

# Chapter 31

## The Use of Virtual Worlds in Foreign Language Teaching and Learning

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### ABSTRACT

*This book chapter presents, a review of the literature from 2004-2014 regarding the various models of virtual worlds used in foreign language teaching and learning, the impact of virtual world learning environments and the implications of language teaching. The study being reported aims to address the following questions: (1) What are the models of virtual worlds used in language learning instruction in K-12 and higher education; (2) How do VWLEs impact language learning in terms of motivation, communicative competency, intercultural competency, collaborative competency, constructivist learning, and sociocultural competency; and (3) What are the implications of using VWLEs in foreign language teaching and learning? Results indicate that social context and task-based learning enhanced language learners' participation and motivations. Findings also indicate that consistent use of interactional strategies encouraged learners to engage in the tasks and stay motivated. The study suggested that a VWLE offers a motivating, engaging, and multi-dynamic environment for language learners.*

### INTRODUCTION

Policy-makers, researchers, educators, and learners have paid significant attention to three-dimensional space (3D) virtual world learning environments (VWLEs), which provide learning across curricula and cultures (Deutschmann & Panichi, 2009). 3D virtual worlds learning environments are defined as “persistent virtual environments in which people experience others as being there with them and where they interact with them” (Schroeder, 2008, p.2). Virtual worlds are also described as computer-simulated environments that take place in either realistic settings or imaginary settings (Wickens, 1992). The

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term “virtual world” has expanded its meaning to a type of online platform. One unique characteristic in virtual worlds is that the systems allow participants to interact simultaneously with other players in a persistent virtual environment.

As learning platforms, VWLEs have four main features that educators may use in various ways: (1) an avatar function that visually represents the participant; (2) various interactive functions for communications including text, audio, and symbolic formats (Dickey, 2005; Dickey, 2011; Wang, Calandra, Hibbard, & McDowell, 2012); (3) a function for a participant to “act” in the virtual world; and (4) a 3D interactive space (Wang et al., 2012). Research studies also reveal that in K-12 and higher education settings, VWLEs provide communication spaces, experiential spaces, and simulation spaces (Hew & Cheung, 2008). The use of virtual worlds in education have been reported in the literature, including Active Worlds, Blaxxun, Community Place, OnLive!, Open Wonderland, Quest Atlantis, Second Life, and Traveler in instruction in academic settings (Berns, Gonzalez-Pardo, & Camacho, 2012; Ibanez et al., 2011).

Among these virtual worlds, Second Life and Active Worlds are the most commonly used in the United States. (Peterson, 2011). These virtual worlds are multi-user virtual environments without fixed storylines or games. The software allows participants to have total freedom to construct their communities, create storylines, and form contexts for communication. Furthermore, Second Life has been popular in higher education settings; at least 300 higher education institutes around the world teach courses or conduct research in Second Life (Deutschmann & Panichi, 2009; Second Life, n.d.). As of 2014, the developer, Linden Labs, reports that Second Life has one million active users daily (Second Life, n.d.).

Educational uses of VWLEs have been studied for the purpose of enhancing the quality of students’ learning (Jarmon, Traphagan, Mayrath, & Trivedi, 2008; Wang, Calandra, Hibbard, & McDowell, 2012), expanding learning and life experiences (Jarmon et al., 2008; Wang et al., 2012), and providing collaborative learning opportunities (Erlanson, Nelson & Wilhelmina, 2010; Wang et al., 2012). Research studies show that VWLEs offer opportunities for social interactions, integrating technology in both academic and daily life, and accessing and analyzing information (Wang et al., 2012).

## **BACKGROUND**

In recent years, the rapid advancement of technology has brought easy access to a plethora of open source software, mobile apps, and virtual worlds to the public, which are changing the landscape of foreign language teaching and learning.

Specifically, in the field of computer-assisted language learning (CALL), the features in virtual worlds allow participants to interact with native speakers of their target language in real-time communication and on a high-quality 3D platform with a rich, interesting simulated learning environment (Peterson, 2011). Virtual world software collects written records of participants’ linguistic output by recording data in the game so researchers can analyze participants’ use of the target language.

The current study aims to review, analyze, and synthesize recent literature on the various models of virtual worlds used in foreign language instruction, the impact of VWLEs on foreign language learning, and the implications of teaching and learning foreign language instruction through virtual worlds.

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