CHALLENGE-BASED LEARNING DESIGN IN HIGHER EDUCATION: A NEW CONTEXT FOR LEARNING BEYOND COMPETENCY APPROACH

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1. Introduction

The Universitat Oberta de Catalunya (Open University of Catalonia, UOC) - an entirely online university with over 50,000 students - has launched the PLA-Niu project and it is designed to be a methodological change in the conception of the subjects to be implemented in the entire range of training of training at the university.

It aims to transform the subjects in the University's programmes into activities designed strictly based on competencies which are aimed at resolving challenges inspired by the professional sphere; to implement a new means of selecting, designing and managing learning resources based on content curation for learning, organising it into specific aggregators for each activity; and to provide a system that enables the production and organisation of training in an agile, flexible and personalisable manner.

With this project we want to respond to the main challenge faced by higher education that is overcoming the gap between university education and the demands of society and the professional world. This gap cannot be accounted for merely in terms of a shortcoming in the relationship between the competencies of academic programmes and the real training needs of lifelong learners, but also involves the mismatch between the design of training models and students' expectations.

2.Project description

The PLA-Niu aims to create a methodological change in the subject design of all the programmes offered by the UOC. According to this methodology, each subject is considered in terms of a sequence consisting of what are known as PLA activities (Figure 1). They aim to ensure that competence-based design genuinely impacts on students' training; to contextualise this training activity in challenges and situations related to the professional sphere or to the students' daily lives by applying the principles of situated learning (Guàrdia, Sangrà, & Ahumada, 2006; Oregon Technology in Education Council, 2007; Stein, 1998; Lave & Wenger, 1991); and to implement a methodology and a system for managing learning resources based on content curation for learning, which links them closely to the learning process.

Strictly speaking, a PLA activity is a compact form of training activity, which is defined based on a situation related to a challenge, is competence-based and designed around the activity to be carried out by the student. The acronym PLA stands for 'Performance Learning Activity'.

(P) PERFORMANCE: The student is guided by a professional or training situation in order to obtain a result related to a challenge.

(L) LEARNING: The aim is to master the skills, knowledge, attitudes and values that arise from the competencies in the programme.

(A) ACTIVITY: The learning process is guided by a continuous assessment activity.

A PLA activity contains the following items: a challenge, competencies, a continuous assessment activity and the Niu.

As shown below (Figure 1), these items are closely interlinked, with the PLA activity acting as a matrix that ensures the educational consistency of all the components in the learning process:
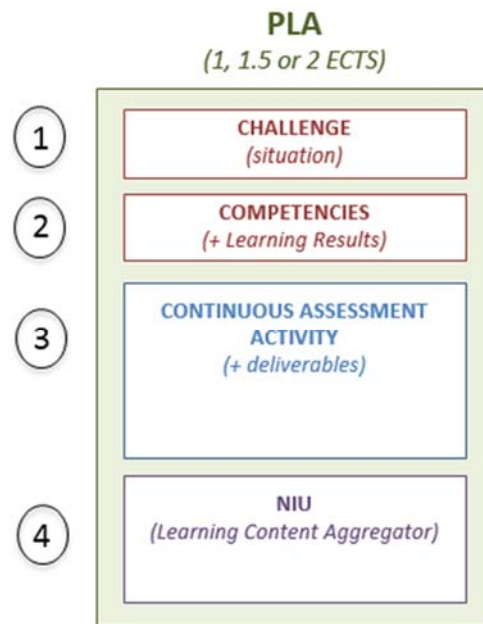
Figure 1

1. **Challenge**. This contextualises the training activity with a situation related to the professional sphere or with an application in everyday life using an approach focused on overcoming a challenge. This challenge is related to the skills and learning outcomes that lead to the PLA.

2. **Competencies** of the programme that are worked on specifically in the PLA activity, specified in the learning results that are to be obtained. These provide the inspiration for the challenge and guide the design of the activity and its deliverables.

3. **Continuous Assessment Activity (CAA)**. This is the learning activity that the student must carry out in order to develop the competencies of the PLA which are contextualised with the challenge. By completing the activity, the student prepares deliverables that act as evidence to assess the PLA. Estimating the minimum time for training that students need is particularly important in the design.

4. **Niu**. The training resources and content required to carry out the CAA successfully. These resources may be produced internally and externally. They are accessible within the PLA by means of a visual aggregator, after a content curation for learning work presents them, highlights their value and contextualises them for use in the training activity.

Therefore, a subject includes different PLA activities that vary depending on the number of credits. (Figure 2)
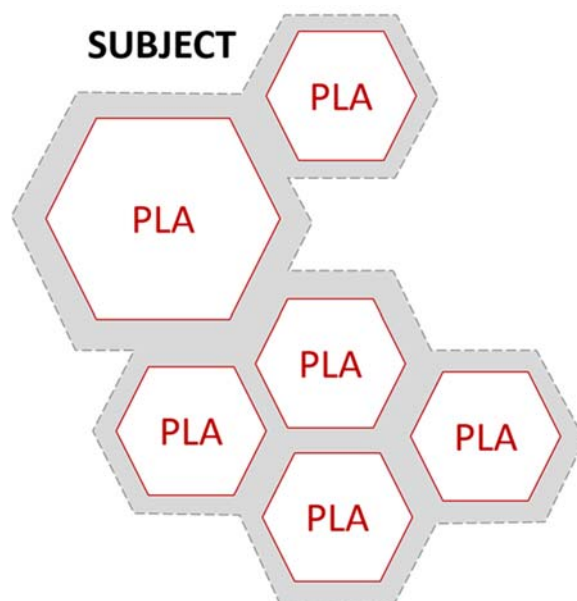

Figure 2

3. Experience of implementation

The implementation of the PLA-Niu project is based on four guiding elements, which ensure the quality of the process:

(a) At the University, **the project is being drived by the Office of the Vice President for Teaching and Learning**, and it is led by the eLearn Center[1] and supported by the Library and Technology areas, with information and communication initiatives for all those involved, and cooperation and teamwork encouraged.

(b) Various **studies of trends in higher education** led by the eLearn Center[2] are used to provide a framework of reference for the PLA-Niu project.

(c) We decided on a strategy of **incremental intervention**, which emphasises the factors that have defined the educational model of the UOC for over 20 years, making them evolve to meet the challenges that will affect education in the coming decades.

(d) The advisory process consists of **personalised and intensive support** for the teachers' work on creating their subjects.

In the long term, the project affects the entire range of training at the UOC. To achieve this objective, its implementation is planned in several phases lasting two months each. Priority was given to the new subjects and programmes, of which a total of 115 are anticipated for the first semester of the 2017–2018 academic year. From November to December 2016, we have carried out the first phase and worked with 51 subjects and 37 faculty members[3] from a total of 262.

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[1] The eLearn Center is the centre for research and innovation in digital education at the UOC linked to Oberta Publishing, the University's content and educational resources production department.

[2] Future Scenarios for Digital Learners (Moyano et al., 2016) and Next Generation Pedagogy: IDEAS for Online and Blended Higher Education (Guàrdia et al. 2016).

[3] The UOC has 262 faculty members responsible for subject design and 2,991 teachers involved in classroom teaching.

4. Lessons learned and next steps

After the first phase had been completed, the project was evaluated, which enabled us to identify areas for improvement and items to be reinforced, and these measures will be implemented in later stages. The evaluations and reflections made led to the following conclusions:

- The process leads to the achievement of a common standard of quality in all subjects. At the same time, it has mechanisms to ensure the PLA-Niu adapts to the specific characteristics of each subject and the application of new training methodologies.

- Fragmentation into PLA activities lays the foundations for the future implementation of a range of training that is more flexible and dynamically adaptable to the demands of learners, to the pace of development of society and to the professional world.

- Personalised advice has an effect on teacher training because it enables teachers to cope autonomously with the design of future subjects. This is expected to have a positive impact on the empowerment of teachers in terms of the PLA-Niu.

- The PLA-Niu leads to changes in the processes of creation and management of subjects, from their design to their implementation in the classroom. This changes how teachers' work is organised, which led to some resistance.

Based on our experience, in addition to continuing with the next phases of work, we will observe and analyse the implementation of the PLA-Niu subjects in the classroom from the point of view of teaching, academic success and the acceptance by students.

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