

Chapter 4

Creating an Integrated Second Life Curriculum: Teaching and Learning through Interdisciplinary Pedagogies

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ABSTRACT

Second Life is a three-dimensional multi-user social virtual environment which emphasizes the use of immersive worlds for supporting an array of human activities and interactions within Web 2.0. Second Life presents innovative opportunities and challenges for enriching how users learn, work, and play (Boulos, Hetherington & Wheeler, 2007; Prasolova-Førland, Sourin, & Sourina, 2006). Originally developed as an entertainment-oriented technology, Second Life offers a positive opportunity for interaction between and among learners for teaching and learning in higher education. Supported by the Constructivist theory where students are active creators of knowledge, as faculty members consider adopting the Second Life platform, with pedagogical needs and learning outcomes at the forefront of design decisions. The interdisciplinary approach employs the combining of academic disciplines into one learning experience or course. Advocates of interdisciplinary teaching and learning in higher education stress that interdisciplinary courses offer opportunities for improved student outcomes. Enhanced affective and cognitive abilities, increased understanding of multiple perspectives, greater appreciation for ambiguity, and superior capacities for creating thinking can benefit student learning outcomes (Newell, 1994). This chapter describes how faculty from different disciplines adopted the interdisciplinary approach to design, develop, and deliver a Second Life course. This pedagogical model provides useful, practical advice for faculty considering interdisciplinary teaching projects in the Second Life platform.

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INTRODUCTION

Higher education institutions across the United States are facing budget crises and enrollment management issues, and educators are being challenged at the basic core of instruction. Leading institutions have turned to non-traditional learning environments to address the educational challenges of 21st Century learners. Faculty members are being charged to develop quality instructional strategies that encourage student engagement and maintain retention while keeping instructional costs low. Additionally, demand for educational content with multi-media is at an all-time high (Atkins, Bennett, Brown, Chopra, Dede, Fishman, & Williams, 2010). Integrated with cutting-edge technology, collaborative learning may improve educational quality and create a more student-centered approach to the learning environment.

Although not initially intended for educational purposes, Second Life, a 3-Dimensional (3-D) virtual world designed and developed in 2003 by Linden Laboratories, allows educators to teach in an immersive visual environment (Linden Laboratories, June, 2013). With an emphasis on social interaction, Second Life encourages instructors to rethink not only how they teach but also how they deliver instruction. “The fact that virtual worlds combine technology, social learning, role playing and games make them a ‘sleeping giant’ in education, despite concerns of cost and widespread acceptance” (Alvarez, 2006, p. 1). The creation and use of a unique and interactive environment provides access to users through Second Life settings, using real time interactions in a unique 3D multi-user educational environment (Bignell & Parson, 2010). The emergence of 3D virtual environments to facilitate an immersive educational experience has become more commonplace in higher education due to the ease of use and technological support (Bowers, Ragas, & Neely, 2009; Inman, Wright, & Hartman, 2010).

With over one hundred regions used for educational purposes covering a plethora of subjects,

faculty and researchers in Second Life favor the interactive capabilities versus traditional distance learning teaching methods. Currently, over 300 universities around the world teach courses and/or conduct research in SL, and new educational institutions are emerging operating exclusively within the Second Life environment, taking advantage of the platform to deliver low-cost content to a world-wide audience (http://wiki.secondlife.com/wiki/Second_Life_Education/Resources).

The modification in learning environment stems largely from a set of socio-technical transitions such as wider access to broadband, the development of powerful Web 2.0 technologies, platforms and computer graphics capabilities, the emphasis upon social and experiential interactions, and advances in the uses and applications of the internet. In the Second Life virtual world, residents can explore environments, meet and socialize with other residents (using voice and text chat), participate in individual and group activities, and learn from designed experiences. Built into the software is a 3-D modeling tool, based on simple geometric shapes that allow anyone to build virtual objects. These objects can be used in combination with a scripting language to add functionality, allowing for a range of options in the context of education for enhancing teaching and learning (De Freitas, Rebollo-Mendez, Liarokapis, Magoulas, & Poulouvasilis, 2010). Combined, these forces have led to greater challenges and opportunities for the learning and teaching communities that may broadly be categorized in terms of social, pedagogic, institutional and technological advantages.

Second Life has presented new opportunities for real time collaboration in immersive, 3D rich environments without regard to geographical distance or traditional limits of location and space, allowing the user to engage in activities within real time (Gazzard, 2009). Second Life offers options for faculty who are considering adopting an innovative, experiential approach to instruction supported by the Constructivist theory where students are active creators of knowledge. Constructivist

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