

E-Learning Takes the Stage: From *La Dama Boba* to a Serious Game

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Title—E-Learning Takes the Stage: From *La Dama Boba* to a Serious Game.

Abstract—In Spain, young people are losing their interest in classical drama. We believe that educational games are an excellent medium for addressing this issue.

This article describes the design and implementation of a videogame based on *La Dama Boba*, Lope de Vega's stage play. The aim of the videogame is to motivate young people to go to classical theater plays, and to familiarize students with the plot and the characters before they go to the theater. This goal is achieved by making avatars interesting to players, by incorporating different theater techniques to generate characters' personalities and by including the elements that can be used as audio visual content, such as music, scenery and costume design. In this paper, we also present the results of an initial evaluation of the game with master's students from the E-learning group. In order to improve the game, we have studied its effects in terms of improvement of knowledge, learning outcomes and student motivation.

Index Terms—Educational Technology, Computer Aided Instruction, Virtual Learning Environments, Game-based Learning, Computer Games for Drama Learning, Drama, Serious Games.

I. INTRODUCTION

IN Spain, young people are losing their interest in drama. The average age of theater audiences is rising up. The gap between the theater and Spanish teenagers is one of the problems that could empty the theaters in the medium term. If we cannot attract that generation to go to the theater, and that lack of interest becomes settled, theater would become a cultural activity for the intellectual elite [1].

For classical theater, the panorama is even worse - the few young people who go to classical staging are normally in a school trip. In those educational activities, it is common to see the young audience getting bored or using their mobile phones.

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One of the key factors to explain the low consumption with respect to scenic arts in Spain is the lack of appropriate policies addressed to catch the interest of young audiences [2]. 75.4% of the population declare to go to the theater almost never, whereas only 3.0% consider it a positive leisure option and frequently attend it. People who went to the theater at an early age present a higher consumption at the moment (69.1% of the spectators) [2]. Besides, the high interest in theater detected among regular spectators leads us to think that it is possible to increase theater attendance.

To overcome the gap between young people and theater, it is essential to save the future of the theater. To stop and to invert the current actual tendency requires to work from the theater industry, as well as to influence other activity sectors, especially in education. One of the priorities of the theater industry in Spain is to increase the attractive of the theater in educational programs [1].

In the last few decades, a new trend has risen, which argues that the educational system must adapt to the new needs of information society. One of the most promising solutions in educational technologies field are videogames. According to several studies, videogames have positive advantages over other approaches, such as increasing motivation, enhancing problem-solving abilities, or fostering active learning (*learning by doing*). Educational games (also called *serious games*) could students to build a more reflexive and personalized understanding [3][4][5][6], and improve students' attitude; therefore, games are currently used to address the lack of motivation and abandonment in formative activities [7].

Nevertheless, when making a conscious decision to replace concrete educational content with a videogame, educators must evaluate the game's cost-effectiveness, including the time and effort to develop and deploy it [8][9]. Thus, to ensure the efficiency of new educational technologies, a deeper evaluation is needed, to assess the tools and the real impact of those tools to achieve our ultimate goal.

In this paper, we present the design and developing processes of a serious game based on *La Dama Boba / The Foolish Lady* by Lope de Vega. The game is aimed at high school students, to increase their interest on classical theater.

The paper is structured as follows: section II analyzes the causes of the lack of interest in classical theater in young audiences. Section III includes the solutions that a game could provide to solve the detected problems and describes the process of creating the game, including the motivations, game

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Clara FernándezVara has a PhD in Digital Media from the Georgia Institute of Technology (2009). She is currently a Visiting Scholar at the Massachusetts Institute of Technology. Her research interest is focused on the application of close-reading methods and performance studies to the study of videogames. Her work concentrates on adventure games, as

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Baltasar Fernández Manjon, *IEEE Senior Member*, has a PhD in Physics from Universidad Complutense de Madrid (1996). He is full professor in Computer Science at UCM and director of the e-UCM e-learning research group.

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