


Chapter 7

The Contribution of Serious Games for the Success of Students in Entrepreneurship

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ABSTRACT

The adoption of serious games as a complement to traditional classroom training is still an emerging theme, but it offers relevant potentialities for both students and teachers. This study describes the integration process of serious games in an entrepreneurship course over five years (2014-2018). In the first three years, the ENTRExplorer was adopted, while in the last two years the FLIGBY was used. The experience of using entrepreneurship serious games is analyzed according to multiple perspectives, such as complexity, generation of more entrepreneurial or group working skills, engagement, interactivity, learning outcomes, or even the impact on the intention to establish a new venture. The findings allowed a comparative analysis of the two games, indicating significant differences in some of those dimensions. Nevertheless, the learning outcomes provided by each game were considered relevant by the students, showing that both games can be useful in the process of learning and acquiring entrepreneurship competencies.

DOI: 10.4018/978-1-7998-1029-2.ch007

INTRODUCTION

Technological advances have transformed and contributed to the development of society and improved service provision in various areas. In the educational context, new tools and systems have been used to improve educational processes and offer students realistic and interactive environments. The educational approach based on serious games has stood out for complementing playful aspects and pedagogical content. According to Noemi & Máximo (2014) and Cheng et al. (2015), this approach has promoted the students' learning process.

Several authors like Griffiths et al. (2013) and Fritsch & Wyrwich (2017) advocate that entrepreneurship is an activity with a strong economic and social impact. In entrepreneurship, business ideas can come from different areas of knowledge that must be converted into action. Currently, the mission of universities includes the existence of a third mission called university entrepreneurship, as a complement to traditional teaching and research activities. Therefore, the mission of universities must also include the process of technology transfer to the productive sector and be a driving force for regional development. Thus, the entrepreneurial university must be able to transform knowledge into economic activity.

The development of entrepreneurial skills is carried out in very different ways by higher education institutions. Entrepreneurship is not recognized as a curriculum subject by all higher institutions. Some institutions offer specific entrepreneurship subjects that are part of each course, others that offer entrepreneurship courses as isolated courses, and other institutions that above all promote the creation of organizational culture and policy that fosters risk and encourages entrepreneurship initiatives.

Irrespective of how entrepreneurship teaching is carried out by universities, serious games have the potential to develop key competencies among students. Although there is no correlation between the propensity for entrepreneurship and the use of serious games, several authors show benefits from the use of games applied to entrepreneurship (Bellotti et al., 2014; Fox et al., 2018). Briefly, the highlighted benefits include the development of organizational skills, communication skills, and decision-making ability (Neck & Greene, 2011). Although these benefits are unequivocally important, there are also challenges in the integration of entrepreneurship serious games, such as compatibility with the pedagogical contents, difficulty levels not adjusted for all students and the reduced number of serious games solutions available in the market.

This study performs a longitudinal study of the process of integration of serious games in an entrepreneurship course that is attended by students from management and computer science courses in a higher education institution. In a first phase, from 2014 to 2016, ENTREXplorer was adopted and developed in the context of a

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