

Chapter 5

Learning in a Virtual World: Student Perceptions and Outcomes

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ABSTRACT

During the past four years over 500 university students have explored the educational potential and value of learning in the virtual world of Second Life™. This research examined from the perspectives of on and off-campus students, their experiences of learning in this virtual world, through activities underpinned by adult learning theories. A compilation of student reactions to their learning in Second Life™ was collected through three pilot studies, and this chapter examines in particular, the students' perceptions of engagement, immersion, communication, interaction, collaboration and distractions, of learning virtually. The positives and negatives of learning in Second Life™ from the points of view of the students, are discussed. Students who participated in this study were drawn from a variety of groups who were studying different subjects: on-campus students were required to participate in the virtual world educational activities; and the off-campus students, took part voluntarily. This research demonstrates that the students were highly engaged in their virtual learning, as voiced through their perceptions and reactions.

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INTRODUCTION

At the University of New England, a regional university in Australia, three pilot studies have been conducted since 2008, with students enrolled in Information Technology Communication (ICT) in Education subjects, who participated in virtual world sessions during their studies. These pilots were established to determine whether a virtual world was engaging for the students; whether real life workshops can be replicated and/or improved using a virtual world; and to make a comparison of interactive online tools for enhancing the quality of students' assessment responses. In each of the pilots, students were requested to complete an end of semester survey, and the online conversations used in the virtual world activities were recorded and analyzed.

Virtual worlds provide interaction and engagement for the users. These virtual environments combine asynchronous and synchronous content to provide a context for collaboration and simulation, and these virtual environments can emulate contexts, such as a classroom or lecture theatre. Due to the availability of synchronous communication within virtual worlds, these environments also provide enhanced interactivity for distance learning (Petrakou, 2010). Synchronous communication allows for immediate feedback so students feel more like participants in a community of learners rather than isolated individuals.

Second Life™ is a virtual world that is a low cost computer-based simulation space with features of real and fantasy lives, and can be used as a substitute for many real world activities, such as demonstrating the piloting of a rocket to another planet to test the make-up of the soil content or having a group discussion with people from all over the world in the same space at the same time and not have to go to the expense of physically meeting each other. Second Life™ is just one of over 100 virtual worlds, and these numbers are growing rapidly (Collins, 2008), with several researchers indicating the number is now over

200 (Farley & Steel, 2009; Lemon & Kelly, 2009; Honey, Diener, Connor, Veltman, & Bodily, 2009). Mitham (2008) predicts the number of virtual worlds available online will be approximately 900 by 2012.

People enter a virtual world via their avatar, which is an electronic presence that imitates real life in the form of a personal presence (Gregory & Smith, 2010). In the virtual world an avatar can move virtually by talking, walking, running, sitting, dancing, flying, driving, riding, teleporting, making gestures (such as clapping or waving), changing appearance (such as clothing, gender, hair and skin color), and interacting with other avatars and the environment, which includes land formations (Gregory & Smith, 2009). For example, if an avatar walks into a wall, it cannot go through it, it has to go through doors that open, just like in real life. In Second Life™ gravity exists and if the wind blows, the leaves on the trees move. Second Life™ enables a high level of freedom allowing members to inhabit and build their own 3D world.

Second Life™ appears to be the choice of most universities using virtual worlds (Linden Research, 2009). Lester, (2008a) the prior Academic Director of Linden Lab (the proprietors of Second Life™), states that there were approximately 1,000 educational institutions worldwide using Second Life™ in 2007-08. In 2010, approximately 750 educational institutions operated their own islands in Second Life™ (Cummings, 2010). These figures do not include smaller parcel-owned virtual lands. Second Life's™ high usage figures compared with those of other competing platforms demonstrates its dominance of virtual worlds for educational purposes (Warburton 2009).

This chapter presents the findings from the three pilot projects with students enrolled in different ICT education subjects who used the virtual world Second Life™ in either a voluntary and compulsory capacity, and were either on or off-campus education students. This chapter also

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