Critical Success Factors in the Adoption of Technologies in Education in Higher Education: The Case of ISCAP (Polytechnic of Porto)

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ABSTRACT
Distance learning has evolved a lot since the moment students received materials by mail and as regular correspondence. At that time, students worked already at their own pace and concluded training according to their professional work and agenda. Today, although courses by correspondence still exist, they are being quickly replaced by distance learning. And the success of this format of education are at the basis of the emergence of different offers and new business models. The success of adoption of technology depends on several factors related with the organization where it is implemented and with the individuals involved. In this paper, the authors will present a case, the evolution of the solutions offered concerning distance learning in the school under study, the actual offers and the concerns for the future. The authors will identify the factors that enabled or constrained this evolution. They will also raise some questions that are still unanswered and will point out some clues for future research.

KEYWORDS
Distance Learning, Higher Education Institution, ISCAP/IPP, Pedagogical Innovation, Portugal

1. INTRODUCTION
In the last years higher education institution are increasingly adopting technologies in education with a diversity of purposes. More and more these institutions want to be recognized as modern and offering a diversity of educational options, being the combination of face-to-face with technology-mediated instruction as the preferred solution (Porter et al, 2014).

Nevertheless, the pace of the adoption of technology in education is not the same everywhere. Solutions found differ also from one institution to another. In some institutions teachers may use
technologies and offer some curricular units in blended learning (BL) although the institution officially has not adopted it. BL may have started being adopted by “individual faculty interested in using both online and traditional strategies to improve student learning outcomes rather than promote as a strategic institutional initiative” (Graham et al., 2013, p.4).

It is possible to identify a spectrum of course delivery modalities between traditional face-to-face and completely online (Figure 1). Moreover, there are several solutions that can be found when we talk about technology in education. The format depends essentially on the objectives of the course. In the literature we find several references to the available technologies for distance learning since the online meeting, the webcast (which equivalent face-to-face is the presentation), the webinar corresponding to the face-to-face seminar, till the pure training.

Distance learning can also be classified in synchronous or asynchronous. Synchronous sessions involve communication in real time, chat or teleconference while asynchronous sessions comprise, in training, the study of learning materials and the establishment of deadlines to deliver activities, allowing that the trainee studies at his / her own pace.

The choice of the solution to offer a distance learning course depends, also, on the objectives and experience of the institution. In this article we will present and describe the evolution that happened at the School of Accounting and Administration of Porto (ISCAP) as far as the educational offer is concerned. We will identify the milestones and / or factors that may have enabled or constrained this evolution. Finally we will present some concerns for the future.

2. CRITICAL SUCCESS FACTOR IN THE ADOPTION OF BLENDED LEARNING

The adoption of blended learning happens due to a set of reasons. These are related with two dimensions: 1) organizational dimension (external factors – organizational strategy, structure and support) (Porter, et al, 2014; Graham et al, 2013) and 2) individual / personal dimension (Dariel et al, 2012). We will explain these in the next paragraphs.

2.1. Organizational Dimension

2.1.1. Strategy

A clear institutional direction and policy are very important for the successful adoption of a blended learning solution. The goals the institution intends to achieve should be identified. These can be related with pedagogy, increase access to educational offers and flexibility (students can conclude their education / training wherever they are, from any geographical point as long as they have a computer

Figure 1. Spectrum of course delivery modalities in higher education

Source: Graham et al, 2013, p. 5
The Integrated Readiness Matrix: A New Model for Integrating Pedagogy and Technology into Higher Education Faculty Development
[www.igi-global.com/chapter/integrated-readiness-matrix/58435?camid=4v1a](www.igi-global.com/chapter/integrated-readiness-matrix/58435?camid=4v1a)

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