Escribir para convencer: instructional design experience in digital contexts of self-learning

Escribir para convencer: experiencia de diseño instruccional en contextos digitales de autoaprendizaje

http://dx.doi.org/10.32870/Ap.v12n1.1807

Karen Shirley López Gil*
Sergio Chacón Peña**

Keywords
MOOC; instructional design; role of the teacher; role of the student; self-management of knowledge

ABSTRACT

The objective of this article is to analyze the design, implementation and evaluation experience of the MOOC Escribir para convencer in edX in order to contribute to the discussion about new ways of teaching and learning in digital contexts. The article presents the systematization of the instructional design under the ADDIE model, integrated with the principles of the Ignatian Pedagogical Paradigm. A descriptive study, which included quantitative information taken from the edX Insights tool and satisfaction surveys applied in the course, and qualitative information collected through the forums of the units. The participants had an adequate performance in individual activities and automatic feedback (questionnaires) and a lower participation in collaborative activities. As in other MOOCs, there is a decrease in the number of participants involved as the cours passes. The instructional design of this type of courses confronts some challenges, among them the transformations in the roles of the teachers regarding direct mediation, and of the students, as they require autonomy, commitment and openness to the collaborative construction of knowledge. Despite these challenges, instructional design contributes to the effectiveness of MOOCs and their effectiveness as an alternative of teaching in everyday and academic contexts that contribute to the generation of global and digital citizens.

Palabras clave
MOOC; diseño instruccional; rol del docente; rol del estudiante; autogestión del conocimiento

RESUMEN

El objetivo de este artículo es analizar la experiencia de diseño, implementación y evaluación del curso abierto Escribir para convencer de edX, para contribuir a la discusión sobre nuevas formas de enseñar y aprender en contextos digitales. El diseño instruccional se sistematizó con base en el modelo ADDIE, que integra los principios del Paradigma Pedagógico Ignaciano. El estudio fue descriptivo e incluyó información cuantitativa retomada de la herramienta edX Insights y de encuestas de satisfacción aplicadas en el curso, así como información cualitativa recolectada de los foros de evaluación de las unidades. En los desempeños hubo un mayor rendimiento de los participantes en las actividades individuales y de realimentación automática, y una menor implicación en actividades colaborativas. Como en otros MOOC, hay un decrecimiento del número de participantes al transcurrir del curso. El diseño instruccional de este tipo de cursos enfrenta algunos desafíos, como las transformaciones en los roles de los docentes respecto a la mediación directa, y de los estudiantes, en cuanto a la autonomía, compromiso y apertura a la construcción colaborativa del conocimiento. A pesar de estos retos, el diseño instruccional contribuye a la efectividad de los MOOC y a su vigencia como alternativa de formación en contextos cotidianos y académicos que aportan a la generación de ciudadanos globales y digitales.

Received: September 29, 2019
Accepted: December 19, 2019
Online Published: March 30, 2020

* PhD in Education, UNED, Spain. Master of Linguistics and Spanish at Universidad del Valle, Cali. Research professor at Pontificia Universidad Javeriana, Cali precinct, Colombia. ORCID: https://orcid.org/0000-0001-9826-0799
** Master of Linguistics and Spanish at Universidad del Valle, Cali. Master Advanced Studies in Spanish and Hispanic American Literature, University of Barcelona, Spain. Research professor at Pontificia Universidad Javeriana, Cali precinct, Colombia. ORCID: https://orcid.org/0000-0003-2950-3923

INTRODUCTION

Information and communication technologies have brought about dramatic changes in the different manners of human interaction. The educational setting has been one of the fields with a greater impact, although these changes are not necessarily reflected in academic institutions (Cobo & Moravec, 2011). The almost unlimited access to information, instant communication and the existence of resources and platforms to cooperate have facilitated the expansion of individual and group learning. These educational possibilities are based on new dynamics where temporary and spatial limits are increasingly blurred.

Massive online open courses (MOOC) arise, in part, due to digital environments and to new learning demands made by the society of knowledge. In the current world, classroom attendance is no longer mandatory in the interest of an effective connection for the creation of an enabling environment for the development of cognitive and thinking competencies and skills. Also, the massive context where MOOC are developed has an impact on larger and intercultural groups who access to MOOC voluntarily, this feature is not always fulfilled in the traditional academic classroom-attendance instruction.

The resources supplied by these educational platforms foster the generation of innovations, solutions to diverse problems in the management of knowledge and new modes of student-tutor interaction; the former finds a context in virtual environments where it can move more freely, where learning responsibilities are assumed more consciously, and the latter identifies a different and highly relevant manner in this mode to abandon the orthodox performance of its work.

As a response to these dynamics, the Pontificia Universidad Javierana (Colombia) has, for some years now, started the production and dissemination of various MOOC in the edX platform. In 2016, we took part in one of the calls for the creation of an argumentative writing course titled Writing to Convince. By these MOOC, we intended to articulate our knowledge and experience in the writing field with the permanent interest of using technologies in favor of educational processes and in the democratization of knowledge. In this historical moment, more than in any other, it is necessary that people perform critical reading of social realities and assume a reasoned stance on them.

Once the proposal was approved in the call, we partook in the process to analyze, design, develop, implement and evaluate MOOC, supported by an interdisciplinary team. After carrying out two versions of the course, with about sixty thousand participants, we set ourselves to share a critical analysis of this experience with other teachers and researchers, as well as to systematize each of the phases involved in the instructional design, the learning results, feedback from participants, as well as opportunities, in addition to challenges and projections we identified in the whole process.

Systematization of the experience we presented is the result of questions and concerns which, as teachers, we have had throughout our pedagogic practice and which led us to generate answers which, although they are not nor should they be the only ones, contributed to our academic endeavor and provided us a renewed gaze of the teaching work in contexts mediated by information and communication technologies.

THEORETICAL FOUNDATION

Two basic concepts are required to analyze our pedagogic experience, on the one hand, to define MOOC and their basic features, among these, the search for self-management knowledge processes; on the other hand, to define the instructional design and, specifically, the ADDIE model for digital learning environments.

MOOC

The term MOOC was first used by Dave Cormier and Bryan Alexander in 2008; however, this term "is very recent and there still are questions on its specific meaning [...] This is such a wide and ambiguous concept that there even are discussions on whether MOOC really are courses or some kind of an improved teaching text" (Pernias & Lujan, 2013).

There are variations and different structures that enable a further classification in the MOOC name. Two types may be noticed regarding the creation and the purpose of this type of courses. The former includes connectivist MOOC or cMooc, where acquisition of knowledge is paramount by means of George Siemens' postulates, expressed in 2004 as an alternative to classical learning theories. In these MOOC, the courses arose by the end of the decade of 2000 .

The second group includes xMOOC (where MOOC conforms to the object of this work) whose primordial feature is to preserve the form of the tutor as the main manager of knowledge, since, by means of his/her mediation, the instructional fact takes place.

In both cases, the role of students changes in accordance with the learning purpose and the specific ends of the course. They are people of different origins, education and age, where the search for knowledge prevails, but which, in many cases, preserves the characteristics of the typical student in a classroom-attendance course, and expect that the development of such student is centered in the tutor-pupil relation.

In addition, self-management of knowledge is one of the features that are to be held as a member of a massive learning community. In this sense, Sanchez & Cabral (2005) mention that "students build knowledge by means of interactions with other subjects, with the contents and with technological mediations" (p. 6).

The activities assumed by students in a distance mode take them through the road of thematic exploration, of new modes of learning, of renewed perception of reality, and methodologies associated to the scope of their personal academic goals, mediated by means of socialization and interaction with others who have the same objectives; furthermore, one of the most significant responsibilities to turn into a student under this mode exactly is autonomy.

Being autonomous means that you have gone through a series of problem situations which have been resolved by means of critical thinking and decision-making. Self-management of knowledge implied autonomy developed at a high level; in MOOC, the need for the permanent presence of an instructor is not an essential feature (nor should it be), as each student is directly responsible for his/her learning and for the scope of goals associated to said activity. For this reason, in the creation process of this course we elected an instructional design as the basis of the proposal.

Instructional design

Due to the fact that MOOC are directed to self-management and collaborative construction of knowledge with the least mediation of the teacher form, instructional design becomes relevant in the creation and production processes of these courses that meet their learning purposes.

The instructional design is conceived as a systematic organization of instruction processes, by the definition of specific purposes and a set of activities, strategies and resources which allow that they are met (Chiappe, 2008). Beyond a technique or a model, an interdisciplinary field is considered (Rodriguez & Escobar, 2012) where learning theories, evaluation modes and organization teaching models are included leading to the performance of objectives.

Although the relevance of the instructional design in creating an education for the 21st Century mediated by technologies is on the discussion table, this field has been in constant transformation and evolution, and has gone from behavioral approaches to constructivist and socio-constructivist perspectives that recognize the place of the context, differences among students, the role of motivation, digital tools, among other variables, which configure the teaching and learning processes (Dick, Carry & Carry, 2014; Gongora & Martinez, 2012; Muñoz, 2011).

In accordance with Centeno (2017), this dynamism enables instructional design to adapt to different settings and situations; in addition, it facilitates the use in diverse educational strategies, ranging from the generation of MOOC, e-learning, b-learning courses to the creation of specific materials and digital resources.

In massive courses, with a reduced direct interaction between the teacher and the students, the instructional design ought to enable proper sequencing of content and activities leading to the compliance with the purpose of learning and, as possible, personalization (Zapata, 2015). In addition to this sequence, as proposed by Margayan, Bianco & Littlejohn (2014), instructional design of massive courses should aim to solving problems of reality, to activate, demonstrate and apply knowledge by participants, as well as to have a high component of cooperation and connection with other contexts.

Within the wide range of models comprising the instructional design, we chose ADDIE to generate our course , which is one of the most frequent and recognized models in the field because of its flexible and generic nature (McGriff, 2007). ADDIE is the acronym for Analysis, Design, Development, Implementation and Evaluation, concepts that define the two-phase set and the sequence suggested where the instructional design is taking place (Branch,

2009), although this is not strictly of linear nature (Morales, Edel & Aguirre, 2014).

In accordance with Maribe (2009), analysis refers to identification of the initial situation of students and their surroundings. In the design phase, the teaching and learning process is addressed and didactic principles and the epistemological nature of the educational project are seen to. The development is directed to generate textual, visual and multimedia resources that are to be used to support access to contents, as well as written instructions, evaluation instruments and other products as required. During implementation, the design is materialized as the course is implemented by the participation of students, and during evaluation, judgments of value are established in respect to the quality and effectiveness of the whole teaching and learning process, by using information gathering techniques and instruments. In spite of the fact that this appears as the last element, this phase ought to be cross-cutting of all the stages.

Although the ADDIE model counts for a generic and flexible process, it ought to be centered on the student and be consistent with defined learning theories and evaluation models (Maribe, 2009). In the case of our MOOC, we proposed the integration between the ADDIE model and the Ignatian Pedagogical Paradigm (IPP), which is the main fundament of the virtual pedagogic model of our institution. This paradigm, which refers to Jesuit universities, resumes the teaching mode formulated by Saint Ignatius of Loyola and projects five moments that contribute to the construction of learning. These shall be defined in the following section.

COURSE DESIGN FROM THE ADDIE MODEL

Designing the Write to Convince course started by generating a proposal for an open call for the creation of MOOC at the Pontificia Universidad Javeriana, Colombia. This proposal was selected by an expert committee and the financing conditions and support were defined by Javevirtual, an office for the advancement of technologies of the university. Afterwards, the ADDIE instructional design model directed the course creation itinerary.

The IPP was assumed in the analysis phase with five learning moments: context, experience, reflection, action, and evaluation

(Javevirtual, 2016). In this stage the MOOC public was also defined: college students, professionals and adult citizens who, generally, were interested in strengthening the written argument. We decided to outline the scopes in an introductory level, therefore, no previous knowledge was required from participants.

In the general purpose, we proposed that, when MOOC was completed, "the participants would have the capacity to explain the purpose and the basic characteristics of the argumentative text, by means of providing examples of real or hypothetical situations, to attain an effective and persuasive communication". We defined a period of six weeks, with the structured contents in the three modules, each including two learning units.

In the design phase, we established the objectives of each module and unit, proposed in terms of the knowledge that would be achieved, and an approximate time was set of five hours per unit (a total of 30 hours in the course). In other to reach the objectives, we designed activities in every instance in the IPP.

In the context instances we sought that participants identified their prior knowledge and expertise regarding contents; therefore, the chosen activity was a form with multiple-choice questions and a single answer. For the experience instances, we defined an approach strategy to the contents by means of explanatory videos, and in the reflection instances we employed discussion forum resource as a space for participants to discuss and to construct knowledge together.

In the action instances, what we intended was an extensive application of the contents, we proposed a form as a tool with multiple-choice questions and a single answer, however we projected situations or cases where participants ought to make an analysis in the light of the contents seen in the experience instance. The activities of these four instances were determined for each of the six units, with a total of 24 designed activities.

The evaluation instance was defined for closing the modules (every two weeks). We conceived the written production of short argumentative texts as a strategy that would answer to different communicative situations and went through identification, analysis and text construction phases. Evaluation activities implied a review among peers from the rubrics proposed by the teachers.

As noted, the learning activities used resources and self-suggestion tools (form with automatic feedback) and joint construction of learnings (forum and evaluation among peers), due to the massive character of the course and the limitations in the mediation of teachers. In order to facilitate students to perform in a proper manner in the course with mediation restrictions, we outlined a structure with several supporting resources, selected and ordered in a systematic manner.

To start MOOC we suggested the production of a general video that would account for its main characteristics; also, in this section we placed a document with the course syllabus and the weekly chronogram. The Virtual Café forum was outlined as a socialization strategy for the participants, whereas the Needs and Concerns forum was intended to facilitate location of participants in the course and to answer every question of a logistic nature.

In every module, we followed a similar structure: introduction, development of two units, evaluation activity among peers and closing. In the introduction we placed a general module video, and for the closing, a video that included the main lessons and recommendations. Likewise, we included a qualitative evaluation forum to learn about the perception of students regarding the module. We inserted learning activities in the units for each IPP instance, supplementary activities and a qualitative evaluation of the unit. Among supplementary activities, we included the participation of social networks, information of open digital resources related to the topics in the course, additional text analysis, among others.

In this design phase, we also defined the audiovisual form as a presentation strategy of the contents in the experience instances. For the development of these contents, we proposed thirteen explanatory videos; however, with the idea of achieving an extensive connection of the audience and facilitating understanding of contents, we suggested parallel narration as a pedagogic resource to *Armando Textos*.

In the development phase we began the production of MOOC. The first task was to lay out storyboards to further record videos, in accordance with the type and purpose thereof. These needed a differentiating principle which required configuration of its essential features to write it taking into consideration whether they were introductory, explanatory or closing. Composition of the story of *Armando Textos* posed a new challenge for the teachers of the

course because it was a more literary genre than an academic one; however, without overlooking the main intention: to supply instructions and knowledge sufficient and appropriate to consider MOOC.

Feedback storyboards to feed the introduction stages of each module and unit had the purpose of showing general information and inviting participants to action. The main tasks of storyboards for explanatory videos was to present topic clarification processes and presentations mediated by the proposed methodology, and the input of didactic and conceptual clarity as the spearhead of this asynchronous connection. The *Armando Textos* character arises from advance discussions in the design stage and general lucubration on the strategies that would be used for MOOC. This incorporation assumed the creation of a character, his/her story, profile and academic and personal needs.

Storyboards that comprised the basis of the closing videos had the same realization guidelines as the introductory videos: they followed the briefness line, invitation to continue with the work in the course, amenity and familiarity. There were five explanatory resources in the video proposed in module one: a starting one, a closing one and three for developing concepts. There were seven for module 2: a starting one, a closing one and five for developing concepts; there were six for module 3: a starting one, a closing one, and four for developing concepts.

All that was described was advanced in the production of the first version of the course, in the first semester of 2017. The phase that followed was the implementation phase, where we launched MOOC with a successful rate of people enrolled, although with a lower number of participants who went through to the final phase of the course, completed the activities and requested official certification. The second version of the course was done in the second semester of 2018. Here, we maintained the general features of the first edition, but we incorporated some changes and adjustments that will be detailed below.

The final phase of the process was to evaluate MOOC, where we structured a series of elements that made us to consider the position of the participants at the different instances in the course. The instruments we designed for this purpose were surveys and forums. In addition, we set out a statistical analysis of the platform which showed indicators such as the number of participants, the frequency

of interaction of the forums, the survey realization index, certification requests, follow-up of comments, among others.

The sequence of the course kept the realization basis in 95%, the base elements of the course presentation, the design and activities, generally, were maintained. It was intended to an target public who could not take the previous version of MOOC; the participation index was outstanding but not so massive as in the first edition. The main changes introduced in the course, from the analysis, were related to platform interaction with the participants and feedback by tutors.

A decision was made to publish a section of frequent questions that would aid in answering general and administrative questions, and that would enable the natural flow of aspects associated to learning situations. This significantly reduced the number of participations of this type in favor of academic content participations.

The second most frequent request identified in the analysis described was the likely synchronic interaction with tutors. For a positive process of this aspect, we conducted three webinars in the second version of the course (one per module, with a duration of sixty minutes), whose purpose was to set up thematic clarifications and answer questions about the proposed evaluation activities.

METHODOLOGY

In order to systematize this mediated educational experience by technologies, we proposed a descriptive survey (McMillan & Schumacher, 2005) which sought, on the one hand, to characterize the performance of participants in the implementation of the course and, on the other hand, to identify its values on the design of MOOC. We recaptured quantitative nature data of the edX Insights tool and of satisfaction surveys applied in the course, as well as qualitative information collected by means of evaluation forums at the end of the units.

Participants

The population comprised 34,339 active participants in the course, in the two versions. Although the total figure of enrolled persons in the course was 57,680 (as of the date we wrote this article), about 40% were in the self-study mode; therefore, they were only able to

have access to video contents and to visualize discussions and they were not able to partake directly in evaluation activities.

Percentages in the following section are calculated from the total enrolled students at the end of the course (34,339), as we considered that they had the possibility to partake in all the activities in the five instances of the IPP.

Collection instruments

In order to collect information on the performance of the participants in the course, we used edX Insights, which is a statistical analysis tool supplying MOOC managers, information on the number of enrolled participants, basic socio-demographic data (age, sex, country of origin), and commitment during the course (interaction with the contents and participation in forums) and the achievement in the activities (questionnaire and reviews among peers).

In order to identify course evaluation made by students, we set out two mechanisms: satisfaction surveys and evaluation forums. The former was conducted at the closing of each module (a total of three) and when finishing MOOC. These surveys, in the five-level scale of Likert, inquired on the evaluation from participants in six aspects: pertinence of contextualization activities, contents in audiovisual format, interaction spaces, and peer-to-peer reflection, learning evaluation by means of questionnaire tests, evaluation of writing activities among peers and, generally, compliance with learning objectives proposed in the modules.

Evaluation forums were conceived as open spaces at the end of each module where participants could include qualitative evaluations of the course, in respect to their design, methodology, contents and resources, as well as to propose suggestions or recommendations. In order to organize these comments, we used the content-analysis technique, which consists in a procedure to interpret messages produced by people in specific contexts, in an organized and systematic manner, and we followed description, analysis and inference set up processes on the findings (Bardin, 1996).

RESULTS

The purpose of this section is to show evidence of the findings of MOOC as well as to show which were the profiles of participants, the features of teaching mediation, and the performance of participants and their perception of the course.

Participants' profiles

We found a balanced gender distribution in the socio-demographic profiles: 52% women and 48% men. The average age of participants was 32 years, and there was a concentration of enrolled participants in the age group of 26 to 40 years (53%), followed by people older than 41 (25%) and younger than 25 (22%). This shows evidence that more than 70% of the participants may be classified in the adulthood stage.

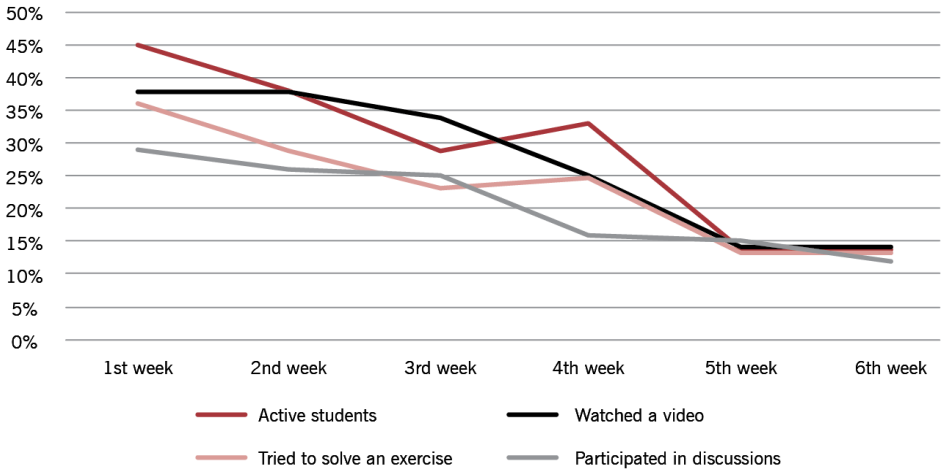
In accordance with their educational profile, more than half the participants had pre-degree college education (59.6%), followed by post-degree (19.1%), secondary (18.7%) and undetermined (2.7%).

Regarding their place of origin, MOOC had students from 96 countries. Enrolled students from Colombia predominated (46.5%), from Mexico (13.5%), and from Peru (7.5%); 32.5% were distributed among the remaining 93 countries, with values lower than 2% in each of them.

Participants' performance

In both MOOC versions, we identified that about 40% of the students enrolled were active at some time during the development of the course. As in most of massive courses, participation concentrates in the first weeks, then there is a descending curve. Participation in one of the evaluation activities was within a range of 12% and 45%. The activity with the most participation was viewing the contents in video, whereas the least participation was interaction by means of forums (see chart).

Chart. General participation in MOOC



As mentioned in the design section, the course was structured in three content modules, each formed, in turn, by two units. The units were developed in four instances of IPP. Students' participation and performance in each of them is synthesized in table 1.

In context activities, which sought content approach and previous knowledge verification through questionnaires, a participation average was reached of 26%, although there was a decreasing behavior through the six weeks of the course (from 34% to 14%). On the other hand, about 89% of the answers provided by participants were correct.

Experience activities were intended for participants to approach specific contents of the units by means of observing audiovisual resources. This viewing decreased during the six weeks: it began with about 38% and ended with 14%. In these activities, a larger participation average in MOOC is evidenced with about 27% of activity throughout the units.

Reflection activities comprises dialog and joint construction of knowledge spaces by means of the discussion board tool, whose participation average was 20%, with a range of 29% in the first unit and 12% in the last unit.

Action activities allowed participants to consolidate knowledge constructed in the previous instances and were evidenced by means of scores in questionnaires. About 21% of participants completed

these activities, with a success average of 94%. Although the participation was lower than the context activities, in this case an increase was reflected in the success average in the questionnaires, which went from 89% to 94%.

Evaluation activities were of the modular type and concentrated the largest percentage of course grades (40%); however, as these activities implied the review among peers, they had the least participation, with an average of 6%. In view that few participants managed to fulfill the review activities among peers, the passing rate was low: about 1,100 students passed, which barely comprises 3% of the total in the curse, and 0.5% requested formal certification (see table 1).

Table 1. Performance of participants in activities at each instance of IPP

		Context		Experience	Reflection	Action		Evaluation
		Part. (%)	Correct (%)	Part. (%)	Part. (%)	Part. (%)	Correct (%)	Part. (%)
M1	U1	34	76	38	29	32	89	10
	U2	29	92	38	26	28	93	
M2	U1	29	94	34	25	28	94	6
	U2	26	89	25	16	21	9	

M 3	U1	18	90	14	15	13	94	3,5
	U 2	14	91	14	12	9	94	

Logistic and pedagogic facilitation

Logistic facilitation by teachers was carried out by means of notification, massive emails and forums tools. We published notices and updates directly in the platform at the beginning and closing of the course, as well as in the introduction of each unite and invitation to webinars.

Massive mail was sent once a week to specify the beginning of a new unit and to collect the main conclusions of the previous unit. On the other hand, the forums tool was used for the logistic facilitation by means of two instances: the Virtual Café forum and the Needs and Concerns forum. The former included a socialization space where participants expressed their expectations for the course, whereas the latter had the purpose of seeing to questions of participants in an effective manner.

The needs and concerns forum had a low participation as compared to others, where discussions and comments were made. This was the result of the strategy to publish a series of frequent questions and answers in the headlines, which helped to respond to the most relevant concerns of participants, and which significantly reduced inquiries on isolated topics from the topics in the course.

Comments were focused in requests for help for continuity to the MOOC process, inquiries about administrative issues and feelings of admiration of participants. Pedagogic facilitation was carried out by means of a weekly publication of conclusions by instructors in the thematic forums and massive mails, generation of supplementary activities in elective forums, activities in the Twitter social network, and the realization of three live sessions, of one hour each. Webinars helped participants to solve their concerns on the contents and development of the activities in the evaluation instance.

Course evaluation

In order to cover the course evaluation item by students, we designed two instruments which provided useful data collection for the subsequent decision-making process on this. The first instrument was a survey, which was used throughout the course as a valuation mode of students regarding their performance in the different activities. Therefore, there was a survey for the unit of each module closing; at the end of MOOC we asked participants to answer a final survey as a manner to question on the learning experience generally. The abbreviated results between the two versions are detailed in table 2.

Table 2. General evaluation of the MOOC (summary of both versions)

Evaluated aspects	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)
Context activities	1.5	1	5	26	66.5
Experience activities (videos)	1	1.5	4	20	73.5
Reflection activities (discussion forums)	1.5	2	8.5	23.5	64.5
Action activities	0.5	1.5	6	28	64
Evaluation activities	1	1	9	30	59
Accomplishment of the learning objectives	0.5	1	5	28.5	65

As noted, the most significant findings are in the highest valuation range and indicate that most of participants assume their progress

through MOOC, in its two versions, as a positive and high impact passage of their learning process.

The second instrument we employed was the forum, a valuable tool which provided an extensive and varied outlook on the students' position in the face of different MOOC processes. This instrument was designed for a permanent presence throughout the course. Thus, each module had a forum where the participants were inquired about their experience and were encouraged to perform a cooperative participation and to leave their comments as questions or recommendations.

In qualitative evaluations of the forums there frequently were manifestations of appreciation from the participants in the course which represented their satisfaction with the process mediated by the general design of MOOC, the proposed activities, the quality of the tutors' work and the tools available for them, such as videos, resources, reading materials and the subtext of *Armando Textos*.

> To me it truly is a great pleasure to be able to understand each day that writing requires of an order and a plan (message "Thank you very much", participant version 2017).

> Thank you for your teaching strategies. The presentations and contents were clear and the *Armando* stories helped me to understand the meaning of writing (message "Congratulations", participant version 2018).

> I would like to congratulate you for the way you have organized the learning activities in this module [...], you have been able to carry out strategies and entertaining activities in tune with the course level, which have allowed me to get significant learning experiences (message "Satisfaction with the online course", participant version 2018).

Regarding suggestions, it is evident that the most common ones are related with the evaluation among peers and with the lack of a more extensive connection with tutors in the manner of feedback for the exercises and texts drafted throughout the course. This suggests the need to be knowledgeable, by whoever partakes in a MOOC, about one of its main features: self-management of knowledge and the possibilities thereof:

> Regarding the activity among classmates [...] although this is a good exercise, I think we are learning and we are no experts, therefore, our grades may not be correct (message "Suggestion", participant version 2017).

> I would like to thank you for what I've learned during the course, although I would have liked to have had more feedback on what I've learned (message "Thank you and comments", participant version 2017).
>
> I would like a tool to evaluate myself in real time to be aware of the status of the knowledge I've learned (message "Suggestion", participant version 2018).

Finally, another suggestion is about the need to have access to more diverse materials and readings that would enable the connection with what they have learned and examples thereof; this matter shows the need to have permanently updated documents comprising the course bibliography.

DISCUSSION

In this work, we have stated the relevance of an appropriate approach to new manners to learn and a renewed vision about the teachers' endeavor. We make emphasis on the central role of the tutor in the instructional design of the course and on the pedagogic and didactic type options that would be used to favor the mobility of knowledge throughout this course.

The role of the teacher in this type of courses is substantially different from the traditional and protagonist profile of many of the facts in the teaching-learning process and raises different responsibilities (Ruiz, 2013). The mediator of a distance instruction needs features such as being acquainted with technology and its uses, permanent update in topics of the subject he/she teaches, the assignment of the protagonist role to students and the creation of accompaniment spaces even shorter, but, therefore, not weaker (Sanchez & Cabral, 2005).

A MOOC teacher ought to assume another responsibility for his/her role: logistic facilitation (Javevirtual, 2016). This is a highly relevant aspect because, people who enroll as participants in a course of this nature do not always have competencies sufficient to manage information and proper browsing through the universe required by the different platforms and interphases.

On the other hand, the participant also assumes his/her role. As we have mentioned above, a student in a course of this kind ought to have the characteristics of the person who does distance education, this implies a commitment with his/her learning in a stronger

manner. In this sense, being autonomous places a protagonist role in the study of this kind of learning processes and leaves the tutor out (Sanchez & Cabral, 2005).

An autonomous participant is the person who allows, to him/herself and in cooperation with the rest of the learning community, a paradigmatic change, which is the main input of success in the enterprise to take a MOOC. Hence, other previous tasks derive which the future student ought to commence with the intention of reviewing his/her own competencies in favor of the minimal scope of the course proposals. Thus, for example, he/she must perform a self-evaluation to verify whether he/she has the minimum knowledge of an epistemic and technological order that would give him/her sufficiency to perform the different activities.

The participant ought to be willing to do teamwork as a fundamental part of the collaborative construction of knowledge, a primordial input of MOOC. Collaborative processes imply interaction with other students, where individual development is emphasized, which is based in the exchange and feedback of knowledge. It must be emphasized that the evaluation percentage of feedback prevailed in this MOOC upon reviewing written compositions over other activities, as these principles were precisely complied with.

In this regard, one of the requirements to take a MOOC is, by contrast, one of the most frequent problems of participants: autonomy. Because of this, only a small part of the number of people who begin a course completes it and passes. In our MOOC, the high attendance of a large number of people who enroll is obvious, they watch videos and perform discretionary participation in forums so that, in the end, they do not partake in collaborative activities and drop out of the course near its end.

There is a high gain among students who develop autonomy and finish with success. Then, the role of the participant is here conceived as the center of the educational fact in MOOC, and his/her effective interaction with his/her peers and the mediation controlled by the tutor will lead him/her to effectively acquire the proposed knowledge and his/her definitive entry into the universe of distance learning (Capistran, 2016).

Instructional design is a challenging aspect, as it requires proper definition of objectives, a strict selection of activities and resources, as well as a precise sequence to attain the scope of the purposes with

little mediation from the teacher. This is a critical factor for a course to be effective. Margaryan *et al.* (2014) state that most of MOOC usually focus on the organization of contents, but disregard other principles of instructional design, such as solving problems of the social reality, applying knowledge and fostering active and collaborative learning.

The relevance of the ADDIE model is emphasized by the IPP guidelines and key elements of writing didactics, for, as proposed by Candela (2016), the designs ought to concentrate by selecting learning theories, pedagogic models and specific didactic elements in line with the disciplinary content you want to work with. One of the main criticism of models such as the ADDIE model, is its extensive characteristic (umbrella model), because phases and principles are proposed that may be applied to any teaching and learning situation, in addition to requiring greater accuracy and adjustment (Centeno, 2017), hence the unconceivable articulation thereof with other models.

Although we recognize the challenges posed by the scarce mediation of the teacher in MOOC, it is possible to mitigate the negative impact by means of proper development of the first three phases of the ADDIE model (or equivalences in other models). Although every phase is essential, the analysis, design and development phases have greater incidence and require of greater dedication and reflection by teachers and by the interdisciplinary team which support the construction of MOOC. In this regard, systematic planning is necessary by using guiding instruments to enable documentation of processes, as is the case of guidelines and matrixes (Zapata-Ros, 2015).

On design, technological surroundings of MOOC may limit the use options of tools to attain the purposes of learning, generally restricted to three types of activities: close-ended questionnaires, discussion forums and evaluations among peers (Capistran, 2016); nonetheless, they may be taken advantage of in a way that they enable actually reflective self-evaluation processes. Interaction and learning extension spaces may also be incorporated, in our case, the Twitter social network and synchronic meetings through webinars.

The last component of the ADDIE model, evaluation, rather than conceiving it as the final stage, it must be placed as a transverse process of the instructional design. At every instance of the design, spaces ought to be created to analyze and discuss decisions that were

made. Once they are implemented in the course, the perception of participants is required to evaluate compliance with the objectives, the quality of the materials and the relevance of the activities, as well as the manners to evaluate the learnings. This allows us to make the necessary adjustments for new versions of the course and, in many cases, to see to the problems of the ongoing course.

Transverse evaluation ought to provide diverse instruments and different sources of information. The perceptions of students, of teachers-facilitators and the technical team involved in the course were included in our MOOC. Among the instruments we have close-ended questionnaires, discussion forums with open questions, statistics of deliveries and other tools of the platform. The view of teachers was instrumental in the evaluation by virtue that, from our experience as designers and then as course facilitators, we were able to identify the relationship between planned and implemented activities. In addition to recognizing and proposing adjustments of pedagogic nature, the evaluation facilitated the identification of institutional responsibilities and the technological environment.

CONCLUSIONS

Design and realization of the Write to convince MOOC offers an invaluable opportunity regarding the renewed configuration of the teaching paradigm, as well as the impact on the pedagogic practice and an innovating view above other forms of learning. This assumes an opening to change and the incorporation of methods and technologies in the teaching endeavor as a tutor, who is transformed and adjusted to the dynamics of a highly permeated actuality by the possibilities set out by the digital age.

Similarly, the creation of the course favored more stringency because the configuration of pedagogic resources was part of the learning proposal, as well as the familiarization with audiovisual production. This resource gave way to the creation of the subtext of *Armando Textos*, a high impact didactic tool which not only represented the average student in learning situations, but which related participants in an affable way with epistemic aspects of the course.

To persons who partook in the learning community, the course provides, in addition to the knowledge resulting from the

completion thereof, a repository of materials and resources that may be freely used as permanent enquiry inputs (for the student) or a tool for written composition processes of their teaching and mediation (for the teacher). Experience has shown that a large number of participants in the course are practicing teachers who find an optimal database for dynamic diversification in their classrooms.

Likewise, reaching wider audiences is a good opportunity for a positive impact related to resources and tools designed for the course. This is a serious alternative with an academic weight in the face of multiple options which, in the web universe comprise features of "infoxication". In summary, this MOOC, assumed as an academic repository, guarantees that their materials have a trustworthy and specific weight.

It must be noted that there were several challenges for the development of MOOC. Our course, as well as most massive courses, had a high rate of dropouts. Many reasons to abandon transcend the scopes of the instructional design, but this is fundamental whereas it may contribute with "the selection of a course fit to the interests of participants and the design of increasingly interactive, participatory and less mechanical courses" (Vazquez, Lopez & Sarasola, 2013, p. 108).

We identified extensive limitations in the course, related with general representations of students about MOOC, learning (some prefer teacher-mediated processes), study habits, construction of autonomy, among others. To a lesser extent, there were several logistic and administrative difficulties executing MOOC (for example, the quality of edX automatic translation and the operation of some tools), but we were able to solve them properly thanks to the support team of the university.

One of the most important conclusions of our evaluation process includes the need to strengthen review activities among peers, and to provide preparation in advance to do it, many participants are not acquainted with these dynamics. In most of MOOC, similar situations were identified by this type of activities (Capristan, 2016). Modeling and creating video tutorials could be an alternative to answer to this problem in future versions of the course.

REFERENCES

Bardin, L. (1996). *Análisis de contenido*. Madrid: Ediciones Akal.

Branch, R. M. (2009). *Instructional design: The ADDIE approach*. Boston, Massachusetts, Estados Unidos: Springer.

Candela, B. F. (2016). *La ciencia del diseño educativo*. Cali, Colombia: Programa Editorial de la Universidad del Valle.

Capristán, B. (2016). Diseño instruccional en los MOOC: ¿qué aspectos tomar en cuenta? *Revista Digital Universitaria*, *17*(2). http://www.revista.unam.mx/vol.17/num2/art15/index.html

Centeno Alayón, P. (2017). Una experiencia de estandarización utilizando el modelo ADDIE en la elaboración de guías temáticas. *Revista e-Ciencias de la Información*, *7*(1), 216-227. http://dx.doi.org/10.15517/eci.v7i1.25755

Chiappe Laverde, A. (2008). Diseño instruccional: oficio, fase y proceso. *Educación y Educadores*, *11*(2), 229-239.

Cobo, C. y Moravec, J. (2011). *Aprendizaje invisible. Hacia una nueva ecología de la educación*. Col·lecció Transmedia XXI. Laboratori de Mitjans Interactius/Barcelona: Publicacions i Edicions de la Universitat de Barcelona.

Dick, W.; Carry, L. & Carry, O. (2014). *Systematic design of instruction*. USA: Pearson.

Góngora Parra, Y. y Martínez Leyet, O. (2012). Del diseño instruccional al diseño de aprendizaje con aplicación de las tecnologías. *Teoría de la Educación. Educación y Cultura en la Sociedad de la Información*, *13*(3), 342-360.

Javevirtual. (2016). *Modelo educativo para proyectos de formación virtual*. Documento de trabajo. Cali: Pontificia Universidad Javeriana-Cali.

Maribe, R. (2009). *Instructional design: The ADDIE approach*. USA: Springer.

Margaryan, A.; Bianco, M. & Littlejohn, A. (2014). Instructional quality of Massive Open Online Courses (MOOCs). *Computers & Education*, *80*, 77-83. http://www.sciencedirect.com/science/article/pii/S03601315140 0178X

McGriff, S. (2007). *Instructional systems, ADDIE Model*. USA: College of Education, Penn State University.

McMillan, J. y Schumacher, S. (2005). *Investigación educativa*. Madrid: Pearson.

Morales, B.; Edel, R. y Aguirre, G. (2014). Modelo ADDIE (análisis, diseño, desarrollo, implementación y evaluación): su aplicación en ambientes educativos, en I. Esquivel (coord.), *Los modelos tecno-educativos, revolucionando el aprendizaje del siglo XXI*. México: Universidad Veracruzana.

Muñoz, P. (2011). Modelos de diseño instruccional utilizados en ambientes teleformativos. *Revista Digital de Investigación Educativa Conect@2*, *II*(2), 20-58.

Pernías, P. y Luján, S. (2013). Los MOOC: orígenes, historia y tipos. *Comunicación y Pedagogía*, 269-270. http://www.centrocp.com/comunicacion-y-pedagogia-269-270-mooc/

Rodríguez Núñez, L. y Escobar, E. (2012). Algunas precisiones sobre el diseño instruccional. *Revista Virtual Universidad Católica del Norte*, (35), 1-4.

Ruiz Martín, P. (2013). *Presente y futuro de los Massive Open Online Courses (MOOC): análisis de la oferta completa de cursos de las plataformas Coursera, Edx, Miríada x y Udacity* (Trabajo final de máster). Universidad Complutense de Madrid. Facultad de Ciencias de la Documentación. Máster en Gestión de la Documentación, Archivos y Bibliotecas.

Sánchez Garza, J. y Cabral Parra, R. (2005). Procesos de autogestión del conocimiento orientado hacia una educación integral pluricultural. *Humanidades Médicas*, *5*(2). http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1727-81202005000200001&lng=es&tlng=es

Vázquez, E.; López, E. y Sarasola, J. (2013). *La expansión del conocimiento en abierto: los MOOC*. Barcelona: Ediciones Octaedro.

Zapata-Ros, M. (2015). El diseño instruccional de los MOOCs y el de los nuevos cursos abiertos personalizados. *Revista de Educación a Distancia*, *45*(2). http://www.um.es/ead/red/45/zapata.pdf

HOW TO CITE

López Gil, Karen & Chacón Peña, Sergio. (2020). Escribir para convencer: instructional design experience in digital contexts of self-learning. *Apertura*, *12*(1), pp. 22-38. http://dx.doi.org/10.32870/Ap.v12n1.1807