

## Chapter 6

# Game4Manager: More Than Virtual Managers

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### ABSTRACT

*A company in an increasingly globalized and competitive world needs to present itself more innovative, more customer-oriented, and capable of interpreting and responding to the challenges of the world. Game4Manager is a serious game in a 3D online environment where the learner's role is to implement an Integrated Management System in a virtual company in 12 levels, analyzing, managing and improving all the significant aspects related to the company's sustainable development. In this chapter, the authors review the framework for Game4Manager's development, its implementation, and analyze this new learning approach based on gaming in a focus group. Game4Manager is a European project funded by Leonardo Da Vinci Programme during 2009-2010, developed by a consortium of six European institutions from five different countries (Portugal, France, Greece, Hungary, and Sweden).*

### INTRODUCTION

Game4Manager– Corporate Game for Managers in Quality, Environment, Safety and Energy (G4M) is a serious game which invites companies to overcome the challenges of an integrated management in quality, environment, work safety and hygiene and energy; making use of the fun part,

the challenge, to promote learning by simulating a business environment that enables the learner to acquire the knowledge and best practices necessary to perform his functions in any area of the organization.

A company is an integrated system that works as a whole, focused on the creation of products and services with added value and relevance to the markets they are targeting. The aspects of quality, energy, environment and occupational safety

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are nowadays an essential part of a company's development, with a very important economic and social role that all stakeholders must take as a priority, from the shareholders to the managers, from employees to suppliers and customers.

Game4Manager is a European project for two years, funded by Leonardo Da Vinci programme, coordinated by CITEVE – Technological Centre (Portugal) and with the participation of ATP – Textile Association of Portugal, INNOVATEX (Hungary), SIGMA Consultants Ltd (Greece), Idees-3Com (France) and STPKC – Swedish TelePedagogic Knowledge Centre (Sweden).

Game4Manager intends to use the entertainment and the challenge to promote learning. The game is available on the internet in six languages (Portuguese, English, French, Hungarian, Greek and Swedish) and it is available to all companies, regardless the area of activity, since its relevance crosses all sectors.

This initiative aims at developing a serious game in the energy, quality, environment and safety areas by simulating a business environment which enables the learner to experiment real work situations with which to deal effectively, providing an aid to decision making in critical situations or to help a user when faced with a choice in moments of transition.

This serious game was encouraged by several research projects that had already demonstrated the potential of the game-based learning, showing that the use of “serious games” can transform learning in a more engaged and dynamic process, improving performance in the professional activity and enhancing the results, concluding that when professionals learn through games, their understanding and retention are higher.

Game4Manager has been tested by a large community, representing different types of users, different sectors and cultures, with very positive results. When working with this group of people the project could get their feedback and correct some details and the project are now ready for a

wider testing phase, where the game is already available in several languages.

Therefore the main goals of this chapter are:

- Disseminate the potential of game-based learning;
- Describe the conceptual framework of serious game development;
- Present Game4Manager – Corporate Game for Managers in Quality, Environment, Safety and Energy;
- Demonstrate the results from the trial phase with focus group;
- Suggest future research opportunities within game-based learning.

## **GAME-BASED LEARNING AS A CATALYST TO CHANGE AND INNOVATION**

In 1982 Chris Crawford predicted that the products of the games industry in the future would be divided between a mass market “wasteland” of “cyberschlock” and a “more exciting literature” of games as a “social force” (Crawford, 1982).

Over two decades later these predictions seem accurate. Games have become a major recreational activity, and they have also become increasingly sophisticated and celebrated as a cultural form; they have shaken up the world of entertainment, and they have entered into educational debates and practices. Exploring games and education is inherently controversial. Games can seem uneducational; they are typically associated with play and childhood.

Even the name implies that games are the opposite of work. Assertions that games must be used to make learning “fun” ignore the fact that learners who are deeply engaged in learning consider it both fun and hard work. Unsurprisingly then, there still exists ambivalence about whether games are derivative and homogenous mass market junk or a significant social force. Much of this ambivalence

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