Chapter 3.2
Simulating Teaching Experience with Role–Play

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ABSTRACT

This chapter discusses the design and use of simulated teaching experiences contextualized through role-play in a multi-user virtual environment as a means of providing pre-service teachers with pedagogical and instructional experiences that are increasingly difficult for university programs to provide. It illustrates the underlying pragmatic theory of communication that supports this model of simulated experience as well as research methods that we suggest can aid in understanding the complex learning that stem from actor and student interaction. The goal of this chapter is to provide an instructional design model of simulated role-play experience that emerged from a design-based research project as a means of supporting the development.

INTRODUCTION

Every Tuesday, Wednesday, and Friday, when the signal emits clearly from transmitters hidden on thousands of planets, moons, and asteroids and reaches Earth, a tall, blonde man named Calron logs onto the OTAK. Once in the computer system, his digital self materializes in the central world, which is filled with numerous other figures, representing children from several continents. Calron is not from Earth; he is from the distant

world of Atlantis. A member of a secret Council, he seeks to improve the quality of life on both planets through scientific inquiry aided by his friends on earth.

Calron types greetings to several elementary and middle school aged students, calling them by name from his past experiences with them during the previous six months. He asks several questions about their learning activities in the space and how students think their work is helping people on both Atlantis and Earth. Students pester him with questions about the Archfall book, which introduces them to the story and problems of the world of Atlantis. He answers sometimes specifically, sometimes vaguely; taking notes about which students he has told what information, so that he and other members of the Council can refer back to it in the future. When students ask which Quests they should complete next as these are the main learning activities in the 3-D space, he nudges them towards those that he and the Council feel can best help the respective planets. Figure 1 presents an image of Calron as he appears in the book that accompanies the digital world.

Figure 1. Calron, a pedagogical agent and Atlantian Council member in Quest Atlantis

Calron is not really an alien from a distant planet. Instead a simulated character role-played by a pre-service teacher. The experience of being Calron embeds the pre-service teacher within what it is to be a teacher by simulating several of the roles and responsibilities of teaching. Being a Council Member provides learners with a live action digital simulation of the pedagogical roles that teachers engage in every day that range from coaching to facilitating and even dramatic acting. While the activity furthers student experience related to the narrative that supports the project, it provides a valuable set of interactions that will increasingly interact with their students in interactive digital spaces that simulate the learning environments that currently consist of whiteboards and desks.

The Challenge for Teacher Training

With the increased need for trained teachers that continues to trouble schools in many U.S. states (Matus, 2005) as well as countries worldwide, teacher training institutions are increasingly turning to distance learning applications to provide simulated field experiences that mirror those that students would traditionally receive by teaching with a mentor teacher in a physical classroom (Lehman & Richardson, 2004; Simpson, 2006). In addition, there have been calls by the government, professional teaching organizations, parents and the media to improve the training of teachers to include knowledge about the latest research findings and knowledge about best practices in education (NEA, 2004; PreventionAction, 2007). While the technological solutions continue to multiply, a number of problems exist that call for solutions that involve the use of digital simulations. The use of such simulations has shown some promise for providing rich, meaningful field experiences to pre-service teachers that can prepare them for their future work as day-to-day professionals and learners (Aldrich, 2003; Squire, 2004; Thiagarajan, 1996).

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