

Chapter 3

Case Study Method in Simulation Game Design and Teaching

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ABSTRACT

Case studies and simulation games have a lot in common. In this chapter, the author analyses the commonalities of case studies and simulation games in three different aspects. The first aspect is the use of simulation games as case study based simulation games for teaching and learning, which are essential parts of simulation and gaming. The second aspect is designing case-study-based simulation games for educational purposes. The third aspect is using case-study-based simulation games in organisational development to increase the effectiveness of organisations and cultural changes. In order to help to design the appropriate learning experience, the author proposes a new game classification related to rule rigidity and win-state conditions, which will help the designers in their task of designing the proper case-study-based simulation game.

INTRODUCTION

Case studies and simulation games are closer to each other than many people suspect. In the following chapter, the author will analyse three aspects of the similarities and differences between case studies and simulation games. The first aspect relates to simulation games as life case studies (Wardaszko, 2013) in teaching and learning. The second aspect relates to designing case-study-based simulation games (Ellington et al., 1979, 1984; Kriz, 2003). The third aspect is using case-study-based simulation games in organisational development (Wenzler, 1999, 2008; de Caluve, 2007). All three aspects play a very important role in the area of simulation and gaming.

Case studies are empirical inquiries that investigate a contemporary phenomenon within its real-life context, especially when the boundaries between the phenomenon and context are not clearly evident (Yin, 2003, p. 13). On the other hand, a case study can be considered a problem to be studied, which

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will reveal an in-depth understanding of a situation or bounded system, which in turn leads to a better understanding of an event, activity, process, or group of people (Creswell, 2002, p. 61). Merriam (1988) defined the case study as a method or means of investigating complex social units consisting of multiple variables of potential importance in understanding a phenomenon (p. 41). Managerial simulation games are very close to that definition. We offer students the ability to immerse themselves in a carefully chosen role in a particular management or organisational context (Bielecki, 1999).

Using case studies in class offers both pros and cons (Gonzalez, 2011) related to the method of learning. Modern teachers and faculty should arm themselves with many tools for achieving learning effectiveness and satisfaction among students (Strauss & Hill, 2007). Some students will prefer traditional learning activities like lectures or mentoring, while other groups will favor active and more problem- or constructivist-oriented learning methods. In such cases, the technology-based case teaching process engages students throughout the process of case teaching (Pitt, Crittenden, Plangger & Halvorson, 2012). Thus, synergy between the case-study method and simulation gaming can produce a high-quality learning environment for students.

CASE STUDIES VERSUS SIMULATION GAMES IN LEARNING

Both case studies and simulation games are considered active teaching methods with a strong inclination towards experiential learning based on the Kolb (1984) learning cycle. Experience-based learning is a change in the paradigm of teaching, where the word “teaching” involves assuming the point of view of the teacher and the teacher’s perception a priori. The model of teaching from a teacher’s perspective is group-centric. The person passing on the knowledge aims to give the facts in the most efficient way, and students try to assimilate the information to as great an extent as possible; this is the reason for the substantial focus on the process of transfer of knowledge. Experience-based teaching focuses on the perspective of students, who should learn to shape their own opinions through involvement and gained experience and thus develop their knowledge store. Experience-based teaching concentrates on the individual and on developing the individual’s abilities, rather than on assimilating facts. The biggest emphasis is on the learner and on the actions taken by them during the learning process.

Kolb’s Experiential Learning Model represents a system of teaching based on three simple steps:

- Do
- Rethink
- Develop and implement (experiment with) the ideas for improvement

Case studies and games are mostly based on rounds or turns, and dividing courses into work-time and discussion-and-experience-sharing-time (active reflection) sections is perfectly in line with the concept of Kolb’s model. Hence, case studies and games are among the most fundamental and significant items on the map of experienced-based teaching methods.

Ellington, Addinall, and Percival (1982) proposed a model of classification for case studies, simulations and games as an application of games and simulations in teaching, and developed a division of active forms of teaching and of the interrelation between them (see Figure 1).

They arrived at a distinction between pure games, simulations, and case studies, as well as the relations between them (i.e., the areas where these forms overlap). The common forms they identified are:

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