ANALYTIC REPORT

for

Second Life Front Desk

Instruction Guide and Video

for

Mrs. Frances Crawford

Director, Writing Center

San Antonio College

by

Michael Brehm

Tim Hayes

Anna Hernandez

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English 2311 Students

April 29, 2010

April 29, 2010

Mrs. Frances Crawford
Director of the San Antonio College Writing Center
1300 San Pedro Ave. San Antonio, TX 78212

Dear Mrs. Crawford:

As we discussed in our proposal, we have created a new guide for use by the student assistants on Second Life for preparing, tagging, and delivering online students to their assigned tutoring sessions. We are submitting the enclosed instruction guide along with a report entitled "Report on Second Life Instruction Guide for Student Assistants".

The purpose of this report is to show the changes that we made to the current guide. This report will also explain the rationale behind our changes and why we think that it will increase the usefulness of the guide. A side by side comparison of the old version and our revised version is included. We discuss the testing that was used in creating the new guide and the results of that testing. Also, we discuss how the testing changed the final copy.

We hope this new guide exceeds your expectations and is useful to your student assistants.

Respectfully,

Michael Brehm, Timothy Hayes, Anna Hernandez, Austin Shepherd, Dianne Walding

Included: Report on Second Life Instruction Guide for Student Assistants
             Second Life Front Desk Instruction Guide (for Student Assistants)

Report on

Second Life Instruction Guide

for Student Assistants

By:

Michael Brehm

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Technical Writing 2311

Mr. Lennie Irvin, Professor

April 29, 2010

This report discusses the creation of the new guide. The guide is also included, discussed, and compared to the previous version. Usability testing is also included, the results are discussed, and suggestions on how the guide could have been improved are also included in this report.

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Abstract

Second Life is an online virtual world where residents can interact with people. At San Antonio College, it takes on a very special role in the education of students. Students have the potential to meet with a writing tutor online through Second Life, and it is the role of the Student Assistant to prepare students for their sessions by granting them access to the world where the tutor is. They also guide the students to the tutor, making sure that the tutor is ready for the students. In this report, we consider the purpose of the instruction guide, talk about why we updated the current guide, and speak about our usability testing. We provide the results of the usability testing, and finally, we discuss how to use the guide.

Introduction

Second Life (SL) is an online virtual world in which residents can interact with each other just like in real life. In the case of San Antonio College, the Writing Center has engaged SL to expand its tutoring opportunities from the more traditional style of meeting with a tutor in person. SL allows San Antonio College to help students by providing them the freedom to attend tutoring sessions while off-campus. In helping them do so, the process requires more than just a tutor. Another student worker is needed to prepare the online students for their tutoring session. These student workers are known as Student Assistants. Their roles are to contact and prepare the online students for their tutoring sessions, provide the students with their tags (which allows access into the tutoring area), and guide the students to the tutor.

The purpose of this report is to compare the current guide with the updated version that we have created. We examine the function of the current guide and the areas in which it needs to be updated and clarified. Further, we describe the changes that we made to create an updated guide, discuss the multiple usability tests that we performed, and provide the information we took from the usability testing to create the final product. The report concludes with ways that we feel the new guide can be used and the best practices to make the guide as successful as possible.

Problems and Background

The current SL Student Assistant guide describes the tasks a Student Assistant must perform to prepare a student for a tutoring session. The current guide is three pages long and has three very grainy and dark pictures which are hard to decode. Also, the tasks themselves are very hard to understand as they require a lot of reading and in some spots are very ambiguous. The main problems with the guide are:

- The format is a list of numbered instructions, printed on paper, in chronological order. While the parts are broken up into sections, they are all on the same page which is very overwhelming to the user.

- The guide is very wordy, which also makes it hard on the user who can get bogged down in the details. Also, the language can be very confusing and some of the steps are incorrect.

- The pictures used are very grainy and unclear. This is due to poor print quality for the pictures and copying the paper multiple times, causing the picture to become dark and distorted. Also, the pictures do not match up with the current SL graphics, making it hard for the user to understand where the picture fits in with the steps.

- There are too many steps in order to complete one task.

Due to these issues, we felt it necessary to complete a new guide for the Student Assistants.

The Function and Purpose of an Instruction Guide

The main purpose of a walk-through guide similar to the one that we have reformatted is to allow someone with limited knowledge learn to do the task the guide is explaining. Most people will go to a guide like this when they are confused and do not know what to do next. Other people may use the guide when they are first starting out so they can learn exactly how to complete the task. The steps must be written in simple wording, be complete, and be very easy to understand. Even the tiniest detail like "click submit" must be included so that a person is not sitting and waiting for something to happen. A guide can not assume a person has any prior experience with the subject matter because a guide cannot tell the experience of every person. In short, a guide must be in as simple a format as possible, and even though a step may seem easy or implied, it must not be skipped.

In order for a walk-through guide to work, some crucial pieces of information that must be conveyed include:

- Easy to understand language
- Thorough, step-by-step processes
- Easy to understand graphics
- Text that matches with the graphics
- Several small tasks as opposed to one large task
- Simplified format

Theory, Methods and Procedures

As stated in our proposal (see appendix B), our initial plan was to address three issues with the current guide. First, due to the naturally high turn-over rate of student assistants, the Center needs an efficient training process that is easy for trainees to access and use. Further, the current user guide contains fairly accurate information but is not widely used. Lastly, most of the student assistants are unaware of the existence of the user guide. The way to correct this was to make format and content changes to the print version of the guide and to use video screen capture software to create a video tutorial with voice-over instructions. The first step in this process was to develop low-fidelity models of both the print guide reformat and the video tutorial. To that end, we put together a very simple, hand-written, half-page booklet with no more than one small task per page. We also developed a PowerPoint presentation with still screen shots of major scenes from the proposed video and put the slides in storyboard format for use as a low-fidelity video model.

Phase one of our usability testing, feedback on our low-fidelity models, was very successful. Our low-fidelity models were chosen enthusiastically over the current format of the guide, so we proceeded to work on high-fidelity models. Additionally, we learned that many of our end-users, the student assistants in the writing lab, wanted to see the PowerPoint slides we developed incorporated into the booklet. The face page of a booklet is an excellent place to incorporate images since it allows the reader to easily reference both the text we had planned and the image, without having to flip back and forth between pages. We decided to include this in our next version of the print guide.

When we began taking screenshots and some preliminary screen capture video, we quickly realized that a video guide would not be feasible. Because of time constraints; the fact that a video tutorial cannot be easily updated, and the limitations of the computers,(i.e. processing power, software, and our familiarity with the programs) it would be impossible for us to execute the video satisfactorily.

After transferring information from the old guide to the new, adding graphics, and with only a few minor printing difficulties, the booklet alone made it into our second phase of usability testing. For a more detailed description of our usability testing process, see Appendix C.

Usability Testing: For usability testing, we recruited individuals from our class and the Writing Center. After a brief Questionnaire to establish some demographic information, we asked our participants to use our guide to communicate with, tag, and teleport an avatar in SL to the Writing Center's online tutoring facility.
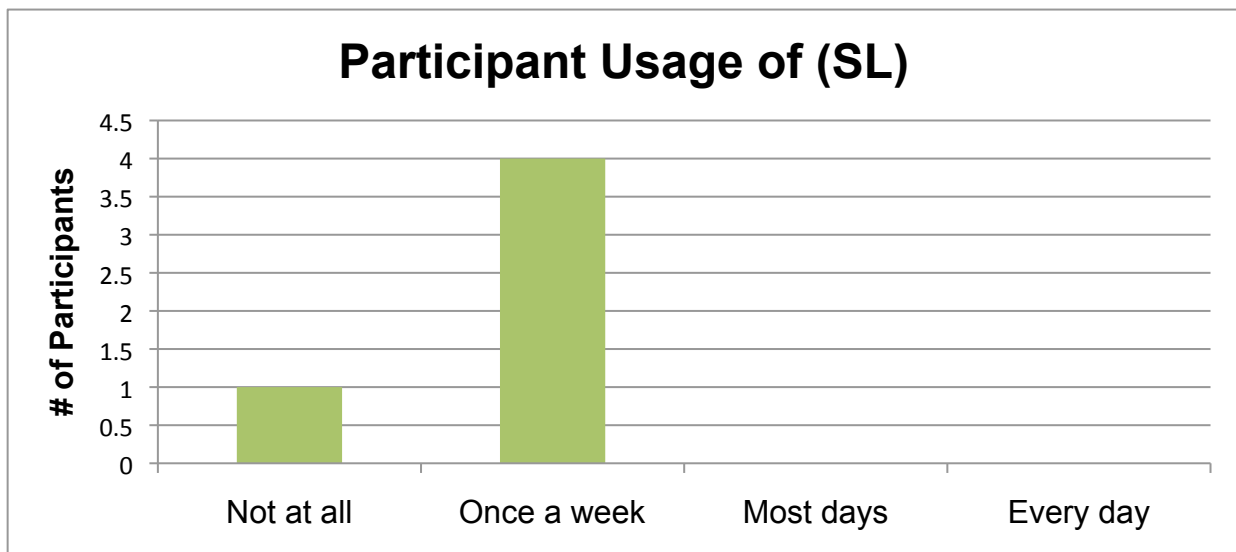

Figure 1.

Since we were writing this guide for "college age" novice users of (SL), and since test subject who were very familiar with SL could skew our results, we were interested in our participants respective experience with SL and similar virtual environments. Figures 1-2 relate the responses of our participants to the Entrance Questionnaire (see Appendix D).

Participant Familiarity with (SL)

Figure 2.

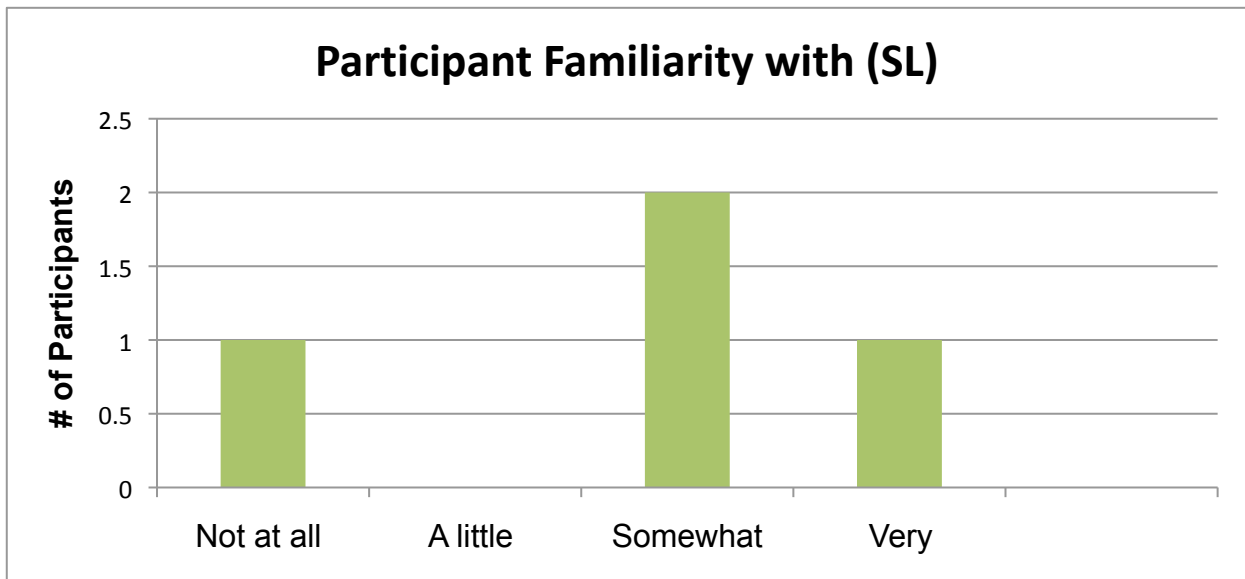As you can see, our participants showed no amount of exceptional experience with SL nor were they fairly regular users. As a matter of fact, nearly half our test subjects lined up perfectly with our demographic: Student Assistants with limited experience on SL. Because our test subjects reflect our target demographic, we feel that our gathered data , and the changes made as a result are valid and appropriate.

Figure 3 details the time our subjects took to complete the tasks assigned to them during the test and can be misleading if taken out of context. As stated in our Usability Test Plan, we asked our participants to a) use Think-Aloud Protocol and b) ask questions, make comments, and suggestions when they were confused during the testing. Some of our participants were more vocal while others tended to focus on accomplishing the tasks quickly. The length of time it took for some our participants to complete the task reflects not necessarily a deficiency on the part of the guide but the success of our test in making people comfortable giving feedback.
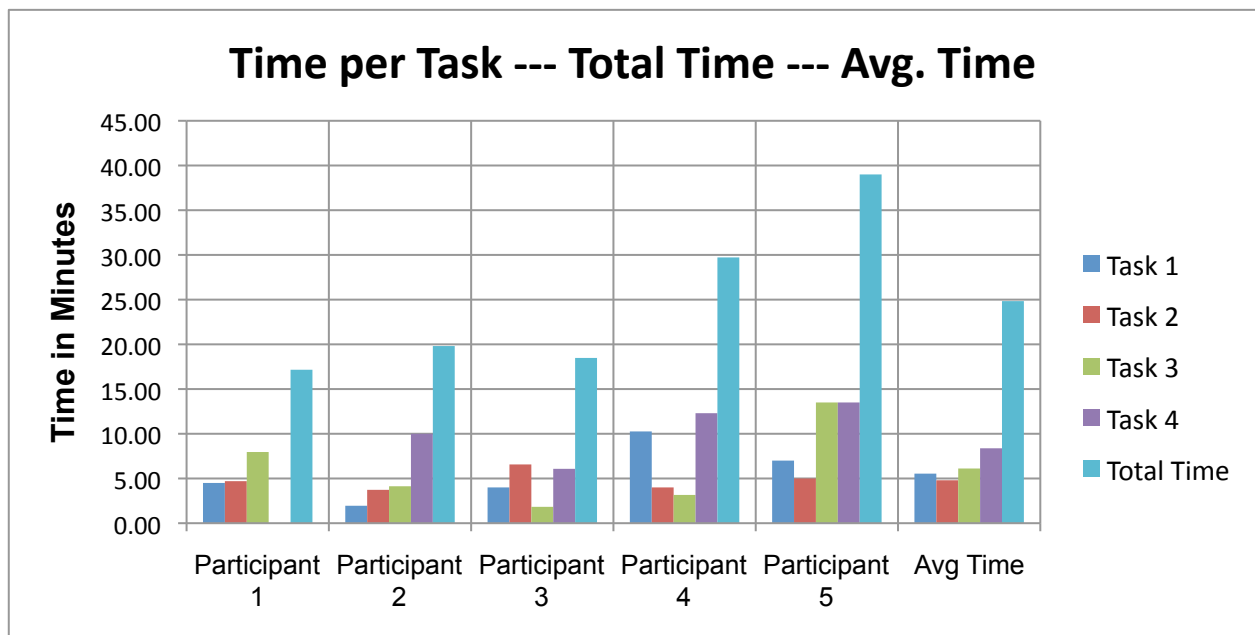

Figure 3.

Additionally, several of our test participants took longer than expected to type out the greeting and instructions to the "student" they were escorting to the tutoring area. This should not be a problem for student assistants in the writing lab who will most likely have access to voice chat.

Through their comments, questions, and confusion during usability testing, our participants helped us identify many gaps both in our format and in the steps we copied from the original guide. This information was used to make several important changes to the user guide, such as:

- Providing two informational sections in the front: one for conducting a pre-log-on conversation by phone with the online student to make sure each is ready and to establish voice capabilities, and one for getting the student assistant to the ESMG Lounge if necessary

- Including complete scripts for all communication to the online student, whether by voice online or typing

- Changing the lengths of most steps from sentences of three-to-five-word commands, e.g. "Click This" or "Enter That", thereby eliminating extra wording which can clutter a small page

- Breaking larger tasks into smaller ones, each of which is printed on its own page with an accompanying annotated graphic

In all, we found that our original booklet idea was the correct approach. For a complete copy of the new guide, see Appendix F.

Results

Our final product is a vast improvement over the existing guide and a good marriage of the two originally proposed products. The following table and paragraphs compare the two guides.

Comparison of the Two Guides

Table 1. Old Version Vs. New Version		
Version	**Old Version**	**New Version**
Number of Tasks	6	4 (Excluding Introduction)
Introduction	None. No Voice Instructions	Included, with instructions for Voice Chat
Amount of Text	Excessive, Crowded.	Appropriate and Concise
Structure/ Page Length	3 pages, 8 1/2" X 11"	11 Pages Front and Back (Including Cover), 51/2" X 81/2"
Content	Out of date, steps are unclear	Updated, steps are clear and concise
Amount and Appropriateness of Graphics	Few, Poor Quality	One per face page. Arrows, numbers, and circling correspond to text.

Physical Differences: The format of the current guide was long, confusing, and because of the full page structure, reads more like a report. The new booklet format is only a half page with short, numbered steps on each page. With each page turn, the reader feels a sense of accomplishment and is prepared for a new task. Additionally, we have included a cover page with bold wording and graphics to identify the document.

Content Structure: Since the process, excluding the addition of voice chat, has not changed, the main tasks in the new guide are the same as those in the old. Many of the changes we made were because the content in the old guide was outdated, which we found out in our attempts to use the old guide. We incorporated additional set-up

pages in the front establishing contact with the online student and whether or not voice capabilities are an option for communication. We provide scripts for all communication exchanges and short, simplified steps with annotated graphics throughout the booklet.

Graphics: Each of the graphics is oriented so that when the Student Assistants are sitting at the computer, they will see the same image of the computer screen in the guide. The reason for this was to make the Student Assistants more comfortable with the guide and to show them exactly where they need to be. Most of the graphics are annotated and correspond to a specific step on the page opposite the image. On graphics with multiple steps, each key component is circled with a numbered line-and-arrow to indicate with which step it belongs.

Instruction Flow: There is a distinct flow to the information provided in our updated user guide. The written steps within the guide are conventionally numbered and read left-to-right, top-to-bottom. Additionally, thanks to some insights from our second usability test subject, we grouped and oriented the numbering on the graphics so that, generally, they can be read in order, clockwise. This is a great example of where usability testing led us to content structure which better serves our audience.

Conclusion

Our goal with this project has been to deliver an improved Second Life Instruction Guide for Student Assistants through planning, development, and usability testing.   The final product addresses the original concerns we had with the original guide. The three issues were corrected thusly:

- The reformatting and content changes make the guide easy to use and to identify

- Providing the Writing Center a digital copy will facilitate reprinting and updating, making the guide easier to access and more useful in the future

- We believe providing the Writing Center with a user friendly guide will increase use of the guide and, therefore, make its presence better known

Our group is delivering the final guide to the Writing Center in stapled format so that we can reduce the amount of money associated with binding and printing. Future guides could be laminated and bound with rings for easy page turning. The key thing that we will be providing is a digital copy so that, if anything is ever updated, the Writing Center will be able to easily update the master copy, and easily print so that it can be redistributed.

Appendix A: Glossary

Avatar: a graphical image that represents a person on the Internet

ESMG Lounge: a specific location in the 3D online world of Second Life (Educational Services Management Group)

Friend Request: the student assistant will request the student (looking for tutoring) to accept him/her as a friend so that the student assistant has easy access to the student

Instant Message: an electronic message transmitted by the instant messaging button

Second Life: a 3D online world lived in and built by its participants -- a new medium for creative self expression, social interaction, and fun

Shippe 1: a receiving facility shared by other colleges and universities

Shippe 4: the specific location for San Antonio College in Second Life (you can get to this location from Shippe 1)

Tag: a process completed by the student assistant in order to allow the student to move around in the online world of Second Life (a student can not move into designated areas without having completed this process)

Teleport offer: an offer to transport (move from one location to another) your body (avatar body)

Appendix B: Proposal Summary

The project team will meet with student assistants and the director (as needed) to get feedback on updates and suggestions for changes to the current user guide. The team will then create prototypes for Writing Center approval, provide finished products for usability testing, and produce a user guide both in print and in several short screen capture videos for use by April 29, 2010.

Based on the needs listed above, we will be revising the current "Second Life Front Desk Instructions for Set Up" by editing the document for clarity, consistency, and accuracy. One of the modifications will include changing the format of the print copy to booklet or other user-friendly format.

To enhance the current guide, a companion instructional video will be developed using Camstudio or other screen capture software. In order to do so, either a member of our group must obtain necessary privileges to conduct "tagging" within Shippe1 or someone with these privileges must assist us. We will include voice-over and text instructions within the video.

Appendix C: Excerpt from of Our Usability Test Plan

User Profile

The user guide is designed for use by student assistants in the Writing Center. Many are work-study students with little or no experience in SL. They greet people entering the Center, answer phones, and help other students with a variety of tasks. One of these tasks is greeting students online and getting them to their tutors. To complete this task well, they need a user guide detailing the steps in an easy-to-use format that does not require much training.

Test Methodology

Welcome and Entrance Questionnaire. This portion of usability testing is designed to make the person going through the test feel more comfortable and at ease. Most likely the participant will be a little nervous and will not know what to expect. The role of the host is to make the participant feel comfortable so the results are valid.

A host will greet each participant outside the office and give a brief overview of the testing process. At this point, the participant will receive a brief entrance questionnaire to complete with these questions:

   - How familiar are you with SL?

   - How often do you use SL?

   - How familiar are you with virtual environments? (Likert scale, forced value, four options)
      (Likert Scale)

Task-Based Exercises. This is the most important part of usability testing, and we plan to employ several methods to help us discover what the participant is experiencing throughout the testing process – think aloud protocol, test facilitators, observers/data loggers, and

questionnaires. Think Aloud protocol, employed in usability testing to provide feedback on the participant's experiences while performing the testing tasks, is an integral component of this test (Think Aloud Protocol). At the work station, the participant will be asked to "think-out-loud" while performing the tasks. It is important that the facilitator listens closely, records exactly what the participant does and says, avoids leading the participant, and transcribes notes legibly.

We will perform two different sets of tests, both with the goal of successfully tagging and teleporting an online student to a tutor. The first set of tests will be for the print guide only. We are looking for clarity, correct information, and ease of use. The second set will incorporate the digital guide. The participant will be instructed to watch the PowerPoint instructions and, using the print guide if needed, to complete the task of tagging a student.

Exit Questions. This is the debriefing part of the testing process. The host will escort the participant back outside the office to complete a short questionnaire regarding what s/he thought was good, bad, and what needed work. Blank space will be included on the form for any additional comments to be written in on the questionnaire.

- What worked well for you?
- Do you remember any specific steps or images that were unclear?
- How helpful was the guide? (Likert scale, forced value, four options) (Likert Scale)

At the completion of the testing, the host will complete the exit questionnaire, invite any further feedback, and thank the participant for helping with this project.

Test Environment and Equipment

Environment. The high-fidelity test phases will take place in a faculty office. Four students from the general population without much experience in SL and two staff from the Writing Center will serve as the testing participants: two without experience and one staff for each test set.

Equipment. There will be two stations: one intake area outside the office for the participants to complete the entrance and exit questionnaires and one work station with a computer for the testing tasks. The intake area will have a desk, clipboards, questionnaires, and pencils. The work station area will have the user guide in both formats, paper and digital, and a highlighter for marking as needed. The observers will be seated near the work station with copies of the user guide and pencils to record data.

Quantitative Measures. The testing process should provide the following information that will be used to produce the completed user guides:

- Number of tasks successfully completed

- Length of time to complete each task

- Length of time to complete the entire process

- Errors made

Qualitative Measures. The testing process should also provide important information about how users relate to the guides:

- Impressions of the test

- Preference of the guide medium – print or digital

- Questions about the process (missing information, difficult wording, etc.)

- Issues that arise (confusion, difficulty, etc.)

- Severity of errors

Scenario Script

The host greets the participant outside the office.

Host: Hello, my name is _____.   Let me thank you in advance for your

participation in our usability study. Before we begin, I would like to go over the test

process and assure you that it is not you we are testing but the user guides we've

developed for The Writing Center. First, I'll ask you to answer a few questions about

your relative experience with the subject matter. Next, I'll take you to the computer

station in the office where you will find our test facilitator, two test observers, the user

guide *(or guides, depending on the test set),* and a highlighter for marking as needed.

At this point, you will be asked to sit at a computer and the test facilitator will ask you to

perform a few tasks within Second Life.

You will have a particular role to play in this test. You are a work study employee

working at the Writing Center. You have not been there long, so you aren't sure of all

your job duties, including distance education students. It is 1:51 now, and a student has

just called you for his online SL tutoring session. Your job is to prep the student, get

him online for the session, and guide him to his tutor.

We ask that you give as much feedback as possible while performing these tasks.

Thinking aloud, or saying what you are thinking and doing, is strongly encouraged as

well as asking questions, though we cannot guarantee all your questions will be

answered during the test. If you get stuck on any task, the test facilitator will not be able

to help you complete it but will move you to the next task. After all testing is completed,

we will be asking a few more questions about your experience.

Do you have any questions before we begin?

The participant is given a clipboard with the entrance questionnaire, a pencil, and a copy of the Think Aloud protocol information sheet. After completing the questionnaire and reading the protocol, the host accompanies the participant to the work station inside the office.

Facilitator: Hello my name is _____. Please have a seat and make yourself comfortable. I will be asking you to perform specific tasks within SL.

The computer is already set up for you. Please follow the steps that are given in the user guide and attempt to "tag" the avatar with the name "hanna Cisse". Once you have tagged the avatar, your next step is to teleport this avatar to where the tutor will be. If you are feeling uncomfortable at anytime with completing these steps, we can stop at your request.

The participant works through all the task-based exercises in the user guide.

Verbal feedback is recorded by the observers throughout the testing process to capture errors, difficult areas, times, and other responses. The host then accompanies the participant outside the office for the exit questionnaire.

Appendix D: Entrance & Exit Questionnaires

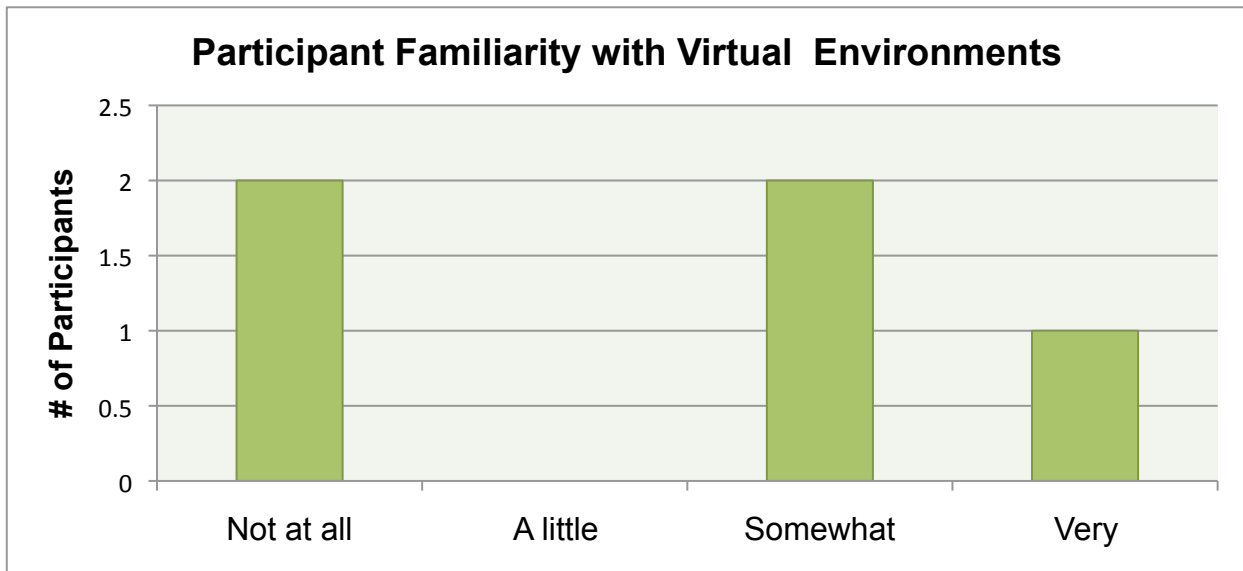## Entrance Questionnaire

Second Life Front Desk Instruction Guide

- **How familiar are you with SL?**

    ○ Very   ○ Somewhat   ○ A little   ○ Not at all

- **How often do you use SL?**

    ○ Every day   ○ Most days   ○ Once a week   ○ Not at all

- **How familiar are you with virtual environments?**

    ○ Very   ○ Somewhat   ○ A little   ○ Not at all

Exit Questionnaire

Second Life Front Desk Instruction Guide

- **What worked well for you?**

- **Do you remember any specific steps or images that were unclear?**

- **How helpful was the guide?**

    ○ Very   ○ Somewhat   ○ A little   ○ Not at all

- **What other comments would you like to give us?** (Please use the back of this sheet if needed.)

Appendix E: Additional Information from Questionnaires

Participant Familiarity with Virtual Environments

A bar chart with the y-axis labeled "# of Participants" ranging from 0 to 2.5, and the x-axis with categories "Not at all", "A little", "Somewhat", "Very". Bar values: Not at all = 2, A little = 0, Somewhat = 2, Very = 1.

- What worked well for you?

    1. Test environment was comfortable

    2. Tagging instructions were good

    3. Pretty helpful overall

- Do you remember any specific steps or images that were unclear

    1. Many directional (send-select-find) commands were missing

    2. Arrangement of screen shot arrows was confusing

    3. No

    4. Where to teleport

- What other comments would you like to give us?

    1. Clean up image annotation

    2. Teleport instruction #4 should read "left click"

    3. Create graphical representations of process

    4. Need better signals to know when I am directing the student

Appendix F: Final Product

Please see the booklet which is attached on the following pages.

Works Cited

"Likert Scale". Wikipedia. 7 April 2010. Web. 10 April 2010.

      <http://en.widipedia.org/wiki/Likert_Scale>.