# Chapter 16
# Using a Complex Technology in a Language Course:
## Examining Second Life in Terms of Participation

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## ABSTRACT

*In this chapter, how the complex technology of Second Life affects participation in an English course is investigated. With the aim of exploring gender issues, the special affordance of Second Life, i.e. voice-morphing together with sound-isolated parcels, was used. The data set consists of about 33 hours of audio recordings and chat logs of 8,315 words. The results show that in audio10.8% of the course time deals with technological challenges, while in chat 69.2% of the words contribute to technology. Three challenges interfering with participation were identified: software complexity, unreliable functionality of Second Life, and hardware and connectivity issues. To deal with these problems, pedagogical facilitators, technological facilitators, and Second Life -experienced peers made a significant contribution. Based on the results, this chapter analyzes whether Second Life can be widely used in language education, how affordances of it can be learned and taught, and scenarios where Second Life can and cannot be used.*

## INTRODUCTION

Three-dimensional (3D) virtual worlds have made a special contribution to language education, among various research interests and applications of technologies in/to language education, such as mobile learning, VR (Virtual reality), and blended learning. Although there are different 3D virtual worlds (e.g., World of Warcraft, Quest Atlantis, OpenSim), Second Life (SL) is still the dominant one applied (Gamage, Tretiakov, & Crump, 2011, p. 2407) and heavily-researched (e.g. Chen, 2018; Palomeque & Pujolà, 2018; Melchor-Couto, 2017; Wang, 2017a; Wang, 2017b). For example, Melchor-Couto (2017) investigates the reduced anxiety provided by the anonymity of SL in foreign language oral-interactions.

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Zheng (2012) studies negotiation among Chinese language learners who use resources in SL and Chinese signs to participate in problem-solving activities. Peterson (2012) examines EFL learners' engagement in SL interactions, their attitudes towards using SL, and how SL facilitates their language output. It has been reported that learning a foreign language in SL is engaging, which, in turn, motivates student participation (e.g., Peterson & Swier, 2018; Wehner, Gump, & Downey, 2011; Peterson, 2012; Hsu, 2015). *Participation* in this type of environment means that 'students not only listen and observe, but also contribute (in speech, in writing or through actions) to the interaction' (Wang, Deutschmann, & Steinvall, 2013, p. 4). When mapping and analysing factors affecting participation in 3D virtual worlds, Wang et al. (2013) emphasize the SL technology often constitutes a key factor affecting student participation.

Although active participation, regarded as a 'prerequisite' (p. 4) for learning a foreign language in social collaborations in SL (Wang et al., 2013), is highly dependent on the technology working as it should, previous research has not dealt with this question sufficiently (e.g., Inman, Wright, & Hartman, 2010; Liou, 2011; Barr, 2013; Wang et al., 2013; Wang, 2015). For instance, Wang (2015) mentions the technical issues that hindered participation in an English course in SL, her focus lies on the strategies and roles the teacher used and played to solve these problems. Only in her recent work, Wang (2017a) highlights and analyzes situations, for a language course, where SL can be used and cannot be adopted, based on the English courses she has observed and studied in SL.

## BACKGROUND

It has been suggested that technology adoption depends on the complexity of a technology set against the perceived advantages the technology may bring (Rogers, 2003; Venkatesh, Morris, Davis, & Davis, 2003). A technology that is easy to understand and to use is adopted more rapidly than a technology that requires 'new skills and understandings' (Rogers, 2003, p. 16). Nonetheless, a complex technology may be acceptable when its use is associated with many perceived advantages. According to Nielsen's (1993) model of system acceptability, some attributes concerning the practical acceptability of a system are important, namely: usefulness, cost, compatibility, and reliability. Usefulness refers to whether the system can do what it is needed and whether it has a high usability: easy to learn, efficient to use, easy to remember its functions for users, few errors made by users when they use it, and users feel subjectively pleased. Compatibility mainly addresses whether a system is compatible with other existing systems, and reliability concerns whether a system is reliable. As these three attributes constitute the basic criteria for evaluating a technology, they will be used to analyze participation in SL in the course under investigation.

In the following sections, the attributes of SL to language education, and the technical complexity and requirements of SL are presented.

### The Learning Environment SL

SL is an Internet-based 3D virtual world launched by Linden Lab in 2003 with audio integrated in 2007. SL offers avatars that can be modified by users. Avatars in SL can perform some actions, such as running, walking, sitting, or flying; they can also teleport to different in-world geographical regions (called islands) by a simple click on the teleport button. Furthermore, SL avatars can share digital artifacts, such as notecards (digital documents used to save detailed information), and manipulate in-world objects by, for instance, building a virtual classroom or uploading a PowerPoint to a virtual screen.

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