

# Chapter 1

## The Use of Network-Based Virtual Worlds in Second Language Education: A Research Review

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### **ABSTRACT**

*This chapter reviews 28 learner-based studies on the use of network-based social virtual worlds in second language learning published during the period 2007-2017. The purpose of this review is to establish how these environments have been implemented and to identify the target languages, methods used, research areas, and important findings. Analysis demonstrates that research is characterized by a preponderance of small-scale studies conducted in higher education settings. The target languages most frequently investigated were English, Spanish, and Chinese. In terms of the methodologies adopted, analysis reveals the majority of studies were qualitative in nature. It was found that the investigation of learner target language production, interaction, and affective factors represent the primary focus of research. Although positive findings relating to the above areas have been reported, the analysis draws attention to gaps in the current research base. The researchers provide suggestions for future research.*

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## **INTRODUCTION**

The emergence of ubiquitous network-based virtual worlds (henceforth VWs) has opened up new arenas for learning. These multi-user environments offer access to persistent and highly engaging virtual reality-based simulations designed specifically to facilitate social interaction. Contemporary VWs such as the well-known *Second Life* incorporate visually appealing high-quality three-dimensional (3D) graphics, personal avatars, multimodal real time communication tools and large-scale international user communities. Researchers in the field of computer assisted language learning (CALL) have viewed the use of these environments as a positive development and interest in their use is increasing (Peterson, 2017; Sadler, 2012). In an expanding body of work, researchers are investigating the potential of VWs as a means to facilitate language learning. This context highlights the current need for a systematic review in order to provide a principled framework to guide future development in this dynamic and important area of CALL research.

The discussion in this chapter first identifies the distinguishing features of the major social VWs that have been investigated in CALL research, and moves on to examine rationales for their use in foreign language education. The researchers then describe the methods used to answer the following research questions that motivated this review: How have the current generation of social VWs been implemented in language education? What languages have been targeted in studies on the use of social VWs in CALL research?

What methodologies have been adopted by researchers investigating the use of this type of VW? What have been the main areas of research? What major findings have been reported? The researchers examine key findings and draw attention to gaps in research. The discussion concludes by identifying promising areas for investigation in future research.

## **BACKGROUND**

As one of the most popular of the computer-mediated communication (CMC) environments that have emerged with the rapid development of computing technologies in recent decades, VWs are increasingly being utilized in language education (Deutschmann & Panichi, 2013). This phenomenon is due, in part, to the dramatic expansion in worldwide Internet usage and the emergence of accessible, low-cost and robust VWs. Researchers further note that although VWs share a number of technologies in common with other CMC environments they combine a number of features that, when taken together, offer language learners access to virtual reality-

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