Nuevos horizontes formativos: una experiencia del MOOC como recurso en la formación continua

New training horizons: A MOOC experience as a resource in continuing education

http://dx.doi.org/10.32870/Ap.v10n1.1151

Alicia Benet Gil *
Aida Sanahuja Ribés **
Irene García Molina***
Raquel Nieto Garoz****

Palabras clave
MOOC, formación continua, evaluación, educación virtual, educación a distancia

RESUMEN

Dada la actual incorporación de la educación virtual en el mundo educativo, este trabajo presenta el diseño y la evaluación del *massive online open course* (MOOC) denominado "El aula inclusiva hoy en día. Cómo afrontar el trastorno del espectro autista y las altas capacidades intelectuales" a fin de proporcionar a los profesionales de la educación un recurso formativo más accesible y flexible para que puedan ampliar y reforzar conocimientos. El objeto es conocer la percepción de los participantes sobre el citado trastorno mediante un cuestionario utilizado como instrumento para recoger los datos. En el curso se inscribieron 330 participantes, de los cuales 110 lo terminaron de manera satisfactoria y respondieron al cuestionario final evaluativo. La mayoría de los sujetos contestaron positivamente la totalidad de las preguntas y quedaron satisfechos, en general, en su temática, contenido, metodología y participación. La principal aportación de este trabajo radica en la potencialidad de estos cursos como una herramienta accesible que permite la formación permanente de los profesionales relacionados, en este caso, con la educación. Como propuesta de mejora los participantes apuntan a aumentar el número de tiempo para realizar las tareas. Como conclusión, se percibe el MOOC como una herramienta satisfactoria. Esto sirve para seguir avanzando en el terreno de la formación en línea y a distancia, considerando los MOOC como herramientas poderosas que propician un canal valioso de intercambio de contenidos y saberes por parte del estudiantado procedente de cualquier parte del mundo.

Keywords
MOOC, continuing education, assessment, e-learning, distance education

ABSTRACT

Since the current incorporation of the E-learning in the educational world, this study presents the design and evaluation of the MOOC (Massive Online Open Courses) called "El aula inclusiva hoy en día. Cómo afrontar el trastorno del espectro autista y las altas capacidades intelectuales" [The inclusive classroom today. How to deal with autism spectrum disorder and the high intellectual capabilities]. The aim of this study is to provide educational professionals with a more accessible and flexible training resource so that they can expand and reinforce knowledge. Thus, the main purpose is to know the participants' perceptions about the MOOC. A questionnaire ad hoc *was used as a data collection instrument. Initially, 330 participants were enrolled in the course, of which 110 participants completed it satisfactorily and responded to the final evaluative questionnaire. Most of the subjects answered in a positive way to the totality of the questions, being generally satisfied in: topic, content, methodology and participation. The main contribution of this work lies in the potential of these courses as an accessible tool that allows the permanent training of the professionals of the education. As a proposal for improvement, the participants clarify to increase the number of time to perform the tasks. In conclusion, we can say that the MOOC is perceived as a satisfactory tool. This helps us to continue advancing in the field of online and distance learning, considering the MOOC as a powerful tool that provides a valuable channel for the exchange of content and knowledge by students from all over the world.*

Received: March 30, 2017
Accepted: February 2, 2017
Online Published: March 30, 2018

* Bachelor's Degree in Pedagogy. Professor in the Department of Education. Universitat Jaume I de Castellón de la Plana [Jaume I de Castellón de la Plana University]. Spain.
** PhD in Education. Professor in the Department of Education. Universitat Jaume I de Castellón de la Plana [Jaume I de Castellón de la Plana University]. Spain.
*** Bachelor's Degree in Psychopedagogy. Professor in the Department of Developmental, Educational, Social and Methodological Psychology. Universitat Jaume I de Castellón de la Plana [Jaume I de Castellón de la Plana University]. Spain.
**** Bachelor's Degree in Psychology. Medicine and Psychology Center. Castellón de la Plana. Spain.

EXPLORING MOOCs: SOME THEORETICAL FEATURES In this section we present some theoretical features of MOOCs. First of all, we will review the origins of this phenomenon and its typology. Secondly, we will address some of the MOOCs advantages and disadvantages. Lastly, we will share the MOOC experience, object of this paper.

MOOCs: Origin and Types

In the last years, the MOOC phenomenon has generated numerous studies to know its scope and feasibility. Several scientific journals have published monographs on the issue. The current scientific literature on this topic presents the approach of these courses as well as their reach on our society.

In 2007-2008, for the first time, George Siemens and Stephen Downes organized a course with the characteristics of an online course (Pernías & Luján-Mora, 2013); however, the term "MOOC" was coined by Professor Cornier (Luján-Mora, 2012). This concept refers to a series of courses found on specialized platforms that convey massive open online knowledge (Davis *et al.*, 2016). For a course to be considered a MOOC course, it must comply with a minimum of requirements (Pernías & Luján-Mora, 2013):

- Course: it must have an educational purpose. To do so, a series of activities are established which have to be evaluated.
- Open: there are several meanings to this type of courses, Let us keep in mind that MOOCs initially come from the university concept; hence, one of the meanings refers to be "open to everybody" without any prior requirements (such as having a diploma or being enrolled at the university). On the other hand, the resources and contents also have to be open in order for other people to use them. Other meaning that can be coined to "open", is that the courses are free of charge and that their contents can be found on different Internet sites.
- Online: means that is it not necessary to attend a classroom physically since the course is offered through the Network. Anyone connected to the Internet may participate.
- Massive scale: this type of concept has a narrow link with the former since its purpose it to reach more people than the traditional method. Hence, the course is intended to consider a great number of people.

We can then take Mauri (2014)'s definition and summarize MOOCs as:

> A free course, open, made up fundamentally by Open Educational Resources (OER) and designed to be taken through the Internet by anyone, in an self-

> reliant manner, without the need of having a teacher or a tutor as support on the network on the other side of the connection (p. 40).

Ruiz (2015) approaches the concept from a more educational prism and addressed MOOCs as:

> An emerging techno-pedagogical educational model [...], focused on the student, who is directly and absolutely responsible of his own learning; it is massive because it is a formative proposal directed massively and openly to thousands of participants since it access free, i.e., that anyone can access the courses digitalized contents freely without any other requirement than having the motivation to learn (p. 6).

Talking about MOOCs implies referring to different typologies (Sánchez-Gordon & Luján-Mora, 2014), but in this paper, we will focus on three basic types: xMOOC, cMOOC y tMOOC. The first type aims at having the students acquire a series of contents; besides, they usually have the same versions as the courses in *e-learning* but located on specific platforms (Cabero, 2015); likewise, "this type of MOOCs is developed by university professors that have the tendency to reproduce the basic activities of the classic model of onsite university teaching" (Ruiz, 2015, p. 10).

According to Vázquez, López and Sarasola (2013), the problem with this type of MOOCs is that the students are treated massively without individualization whatsoever. Another criticism is that xMOOCs are not prepared to support the heterogeneity of the participating group since the students have to adapt to a pre-established planning, including objectives and materials. We can say that this model is similar to the behavioral perspective since the stimulus is presented through videos and other materials and the results of the tests act as positive reinforcement in the participants' learning. (Ruiz, 2015).

On the other hand, the focal point of cMOOCs is the interaction among students; i.e., knowledge is not focused on the experts but rather on the participation and the interactions the students build to generate learning and knowledge (Scopeo, 2013). cMOOCs are more social in the sense that there is a greater interactivity between the participants and the tutors, but they lack a structured instructional design (Bartolomé & Steffens, 2015; Ruiz, 2015). The means of interaction used in these courses are usually blogs, wikis, social networks, electronic mail... The assessment is usually based on online tests and collaborative work proposals.

However, some authors (Martí, 2012; Scopeo, 2013) consider there is the possibility of combining both types of courses through specific platforms. This model is called tMOOC and integrates the models aforementioned. It is a mixed model that focuses on the development of competences that enables the students to carry out a specific type of work. In this typology, the relation among participants plays a second role since carrying out the task is most important. The interaction among students occurs when the need to comment or to dispel doubts arises. This MOOC is similar to the

behaviorist perspective since knowledge is not gained through the teacher but rather through the student's personal effort (Ruiz, 2015).

Ruiz (2015) summarizes the three models in a series of aspects that highlights the differences and similarities (See Table 1).

Table 1. Similarities and Differences of the MOOC Models

Similarities	**Differences**
Contain the basic elements: networks, contents and tasks; according to the model, one element stands out from the others.	As for interaction: Interaction in xMOOCs is more restricted than in cMOOCs; this is due to the use of forums to share experiences and doubts and respond in a collaborative manner. cMOOCs go beyond and allow sharing documents online, participate collaboratively. In short, it strengthens the participants' learning experience. tMOOCs use a combination of the two MOOcs aforementioned.
They all use ICTs and Internet to develop.	As for the assessment: In xMOOCs, tests are objective, interactive, peer assessment ... cMOOCs are more open and the assessment adapts to the training needs of the participant. tMOOCs focus assessment on the performance of different activities and tasks; they also use online assessments.
They are usually free or accessible. They facilitate the collaboration and cooperation among participants.	

There are proposals other than MOOCs that have open resources; one off them is the *open course ware* (OCW), a course format storage where different contents and open materials are stored. These are usually developed by educators and are available for use, reuse and modification, totally or partially, by any user. "This initiative was introduced to provide a new model to disseminate knowledge and collaboration among specialists worldwide and to contribute to the distribution of and free access to common intellectual assets shared by the academic world" (Cabero, 2015, p. 48).

An OCW differs from a MOOC with regard to the participants who, in the latter, establish interactions among themselves and get involved at different levels in the teaching activity and in learning. In an OCW, there is no interaction or dynamic experience of the teaching action or

learning. The OCW focuses on the content provided and the mechanisms for making said contents publicly available.

Tabl2 2. Differences between an OCW and a MOOC

Characteristics and Content	**OCW**	**MOOC**
Differentiating elements	Self-discipline. Self-guided learning, absence of interaction (with a professor or other participants). There is no assessment or certification.	Hetero-discipline. Learning is guided; there is interaction with the professor. There are assessment activities and a certification of the course.
Preparation and Design	There is no material adaptation.	On demand. Requires the design of specific courses.
Text Materials	Bibliographic references are necessary as a minimum.	They are necessary. However, the use of audiovisual materials is more frequent.
Audiovisual Materials	They are usually used in slide format; even though it is not compulsory, it is recommendable.	They are necessary. Video conferences, slides, etc. are mostly used.
Activities	They are necessary, but corrections are not done through the system	They are necessary. To do so, some activities are programmed and some of them may allow feedback.
Assessment	They are necessary, but corrections are not done through the system	They are necessary. At the end of the course, the originality and the quality of the work carried out must be controlled.
Student follow-up	Non existent	Necessary. Every step is supervised and modifications may arise.
Interaction	Non existent	It is necessary. Different assessments (test, peer revision) tutorials or forum are used to dispel doubts, share experiences, etc.

In Table 2 we observe significant differences between both models regarding the participants' interaction and follow-up. However, in the case of MOOCs here presented, both tools are complementary. While MOOC is used as online training with open contents for a series of enrolled participants, OCW is the warehouse of the contents used in MOOC that will be open to everybody, whether for those enrolled once the course has ended or for others interested in the subject.

Learning Revolution or Involution? MOOCs Advantages and disadvantages

After describing MOOCs and the existing models, we must highlight the fact that there are different visions concerning MOOCs; there are advocates as well as opponents. From the literature consulted, we note a certain romantic vision of the MOOCs, seen as a transforming technology that improves teaching. These are presented as one of the emerging technologies in the educational system (Cabero, 2015).

According to García (2015), MOOCs have evolved within distance education. This phenomenon has overshadowed the academic interest and has settled into society as "a democratizing argument of education" (p. 97). Along these lines, MOOCs are considered another form of distance education since they are attributed some signature characteristics that include: openness, flexibility, activity, and above all, freedom for teachers and participants.

Castaño, Maíz and Garay (2015), in a study on the perception of the participants on learning through a MOOC, point out that there is a positive assessment of the learning received and the use of these courses in regulated university contexts. However, they suggest a greater acceptance in learning settings linked to professional development and continuing education. On the other hand, Bates (2014) indicates that MOOCs are a good resource in continuing education; however, it would be necessary to deepen their use in formal education.

Not everything is so perfect. According to some authors, MOOCs should be given a second thought Lewin, 2013). Hollands and Tirthali (s2014) define MOOCs as formal training settings that supplement classroom teaching; hence, they suggest that they should address specific audiences such as university students or professionals who wish to improve some aspects if their profession.

We have found different opinions concerning the contributions made to MOOCs. In regard to our work, we consider the use of MOOCs as a supplement to the participants' academic development since MOOCs are directed to active professionals or future professionals in education.

MOOC: "The Current Inclusive Classroom. How to deal with the autism spectrum disorder and high capacities"

The development of this MOOC is part of a call to develop and deliver open and massive online courses for the 2016-2017 cycle, financed by Universitat Jaume I. it is presented as a participative and flexible resource that allows us reach more people, not only university students, and address an aspect as important as inclusive education. Hence, this MOOC aims at offering professionals and students related to the field of education, resources to respond to the diversity of students.

MOOC DEVELOPMENT

Planning

This MOOC has been developed by five professors pertaining to the fields of education and psychology. The tasks of the teaching team revolved around the design and the creation of contents and learning activities as well as guiding the students during the course and the assessment of the competences acquired.

Design

The MOOC platform is based on Moodle which is a flexible *learning management system* (LMS) that allows delivering courses entirely online such as the MOOCs. The materials used by MOOC are under a free Creative Commons license, an equal recognition-sharing modality (CC BY-SA). These materials are a compilation of articles, videos, images and examples developed by the teachers themselves. Moreover, on completion of the course, all the materials are published in the university OCW institutional repository.

The contents worked on in MOOC are included in Table 3.

Table 3. Diagram of the contents addressed in MOOC

UNIT 1: Understand the different classroom: the eyes of a student with an autism spectrum disorder
1.1 Introduction to AQ 1.2 Characteristics 1.2.1 Characteristics according to books ... 1.2.2 But, What is the autism spectrum? 1.2.3 Diagnostic 1.3 A child with AQ in the classroom 1.3.1 Materials 1.3.2 More “pros” than “cons”
UNIT 2: Students with high intellectual capacities: Why are they bored in the classroom?
2.1 Introduction 2.1.1 Understanding high capacities 2.2 Characteristics of gifted and talented persons 2.2.1 Personality Characteristics 2.2.2 Learning Characteristics 2.2.3 Social abilities 2.2.4 Emotional characteristics 2.3 High capacities student in the classroom 2.3.1 Identification 2.3.2 Questionnaires 2.3.3 Attention
UNIT 3: Toward an inclusive school: classroom practices
3.1 Concept approximation. Inclusive school model. 3.2 Inclusive classroom management: materials and resources 3.2.1Classroom organization: roles, time and space management 3.2.1.1 An example in action 3.2.2. Inclusive methodologies 3.2.2.1 Cooperative learning 3.2.2.2 Dialogic learning 3.2.3.3 Service learning: purpose, types, phases 3.2.3. Assessment in an inclusive classroom 3.2.3.1 Team notebooks 3.2.3.2 Rubrics Examples

Resources

The resources are open and have been prepared by the teachers expressly for the course. Moreover, there were web pages, blogs or videos available on the Internet that supplemented the contents.

The students could communicate with the teachers through e-mail or debate forums.

This MOOC is noteworthy for the use of forums as didactic resource. These were not conceived as the only means of communication between the teachers and the students but also as a space for dialogue and a powerful learning tool. Hence, a debate forum was created and associated with every one of the topics of the course to exchange opinions, experiences, and even resources. It has been a very powerful tool in MOOC given the wide diversity of students (in terms of their training, origin, mastery level of the subjects addressed...) which made the exchange personally and professionally enriching. The teachers took over the role of facilitator since they were the ones to spark the debate, the flow of ideas, and the exchange of reflections and resources according to the students' concerns.

Assessment

According to the literature, one of MOOCs main characteristics is using strategies that allow knowing the students' progress. Hence, a series of tasks was developed to obtain the certificate:

- Respond to questionnaire 0. This questionnaire corresponded to the initial assessment of the students' learning since it is an open course, the diversity of students was very high and it was necessary for us to establish a starting point. This allowed the teachers to adjust some contents and look for more resources to supply the training weaknesses of some of the participants.
- Pass questionnaires 1, 2 and 3 with a minimum passing grade of 5. Each questionnaire corresponded to a topic of the course. The students had three opportunities to complete each questionnaire and the final grade was the student's highest grade. A deadline was set and the course schedule was established in such a way that the last week of the course was when all the tasks came to a close and the cases were to be solved.
- Solve a case study and assess three cases of three classmates through an evaluation rubric. First, each student had to solve a case study based on the articulation of the contents addresses throughout the MOOC course. Subsequently, each student was assigned three cases solved by three classmates who had to be assessed. It was an assessment among peers, i.e., each student had to revise the work of several classmates (hetero-assessment). To do so, they had to enter at least four times at the forum titled "Case study solved", one to solve the case itself and three others to assess his peers' case study.

RESEARCH DESIGN

This is a descriptive study based on quantitative and qualitative method. In this section, we review the participants, the data collecting instrument and the procedure carried out.

Participants

First, 330 participants enrolled in MOOC, of which 110 completed the course and obtained an achievement certificate. Of these 110, 96 (87.27%) were women and 13 men (11.81%). Age wise, 2 participants (1.81%) were under twenty years of age; 45 (40.90%) were between twenty and twenty-five; 17 (15.45%) between twenty-six and thirty and 45 (40.90%) thirty-one and older.

In regard to training, it is worth noting that 49 (44.54%) were students and 60 (54.54) professionals in education or educational psychology. Mo re specifically, 34 (30.90%) were teaching students; 2 (1.80%) pedagogy students; 1 (0.90%) psychology student; 10 (9.10), students of a masters degree related to education or psychology; 2 (1.80%) doctoral students; 38 (34.53%) teachers; 8 (7.71%) teachers and pedagogues or teachers and psychopedadogues; 4 (3.35%), had masters degrees high school education; 1 (0.90%), pedagogue; 7 (6.35%), psychologists; and 2 (1.80%), psycopedagogues.

(40.90%) of the participants were not working in the field of education or psychology and 64 (58.18%) actually did. Lastly, we referred to the years of experience: 33 (30%) participants had no professional experience in this field; 24 (21.81%) had less than one year experience; 16 (14.53%), between one and three year experience; and 36 (32.72%), more than four. It should be noted that there is a (0.90%) loss value in all the elements described.

Instrument

The descriptive methodological design uses a survey method and a questionnaire as instrument. To collect data, we developed a questionnaire expressly to assess the participants' opinion on their assessment of MOOC. This measurement instrument has two sections; the first part has to do with contextual data, and the second consists of twelve multiple choice questions and one open question. This second part deals with questions related to the MOOC structure, materials, assessment and time.

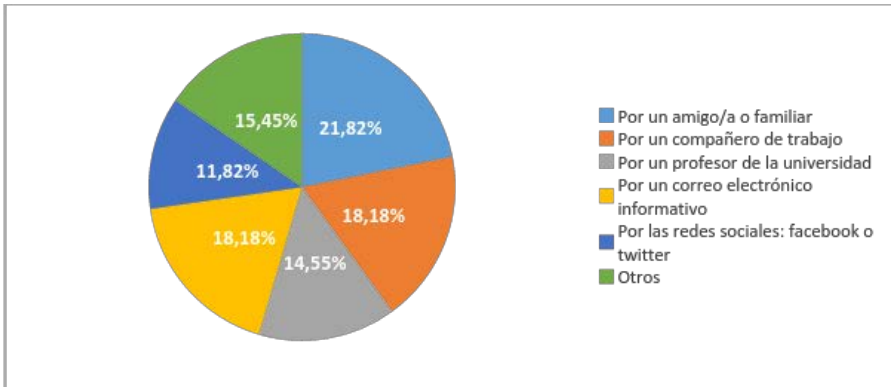
Procedure

First, we developed the instrument to collect data (adapted from Dellepiane, 2016), i.e., the questionnaire we developed by means of Google Form, [1] on the platform and, on completion of the MOOC, we provided the participants with the link of said questionnaire so they could fill it out. The data analysis was carried out in Excel.

RESULTS

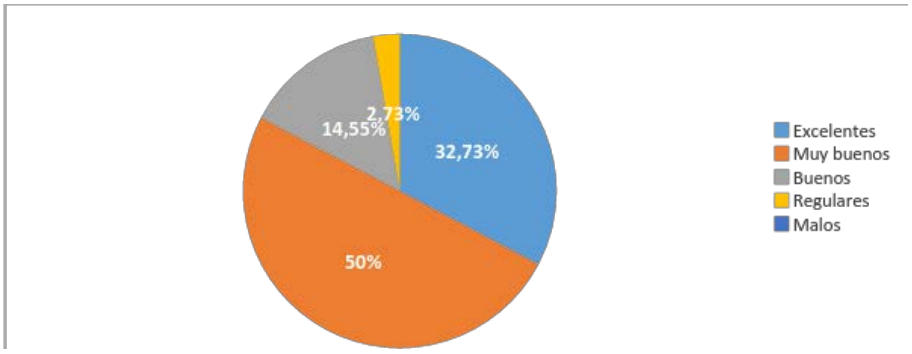
This section contains the results of the assessment of the participants on MOOC. In regard to the question: Is it the first MOOC course you have taken? 86.36% of the participants responded affirmatively in comparison to a scant 13.63% who responded negatively.

To question "How did you get acquainted with MOOC?, the responses were divided (See Graph 1). Responses "A friend or relative" (21.82); "A work colleague" (18.18%); "An e-mail newsletter" (18.18%) had the highest scores, while "Others" (15.45%), "A university professor" (14.55) and "Social networks: Facebook or Twitter" (11.82%) obtained a lower percentage.



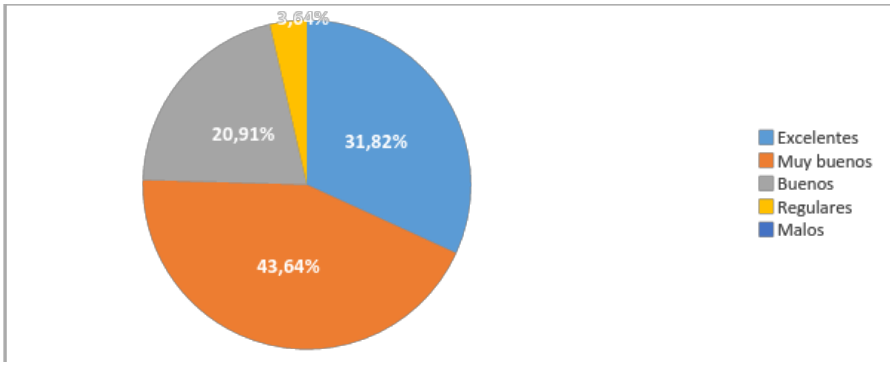
Graph 1. How did you get acquianted with MOOC?

To question: Are the contents and structure of the course clear and appropriate?, half of the participants responded that they were very good (50%) and the others,: (32.73%) said excellent, (14.55%) good (2.73) satisfactory (See Graph 2). It should be noted that none of the students considered the contents and the structure bad.



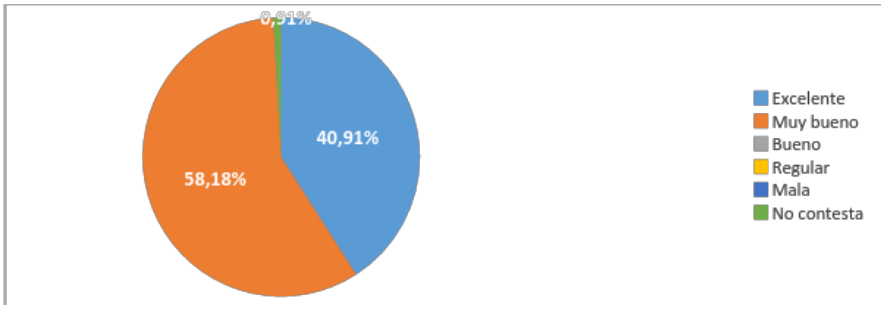
Graph 2. Are the contents and structure of the course clear and appropriate?

To question: Are the materials, readings, forums... of the course clear and appropriate?, The participants responded they were very good (43.64%), (31.82%) excellent, (20.91%) good and y (3.64) satisfactory. None of the students considered the materials, readings, forums... bad. (See Graph 3).



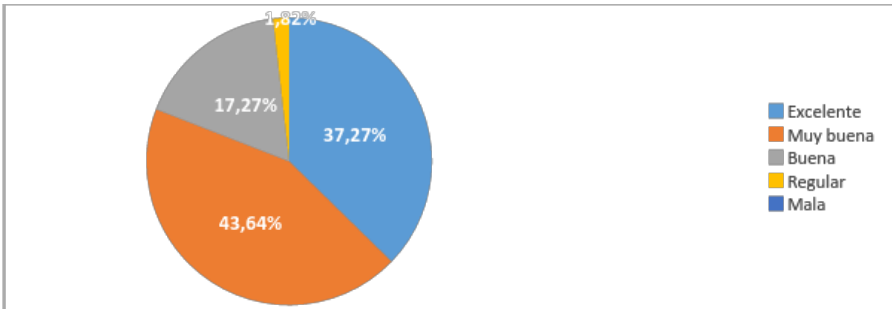
Graph 3. Are the materials, readings, forums... of the course clear and appropriate?

Graph 4 shows the responses of the assessment. The participants' responses to question: Was the assessment of the course clear and appropriate? were: excellent (40.91%) and very good (58.18%). One participant did not respond (0.91).



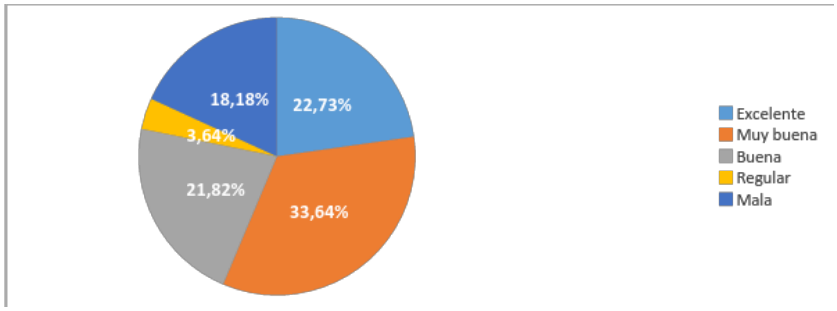
Graph 4. Was the assessment of the course clear and appropriate?

To question 5: Do you consider the Moodle platform appropriate and accessible for MOOC? 43.64% considered it very good; 37.27, excellent; 17.27, good and 1.82, satisfactory (See Graph 5)



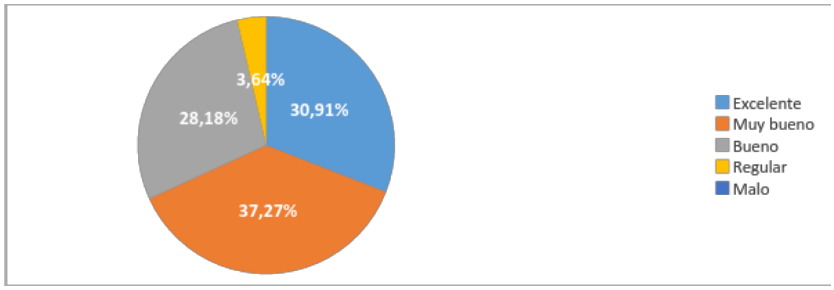
Graph 5. Do you consider the Moodle platform appropriate and accessible for MOOC?

To question: Do you consider the duration of the course appropriate? 22.73% considered the duration as excellent; 33.64%, very good; 21.82%, good; 3.64%, satisfactory and 18.18%, bad (See Graph 6).



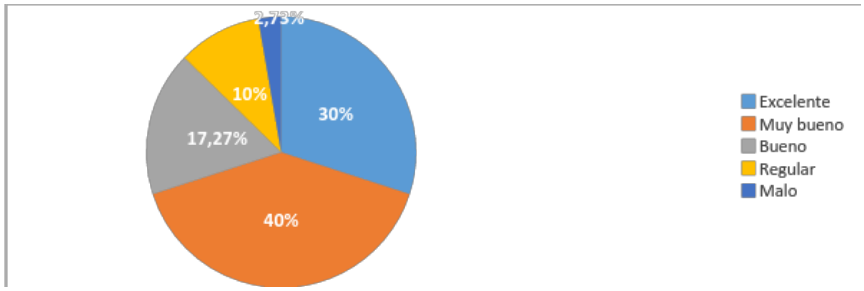
Graph 6. Do you consider the duration of the course appropriate?

Graph 7 shows the percentages referring to question: Do you consider the number of participants in the course appropriate? The responses were: 37.27%, very good; 30.91%, excellent; 28.18%, good and 3.64%, satisfactory.



Graph 7. Do you consider the number of participants in the course appropriate?

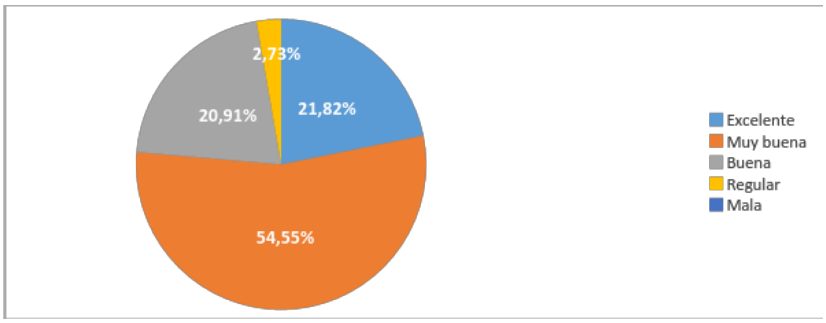
Graph 8 shows the responses to question: Are permanence and follow-up facilitated in the course? According to the majority of participants, follow-up and permanence in the course were very good (40%), excellent (30%), good (17.27%), satisfactory (10%) and bad (2.73%).



Graph 8. Are permanence and follow-up facilitated in the course?

To the question: Why did you take the MOOC course? 91.82% responded they did so to acquire new knowledge; while only 8.18% said because they wanted to review the contents being addressed.

Graph 9 shows the percentages referring to the question: What was my motivation throughout the course? We observe that 54.55% said it was very good, 21.82%, excellent, 20.91%, good and 2.73%, satisfactory.



Graph 9. What was my motivation throughout the course?

In regard to the recommendations, only one person responded negatively and 99.09% said they would recommend MOOC.

Concerning the open-end question about observations and proposals for improvement, all the students wrote some suggestions which were mostly positive and constructive. Among the positive comments, we found observations related to the topics offered, organization, contents, methodology and participation in different forums. Here are some comments:

In my opinion, this course was very interesting and I was able to extract a lot of information that will surely be very useful in the future as a teacher and which I am grateful having at this point since I am working in summer schools and participating in several voluntary programs. Having tools to be able to work with NEAE students [Specific Needs of Educational Support] is very positive and rewarding not only for these students and their families but also for me since it helps me improve what I do day after day. Let's never stop learning! (Comment1).

Since the very first day, the course tutors have been very receptive and consistent and were always available to dispel any doubts. Concerning the course itself, it has adapted to my expectations; I was able to acquire new knowledge and review those I already had. The course is very practical and the resources it has provided me with, have facilitated the content comprehension and the course was conducted in a more dynamic manner (Comment 2).

Among the proposals for improvement, I suggest a greater flexibility in submitting the tasks or improve the schedules so students can organize their time: "The amount of material is very interesting; however there is little time to assimilate it" (Comment 3). "There should be more flexibility in regard to the deadline schedules" (Comment 4).

DISCUSSION

The discussions will be presented clearly through two focal points: the first has to do with the MOOC design and development, and the second, with the MOOC assessment by the participants.

MOOC Design and Development

This research addresses the professional development of teachers and persons interested in education or whose work is related to ours. According to Davis *et al.* (2016), MOOC is a way of disseminating, in this case, specialized knowledge in inclusive education, in an accessible and free manner. In MOOC, every participant is responsible of his own learning; he himself establishes the time he wants to make available to work on the course material, hence, the possibility to make it compatible with other studies or employment.

As for the development of this MOOC, professional experts are responsible of each unit of knowledge and the students can communicate with each of them through e-mail and debate forums. The course addresses professionals in education that are in search of an ongoing training to improve some specific aspect of their teaching and university students. According to Hollands and Tirthali (2014) and Bates (2014), if

we take into account the MOOCs current development, professionals in education and university students are those that may benefit the most from this type of course.

This MOOC could fall within the category of a tMOOC, that combines the xMOOC and the cMOOC (Martí, 2012; Scopeo, 2013), since the intent is that the participants acquire competences related to the attention to diversity. According to Ruiz (2015), in this type of MOOC, the student is responsible since he is the protagonist of his own learning and knowledge does not fall on the teacher but rather on the former's own effort.

Participants' MOOC Assessment

It was the first time for most of the participants in this MOOC to study this type of course and their assessment, in general, has been excellent or very good. The majority has pointed out that the materials, knowledge, structure and assessment of the course were clear and appropriate. These results are in line with Castaño *et al.* (2015)'s study on the perception of those participating in a MOOC who perceived the learning received and the use of these resources positively.

CONCLUSIONS

One of the main contributions of this work was to highlight the importance of the open online courses in maintaining an ongoing training for professionals involved in education.

As for the permanence of the students in the course, 110 out of the 330 students enrolled completed the course. This is consistent with some authors' findings about MOOCs criticisms on the dropout rate (Zapata-Ros, 2013). Interestingly, the dropout rate was lower in comparison to other studies consulted in which only 15% of the participants completed all the activities successfully (MOOC Completion Rates: The Data, 2015). On the other hand, most participants consider that the course facilitated their permanence and follow-up. This may be the result of the strategies used by the teaching staff to foster many exchanges, dispel doubts immediately and notify, through the platform, the start of a new topic.

Although there is no clear evidence linking motivation and course dropout (Vihavainen, Luukkainen & Kurhila, 2013), the participants surveyed said they felt motivated throughout this course, which makes us consider the need of deepening our research on this aspect, in line with Cabrera (2015), who claims that one of the causes for the participants to dropout, is the lack of motivation.

Vázquez *et al.* (2013) claim that one of the criticisms toward learning through MOOCs is to treat the students massively and without any individualization. This issue did not affect the course we presented so much since in tMOOC communication existed between the teaching staff

and the students. When the participants were asked about the topic, they responded that the facilitation of the permanence and follow-up was excellent or very good.

Lastly, the vast majority of the participants said they would recommend MOOCs. This reveals the degree of satisfaction they experienced and it encourages us to pursue offering this series of free, open courses designed to be studied through the Internet by any person who wishes to do so (Marauri, 2014). MOOCs have a great potential of training a large number of people who need to continuously update their knowledge.

In conclusion, we can point out that MOOCs are a very useful resource for ongoing training since they allow a more open and flexible way of exchanging knowledge. The heterogeneity of the participants represented an opportunity to share enriching experiences. However, this can lead to the depersonalization of learning if we treat everyone massively. Therefore, it is essential to generate good communication between the teaching staff and the students in order to address this resource in a more inclusive manner.

Future Lines of Research

The results of this study open new lines of research. On the one hand, the need to study the motivation as a factor of desertion or continuity arises. This research seems relevant since our study would lack the sufficient data to analyze this topic. Another interesting aspect is to inquire on the accessibility of these courses. Our MOOC is based on an inclusive education model. Based on this premise, being able to access these materials is a fundamental topic to ensure the right of all people to education.

REFERENCES

Bartolomé, A. R. & Steffens, K. (2015). Are MOOCs promising learning environments? *Comunicar*, vol. 44. http://dx.doi.org/10.3916/C44-2015-10

Bates, T. (2014). *The strengths and weaknesses of MOOCs: Part I*. Blog Online Learning and Distance Education Resources. Recuperado de http://goo.gl/SvqVwa

Cabero, J. (2015). Visiones educativas sobre los MOOC. *RIED. Revista Iberoamericana de Educación a Distancia*, vol. 18, núm. 2, pp. 39-60. http://dx.doi.org/10.5944/ried.18.2.13718

Cabrera, L. (2015). Efectos del proceso de Bolonia en la reducción del abandono de estudios universitarios: datos para la reflexión y propuestas de mejora. *Revista Fuentes*, vol. 16, pp. 39-62. http://dx.doi.org/10.12795/revistafuentes.2015.i16.02

Castaño, C., Maíz, I. & Garay, U. (2015). Percepción de los participantes sobre el aprendizaje en un MOOC. *RIED, Revista Iberoamericana*

de Educación a Distancia, vol. 18, núm. 2, pp. 197-221. Recuperado de http://revistas.uned.es/index.php/ried/article/view/13444/13058

Davis, E; Saraceni, A.; Mailhes, V; Almada, G.; Morena, I.; Fernández, N.; Konicki, B. D'Anunzio, G.; Rosas, O.; Raspa, J. & Roldán, M. (2016). *MOOCs: una aproximación al aprendizaje mediado*. Presentado en el Congreso ATIDES 2016: Avances en Tecnologías, Innovación y Desafíos en la Educación Superior, Universitat Jaume I, Castellón. http://dx.doi.org/10.6035/InnovacioEducativa.2016.16

Dellepiane, P. A. (2016). *Nuevos espacios para el fortalecimiento de la profesión docente. El proyecto PAD/MOOC*. Trabajo presentado en el Congreso ATIDES 2016: Avances en Tecnologías, Innovación y Desafíos en la Educación Superior, Universitat Jaume I, Castellón. Recuperado de http://repositori.uji.es/xmlui/bitstream/10234/163813/1/InnovacioEducativa16.pdf

Fernández, J. & Webster, S. (2014). From OCW to MOOC: Deployment of OERs in a massive open online course. The experience of Universidad Carlos III de Madrid (UC3M). *Open Praxis*, vol. 6, núm. 2, pp. 145-158. http://dx.doi.org/10.5944/openpraxis.6.2.115

Fidalgo-Blanco, Á., Sein-Echaluce, M. L. & García-Peñalvo, F. J. (2015). Methodological approach and technological framework to break the current limitations of MOOC model. *Journal of Universal Computer Science*, vol. 21, pp. 712-734. Recuperado de http://hdl.handle.net/10366/127283

García, L. (2015). ¿... Y antes de los MOOC? *Revista Española de Educación Comparada*, vol. 26, pp. 97-115. http://dx.doi.org/10.5944/reec.26.2015.14775

Hollands, F. M. & Tirthali, D. (2014). *MOOCs: Expectations and reality*. Estados Unidos: Columbia University, Teachers College. Recuperado de http://files.eric.ed.gov/fulltext/ED547237.pdf

Lewin, T. (2013). After setbacks, online courses are rethought. *The New York Times*. Recuperado de http://www.nytimes.com/2013/12/11/us/after-setbacks-online-courses-are-rethought.html?pagewanted=all&_r=0

Marauri, P. M. (2014). La figura de los facilitadores en los cursos online masivos y abiertos (COMA /MOOC): nuevo rol profesional para los entornos educativos en abierto. *RIED. Revista Iberoamericana de Educación a Distancia*, vol. 17, núm. 1, pp. 35-67. Recuperado de http://revistas.uned.es/index.php/ried/article/view/11573/11041

Pernías, P. & Luján-Mora, S. (2013). Los MOOC: orígenes, historia y tipos. *Comunicación y Pedagogía: Nuevas Tecnologías y Recursos Didácticos*, núm. 269, pp. 41-48. Recuperado de http://www.centrocp.com/los-mooc-origenes-historia-y-tipos/

Ruiz, C. (2015). El MOOC: ¿un modelo alternativo para la educación universitaria? *Apertura*, vol. 7, núm. 15, pp. 110-131. Recuperado de http://www.udgvirtual.udg.mx/apertura/index.php/apertura/article/view/689

Sánchez-Gordon, S. & Luján-Mora, S. (2014). MOOCs gone wild. En *Proceedings of the 8th International Technology, Education and Development Conference* (INTED 2014) (pp. 1449-1458).

SCOPEO (2013). *SCOPEO Informe no. 2. MOOC: Estado de la situación actual, posibilidades, retos y futuro*. España: Universidad de Salamanca-Centro Internacional de Tecnologías Avanzadas.

Vázquez, E., López, E. & Sarasola, J. L. (2013). *La expansión del conocimiento abierto: los MOOC*. Barcelona, España: Octaedro.

Vihavainen, A., Luukkainen, M. & Kurhila, J. (2013). MOOC as semester-long entrance exam. En *Proceedings of the 13th annual ACM SIGITE Conference on Information Technology Education* (pp. 177-182). http://dx.doi.org/10.1145/2512276.2512305

Zapata-Ros, M. (2013). MOOCs, a critical view and a complementary alternative: The individualization of learning and pedagogical support. Campus Virtuales. *Revista Científica Iberoamericana de Tecnología Educativa*, vol. 2, núm. 1, pp. 20-38