Using Second Life in an English Course: 
Designing Class Activities to Address Learning Objectives

Michael Mayrath 
Division of Instructional Innovation and Assessment, 
The University of Texas at Austin, U.S.A., mmayrath@austin.utexas.edu

Joe Sanchez 
School of Information, 
The University of Texas at Austin, U.S.A., joesanchez@mail.utexas.edu

Tomoko Traphagan 
Division of Instructional Innovation and Assessment, 
The University of Texas at Austin, U.S.A., tomoko.traphagan@austin.utexas.edu

Joel Heikes 
Division of Instructional Innovation and Assessment, 
The University of Texas at Austin, U.S.A., joel.heikes@austin.utexas.edu

Avani Trivedi 
Division of Instructional Innovation and Assessment, 
The University of Texas at Austin U.S.A., avani.trivedi@austin.utexas.edu

Abstract  Interest in the instructional application of virtual worlds, such as Second Life, has grown significantly. However, little information is available about effective instructional activities using virtual worlds. This case study illustrates lessons learned from a pilot integrating Second Life into a two-semester English course at a large southwestern university. The paper focuses on the process of implementing Second Life in the classroom, conducting a formative evaluation of the students’ relevant experiences, and modifying instructional activities for the second semester based on the results of qualitative and quantitative data analyses. The changes significantly enhanced students’ learning experiences. This study demonstrates the importance of combining careful instructional design with ongoing assessment when implementing emerging technologies. It also indicates that course learning goals and students’ needs should be considered first and foremost when adopting new technology.

Introduction

Three-dimensional virtual worlds such as Second Life, Active Worlds and There are rapidly being accepted and used in instructional settings. Virtual worlds are distinguishable from games with fixed rules and goals, because of their affordances for flexible applicability and creativity (The New Media Consortium and the EDUCAUSE Learning Initiative 2007). Yet, some of the positive instructional effects of games still apply to virtual worlds such as accommodating learning preferences of Net Generation students, enhancing student motivation and engagement, facilitating collaboration, and providing experiential learning opportunities unavailable in traditional learning environments (Gee 2003, Kirriemuir & McFarlane, 2003; Dede et al. 2005; Prensky 2006). Additionally, there are positive effects specific to virtual worlds such as the sense of social presence in interactions (The New Media Consortium and the EDUCAUSE Learning Initiative 2007).

One of the primary advantages of a virtual world is that there is no limit on how to use the space; however, this affordance is often challenging when designing effective instructional activities. Due to its recency, there is little empirical literature that addresses how to effectively design instructional activities for use in Second Life. This paper provides empirically-based
best practices for designing Second Life instructional activities in general as well as for using Second Life for a role play simulation.

Second Life

“Second Life is an open-ended environment in which players themselves design the world, its objects and their behaviors. Incorporating sophisticated three-dimensional modeling tools and a powerful scripting language, the game invites players to freely unleash their imaginations” (Delwiche 2006:164). Users, through their representations in the space, called avatars, move around and interact with one another in Second Life. Users also can create buildings and materials in Second Life. Therefore, while there is no embedded gaming aspect to Second Life, challenges and problem solving tasks can be created. It is this flexible creativity that makes Second Life ideal for creating instructional tools, such as games, problem based learning environments, simulation activities, and distance learning settings. Second Life is currently being used by a variety of sectors including music, politics, and businesses. An ever increasing number of universities are also using Second Life in a variety of capacities including a law class designing a legal system for a lawless new world to a distance education campus where real classes are conducted in a virtual world.

Previous Study

There has been little empirical study focused on effective instructional design for use in virtual worlds. In one study, Delwiche (2006) taught two online virtual world-based courses, the first using the game Everquest and the second using Second Life to teach the fundamentals of videogame design and criticism. He found that potential virtual environments should be selected on the basis of genre, accessibility, and extensibility. Genre refers to selection of games with themes that are relevant to the instructional context. Accessibility is making sure that the technology is usable by the students, and extensibility is having the power to create new scenarios and extend the real world into the virtual world. Delwiche also stated that for a virtual world-themed class to be effective, learning objectives should be identified at the outset. This includes two types of objectives: macroscopic theoretical goals to give big picture understanding and purpose as well as smaller objectives or “baby steps” that are related to game mechanics and/or specific goals. Last, Delwiche stated that context is crucial. Serious consideration must be taken so that the use of a virtual world fits appropriately for the instruction.

The Second Life Pilot

The pilot was implemented in a two-semester, freshman world literature and rhetoric course at a large southwestern university. Second Life was used in this course because it provided a similar but more powerful functions as the MUD Object Oriented (MOO)-based virtual tool the instructor used previously. The six males and twelve females in the course were trained in using Second Life and completed assignments within the virtual world.

The overall goal of the pilot was to develop an understanding of how to effectively use Second Life for instructional purposes. The pilot study was multi-focused and included measures related to learning gains in critical writing skills, flow motivation experiences (Csikszentmihalyi 1990), technical operations, and usability. This paper focuses on how ongoing evaluation was used to identify the instructional design factors that most enhanced students’ Second Life learning experiences.

The First Semester: Building Activity

One of the instructional objectives of the first semester was for students to learn about the integration of visual and verbal rhetoric. The activity used to accomplish this included learning about various types of architecture on campus, writing about architecture, and then building their ideal campus in Second Life and explaining why it was ideal. This activity required a great amount of time for students to learn how to build objects and structures in Second Life. The survey and interview results suggested the students were frustrated because they perceived the Second Life activities as irrelevant to the course content, excessively difficult and time consuming, and not helpful to their learning.
The Second Semester: Role Model Activity

Based on the first semester evaluation findings, the design of the second semester activity was changed from a robot making activity that required new programming skills to a role playing activity that capitalized on the students’ existing Second Life skills. One of the instructional objectives for the second semester was for students to explore leadership through role models they selected. Students first wrote short essays on role models of their choice such as Mother Teresa, Malcolm X, and Shakespeare, and then customized their Second Life avatars to look like their role models. During one class period students took on the persona of their role model and discussed leadership from the perspective of that role model in four different groups while using the chat function of Second Life. As they changed groups, they met at four different pre-developed meeting places in Second Life (see examples in Fig. 1 and Fig. 2). Each group had a moderator who led the discussion. The Chat History for each discussion was copied and pasted in a Word document and used for later analysis and critical writing on lessons about leadership and other role models.

Data Collection Methods

Data presented in this paper were collected from students enrolled in the pilot course through surveys, interviews, and observations in fall 2006 and spring 2007. The surveys were conducted online after each activity with most (17-18 out of 18) students responding to them. Survey items addressed writing self-efficacy, confidence and feelings towards technology, attitudes towards use of Second Life for instructional purposes, ease of use of Second Life, flow experiences while using Second Life based on Csikszentmihalyi’s (1990) eight components of Flow, and feelings about the building and role model activities. Survey results were summarized as descriptive statistics (frequencies and percentages).

A semi-structured interview was conducted with five students after each activity (10 interviews in total). Two of the interviewed students led the class in their Second Life skills and three others were randomly selected from the remaining students in the class. Interview questions focused on student experiences using Second Life and completing the assigned

Figure 1: Second Life picture of role models in Greek amphitheater setting

Figure 2: Second Life picture of all role models
activities. Interview responses were transcribed and analyzed for emerging themes. Informal observations were also conducted during the in-class training sessions and during the role model activity.

Results

The first semester data indicated that students experienced difficulties in Second Life activity, and helped us identify the ways to improve it. Specifically, both surveyed and interviewed students indicated that the Second Life building activity did not increase their engagement in the course, and that they had difficulty connecting it to course content. Additionally, most students found the Second Life interface to be unintuitive, and they felt unprepared to complete the task of building complex structures in Second Life. This resulted in students’ spending large amounts of time trying to learn how to build. Competition for who could build the best building also had a negative impact on student attitudes toward using Second Life in the course. As one student stated, “I think a lot of that frustration was just the buildings. No one understood why we were doing it and then it was a hard thing to do.” However, students also reported that the building activity enhanced their understanding of the role of visual elements in writing to some extent and most were very comfortable customizing their avatar, moving around in Second Life, and communicating with other avatars using Chat or Instant Messaging.

Based on the first semester survey and interview findings, the second semester activity was redesigned from a complex robot making activity to a simpler role model activity that emphasized: (a) aligning Second Life activities and experiences to course instructional objectives and context, (b) capitalizing on existing student skills in Second Life, and (c) communicating clearly to the students the instructional rationale (learning objectives) for the activity.

The data from the second semester suggested that the students perceived the role model activity much more positively than building activity. On average, students reported that the role model activity was more enjoyable and engaging, more relevant to the course content, gave better learning experiences, and supported with clearer directions, than the building activity (Fig. 3). Also, most students reported that they like avatar interaction with others better than building in Second Life (89%), they like working in small groups in Second Life better than working on their own (67%), and they had the skills to successfully complete the role model activity (89%).

Furthermore, 82% of the students agreed or strongly agreed that they liked the social interaction in the role model activity. 61% agreed that chatting with others while seeing their and others’ avatars facilitated discussions better in the role model activity than text-based chats.

Interview responses regarding the role model activity were also overall very positive. One interviewee stated:
The time went by so fast. I remember the entire time I just wanted to add to the discussion. It was really engaging for me. I was so into it. Even when we were done I was still thinking how Malcolm X would have thought.

Another student pointed out one of the advantages of using Second Life by stating:

This role playing activity probably would have failed if we had done it in real life, but it worked in this world of Second Life because people were able to take on another character and do something new.

Informal observation of the students using Second Life during the role model activity also showed students to be very engaged throughout the entire class period. There were numerous periods of silence with every student focusing on the discussion taking place among their role model avatars in-world.

Interviewed students were also adept at identifying critical issues related to using Second Life in the classroom. For example, when asked to compare the building and role model activities one student clearly related the importance of aligning course learning objectives to the online activities:

I think the difference was that the role playing activity seemed to relate a lot more to our class so you could actually have a real purpose whereas in the first semester [building activity] it was like we’re just kind of throwing this Second Life thing in, but it didn’t really fit with the purpose of the class.

In summary, students’ feelings towards Second Life varied across both semesters depending upon five basic factors: (1) how well Second Life activities were anchored in the instructional objectives and context, (2) if the Second Life activities were within the students’ skill levels and abilities, (3) whether the activity was a competitive, high stakes assessment, (4) if students perceived the effort required to complete the activity as reasonable, and (5) if appropriate support, such as clear directions and training, was provided prior to the activity.

**Discussion: Best Practices for Designing Second Life Instructional Activities**

Based on the pilot study findings, several best practices emerged for the instructional use of Second Life. Tab. 1 lists general best practices for using Second Life that are applicable to any activity. Tab. 2 lists best practices for using role playing discussions or debates in Second Life. The points presented in the tables are based on the pilot study results and experiences.

<table>
<thead>
<tr>
<th>Best Practices for Using Second Life for Instruction</th>
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<tbody>
<tr>
<td>Establish and communicate clear connection of activities with course objectives – anchor activities in the learning context</td>
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<tr>
<td>Provide training, support, and clear directions for Second Life activities</td>
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<tr>
<td>Match Second Life activities to students’ Second Life skills</td>
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<td>Design activities to tap into the strengths and interests of students</td>
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<td>Keep participation in activities low stakes – minimize competition</td>
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<tr>
<td>Set limits on the time students spend in Second Life</td>
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<td>Order activities in a way that builds user skills and confidence</td>
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</table>

Table 1: best practices for using Second Life for instruction
• Have clearly stated learning objectives for the activity that relate to overall course objectives
• Have interesting and debatable topics that are anchored in context of class for each session
• Provide very clear directions detailing group members, moderators, topics, etc
• Train students on how to customize their avatars, chat, and teleport
• Create small groups (3-5)
  o Rotate students through various and unique places
  o Give community feel to places (office, rug, campfire, etc.)
  o Make it easy for students to teleport from place to place
  o Have “sit here” icons in each place for avatars to sit facing each other
• Have moderators in each group that lead organized and structured discussions
  o Moderator should structure session so that only one person chats at a time which alleviates clutter or noise and allows each person to create thoughtful expressions
  o Moderator should give each role player a chance to introduce self before the discussion
  o Moderator should copy the Chat History from the session into Word for later analysis
• Time allotted for each group in each session should be approximately 20-30 minutes
  o Gives time for each role player to introduce self and get situated
  o Gives time for meaningful discussions
• Take snapshots in-world of students during the activity

Table 2: best practices when using role play discussion or debate activities in Second Life

Conclusion

This pilot study demonstrates the importance of combining ongoing evaluation with careful instructional design when adopting emerging technologies for instruction. The formative evaluation of students’ experiences was critical in helping us identify the needed changes in Second Life activities to enhance students’ learning experience. This process of integrating assessment and instructional design must begin with developing clear instructional objectives for the course and considering how these objectives can be met or enhanced using Second Life. Students’ skill and learning needs in using Second Life should also be considered. While Second Life offers unlimited possibilities for instructional innovation by extending the real-world into the virtual world, the diligent planning of evaluation and instructional activities is necessary for a successful and engaging learning experience.

References