

Chapter 20

Virtual Team Role Playing: Development of a Learning Environment

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ABSTRACT

Working in a virtual world creates new opportunities for both students and teachers. In particular, virtual team role play provides excellent support for collaborative learning approaches in a cost efficient manner. The purpose of this chapter is to describe experiences developing a virtual team role play learning environment in Second Life® over a period of three years. Theoretical justification for bringing role playing into a virtual world is provided. The chapter outlines the role play, its setup in both real and virtual world, and describes how it has evolved from a setup at one university, to a distributed case involving several locations. Experiences from role playing sessions are presented for each year.

INTRODUCTION

This chapter summarizes our experiences of developing a learning environment for virtual team role playing in Second Life. The development was carried out in the spring semesters of 2008, 2009 and 2010 in management information systems classes at Molde University College, Norway and at Curtin University of Technology in Perth, Australia. The role play selected is frequently

used in information systems and business classes worldwide for addressing the complex issue of buying, implementing and using a particular type of information systems called Enterprise Resource Planning (ERP) systems. Students are introduced to various ERP-system characteristics in an engaging way by letting them act as a buyer in a purchasing team or a seller in a sales team. This chapter focuses on the establishment of a virtual learning environment in Second Life and the corresponding real world learning environment from which students login to Second Life. The

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combined setup of the two environments appeared to be a challenging task. We describe our efforts leading to recommendations while recognizing that the potential for improvements is still high.

Role Playing

A leading principle for us in creating learning environments is that it must increase student involvement, since according to Astin (1985), the effectiveness of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement. In role playing, students actively participate in learning activities. Role play used for educational purposes has been a characteristic of the student-centred learning environment (Bloom, 1956; Aldrich, 2005; De Freitas, 2006). Through role play students engage in stories that are either open-ended or defined by a manuscript or a combination as is often the case in learning situations like ours, where students demonstrate their knowledge by filling in open parts. Role play is a social activity in which players act or take on specific roles presented to them. In doing so, players express their ideas, arguments and feelings, in their effort to convince others. Through the interaction, players get the opportunity to both share their knowledge and to extend their knowledge by learning from others. Role play has a high learning value in educational domains where skills such as critical thinking, group communication, debate and decision making are of high importance. Business education and information systems management are two such domains. In classes where the emphasis is upon choices, role play exercises focusing on decision making are ideal for supporting an educator's training needs (De Freitas, 2006). Recent developments of virtual worlds like Second Life have enabled the design of more sophisticated online role play environments which both mimic real world environments more closely than before, and which go beyond what is possible in real world domains (Aldrich, 2005; Jones, 2007).

Role playing in a virtual world setting have several advantages compared with a classroom setting. For example creating a business environment is difficult in a classroom compared to doing it in a virtual world regarding the appearance of the students and the creation of a modern business conference room. Also, a virtual world gives flexibility for off-campus guests and students to participate from office or home. Further; inviting off-campus guests to a virtual world session is cost efficient and easy.

In this role play there are three learning dimensions:

1. Students will gain knowledge of different ERP-systems;
2. Students will gain insight on selection criteria when purchasing information systems; and
3. The training aspects in acting in a simulated business environment, either as sales representatives or in a purchasing team

The Role Play Case

The role play selected is Response to Request-For-Proposal for an ERP-system. This is a well-developed and much used role play worldwide in business and management information systems classes described in the book *Enterprise Resource Planning* by Mary Sumner (2004). The context of the role play is a fictional mid-sized manufacturing company, Wingate Electric that has a set of computer applications handling their information management needs. Their applications have become fragmented over time and costly to operate and maintain; consequently the company is considering buying a new ERP-system to solve these problems. The new system should have functions supporting financial and accounting processes including general ledger and accounts payable/receivable, with the option of adding modules for production planning and manufacturing later on. The company develops a request-for-proposal which describes their needs of a new system. There

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