Propuesta metodológica para el diseño del proyecto de curso virtual: aplicación piloto

A methodological proposal for the project design of the online course: Pilot application

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RESUMEN

Para que un curso virtual se realice de forma adecuada, debe proyectarse correctamente. El objetivo de este artículo es proporcionar una metodología para diseñar un proyecto de curso virtual, evaluarlo y seguir su realización. La metodología propone el seguimiento de las seis fases siguientes: análisis del problema educativo; justificación y objetivos del proyecto; propuesta de perspectivas del proyecto; planificación pedagógica, operativa y económica; proyección de resultados esperados, evaluación continua y seguimiento del proyecto. De acuerdo a la metodología, se proyectó e implementó el curso virtual "Uso de rúbricas para evaluar las actividades de aprendizaje en línea", que se impartió en una universidad a distancia en Polonia. Aunque los participantes valoraron el curso positivamente, sus opiniones sugieren la necesidad de mejorar los elementos pedagógicos. Este proyecto permitió obtener respuestas a las preguntas fundamentales que plantean las decisiones centrales implícitas en el proyecto de un curso: ¿qué se piensa hacer?, ¿por qué?, ¿para qué?, ¿cómo?, ¿cuándo?, ¿quiénes lo van a hacer?, ¿cuáles son los recursos con los que se va a desarrollar y financiar? Se concluye que la metodología propuesta puede constituir un marco de referencia para las universidades que quieran crear un curso virtual de calidad, ya sea en Polonia o en otros países.

ABSTRACT

In order for an online course to be properly carried out it must be properly planned. The goal of this paper is to provide users with a methodology to design, assess and follow up a good quality online course project. The methodology proposes six phases to be followed in order to accomplish the task: analysis of educational problem; justification and purposes of the project; proposal of project's perspectives; education, operational and financial planning; project's expected results, and project tracking and assessment. The proposed methodology allowed designing and carrying out the online course project called Rubrics for Assessment of Activities of e-Learning which was given at the Distance University of Poland. Even though the course was highly assessed by its participants, their comments imply the necessity of a more careful planning of the pedagogical components of the course. Despite this weakness, the project allowed to obtain answers to the main questions raised by decisions to be made when planning a course: what is intended to be done?, why, what for?, how?, when?, by whom?, with what resources and funds?. It is concluded that the proposed methodology may constitute a reference framework for the universities that wish to plan a high quality online course, both in Poland and in other countries.

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INTRODUCTION

There is no doubt that to carry out a virtual course it is necessary to have a project previously designed that constitutes a guideline for all those involved in its development and implementation and, that guarantees that all the information concerning the course, its developers, the source of the resources used, etc., is made available to those involved or other groups of interest. Many a time, good projects fail due to the lack of appropriate design. This has been confirmed by Universidad Oberta de Catalunya (UOC, n.d.) [Open University of Catalonia] that considers a virtual learning program as appropriate if it is well designed and is useful if adequately managed. On the other hand, Orellana, Hudgins and Simonson (2009) admit that a perfect virtual course is "a dream". However, it is possible to get close to perfection. To do so, it is essential to ensure the quality of the phase of design of the project and sustain it throughout its development, which poses the greatest challenge (McVay & Roecker, 2007).

In that regard, it is important to point out that there are no formulae or prescriptions to design a virtual course project. Every project is unique; its structure and operation depend of the objectives, contents, users and budget set. However, there are some methodological proposals that help develop such projects (See Table 1).

Tabla 1. Some Proposals to Design an Online Course Project

Author	Year	Description
IIPE-UNESCO	2007	This author proposes four phases to develop ICTs projects: 1. Select and describe curricular and pedagogical problems 2. Design the project outline. It should comprise the ICTs work objectives, goals to attain, resources, actions, evaluation and types of technological products to be achieved. 3. Investigate the feasibility conditions to make the designed project happen 4. Obtain timely and relevant information allowing the follow-up of the previous phases.
Meza	2012	The author proposes the following methodology to devise virtual educational projects: 1. Consider the aspects for the development of online course 2. Describe the target population 3. Identify the ideal profile of the target user 4. Submit the learning conception 5. Develop a pedagogical proposal

ESVIAL	2013	The methodology to design an accessible online course project, created by the participants of the ESVI-AL project, consists of seven phases, from the planning of the project, the implementation to the evaluation. The planning phase consists of the following sub-phases: 1. Analysis of the necessity (identify and describe the project requirements, demands, restrictions and objectives) 2. Analysis of the framework (identify the project framework and context and planning) 3. Conception/design (design the Project didactic elements)

Source: Developed by the author.

Notwithstanding the differences in number of phases and their names, each one of the methodologies presented in Table 1 offers common elements such as the basic phases of design of online course project. These phases are: define the project objectives, identify and characterize the recipients and design a pedagogical proposal.

In our opinion, said phases are essential for the design of an online course project but they do not suffice since they do not propose the prospective, operative, assessment and follow-up phases of the project, among others. Not meeting these phases means lacking the information and the framework of the possible decisions necessary to go forward with said design.

To fill this void, the objective of this article is to propose a methodology applied to the design of a course project carried out through a virtual method and make known the phases such design implies. The methodology proposed is used to design and teach the online course "Use of captions in the evaluation of activities of online learning" carried out at the Faculty of Business Administration of the Universidad a Distancia de Polonia [Polish Distance University] at the beginning of the 2014-2015 academic year.

CONCEPT OF ONLINE COURSE PROJECT

The project is defined based on different perspectives. Among the key words used to describe them are: plan, team, resources, activities, temporalization, unique, creation, transmission state (Richardson, 2014). Based on this diversity of standpoints, it is difficult to establish a universal definition of project that comprises all the terms aforementioned, notwithstanding how much they say about the elements of a project. The Project Management Institute (PMI, 2013) defines "project" as a temporary undertaking executed to create a new product, which provide a unique service and obtains a unique result. The Asociación Española de

Normalización y Certificación [The Spanish Association of Normalization and Certification] supplements this description by pointing out that a project is a unique set of processes consisting of coordinated and controlled activities with start and finish dates with the object of achieving a goal and solve a problem (AENOR, 2012). On the one hand, Pérez and Gardey (2015) offer a similar definition that uses the concept of project to name a set of actions executed in coordination with the objective of attaining a goal.

A "course" refers to the study of a subject developed with unity and also to the treaty on a subject explained or destined to be explained during a certain time (RAE, 2014), as well as to longstanding training (GROC, n.d.). The word "virtual" indicates that said action is carried out through the Internet in some place that is not the classroom where the teacher is teaching (UNC, 2016).

After these clarifications, we can focus on the concept of online course project. For Phillips, McNaught and Kennedy (2012), it is a simple and clear image of what is going to be taught and how it is going to be taught. González, Esnaola and Martín (2012) link this concept to the general planning of the course, understood as the design by which educational goals are expressed. It does not refer to a mere set of techniques but rather considers "the different scenarios", restrictions and possibilities of the same (p. 19).

On the other hand, according to Shackelford (2002), the e-learning project is the "license" to carry out the didactic process in a virtual mode, According to the author, while defining the project, we identify:

- The problem to solve.
- The vision of the final e-learning product and its main features.
- The objectives and scope involved.
- The priorities relative to time, cost and quality.
- The risk of the project.
- The communication methods among the different groups of interest of the project.

On the other hand, for Barabasz and Wiśniewska (2012), the project of a course taught through virtual mode is a fundamental methodological document that constitutes the basis of the distance teaching process and presents the didactic concept and clear training objectives intended to be met as well the training results expected.

By way of conclusion of the foregoing definitions and based on the above, we will define what we understand by online course project. It is a training proposal that someone intends to carry out through a virtual mode. It can be said that an online course project entails a process of planning training
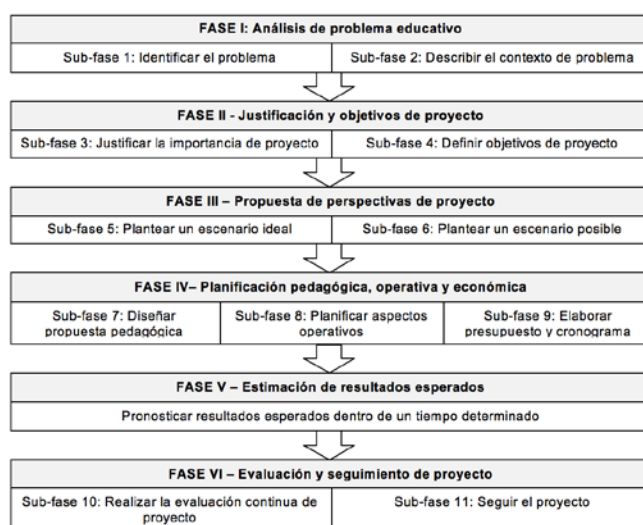
objectives for a determined period of time, activities and other elements necessary to achieve said objectives and develop the teaching-learning process of a subject taught through said mode.

The product resulting from this process is the general plan of the online course which main objective is to solve, in a precise and well organized manner, a training problem identified previously, by taking into consideration the human as well as material, technological and financial resources available. In general, said plan must offer responses to fundamental questions arising from its implicit central decisions, such as: what is the training problem?, who has it?, how is it going to be solved?, why should it be done?, how is going to be done?, who is going to do it?, what is going to be used to do it?, how much is it going to cost?, when is it going to be done?, what are the expected results?, how do we know we are doing right? All of these questions should be answered when designing an online course project. All are important.

THE METHODOLOGY PROPOSED TO DESIGN AN ONLINE COURSE PROJECT

Designing an online course project requires the adequate organization and planning of a set of phases, sub-phases, activities and assignments that imply the development of virtual learning settings. Therefore, it demands the development of a plan in which the definition of objectives, actions, activities and resources is properly specified in its temporal development (Marciniak, 2016).

In this article, we aim at designing an online course project by following the methodology presented in the following figure.

FASE I: Análisis de problema educativo	
Sub-fase 1: Identificar el problema	Sub-fase 2: Describir el contexto de problema

FASE II - Justificación y objetivos de proyecto	
Sub-fase 3: Justificar la importancia de proyecto	Sub-fase 4: Definir objetivos de proyecto

FASE III – Propuesta de perspectivas de proyecto	
Sub-fase 5: Plantear un escenario ideal	Sub-fase 6: Plantear un escenario posible

FASE IV– Planificación pedagógica, operativa y económica		
Sub-fase 7: Diseñar propuesta pedagógica	Sub-fase 8: Planificar aspectos operativos	Sub-fase 9: Elaborar presupuesto y cronograma

FASE V – Estimación de resultados esperados
Pronosticar resultados esperados dentro de un tiempo determinado

FASE VI – Evaluación y seguimiento de proyecto	
Sub-fase 10: Realizar la evaluación continua de proyecto	Sub-fase 11: Seguir el proyecto

Figure. Methodology proposed to design an online course project.

According to the figure, the design of an online course project is divided into six phases and eleven sub-phases described below.

Phase I. Analysis of the educational problem

This phase is made up of two sub-phases and it aims at identifying and acknowledging a training problem that can be solved through the support of digital technologies.

a) Sub-phase 1. *Identify the educational problem* | Every project begins with a problem. If there is no problem, there is no project. Therefore, the first fundamental question in designing an online course project is to identify an educational problem that can be solved through the support of a virtual mode.

b) Sub-phase 2. *Describe the context of the problem* | At this point, we must approach those that have the problem with the subject or course that causes a dilemma.

Phase II. Justification and Objectives of the Project

The objective of this phase is to justify the choice of problem to develop the project and define its objectives. This phase is divided into two sub-phases:

a) Sub-phase 3. *Justify the importance of the project* | Justification is one of the first tasks of any project and is key to its subsequent design and approval from the institution. Therefore, justification must show the need and importance of the project being proposed to solve the problem identified in the previous phase. It is also important to explain the reason why an online course would be relevant.

b) Sub-phase 4. *Define the objectives of the project* | After having identified the educational problem and justified the project, we can define the objectives (general objective and a limited number of specific ones).

Phase III. Proposal of Project Perspectives

This phase, consisting of two sub-phases, proposes to the reader a future that projects a "prospective" or "scenario" of what to expect from the project within a specific time frame. According to Straw (2015), two scenarios have to be described, the ideal scenario and the possible one:

a) Sub-phase 5. *Create an ideal scenario* | At this point we have to consider what would happen if the project should be carried out (what is to be gained from the project).

b) Sub-phase 6. *Create a feasible scenario* | At this point we should state what would happen if the project does not come through (what is to be lost).

Phase IV. Pedagogical, operative and economic planning

This is the core of an online course project. It shows the general pedagogical model of the course, learning practices and technologies, didactic material, tutorial, course administration. Moreover, all the expenses for the development of the course and its time frame are planned at this level. This phase is divided into three sub-phases:

a) Sub-phase 7. *Design the pedagogical proposal* | At this point, the reader is to be informed of the pedagogical aspects of the project. According to the Council on Higher Education (CHE, 2014), the people involved in the project must explain not only the choice of the subject to be taught and the reasons of choosing said subject, but also the way the teaching-learning process will be carried out.

b) Sub-phase 8. *Plan the operative aspects* | At this point, the focus is on seeking a way of communicating how the project is going to operate once it reaches the implementation phase. According to Prieto (2012a), the following points of the operative aspect of the online course project will have to be described: appropriate learning technology, study material, tutorial, system administration and evaluation.

c) Sub-phase 9. *Create the budget and the time frame* | In order to carry out the project and attain the goals set, it is necessary to establish an expenditure budget and a time frame (Gulsun & Yuzer, 2013). The first must include all the financial resources to be invested in the project, while the second, must show, through a graph, a proposal of the time needed to prepare and implement the project.

Phase V. Projection of the results expected

This phase describes what we should expect from the execution of the project within a specific time. Prieto (2012b) claims: "The results expected must always lie within personal, group and material possibilities of those involved in a specific project [...]. Results are a code to visualize what the execution of the project will really give back" (p.8).

Phase VI. Project Ongoing Evaluation and Follow-up

The object is to plan how the project is going to be evaluated and followed up to make sure that the course is being carried out as expected. This phase comprises two sub-phases

a) Su-phase 10. *Carry out the project ongoing evaluation* | "The evaluation of a project provides ongoing information on the progress of the same. This information allows improving the project through feedback "(Barbosa & Guimarães, 2013, n.p.). However, when evaluating a project, it should be clear that the methods and indicators used to measure the project throughout its implementation will not be the same, i.e., during the three stages of the evaluation: initial, development and end. Each stage of the process must be observed in detail. (Marciniak, 2016).

b) Sub-phase 11. *Follow the project* | At this stage, the project follow-up will be explained, i.e., see what is going on in regard to the results expected during the course and end of the project.

EMPIRIC APPLICATION OF THE METHODOLOGY PROPOSED

The methodology proposed was applied to the design and implementation of the course "Use of Captions in the Evaluation of Activities of Online Learning" carried out at the Faculty of Business Administration of the Universidad a Distancia de Polonia [Polish Distance University] (hereinafter FADEUD) to prove the efficiency of the method. The course was taught in the first semester of the 2014-2015 academic year.

Aware of the limitations imposed by the type of article, next, by way of example, we share most of the designed project and indications with the reader as how every phase and sub-phase of the methodology proposed is developed. For the presentation, we used present and future tenses according to the way we developed and presented the project to the person responsible of the development of human resources of the university aforementioned, to receive his permission to teach the course.

Phase I. Analysis of the educational problem

We begin our project by identifying and describing the problem. In the first sub-phase, we describe the problem and in the second, who has the problem.

a) Sub-phase 1. *Identify the educational problem* | During the course, every student at the FADEUD must participate in discussion forums and give his/her opinion on the topics proposed. The student must also prepare and submit practical assignments and a final work on the date set. For all the activities, the student will receive grade points. The final grade, according to the rules of evaluation of studies, consists of the points given for:

- Practical assignment: 20 points maximum.
- Final course assignment: 30 points maximum.
- Forum debate activity: 40 points maximum.

- Additional points available for the tutor: 10 points for the whole course.

Students know this grade. However, in the satisfaction surveys, they complain about not knowing how grades are allotted or how they can receive the maximum grade for each activity since there are no criteria established or standards well defined of the evaluation of their activities. In their opinion, said grade is not sufficient to evaluate in a professional, objective and consistent manner the activities they carry out. This is the reason for which the ongoing evaluation of the learning activities executed by the students has become a great problem for online teachers and one of the most unpleasant tasks for them.

To solve this problem, we carried out a brainstorming session with the affected online teachers. The idea that gained most interest was the application of captions in the evaluation of all the activities completed by the students. Teachers decided to create the captions aforementioned and place them in the virtual classroom of every subject before beginning the course so the students would know from the beginning what is expected from them and provide them with the criteria by which their activities would be graded.

Even though captions are known and used for the evaluation of the activities executed by the students in some universities of the country, at FADEUD, captions are not used as an efficient tool for said evaluation. Teachers do not know how to use them properly. In order for the professors of said faculty to know captions, their types, benefits and how to design them, we decided to offer them an online course on captions as ongoing evaluation tools of learning activities carries out by the students.

b) Sub-phase 2. *Describe the context of the problem* | The problem concerns some 44 FADEUD online professors who, at the end of each module of their course or entire course, must face the professional responsibility of evaluating learning activities carried out by the students. Most of them are full time university professors, with a Ph.D., and 35% of them are distinguished service professors.

The problem in evaluating learning activities concerns both professors and students of the first cycle of Business Administration and Management (860 students). The later are Polish and older than twenty-one years of age (thirty-six being the average age), have a training in business administration, business or economics sciences, law or other social sciences, and may be practicing or not.

Phase II. Project Justification and Objectives

In order to obtain the authorization to develop the human resources course, we had to convince the university that by solving the problem aforementioned, she would benefit from it. Hence, we justified the project and presented its objectives.

a) Sub-phase 3. *Justify the importance of the project* | For the online university professors, the creation of an evaluation tool that would allow them to specify clearly what to expect from the students and provide them with the criteria to qualify their students' learning activities justify sufficiently the need of a course on evaluation captions for the activities aforementioned.

Other aspects that underline such need are as follows:

- Besides the practical knowledge on the development of said captions, the course will allow the participants to respond to some questions such as: what does ongoing evaluation of the activities carried out by the students within e-learning settings mean? Why do we evaluate? Do students need to know the criteria used for their evaluation?
- The e-course mode is justified since the online professors affected by the problem live in different parts of Poland (some even live abroad) and it would be impossible for them to come to the university to participate in a five-week in-class course.

b) Sub-phase 4. *Define the project objectives* | General objective: Implement clear and transparent evaluation system of the learning activities through captions.

Specific objectives: To attain the general objective of the project, we decided to train the professors of said university in using captions for the ongoing evaluation of the activities carried out by the students. To do so, it is necessary to:

- Design and implement an e-course on evaluation captions through the university virtual platform.
- Promote among professors the use of captions as efficient tools for the evaluation of the learning activities carried out by the students.
- Foster the didactic competencies of the professors attending the course.

Phase III. Proposals of the Perspectives of the Project

To underpin the importance and necessity of the course and show what the university can achieve by evaluating the learning activities through captions, we have developed the most feasible and ideal scenario.

a) Sub-phase 5. *Develop an ideal scenario*

- The professor establishes detailed assignment rules during the course, defines his expectations in a clear and unambiguous manner and provides the criteria that will be used to qualify the competencies previously defined through activities and finally, informs the students.
- The process of evaluation of the learning activities is not concealed. The students understand very well what is expected from them.
- It facilitates the process of evaluation of the learning activities and the professors perceive it as a clear and transparent objective.

b) Sub-phase 6. *Develop a feasible scenario*

- The culture of the university shows a clear tendency to prioritize the importance of the final exam assignment over the ongoing learning evaluation. Therefore, the evaluation focuses on the final stage and, in general, is conceived to pass the course more than to learn. Hence, the students dedicate their efforts to what is being evaluated and are not aware of their personal learning progress.
- In general, the majority of online professors find the need for a thorough review of some evaluation instruments for the learning activities quite unpleasant.

Phase IV. Pedagogical, Operative and Economic Planning

At the beginning of Phase IV (Sub-phase 7) we developed the course pedagogical proposal that comprised all the elements necessary to the development of the teaching-learning process. Next (Sub-phase 8), we shared how the course would function after its implementation. Then, we planned the budget of the course which included all the human, material and other essential expenditures to carry out the proposal. Said phase ended with the development of the whole time frame of the course in which we established all the phases and sub-phases.

Aware of the limitations imposed by this type of article, we present some of the aspects of the pedagogical proposal and the project operational objectives.

a) Sub-phase 7. *Develop a pedagogical proposal*

Recipients of the course | The course aims at the FADEUD online professors who face the challenge and have the responsibility of managing new programs designed to evaluate the learning activities carried out by the students of said university.

Course Objectives | The general objective is to enable the online professors, i.e., the participants of the course, to define an evaluation caption, analyze it in terms of learning level and quality of the student, identify the stages of development and create some examples of captions based on the learning expected, and lastly, apply these criteria to the ongoing evaluation process of the courses being taught.

Course Content

The course will consist of five units:

- Unit I will focus on the field of evaluation of the learning activities and its components showing its indicators and procedures. Moreover, the problematic of the system and the evaluation techniques will be raised.
- Unit II will focus on the topic of the ongoing evaluation of the learning activities in virtual settings, its functions, characteristics and types.
- Units III and IV focus on the evaluation captions, their conception, use and development procedure.
- Unit V will focus on the topic of e-captions which are online tools to design and construct evaluation captions. The emphasis will be placed on the identification and application of several online tools to design and create e-captions.

In Table 2, we delve into the thematic content of the course proposed more in depth.

Learning activities

The objectives of the course are attained based on the development of learning activities adapted to the characteristics of the course. The activities will be based on the application of knowledge of situations adapted to the online professors' personal work settings. To do so, the activities described in Table 2 will be proposed during the course.

Table 2. Learning Planning Map

Objectives	Materials	Activities	Time
Comprehension of the Basic concepts related to the ongoing evaluation of the students' learning activities, as well as its components, inductors, systems and techniques.	Unit 1. Introduction to the evaluation of the learning activities: 1.1. Evaluation of the activities and components 1.2. Indicators and procedures for the evaluation of the learning activities such as student's performance paradigm 1.3. Selection of evaluation techniques and instruments for learning activities	Reading of Unit I Forum debate on how to improve the current system of learning activities evaluation	5 hours
Approach the key elements of the ongoing evaluation of e-learning settings (EVA)	Unit 2. Learning activities evaluation through EVA: 2.1. Learning activities evaluation and EVA 2.2. Functions, characteristics and types of evaluation in EVA 2.3. Activities to be evaluated in an ongoing manner in EVA 2.4. Strategies of the evaluation of learning activities in EVA	Reading of Unit 2 and of materials indicated by the online professor Forum debate on the advantages and disadvantages of the ongoing learning activities	5 hours
Understand the relevance of captions for the ongoing evaluation of learning activities	Unit 3. Caption as instrument for the evaluation of learning activities in EVA 3.1. Captions: notion and components 3.2. Caption types and design 3.3. The evaluation of learning activities through captions	Reading of Unit 3 and of the materials indicated by the online professor Visualization of a presentation and a video	5 hours
Design and construct of captions proper to different learning activities proposed by a subject taught through the virtual mode	Unit 4. General procedure to construct captions 4.1. Selection of the objective of the evaluation 4.2. Selection of the concepts (areas or dimensions of the activity) to evaluate 4.3. Identification of the evaluation criteria 4.4. Establishing the number of levels of performance in the grade scale.	Reading of Unit 4 and of the materials indicated by the online professor Activities proposed: Development of captions to evaluate the selected learning activities	5 hours

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	4.5. Formulate the description of criteria of execution of each level and aspect to evaluate		
Use different online tools to design and construct e-captions	Unit 5. Online tools to design and construct e-captions: 5.1. ¿What is an e-caption? 5.2. Types of e-captions and evidence 5.3. Case study. Description of good practices in the use of e-captions in teaching at university level 5.4. Online tools to design and create e-captions	Reading of Unit 5 and of the materials indicated by the online professor Access and describe the online tools indicated by the online professor in order to design and construct e-captions	5 hours

Source: Developed by the author.

Didactic Materials

For each one of the five units of the course, the online professor responsible of the course will prepare the corresponding e-class and the didactic unit. The participant will have access to the didactic material (basic and supplementary) from the course e-classroom.

Didactic materials to be designed or selected for their inclusion in the course are as follows:

a)   Productive text

b)   Articles

c)   Multimedia

Learning evaluation

The evaluation strategy used is the ongoing evaluation based on the development of the five activities proposed, i.e., two debates and three practical assignments carried out during the course and which will be

evaluated by the online professor according to the criteria established in the captions used to evaluate the practical work consisting in creating some captions (See Table 3) and in the caption to evaluate the forum debate (See Table 4).

Table 3. Caption to evaluate the practical work: develop evaluation captions of the learning activities

Grade per Achievement Level				
Concepts to be evaluated	Inadequate (5 points)	Place for improvement (10 points)	Satisfactory (17 points)	Excellent (25 points)
Caption	The criteria or concepts need to be reviewed	Some of the concepts and criteria are inadequate for the desired evaluation	Partially meet the adequate concepts and criteria by specifying the desired evaluation	Meets the adequate concepts and criteria by specifying the desired evaluation
Quality Scale	The quality scale is not located on the top horizontal row	The quality scale is located on the top horizontal row without graduation	The quality scale is located on the top horizontal row with graduation but does go from better to worse	The quality scale is located on the top horizontal row with graduation that goes from better to worse
Captions Concepts	Concepts need to be revised	Some concepts are not appropriate or numbered appropriately and are not well chosen	Partially adequate and numbered concepts as well as partially well chosen	Appropriate concepts, well numbered and chosen
Criteria Graduation	The criteria graduation need to be revised	Criteria are graduated however in an unfair and unbalanced manner	Criteria are graduated in a partially fair and balanced manner	Criteria are graduated in a fair and balanced manner
Descriptor to evaluate concepts	The descriptors are going to be used to evaluate the concepts that required to be evaluated	Some of the descriptors are clearly and precisely described, however few of them explain the characteristics of an excellent assignment from a bad one, and the intermediate variables between one and the other	The descriptors are described in a partially clear and precise manner. They partially explain the characteristics of an excellent assignment from a bad one and the intermediate variations between one and the other	The descriptors are clearly and precisely described. They explain the characteristics of an excellent assignment from a bad one and the intermediate variations between one and the other
Spelling	Has many spelling, stress marks [in Spanish] or verb declination mistakes	(Has spelling, stress marks [in Spanish] or verb declination mistakes (from four to six)	Has few spelling, stress marks [in Spanish] or verb declination mistakes (maximum three)	Has no spelling, stress marks [in Spanish] or verb declination mistakes and has good composition style

	(more than six)			
Delivery time and form	Was submitted after the deadline and in an undue manner	Was submitted after the deadline but in due manner	Was submitted on time but not in due manner	Was submitted in due time and manner

Source: Developed by the author.

Table 4. Caption to evaluate the debate during the forum

Objectives / criteria	Performance Indicators			
	Not done (0 points)	Needs to improve (7 points)	Very good (14 points)	Excellent (20 points)
Participation	Does not participate in the forum	Participates in the forum with at least one intervention	Participates in the forum with at least two interventions	Participates in the forum with at least three interventions. Responds to the online professor additional questions
Importance of the topic and new ideas	Makes interventions but does not show any interest for the topic or contributes with new ideas	The interventions show some interest for the topic but does not contribute with new ideas	The interventions show the importance of the topic, contributes with new ideas but does not justify them	The interventions show the importance of the topic, and provides new ideas and justifies them
Quality of the interventions	Interventions are not clear precise or respectful	Interventions are not very clear, precise or respectful	Interventions are clear, precise and respectful	The interventions are very clear, precise and respectful. They show a good management of the topic
Interaction with online classmates and professor	Does not establish a dialogue with the online classmates or professor	Does not achieve to establish accurately a dialogue with the online classmates and professor. Scarce contribution in the construction of new ideas	Establishes a dialogue with the online classmates and professor. Contributes with the construction of new ideas	Establishes a dialogue with the professor; debates and defends new ideas,

Source: Developed by the author.

b) Sub-phase 8. *Define the Operative Aspects*

Modality and duration of the course | The modality of the course will be virtual and will have a thirty-hour duration over a five-week period.

Communication Tools | Since the course will be carried out exclusively online, the different communication tools, both synchronous and asynchronous, available on the platform (forum, chat, e-mail, among others) will be developed and exploited with special attention.

Handing over Activities | The student will hand over the completed activities through the classroom assignment box which is for the exclusive use of the online professor.

Planned Tutorial | Two simultaneous groups of 22 participants each are required to address the demand. Only one online professor will be assigned to each group and said professor will attend two commissions. The online professor will carry out his task by means of the following tools:

- Online teacher's board
- Debate forum
- Open space forum
- Resource space
- Evaluation space

Course Registration | Course enrolment will be through the Information Department and Online Enrolment of the university exclusively.

All FADEUD online professors may enroll in this course, specially those professors with grade subjects already implemented, professors that will implement grade subjects or professors who wish to delve into the skills to be developed in an ongoing evaluation setting.

Online Setting Operation | The course will be carried out on the MOODLE platform specifically configured for this course. An administrator will be needed to ensure the proper operation of the platform throughout the course. Said administrator will be in charge of entering all the functions of the configuration of the e-course as well as update the platform information and computer maintenance.

The other figure involved in the course will be the online teacher who will also be the teacher-creator of the course. As teacher-creator, he will be in charge of organizing the course and distribute its content the tools and resources available in the platform. As on-line teacher, he will carry out tutorials with the students and, among his tasks, he will follow up on the course participants and support them in their activities, as well as evaluate their activities and offer them feedback and grade the students' assignments.

c) Sub-phase 9. *Develop the budget and the time frame*

For the execution of this project and the attainment of the goals set in it, 7,580 euros will be invested and distributed among the items of every row (See Table 5). The budget does not include fixed expenditures since we will be working with the university platform and hardware. Moreover, the coordinator of the project, who is one of the university professors, will be in charge of the coordination of the project in his place of work (office).

Table 5. Project Budget (gross budget)

Aspects	Measure Unit	Quantity	Price per unit	Total
Project Management				€2 430
Wages of the project coordinator (contract per project)	Month	4	€ 500	€2000
Wages of the employee of the Department of Finances (contract per project)	Month	1	€100	€100
Wages of the employee of the Employment Department (contract per Project)	Month	1	€100	€100
Cost of telephone calls	Month	3	€50	€150
Purchase of USB Flash 4 GB	Unit	2	€15	€30
Cost of office supplies/office	Month	4	€50	€50
Course promotion and participants enrolment			€750	
Cost of the preparation of promotional material (contract per project)	Service	1	€200	€200
Cost of the printing of promotional material	Month	21	€100	€100
Wages of the graphic designer (contract per project)	Month	1	€300	€300
Wages of the employee of the Students Recruiting Department (contract per project)	Month	1	€150	€150
Implementation of the				€4 400
Cost of the preparation of the didactic material (contract per project)	Hour	40	€30	€1.200
Wages of the online professor (contract per project)	Hour	60	€30	€1800
Wages of the e-classroom administrator (contract per project)	Month	3	€400	€1.200
Cost of course certificates	Unit	40	€5	€200
TOTAL (I+II+III)				€7 580

Source: Developed by the author.

The time frame presented in Table 6 includes the course and other additional activities that need to be carried out in order to implement the project of the course proposed.

Table 6. Time frame of the project (year 2014)

Month	7				8				9				10			
Week	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
I. PREPARATION OF THE PROJECT	■	■	■	■	■											
Development of the e-course project	░	░	░	░												
Presentation and approval of the project by the university					░											
Personnel involved: coordinator of the Project, employee of the Employment Department																
II. PROJECT MANAGEMENT						■	■	■	■	■	■	■	■	■	■	■
Employment of the participants of the project (signature of project and service contracts, tasks assignment)						░										
Preparation of reports and file of the project documentation									░	░	░	░	░	░	░	
Personnel involved: employee of the Employment Department, Project coordinator , employee of the Finance Department																
Course promotion and participants enrolment																
Development of promotional material of the course and enrolment									░							
Development of course (leaflets, e-mails, ad son the university website)									░	░						
Process of participants enrolment									░							
Personnel involved: project coordinator, employee of the IT service, graphic designer, employee of the Student Recruitment Department																
Course Development									■	■	■	■	■	■	■	
Development of training material																
Training of the course participants											░					
Organization of the course e-classroom									░							
Development of the course material									░							
Publishing of the e-classroom material											░					
Development of the course according to the course time frame													░	░	░	
Evaluation and analysis of the course development																░
Personnel involved: Project coordinator, online professor, e-classroom administrator																
Project Completion																■
Analysis of the project results																░
Project follow-up									░	░	░	░	░	░	░	░
Personnel involved: project coordinator																

Source: Developed by the author

Phase V. Projection of the results expected

One year after implementing this project, we expect that the totality of the 44 university online professors:

- Create and use captions for the ongoing evaluation of the students' activities.
- Evaluate said activities on an objective and consistent basis

- Provide the students with clear standards and acceptable performance models.
- Encourage the students to reflect on their learning experience through self-assessment.
- As a result of the above, the 860 students of the first cycle of Business Administration and Management will know how they are evaluated.
- 80% of the students are expected to receive feedback on their strengths and weaknesses to identify areas for improvement.

Phase VI. Ongoing evaluation and project follow-up

At this stage, we discover how, during the project life cycle, the three major phases: initiation, development and closure, are evaluated. The object of this evaluation is to review, at the beginning, the planning, organization and preparation of the course and know if it can be offered, if it is performing well and verify if the objectives proposed have been attained (measure the effects). Moreover, we propose a set of activities to follow the project and ensure its proper evolution.

a) Sub-phase 10. *Carry on the project ongoing evaluation*

In Table 7 we present the time frame of the ongoing evaluation process, the techniques and indicators planned for said evaluation.

Table 7. Project time frame, techniques and ongoing evaluation indicators

Type of Evaluation	Evaluation Period	Data Collection Techniques	Indicators
Initial Evaluation	One week before the beginning of the course	Analysis of the documentation available as database of the participants, promotional materials, project documentation Non-participative observation of the course e-classroom	Those responsible of the project are fully trained to do so. The project has the sufficient resources to ensure the quality of its development The platform is ready to start the course.
Process evaluation (development)	Third week of the course	Online survey with the course participants Analysis of the documentation available (reports and protocols) Non-participative observation of the course e-classroom	The teaching strategies used by the online teaching are appropriate to attain the objectives of the Project 90% of the students follow the course regularly and submit their activities in time and form The time frame of the course is met

Final Evaluation	One week after the closure of the course	Online survey with the participants of the course Analysis of the documentation available (reports and protocols) Non-participative observation of the course e-classroom	The project objectives have been attained satisfactorily The resources used were in line with the results obtained 90% of the participants complied with the activities proposed, and 90% confirmed being able to use captions in their next course

Source: Prepared by the author.

b) Sub-phase 11. *Follow the project*

In order to ensure a successful follow-up of the project, we propose the following actions:

- Reflection workshop.
- Interviews with the recipients (course participants), with the participants that abandon the course or do not attain its objectives and with other members involved in the project.
- Self-evaluation of each phase of the project.

COURSE ASSESSMENT

After completing the course, the information is collected to identify its strengths and weaknesses, and to study the possibility to improve the methodology suggested. To this end, we conducted an e-classroom survey with the 44 participants of the course. The questionnaire was voluntary and anonymous; however, all the participants filled it out.

The survey included questions on different aspects of the course such as the importance of this course on the participants' professional development, the quality of the didactic material offered, of the learning activities, the tasks carried out by the online professor and the course e-platform. The participants used the criteria established in the caption to assess the survey (See Table 8). Furthermore, the participants were asked to enumerate the three main constraints and the three strengths of the course. The results of the survey are shown in Tables 9, 10 and 11.

Table 8. Caption for the course evaluation

Question	Evaluation			
	1 (Poor)	2 (Satisfactory)	3 (Good)	4 (Very Good)
Do you consider the content of the course as being important for your professional development?	The course was not important for professional development	The course was not that important for professional development	The course was quite important for professional development	The course was very important for professional development since it covered a training void in the field of evaluation captions.
How do you evaluate the quality of the course didactic material?	The didactic material was not appropriate for the course	The didactic material was not that important for the course and the participants were not involved in the learning	The didactic material was appropriate for the course; however, it motivated the participants very little in getting involved in learning.	All the didactic material was appropriate for the course. It was sufficiently motivating and had different types.
How do you evaluate the learning activities?	The activities were not relevant to the course or not appropriate for the participants.	The activities were relevant to the course but not appropriate for the individual needs of the participants.	The activities were relevant to the course, and were of different types but did not motivate participants to get involved in learning	The activities were relevant to the course. They covered the needs of the participants. They were of different types. The amount was appropriate to the reading load of the course.
How do you evaluate the quality of the explanations given by the online professor to carry out your learning activities?	The professor did not explain how to carry out the learning activities	The professor explained how to carry out some of the activities. However, the explanation was not clear and was not well understood.	The professor explained how to carry out the activities. However, the explanation was not clear and was not well understood.	The professor gave some tips (instructions) on how to carry out the activities. The explanation was clear, precise and well understood.
How do you evaluate the feedback on learning from the online professor?	The professor provided feedback within 86 hours (or more) after the completion of every task	The professor provided feedback within 72 hours after the completion of every	The professor provided feedback within 48 hours after the completion of every	The professor provided feedback within 24 hours after the completion of every
How do you evaluate the tutorial given by the online professor?	The professor did not give any kind of tutorial	The professor gave individual tutorials.	The professor gave only academic individual and group tutorials	The professor gave academic as well as personal individual and group tutorials.
How do you evaluate the quality of the e-	The e-classroom worked very slowly. There	The performance of the e-classroom was quite good. However, its	The e-classroom worked well. It included many	The e-classroom worked well. It included many

| classroom course? | were problems with the connection | interface was very difficult to manage. | tools to manage the course; however, the system did not direct its use. | tools to manage the course. Its system directed its use. Easy access to the menu. |

Source: Developed by the author.

Table 9. Results of the course satisfaction survey

Question	Average Grade
Do you consider that the content of the course was important for your professional development?	4,0
How do you evaluate the quality of the didactic material provided?	3.6
How do you evaluate the learning activities?	35
How do you evaluate the quality of the explanations given by the online professor to enable you to carry out the learning activities?	38
How do you evaluate the speed of response of the online professor?	40
How do you evaluate the tutorial given by the online professor?	38
How do you evaluate the course e-classroom?	34

Source: Developed by the author.

Table 10. Evaluation of the main constraints of the course

Enumerate three constraints encountered in the course	%
Lack of e-classroom	81
Lack of personal contact with the online professor	72
Course intensity	67
e-classroom performance problems	63
Lack of group work activities	54

Source: Developed by the author

Table 11. Evaluation of the course main strengths

Enumerate the course three strengths	%
Many practical activities	91
Frequent contact with the online professor	82
Very active debate forum	73
Division of the course into units	6
Online professor's pedagogical competencies	48

Source: Developed by the author

The results of the survey show that the course was very important for the professional development of all the participants. According to their opinions, the major advantages were: many practical activities, very active debate forum, tasks carried out by the online professor (frequent contact with students), quality and clarity of his explanations in regard to the learning activities, speed of his feedback), and the quality of the didactic material. On the other hand, the major disadvantages were the lack of e-classroom, face-to-face contact with the online professor, collaborative activities as well as the intensity of the course.

CONCLUSIONS

The different parts of virtual education related to the e-course and virtual university management require improvement (Marciniak, 2017).

The appropriate projection is essential to the success of an e-course. The design of an e-course project must include a methodological framework and a course model as basis to carry out the production of e-courses successfully. To do so, this article addresses the methodological proposal to design an e-course. Said methodology considers that a good e-course project must focus not only on the educational demand offered to the student, the training objectives, the contents and the necessary educational materials and means, but also, on the phases of diagnosis of the educational problem and its context, the justification of the course project, the prospective and the results expected, the operative aspects, the time frame and budget, besides the ongoing evaluation and the follow-up of the project. Once these phases have been met, we have all the information necessary to have a perspective on the future and to proceed to the design.

The pilot application of the methodology in the design and the implementation of the e-course presented in this article allows us to validate it in a real context and prove its utility and great potential to design an e-course project by means of valid phases, among which are: the diagnosis of the problem, prospective, general planning of the course (pedagogical proposal and objectives), planning of the operative aspects, evaluation and follow-up, budget and time frame. Once these have been met, we received responses to the fundamental questions that the project implicit core decisions pose: what do you intend to do? Why do it? Where do it? How to do it? When is going to be done? Whom is it addressed to? Who is going to do it? With what is it going to be done and paid?

Notwithstanding the fact that the course was offered according to the methodology proposed was highly valued by the participants, their opinions indicate some of the course weaknesses, above all in the planning of the pedagogical proposal, the lack of an e-classroom, the lack of activities that promote collaborative work and the intensity of the course which reading load is somewhat inappropriate. These weaknesses pose the need to plan the pedagogical elements more carefully.

In spite of the weaknesses aforementioned, we believe that the use of the methodology developed and presented in this article can go beyond the initial proposal and become a tool with added value, besides knowledge, and that constitutes a benchmark for those institutions that require designing an e-course project in Poland or in any other country.

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