Brief Report

TEACHING LANGUAGE VIA SECOND LIFE: THE GOOD, THE BAD, AND THE FUTURE

Aiyana Brooks*
Hunter College, City University of New York (CUNY)

Virtual worlds provide teachers with new and exciting ways to engage students; researchers believe that their capabilities to simulate authentic experiences and enable collaboration and interaction among users make virtual worlds a very useful tool for the future of education. This paper explores the ways that a virtual world, Second Life, has been used within traditional "brick and mortar" language classrooms and considers whether it has been used effectively. The findings in this paper show that researchers have used various methods to integrate Second Life into their classrooms, and some have been more effective than others. This paper recommends that future researchers allocate more time to becoming familiar with Second Life, put more consideration into the types of learning tasks students will perform in Second Life, and focus more on quantitative analysis that measures growth and acquisition of cognitive language skills as a result of instruction in Second Live versus instruction in the traditional classroom.

Keywords: language learning, SL (Second Life), virtual worlds

Over the past decade, there has been a transformation in the educational landscape that has been marked by a shift from teacher-led activities to student-led activities, from teacher-student interaction to student-student interaction, and from structured, inauthentic practice activities in the classroom (e.g., de-contextualized grammar exercises), to authentic, meaningful exercises that students can apply to their real lives (e.g., simulations and role playing activities). This transformation has been aided by the advent of technological tools that enable collaboration and community-based learning, such as wikis and blogs (Keats & Schmidt, 2007). Many scholars and researchers believe that there is opportunity to drive this transformation further via the use of tools such as virtual worlds, which provide opportunities for people to have experiences that simulate real life using computer software and hardware. Using virtual worlds in the classroom could provide students with immersive experiences that could not be easily achieved via traditional classroom mechanisms. Researchers have long recognized the implications such virtual worlds might have in the field of education, particularly regarding learning a foreign language. Could participation in a virtual world facilitate language learning?

What Are Virtual Worlds?

Before exploring that question, it is first necessary to understand what is meant by the term "virtual world." A virtual world (VW) is a computer-simulated environment where users can interact with other users and create and manipulate objects within the environment (Schroeder, 2008). Schroeder indicates that the principal differentiating factor between VWs and other virtual environments (e.g., video games) is the collaborative, shared experience among its users. Video games and online role-playing games are designed with designated objectives and obstacles that users must overcome to continue to the next level. There are no such objectives or obstacles within virtual worlds; instead, these worlds serve predominantly social purposes, enabling users to connect with others and interact similarly to how they would in the real world.

Second Life (SL) is a 3D virtual world created by Linden Lab in 2003[1] (Kapp & O'Driscoll, 2010). To use SL, users must create a free account and download software that enables them to access the virtual world. Users select a character, called an *avatar*, that enables them to explore and interact with people and objects in SL.

The avatar is fully customizable; users have the option to adjust the appearance and clothing of their avatars. For many users, the avatar becomes a reflection of their true personality. Using a series of keyboard commands, users can make their avatars walk, run, jump, sit, stand, and even fly. There are several ways users can communicate with other users. SL supports text chat, in which users type sentences using their keyboards, or voice chat, in which users simply speak aloud into their computer's microphone. First-time users are sent to a training environment after they first log in so that they can become accustomed to the various commands. After that, they are free to explore and interact with whichever other users might be logged on at that time, no matter where those users are geographically located in the real world.

Kapp and O'Driscoll (2010) describe the features of VWs that make them particularly effective as learning environments: VWs provide a space where users can simulate authentic experiences (for example, imagine a person who has never traveled to Spain strolling along Las Ramblas within the virtual world); they connect users across geographical distances; and they enable users to collaborate on projects and quickly and easily build prototypes of real-world objects. Studies have also shown that communicating via an avatar can help lower a person's inhibitions because there is less perceived social risk than when interacting face to face (Kapp & O'Driscoll, 2010). Randall Sadler, as interviewed by Kim (2015), gives an example of how a man living in Japan used Second Life exclusively to advance his English proficiency from a beginner level to an advanced level after only a few years. Sadler indicates that this was possible because the man found communities within Second Life with whom he could converse about topics in which he had great interest. This example illustrates that it is possible for Second Life to be used as a tool to facilitate language learning.

The primary focus of this paper is to survey some of the methods by which language teachers at traditional brick-and-mortar institutions (i.e., face-to-face classrooms) have used Second Life to facilitate language learning for adult learners. There are several considerations that teachers must address when they choose to integrate Second Life into their courses:

- *Environment:* What environment will students use? The Second Life environment is organized into designated areas called islands, which can be deemed public (available to all SL users) or private (accessible only to specified users). Exploring public islands within SL is free, whereas using a private island requires additional cost and setup time.
- *Task design and interaction:* Who will students interact with—native speakers or non-native speakers, classmates, or any other SL user who is logged on at the time? What will students do within Second Life?
- *Second Life installation and training:* How will the teacher minimize potential hurdles, such as technology difficulties and user difficulties?
- *Assessment:* How will teachers assess that students are actually learning or benefitting from using Second Life?

The studies read for this article were evaluated based on how successfully they addressed the above concerns. The following sections describe some of the ways Second Life has been used in language classrooms, both successful (the good) and less successful (the bad), and also provide some suggestions for areas of future research.

The Good and The Bad

Environment

Several of the studies read for this paper were conducted using private islands within SL that were purchased specifically for the study or had been purchased prior to the study by the hosting university (Henderson, Huang, Grant, & Henderson, 2012; Lin, Wang, Grant, Chien, & Lan, 2014; Peterson, 2010). The advantages of conducting an SL experiment on a private island are that the researchers have complete control over various factors within SL, such as the look and feel of the environment, which users can access the environment, and what actions are allowed within the environment. Creating a private island within SL, however, can have time constraints and be costly, and requires specialized knowledge from someone who knows how to build structures within SL (i.e., the buildings and settings users interact with inside the virtual world). Unless the hosting university already has access to a private island (as was the case in Peterson, 2010), many researchers opt to conduct their experiments within the public domain of SL. The downside to this option is that, because researchers have less control over the environment, various distractors can affect the outcome of the experiment. For example,

Wang, Calandra, Hibbard, and Lefaiver (2012) found that their students were distracted by strange items within the SL landscape, such as flying dolphins, and that SL users that were not part of their experiment kept intruding on their space.

Task Design and Interaction

A crucial step toward ensuring student engagement in SL is task design. It is imperative that the instructor provide clear guidelines regarding what students should do once they are logged into SL, and with whom they should interact as they complete these tasks. Henderson et al. (2012) designed an SL activity for his Chinese as a foreign language (CFL) students that simulated visiting a Chinese restaurant. The students were required to collectively select the meals for various virtual patrons having different dietary needs and preferences. They primarily interacted with each other and with virtual "robots" (e.g., the "waiters" in the restaurant) that were speaking the target language. The instructors designed the virtual environment so that it resembled a traditional Chinese restaurant. They included traditional Chinese-styled furniture and decorations with Chinese signs, as well as Chinese voices speaking Chinese in the background. This is a good example of an SL task because it created an immersive experience for the students that would not be easily accomplished in the traditional classroom.

Wang et al. (2012) used a combination of tasks to integrate SL into their classroom. Their students were assigned to provide virtual tours, give presentations, and participate in small-group discussions, all within SL; in addition, this English as a foreign language (EFL) class was partnered with a class of computer science majors at an American university. Within the virtual world, the EFL students synchronously conducted one-on-one interviews with their American partners. The authors noted that ". . . as an EFL learning platform, SL can link universities and students across temporal, spatial, and cultural barriers" (p. 959). The researchers found that partnering the Chinese students with American partners gave the students additional motivation to practice their English skills, and the use of the virtual environment lowered their inhibitions, allowing them to be more social and thus providing them with extended speaking practice.

Other studies designed tasks that were less successful. Although SL does provide tools to enable users to watch presentations within the interface and to integrate additional media (e.g., PowerPoint slides or YouTube videos), these are things that can be easily accomplished within a traditional classroom. Chiang, Yang, Huang, and Liou (2014) and Lan (2014) required their students to watch PowerPoint slides within the SL interface. Lan found that some students were unable to focus on the PowerPoint slides because they were distracted by the novel features of the SL interface, such as the ability to make their avatars fly. Lan concluded that more innovative tasks were needed to keep the students' attention.

In the study conducted by Zhang (2013), students were expected to log in to SL in their spare time to practice speaking English with native English speakers. Zhang did not provide his students with any specific learning tasks to complete within SL: his goal was simply "to increase their exposure to an English-speaking environment" (p. 245). As the SL guidelines provided were very open-ended, students encountered many problems not listed in other studies. These included not always being able to find English language speakers to interact with due to time-zone issues, and being unable to understand the English language speakers due to lack of proficiency or cultural differences.

Second Life Installation and Training

In her discussion on how SL is being used in education, Cooke-Plagwitz (2008) identifies the primary difficulties as being technology related (problems installing or running the necessary software), and the steep learning curve for both instructors and students. Many of the studies read for this paper encountered both of these issues.

Zhang (2013) required participants to individually install and set up SL on their personal computers, but several students who were willing to participate in the study were unable to get the software working on their personal computers. To overcome such issues, most researchers request that the software be installed in a central computer lab on the school's campus. This setup has several advantages over having students use the program individually from home: it ensures that all the students are using computers that have the same software and hardware capabilities; it avoids technology problems that arise from having the students install the software themselves; and it makes it easier to troubleshoot technology issues, such as version

compatibility, that do arise because students (and onsite technology support, if available) can help each other.

To deal with the learning curve, several studies allotted specific time for training the students in SL before beginning their experiments (e.g., Henderson et al., 2012; Lin et al., 2014). Henderson et al. (2012) indicated, however, that they underestimated the amount of training time required and should have integrated training opportunities throughout the experiment, rather than expecting students to become familiar with all of the controls after only one session. In addition, only Lin et al. (2014) specifically describes the training and preparation procedures undertaken by the teachers in anticipation of using SL. The teachers in this study included time to rehearse each lesson using SL before presenting it to the students, and to reflect on each lesson afterward. They found that the rehearsal enabled them to identify any final adjustments that needed to be made within the environment, helping to create a smoother experience for their students. For example, during a rehearsal of a unit on giving directions, the teachers decided the placement of additional signs within the environment would make the activity more effective.

Assessment

Many researchers indicate that students tend to have positive feelings about learning language in Second Life; students report feeling more motivated (Chiang et al., 2014; Peterson, 2010), more engaged (Lan, 2014; Lin et al., 2014; Wang et al., 2012; Yoon, 2014), and having greater confidence in their language abilities (Henderson et al., 2012). These studies arrived at these conclusions by using a combination of surveys, interviews, and student reflection reported via blogs and journals.

In addition, Wang et al. (2012) administered pre- and post tests to assess the oral skills (pronunciation, intonation, language use) of students who participated in five weeks of activities within SL as compared to a control group that participated only in traditional classroom activities. The researchers observed significant improvement in the oral skills of the experimental group compared to the control group in all aspects of their assessment except grammar (which was unsurprising, as the SL tasks had not been designed to target grammar). Of the studies read for this report, Wang et al. (2012) was the only one that provided quantitative analysis targeting one of the four language skills (reading, writing, speaking, and listening.

Conclusion: Suggestions for Future Research

Despite the many empirical studies that have been conducted involving SL, Golonka, Bowles, Frank, Richardson, and Freynik (2014) found that "there is no clear evidence that learning in virtual worlds is more effective than traditional forms of classroom learning . . ." (p. 82) and that "the lack of control groups using traditional methods make it impossible to evaluate whether learning was *improved, impaired,* or *unaffected* by these technologies" [emphasis in the original] (p. 82). Considering the many challenges instructors face when attempting to use virtual learning in their classrooms, it is important for researchers to demonstrate that there are clear benefits to using these environments. This means that it is crucial for researchers investigating this topic to include more quantitative analysis—particularly regarding traditional language indicators, such as reading, writing, speaking, listening—to support their claims, and to set up their study design correctly by including a control group.

Researchers must also ensure that they design their experiments in a manner that creates effective learning opportunities within the virtual world. To achieve this, Kapp and O'Driscoll (2010) propose using the ADDIE model, which is an acronym for *analysis, design, development, implementation,* and *evaluation.* During the analysis phase, researchers must carefully consider how they will address the technological and training challenges associated with using these environments. Many of the studies reviewed in this paper seemed more prepared to consider the technological issues than the training issues; only Lin et al. (2014) discussed the training measures undertaken by the teachers. For virtual-world instruction to be effective, both the learners *and* the instructors must be comfortable in the environment.

The next step is to design and develop the learning environment within SL. If the researcher opts to commission private space within SL, this will require additional time and funds that must be properly allotted. Whether using a private area or a public area, the researcher must design appropriate tasks for students to accomplish within the virtual world. Kapp and O'Driscoll (2010), however, warn that these tasks should not simply "mimic the classroom" (p. 70). They argue that "the true value of virtual learning worlds is [in] how

purposeful they can be in allowing learners to act and interact toward a common goal, fail, try again in a different way, and eventually (but much faster than in real life) achieve the learning outcome desired" (p. 70). Researchers need to unleash their creativity to truly get the most out of Second Life.

The final step is to implement the lesson. Kapp and O'Driscoll (2010) suggest that instructors conduct practice sessions in the virtual environment before engaging the students, and afterward conduct debriefing sessions, as was done in Lin et al. (2014).

Although there are obstacles to integrating virtual worlds into the classroom, with careful planning it can be done. 3D virtual worlds provide new and exciting opportunities for both learners and educators and have the potential to change the landscape of education.

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Notes

[1]Linden Lab is developing another virtual world that is aimed to be more user friendly and have the potential to reach a wider user base. That virtual world, called Project Sansar, is scheduled for public release in 2016. (http://venturebeat.com/2015/08/18/linden-lab-starts-testing-its-virtual-reality-world-project-sansar/)

*Corresponding author: brooks.aiyana@gmail.com