak, in short, of a new drawing for the university institution, the University 2.0 (Cabero and Marín-Díaz, 2011; López-Meneses, Vázquez-Cano, & Román, 2015; López-Meneses, Vázquez-Cano, Gómez-Galán and Fernández-Márquez, 2019).

Regarding the lines of the future as indicated in another work (López-Meneses, Vázquez-Cano and Fernández-Márquez, 2016), it confirms that investigations of this type allow us to reflect and deepen the contents of the subjects and are interesting strategies Metacognitive methodologies for the sustainable competence development of the student.

In this line of research, currently, from the Eduinnovagogia® research group (HUM-971) U.R.L http://bit.ly/1sGHwqO we are studying its feasibility for the design and development of a MOOC on this theme for the expansion of global knowledge.

Ultimately, the edublog entitled a virtual look, prepared by a student corresponding to the 2017/18 academic year, is presented in Figure 5, which through a post in his edublog was requested as a final task to express the application 2.0.
Figure 5. Students of Social Education Degree. 2017/18 course
Source: https://unamiradavirtualgema.blogspot.com/p/valoracion-aplicaciones-20.html

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