

## Chapter 35

# The Use of a Business Simulation Game in a Management Course

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### ABSTRACT

*This chapter reflects on the concept of educational simulations and games applied to business and aims at describing how a Web-based competitive management game has helped to achieve that. The authors discuss their objectives and those of the game and outline their reasons for choosing it. They describe the context at ISCAL and the game's main features, showing how it is played over a semester. The authors consider, as online simulation facilitators of what is predominantly a student-led learning process, that the game helps students to gain a real feel for collaboration, managerial decision-making, and teamwork.*

### INTRODUCTION

There has been a shift in business education. “Under the new ‘learning paradigm’, learning is student-centred and controlled, and essentially experiential, replacing the old ‘instruction paradigm’ where learning is instructor- and content-centered” (Saunders 1997:98, citing Barr and Tagg). This shift emphasizes student participation and involvement in the learning process, and places lecturers in the position of acting not only as knowledge creators and disseminators, but also as learning process facilitators. With a new degree on Manage-

ment, a new course called Management Simulation Project was created and started in the summer semester of 2006-2007 at the Lisbon School of Accountancy and Administration (ISCAL). The teaching team wanted to explore ways to bring the realities of business decision-making and action into the curriculum.

Ever since technology was used on games, from the early electronic toys, TV video games, and computer software games up to the latest online game, players have been attracted to these electronic games (Mumtaz, 2001). In the existing literature, there is a close relation between educational simulation games and learning. Randel, Morris, Wetzel, and Whitehill (1992) discovered

DOI: 10.4018/978-1-4666-0149-9.ch035

that educational simulation games can increase the motivation to learn. Terrell and Rendulic (1996) specifically indicated that games increase the students' internal motivation as well as their learning performances. Interestingly, Prensky (2003) pointed out that from the perspective of successful learning, motivation is an indispensable condition and that games just happen to provide such a condition. In their experiment, Schwabe and Göth (2005) applied games in their learning activities, which not only increase the motivation of the students but also increase the opportunity for them to interact with each other.

At present, most computer games emphasize the commercial benefits or leisure aspects, while only a few focus on the curriculum teachings of higher education and business management (Ebner & Holzinger, 2007; Virvou & Katsionis, 2008), the effect of learning on gaming environments, and the factors that influence the teaching designs (Garris, Ahlers, & Driskell, 2002; Leemkuil, de Jong, de Hoog, & Christoph, 2003). Although the decision to use business simulation games is made by the teacher, the students' perception is equally important in promoting the inclusion of business simulation games in classrooms for three reasons. First, like other technology adoption in education, the teachers would normally like to know the students' response to the new technology. Second, based on Prensky (2003) claim that games provide an indispensable motivational condition for students' learning, students may be more interested in choosing courses that incorporate business simulation decisions.

With a new degree on Management, a new course called Management Simulation Project was created and started in the summer semester of 2006-2007 at the Lisbon School of Accountancy and Administration (ISCAL). The teaching team wanted to explore ways to bring the realities of business decision-making and action into the curriculum. This chapter reflects on the concept of educational simulations and games applied to business and aims at describing how a web-based

competitive management game has helped to achieve that. We discuss our objectives and those of the game and outline our reasons for choosing it. We describe the context at ISCAL and the game's main features, showing how it is played over a semester. We consider, as online simulation facilitators of what is predominantly a student-led learning process, that the game helps students to gain a real 'feel' for collaboration, managerial decision-making and teamwork.

## **History and Definitions**

Although the idea of using computer games to facilitate learning is being resuscitated with new technologies and fresh thinking, a visit to the library at a local university revealed a shelf-load of textbooks from the late 1950s until early 1970s, centered on using games and simulations in classrooms to facilitate learning. Klietsch's (1969) curriculum guidelines elaborate on the underlying *behavioral-learning systems theory* behind games and simulations. Klietsch details various unique characteristics of behavior-based simulations and games (Unit A, pp. 4-5), which include: goals, capabilities, resources, means, interactions, strategy, engagement, decision-making, and problem-solving requirements. The commercial gaming industry has capitalized on these characteristics and continues to design games that satiate gamers' interests world-wide. The latest snapshot study by the BBC Audience Research (BBC News, 2005) in the UK reported that 59% of the 26.5 million individuals surveyed in the age groups 6–65 are gamers—48% of them women. They concluded that gaming is enjoyed by both genders across all ages in all walks of life.

With numerous genres available, the word "game" has been elusive to define and holds various denotations and connotations. Glazier (1973), Prensky (2001), and Rasmusen (2001) have described the presence of the following basic components in games: 1) Player Roles, 2) Game Rules, 3) Goals and Objectives, 4) Puzzles or

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