

# Chapter 7

## The Pedagogical Potential of MMOG: An Exploratory Study Including Four Games and their Players<sup>1</sup>

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### ABSTRACT

*The increasing complexity experienced by electronic games, began to demand a greater cognitive effort from their players. This has fostered some capacities in its players that could be used in teaching and learning. This chapter describes an exploratory study with two phases: the first one analyses four MMOG (Ikariam, OGame, Gladius and Metin2) and its pedagogical potential related to the development of problem solving skills, communication and interaction skills, and motivation to perform tasks. The second phase is a survey conducted to the players of these games about their motivation to play and their perceptions about its pedagogical potential.*

*The results showed that all of the four analyzed games are motivating for the players, they have some pedagogical potential related to problem solving, and they improve communication and interaction skills. But the majority of the players felt some difficulties in accepting that they could transfer those developed skills to their scholar or professional life.*

### INTRODUCTION

In the 21st century, people require a new range of capacities constituted by critical thinking, team work, problem solving, collaboration, the ease in

technology use, and the capacity to work with and manipulate information (Galarneau & Zibit, 2007).

Many people are learning these capabilities outside of formal educational institutions and these are now being acquired by leisure when it includes activities that demand any sort of cog-

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nitive function. These activities are of personal choice and increasingly include video games (Johnson, 2006). One can specifically analyze the case of the rising popularity of “Massively Multiplayer Online Games” (MMOGs), a recent phenomenon made possible by the popularization of broadband connections in addition to the new generation of computers and consoles that permit access to complex virtual worlds with millions of people playing in real-time (Steinkuehler, 2004).

According to Beedle and Wright (2007), the artificial intelligence systems that constitute electronic games function as an organizational mechanism based on rules which maintain the game challenge for players. This continuous cognitive challenge along with activities that demand player cooperation creates a rich environment for incidental learning which is fundamental for the development of useful learning.

## **MMOG: MASSIVELY MULTIPLAYER ONLINE GAMES**

In an effort to establish categories for electronic games that take into account the world of online games, Natkin (2006) creates a classification system that considers the knowledge players possess in terms of game rules proposing four game types: Puzzles; Strategic Games; Action Games; and Adventure Games. This classification also takes into account individual and collective games that can be played both online and offline. Meanwhile, as indicated by the author himself, the combination of these basic game structures leads to other game types. Furthermore, these same items can be expanded into multiplayer games. These will be differentiated according to the type of community: closed (a small group of acquainted players share a game session) and open (players who may or may not know each other meet spontaneously online).

This way, Natkin (2006) describes “Massively Multiplayer Online Role Playing Games” (MMORPG) as being a junction of Action Games

and Adventure Games created to be played in multiplayer mode in an open community.

Historically, MMORPGs appear as a form of transferring the universe previously created for “Multi-user Dungeon” (MUD) to the electronic world. Generally, the player must travel the globe performing specific tasks. In this same scope “Massively Multiplayer Online First Person Shooters” (MMOFPS) appeared for war simulations, just as “Massively Multiplayer Online Social Game” (MMOSG) which appeared for environments where socialization is one of the main functionalities (Christofoli, 2006).

It is possible to affirm that these games vary only in terms of the theme chosen therefore they can be designated as “Massively Multiplayer Online Games” (MMOG). This terminology includes electronic games created with the purpose of being played online in multiplayer mode in an open community where interaction between players is fundamental for success (Galarneau, 2005; Jakobsson & Taylor, 2003).

## **THE EDUCATIONAL POTENTIAL OF GAMES**

There are various studies that come to positive results after analyzing the application of specific games in a classroom context. This is especially factual when it comes to the improvement of concentration, the stimulation of task performance, the improvement of visual intelligence, and hand-eye coordination (Beedle & Wright, 2007; Ferdig, 2007; Graells, 2001; Van Eck, 2006).

Electronic games are bringing forward a greater complexity of objectives as well as a challenging environment for the player. Competitors must be capable of learning to define a hierarchy among a wide range of tasks. Here, the player must choose the ideal course to follow and define the main goal because the game itself does not always do so. Furthermore, one must be able to use the interactive and communicative tools supplied for the exchange of experiences that permit the

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