

MOOC on a Bachelor's degree final project (TFG): Prototyping and design

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Abstract

This paper deals with a didactic project that includes the design of a brief online course as a massive open online course (MOOC) aimed at large-scale interactive participation. In addition to traditional course materials such as videos, readings, and problem sets, it provides interactive-user forums that help build a community for large groups. On this purpose, the current paper attempts to show how this type of short courses can support tertiary education. One of the goals of the present MOOC is to help students to write their Bachelor's Degree Final Project (TFG), following a scaffolding strategy on a step-to-step account (Da Cunha, 2016; Cargill & Connor, 2016). A total of 1422 students from a Spanish distance education university (UNED) took the course in its first edition in March 2021. The course evaluation survey draws the conclusion that the scaffolding strategy followed in most of the video recordings fulfilled participants' expectations.

Keywords: UNED; MOOC; TFG; distance teaching; large groups; scaffolding

1. Introduction

One way to support pedagogical research in distance learning is the creation of Innovative Didactic Groups (IDG) that contribute to the implementation of innovative experiences in teaching practices for large groups, paying attention to a specific pedagogical orientation as expected from university teachers (Prosser & Trigwell, 2014). Teaching Innovation Groups are, in fact, work teams who collaborate in a stable manner in the implementation of innovation and teaching improvement activities at tertiary-level institutions¹. To this end, the largest Spanish University of Distance Education (UNED) provides institutional support, in the form of professional recognition, as incentives for the activities organised by their teachers².

It is in this framework that the MOOC described in this paper focuses primarily on the design of relevant tasks for university students to complete their Bachelor's Degree Final Projects (TFG, using the Spanish term). The MOOC addresses most Spanish-speaking audiences from all over the world, which is challenging but extremely rewarding as has also been shown in other recent pedagogical experiences for large groups (Farrell & Logan, 2019; 2020).

2. Designing the MOOC's Scaffolding Methodology

As its title indicates, the MOOC "Writing the final Degree paper (TFG) in 6 steps" involves a scaffolding methodology, since the course attempts to break up the learning into modules, providing a tool, or structure, with each of them. All learning modules consisted of video recordings and we followed *UNED Abierta*'s guidelines to offer recordings that could break the routine and generate attractive content. All the video clips had a very limited and simple language, avoiding too many technicalities. Since the MOOC methodology also sought to awaken student's curiosity and promote social learning, a number of forums were organised to discuss the learning evidence in a collaborative and fun way. By designing a series of self-assessment tests, students were expected to get into the distance learning context quickly so that they could work independently for their own purposes. We ensured that the short videos followed a logical sequence, so that we could follow the scaffolding methodology mentioned above. Following Pop & Salzberg (2015), the MOOC also included supplementary materials for supporting alternative student needs.

3. MOOC Proposal

¹ <https://www.uned.es/universidad/inicio/institucional/IUED/innovacion-docente/grupos-innovacion/grupo-57.html>

² <https://iberoeconomia.es/mercados/uned-la-universidad-espanola-mas-alumnos-matriculados/>

3.1. Goals

There were three main objectives that the MOOC attempted to meet as a supportive learning resource. Firstly, we wanted to guide students in the acquisition of the necessary and specific skills in the process of preparing their final paper required to complete their degree, which is part of the requirements of most official university degree courses. Secondly, we attempted to provide students with resources and conceptual and methodological strategies that facilitate the writing process from preparation, to design and final writing. Thirdly, we aimed at letting students complete a series of tasks of (self) evaluation of the acquired knowledge in a collaborative fashion.

3.2. Participants

The MOOC addressed two groups of participants. First of all, the MOOC was intended to help students of official Bachelor's degrees in any field of specialty (Experimental Sciences, Health Sciences, Social and Legal Sciences, Humanities, Technical Education and Humanities). In addition, the MOOC also addressed faculty of official university degree courses who were interested in following a scaffolding methodology for their students in the final degree courses who are not very familiar with the writing of academic papers (Da Cunha, 2016). As many as 1422 students participated in the first course edition which included a questionnaire for research purposes as we discuss below.

3.3. Timing

The course was intended to have a maximum duration of 25 hours as student load and, therefore, it consisted of approximately 4 weeks, which also allowed students to have a flexible pace of work. The MOOC was firstly announced in October 2020. The course started on February 15, 2021 and ended on March 15, 2021.

3.4. Video clips

The MOOC was based on the IEDRA web-platform which follows the *UNED Abierta* educational structure for most courses³. To begin with, participants were given some guidelines to understand how this type of courses worked. As explained above, these brief courses made a relevant use of short videos in the form of video clips as an essential e-learning resource. They were distributed within the different modules which revolved around relevant content for learning how to organise academic information and write final degree papers. Each module included a number of open questions, such as those found in Table 1, to raise interest on the course topics concerning each module.

³ For an overview of the courses offered by *UNED Abierta* visit the following website: <https://iedra.uned.es/>

Table 1. Module open questions

Module	Open Question
Module 1	<ul style="list-style-type: none">• What is a final Degree paper (TFG)?• What are the stages and the structure that I must follow for its preparation?
Module 2	<ul style="list-style-type: none">• What strategies should I follow in order to write a good abstract and choose the right key words?• How can I write a good introduction?• What should I take into account in order to find an appropriate and attractive title for my final degree paper?
Module 3	<ul style="list-style-type: none">• What steps should I follow to review previous studies related to the topic of my final degree paper?
Module 4	<ul style="list-style-type: none">• What elements should I keep in mind for the design of my own methodology?
Module 5	<ul style="list-style-type: none">• How should I report my results and their discussion?• How can I draw relevant conclusions?
Module 6	<ul style="list-style-type: none">• How can I make citations and include bibliographic references?• What type of information should appear in final annexes?• What other issues should I take into account to include information? (the use of tables, pictures and graphs)

3.5. Tasks

After each video clip a series of tasks were included to let students work on their own knowledge. Self-assessment tests and discussion forums were added so that students could raise their related questions. Finally, a course-evaluation survey was delivered to all participants to conduct future research and to check the validity of the design.

Not all the participants completed the survey but we obtained a total of 182 students' responses. According to 95.6% of respondents, the course fulfilled their expectations, and 95.6% would recommend it. The degree of satisfaction was measured through a 1- 4 Likert scale. The most valued aspects of the course were: the video clips (3.38), the topics addressed (3.36), their own learning process (3.34) and their understanding of the course contents (3.34).

3.6. Forums

As mentioned above, being part of MOOC forums is crucial for collaboration. The level of discussion and interaction is helpful for knowledge acquisition and to enhance the effects of learning (Zhao et al., 2014). To support students' participation, a tutor was hired to exclusively focus on keeping the large group's forum discussions. Students not only exchanged ideas and shared queries, but could also benefit from co-building knowledge with their peers.

4. Conclusion

Writing Bachelor's Degree Final Projects (TFG) is one of the main concerns of students enrolled in universities today. The MOOC presented in this paper crucially revolves around the main steps required to complete TFGs, addressing large groups. According to most respondents the implemented scaffolding strategy with and through videos was motivating since they felt inspired to take action during the TFG writing process. Arguably, this approach led to the development of a high-quality educational system which is accessible to all students worldwide. In other words, an e-learning platform such as this can improve traditional education methods in distance learning, especially, for large groups. The question is how, if ever, students might take further responsibility for their own learning process, but this remains open for future research.

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