Second Life Avatar Customization Usability Test Report

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December 18th, 2017

Usability Test Report for Second Life

Date of Report: [December 18th, 2017]
Date of Test: [December 3rd, 2017]
Location of Test: [New York]

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Executive Summary

Our reasoning for conducting this usability test is to create a Quick Reference Guide (QRG) for students attending Kabul University. We decided to analyze how intuitive it was for novices or people who have limited experience in the realm of Virtual Reality (VR) or other virtual world platforms to customize avatars for role play within Second Life. We choose 4 major aspects to focus on which are "Selecting a Pre-Made Avatar", "Changing an Avatar's Shape", "Using gestures", and lastly "Holding Objects".

After narrowing down our main topics, we each created QRG's based on our individual experiences while trying to complete the steps of each of the tasks listed above. After developing our QRG's we then brainstormed ways in which we could make our guides more effective. Next, we chose the best qualities of each guide, and then combined them into one aesthetically pleasing document, with clear and concise content.

After the usability test and subsequent feedback from our participants we came together to address and correct issues that were made apparent to us. Despite our best efforts, there were problems with our collaborative QRG that we failed to realize. Our participants had a different perspective when it came to Second Life that allowed us to consider different approaches to the QRG.

Background Information

Kabul University

Located in the capital of Afghanistan, Kabul University was established in the early 1930's and seeks to provide incoming students with proper preparation so that they can gain international success.

Second Life

Second life is a 10-year-old virtual innovation, created by Philip Rosedale that provides users with an opportunity to experience a world outside of their physical confines through Virtual Reality. Within this world, users can customize their avatar and avatar's lifestyle to better suit their personal needs.

Member Backgrounds

Cherishe Cumma: Currently attending New York City College of Technology and is completing a degree in Professional and Technical Writing, with a specialization in Biology. Cherishe seeks to improve her writing skills throughout college so that she can acquire a job as a college professor and share her knowledge with others.

George Gordon: Currently attending New York City College of Technology and is pursuing a major in Professional and Technical Writing, with a specialization in Psychology. George has always had a passion for writing and hopes to develop his talents so that he can go into the field of journalism upon graduation.

Christopher Navarrete: Currently attending New York City College of Technology and is pursuing a major in Professional and Technical Writer, with a specialization in communication design. Christopher plans to combine his knowledge of writing and design to create visually appealing documents that effectively inform, clarify, and grab the attention of his audience.

A Model for Understanding Formative Evaluation

Goals

Our goal is to create an effective QRG for customizing an avatar for roleplay in Second Life. Users of the guide should be able to follow the instructions easily without issue.

Data Collection

The task analysis, surveys, contextual interviews, and focus group were used to collect data for the QRG. Data was collected from the participants via Survey Monkey and inside Second Life.

Revision

Based on the data that was collected from the participants, corrections were made to the final QRG. Users found difficulty in reading certain section and would've liked more images.

Constraints

The main constraint for this project was the lack of Second Life experts. Furthermore, due to different schedules, less individuals participated in the focus group than in the preliminary survey.

A Model for Understanding Formative Evaluation

Participants

The participants for the focus group, contextual interviews, and surveys were all novices and of college age. We had a total of thirteen participants.

Roles:

- **Evaluators:** Cherishe Cumma, Christopher Navarrete, and George Gordon
- **Reviser:** Christopher would revise the final QRG based on the feedback received.
- **Learners:** Our participants are the learners.
- **Critics:** Our participants are the critics.
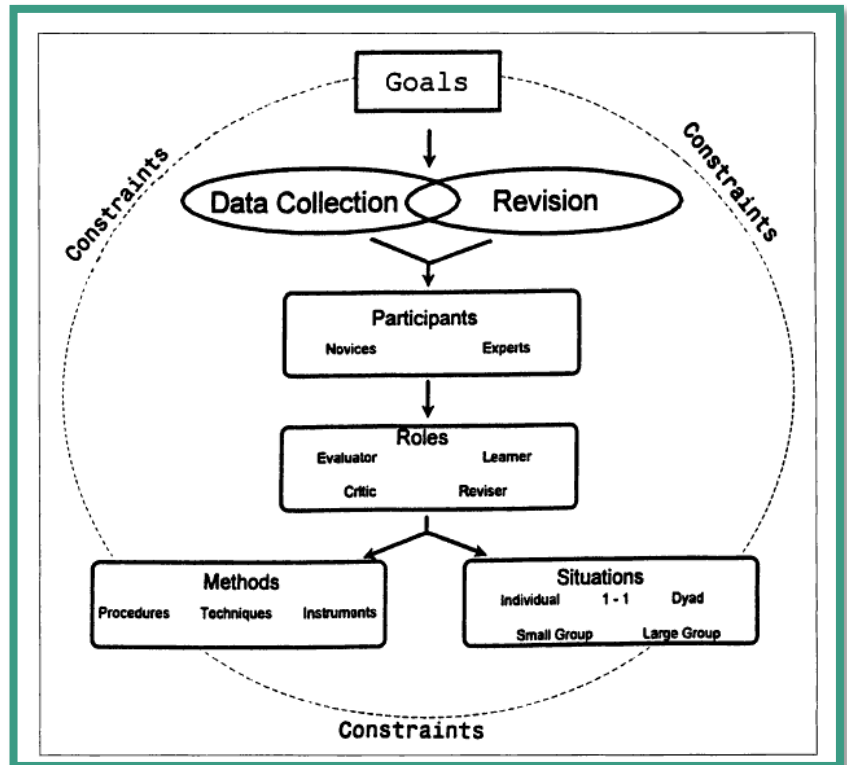
Methods:

- **Procedures:** Individuals were asked via email if there were available to become participants for this project. Those that agreed to participate were given an online survey asking about their experience with Second Life. Aside from a couple of participants who were selected for contextual interviews, the participants could do the usability test at their leisure. Afterwards, six of our participants joined the focus group and completed another online survey asking for feedback on the QRG.
- **Techniques:** The techniques performed in this project include two online surveys, a task analysis, a focus group, and contextual interviews.
- **Instruments:** Survey Monkey was used to create the surveys and to gather information about the participants. Second Life was used as the meet-up location for the focus group.
- **Situations:** The online surveys, task analysis, and focus group occurred as a small group. The contextual interviews were one on one.

Methodology

What Happened During the Usability Test

The usability evaluation of the Second Life QRG was conducted by our team in New York on December 3rd, 2017.

During the usability evaluation, thirteen participants were asked to complete four actions within Second Life. Before the evaluation started, the participants were asked to complete a preliminary survey about their knowledge with Second Life and virtual world platforms. During the evaluation, five participants were chosen for contextual interviews, while the remaining eight could conduct the test on their own. The five who were selected were done so because of the ease in getting to their respective workplaces during a period that would work for the participant and evaluator.

Who We Tested

Our criteria for selecting participants included being around the ages 18-30 with little to no experience with Second Life, regardless of any experience with other virtual world programs. These decisions stemmed from the fact that those within Kabul University who would be using Second Life would fall under these specifications. To that end, we went about sending preliminary surveys to potential participants to see who would fit our criteria.

Virtual World Experience

Yes	2
No	11
TOTAL (participants)	**13**

Gaming Experience

Yes	13
No	0
TOTAL (participants)	**13**

Age

18-20	1
21-22	8
23-24	1
25+	2
TOTAL (participants)	**13**

For our participants, we aimed to find some who were experts with Second Life or a similar virtual world to no avail. Ultimately, we received thirteen responses to our survey and each person was deemed a viable candidate for the usability test.

What Participants Did

During the usability evaluation, participants were asked to complete four tasks within Second Life. These tasks were presented in no order, however, participants seemed to all follow the same path.
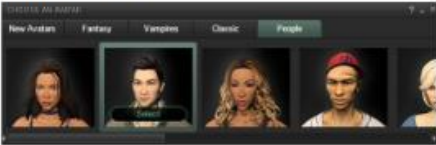
#	Task
1	Choose an Avatar
2	Edit an Avatar's Shape
3	Use a Gesture
4	Use an Accessory

The QRG our participants utilized during the usability test.

What Data We Collected

To create a QRG that would be most beneficial for our intended audience, we had to conduct various user research methods. These methods would provide us with vital information on how to better visualize, create, correct, and adapt our QRG. The methods we utilized are as follows:

- Task Analysis
- Online Surveys
- Contextual Interviews
- Focus Group

Task Analysis Data

Before the task analysis, we first discussed the goal for our QRG: to inform novices how to customize their avatars for roleplay within Second Life. Therefore, we decided that the guide should be clear, concise, and visually appealing. We proceeded to each make our own individual QRG's to later come together and create a collaborative QRG which would take the best aspects of each one. During the task analysis, we reviewed each other's QRGs for any inconsistencies and errors in terms of design and text and provided suggestions on what could improve them.

We decided that the quick reference guide should:
- Have a minimalist design.
- Have steps that are specific and clear.
- Have a small number of steps.
- Have each step as a command.
- Have useful images.
- Have four topics.

On the following pages, you will find our individual QRG's and the suggestions given to each of them.

Cherishe's QRG.

Suggestions	Reason for Suggestions
Remove the "How To: Edit my Outfit" section.	The QRG was established to only discuss four topics.
Reduce the amount of text.	An excessive amount of text and steps causes confusion and distraction.
Bold important text.	Bolding text allows the audience to clearly see and understand what is important.
Remove the underlined style.	Text should not use the bold and underlined style at the same time.
Correct the aspect ratio of each image.	Each image was stretched or distorted.
Correct the section that mistakes the suitcase icon for a long sleeve sweater.	The icon is a suitcase and not a long sleeve sweater.

Customizing for Roleplay in Second Life

Selecting a Pre-made Avatar

1. From the top menu, click **Me > Choose an Avatar.**
2. The **Choose your Avatar** window will appear. Click on a tab to preview the portrait of an avatar.
3. Click on an avatar's portrait to use that avatar.
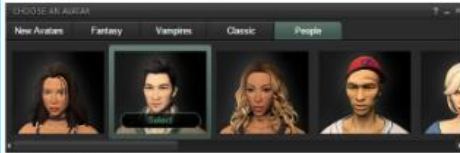
Selecting an avatar.

Using Gestures

1. From the top menu, click **Inventory.**
2. The **Inventory** window will appear and contain various folders. Double click the **My Inventory** folder.
3. Double click the folder **Gestures.**
4. Double click on one of the folders.
5. A list of gestures specific to a folder will appear. Click on the desired gesture.
6. From the same menu to the bottom right, click **Play.** The avatar will use the selected gesture.

Selecting the Gestures folder.   *Types of gestures.*

Changing an Avatar's Shape

1. Right click your avatar.
2. Click **Edit my Shape.**
3. The **Editing Shape** window will appear.
4. Click an option.
5. Sliders will appear. Click and hold the slider to the left or right to change the appearance of a specific body part.
6. Once finished, click **Save as** to save your changes.
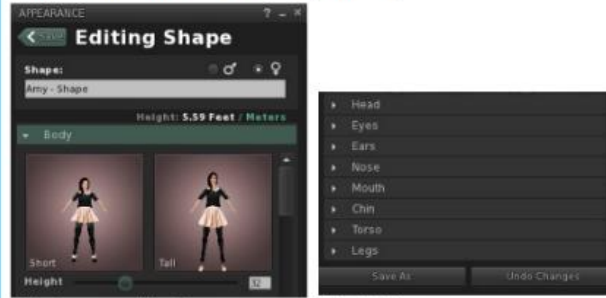
Adjusting an avatar's height.   *Editable body parts.*

Holding Objects

1. From the top menu, click **Inventory.**
2. The **Inventory** window will appear and contain various folders. Double click the **Objects** folder.
5. A list will appear. Click on the desired item to hold.

Selecting the Objects folder.

Christopher's QRG.

Suggestions	Reason for Suggestion
Correct the white space between each topic.	The white space between each topic is inconsistent.
Include a step that states how to remove an object.	It is important information that the user should know.
Remove picture captions.	The images and text explain the images enough.
Be more descriptive in the "Selecting a Pre-made Avatar" section.	More descriptions create clarity.

Avatar Customization in Second Life

Choosing an Avatar

In order to begin customization, you must first choose an avatar. You may select between humanoid avatars or non-human avatars. To do this:

1. Click on the "Me" tab on the top left hand corner of your screen.

2. On the bar that appears, click on "Choose an Avatar," which will bring up a new menu. (Pictured Below)

3. Navigate through the avatars until you find one you'd like to use.

4. Click the avatar to select it.

Using Accessories

Second Life avatars can utilize Accessories. To find Accessories:

1. Click on the "Me" tab on the top left hand corner of the screen.

2. On the bar that appears, click on "inventory." This will open up a new menu.

3. On the "Inventory" menu, scroll through the Library folder to find Accessories.

4. Double click the one you want to wear.

5. Double click it again to remove it.

You can always purchase or receive new accessories from other players.

Editing an Avatar

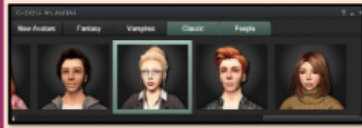No matter which avatar you are currently using, you can edit their shape to better suit your preferences. In order to start customizing your avatar:

1. Click on the "Me" tab on the top left hand corner of your screen

2. On the bar that appears, click on "Appearance," which will bring up a new menu.

3. On this menu, click on the wrench symbol next to "Now Wearing" to bring up "Edit Outfit".

4. On this menu, open up the "Body Parts" tab and click on the option that says "Shape." (Pictured Right)

5. Click on the wrench that appears next to "Shape." This will open up "Editing Shape."

6. On this menu (Pictured Left), you can select any tab to start customizing various aspects of your avatar.

. Any edits that you make will be shown on your avatar in real time.

7. Once you have decided on the appropriate changes for your avatar, click on the back symbol next to "Editing Shape."

Remember that you can always return to make additional edits and/or corrections.

Using Gestures

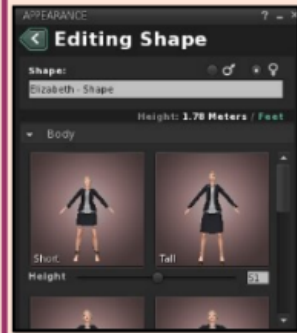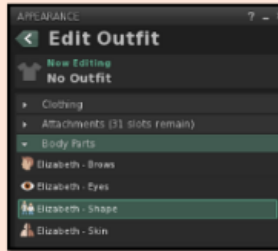Second Life avatars are capable of gesturing. To find Gestures:

1. Click on the "Me" tab on the top left hand corner of the screen.

2. On the bar that appears, click on "inventory." This will open up a new menu

3. On the "Inventory" menu, scroll through the Library folder to find Gestures. (Pictured Below)

4. When you find one you want to use, highlight it, then press play.
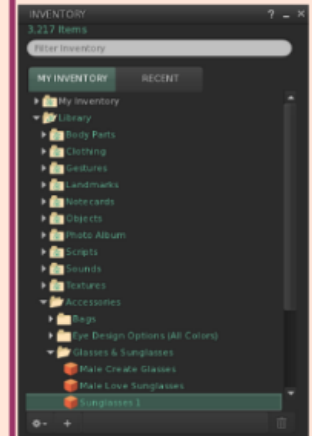
Gestures can be edited or modified by double clicking them.

Quick Reference Guide

George's QRG.

Suggestions	Reason for Suggestions
Place the text "Quick Reference Guide" in another location.	Its current location is distracting and causes it to not seem important.
Bold important text.	Bolding text allows the audience to clearly see and understand what is important.
Remove image captions.	The images and text explain the images enough.
Include more steps in the "Using Accessories" and "Using Gestures" sections.	Certain steps that the audience should know are omitted.
Only use "menu bar" or "bar" to describe the menu, not both.	Using two terms to describe one thing causes confusion.

Online Survey Data

We decided to create two surveys, one was preliminary that focused on gaining insight into how much our participants already knew about Second Life and virtual worlds, while the second survey focused on gaining feedback on the QRG our participants had tested. Our primary concern was determining if our idea of a basic QRG would be usable for people who were novices with Second Life.

Below are images of the survey data we collected:
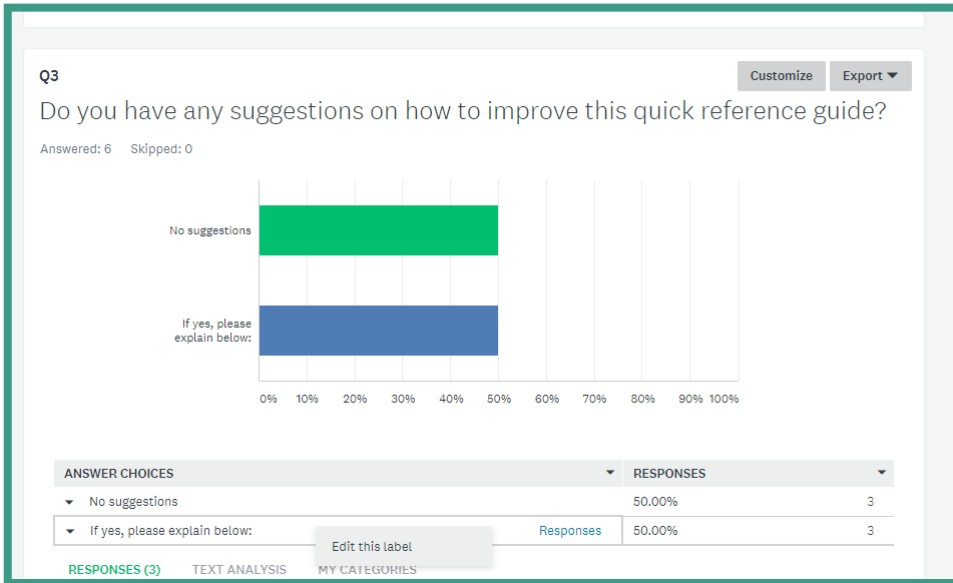
Survey data for Question 3.

Survey responses for Question 3.

Although we only received three comments on the effectiveness of the document, the survey that we conducted provided specific percentages that support the statements and recommendations that the participants provided.

Q4

Did you have any difficulties following the instructions provided in the quick reference guide?

Answered: 6   Skipped: 0

Customize   Export ▼

ANSWER CHOICES		RESPONSES	
▼	No, the instructions were clear.	83.33%	5
▼	The instructions were a bit difficult to follow.	16.67%	1
▼	I was not able to follow the instructions at all.	0.00%	0
TOTAL			6

Survey data for Question 4.

Q6

How effective was the "Using Gestures" section of the Quick Reference Guide?

Answered: 6   Skipped: 0

Customize   Export ▼

ANSWER CHOICES		RESPONSES	
▼	Very effective	66.67%	4
▼	Somewhat effective	16.67%	1
▼	Not effective	16.67%	1
TOTAL			6

Survey data for Question 6.

Survey data for Question 7.

The survey participants overall stated that the QRG was effective. However, we noticed that many participants said that the certain sections were more effective than others, with the "Holding Objects" section being the most divided

Contextual Interview Data

Five contextual interviews were conducted to gain a better understanding into how people would use Second Life. While most of the usability testing would be done by our participants on their own, we wanted to have a more personalized account into how individuals may work with Second Life and how they might approach the QRG.

With access to the QRG, the participants were given the scenario of testing out avatar customization within Second Life. Since they were using their own devices, the participants were advised to proceed as they normally would. Our only stipulation would be for them to think aloud for us to get some idea of what they might be experiencing as they customized their avatar. This was done to prevent assumptions into their thought processes when conducting the customization or to highlight any difficulties that may arise.

During the contextual interviews, three sketches of the participants were created. These were done while the participants were conducting the usability test and only consist of each participant's screen, which include the Second Life program, their avatar, any menus open at the time, and a quote from them which sums up their experience for each aspect. For one participant, we decided to record their interview. After getting their permission, we recorded him while he completed the steps on the QRG. Our reasoning for recording him was to have a live feed of this interaction instead of a static sketch. By recording this participant, we could go back and see when they stumbled or confused.

Focus Group Data

We decided to conduct the focus group online inside Second Life. We gathered six participants and teleported them to City Tech Island as it provided a quiet, unpopulated environment. To simulate the experience of a in-person focus group we had them sit on chairs before proceeding to ask each participant questions regarding our QRG. We had these participants give us feedback via Second Life's chat box system. While conducting the focus group in Second Life, we noticed that participants were easily distracted with operating their avatar instead of following the given instructions.

The focus group was conducted in Second Life for several reasons:
- There was difficulty in finding a time that our participants can all meet in person.
- More participants were able to join.
- Second Life saves and stores participant feedback.
- Participants are more likely to remember their issues with the guide.

However, there were constraints with conducting an online focus group:
- We could not see the reactions of participants (angry, confused, etc.).
- We could not help the participants.

Below is a screenshot of our online focus group:

Screenshot of the participants and evaluators during the focus group.

Introductory Questions & Tasks

At the beginning of each session, we asked our participants four questions:
- Have you ever used an application where you are in a virtual world?
- Have you ever used a QRG before?
- Have you experienced VR outside of the confines of your own home?
- If you have experienced any kind of VR outside of your home, where did you interact with this platform?

All participants stated they had used a gaming platform before, which can be like being in a virtual world, and a couple stated they had used VR before, mostly within their own homes or at a demo kiosk for VR goggles. The majority stated they had never used a QRG before.

Findings

After reviewing the data, we collected from the Virtual Experience Survey, Virtual Experience Post Survey, and the feedback received from our participants, we found areas that needed improvement in our QRG.

The first survey we conducted "Virtual World Experience" was taken by an average of 13 participants that ranged between the ages of 18-30. Our highest participant rate were college students between the ages of 18-24 that were not familiar with Second Life. Many of the participants who took this survey admitted to having limited experience with VR, gaming, and virtual world platforms.

The second survey we conducted "Virtual World Experience Post Survey" was taken by six out of the previous 13 participants who took the original survey. These six participants had been a part of the usability test and focus group. After analyzing the results from this survey, we noticed that the participants all had similar responses to the questions that were asked about the effectiveness of the QRG. About 80 percent of the participants had issues with certain steps within the "Holding Objects" section of the QRG. About 32 percent of the participants found difficulty understanding the "Using Gestures" section of the QRG.

Some of the areas that participants had the greatest issue with were the wording within "Using Gestures" and "Holding Objects." Participants felt a way to improve these sections would be to introduce specific visuals into the guide that would explain the instructions better. They didn't find all the images on the guide to be remotely useful, but in some cases, the participants didn't use the images at all. When they didn't understand something, then they referred to the images for assistance. Some people were able to find a common place between the images and words and decipher the instructions. Other participants couldn't understand the images or text and gave up on trying to complete certain tasks. Aside from minor issues with the wording of the document within certain sections and the request for a few more visuals, participants said that our QRG was easy to use and straightforward.
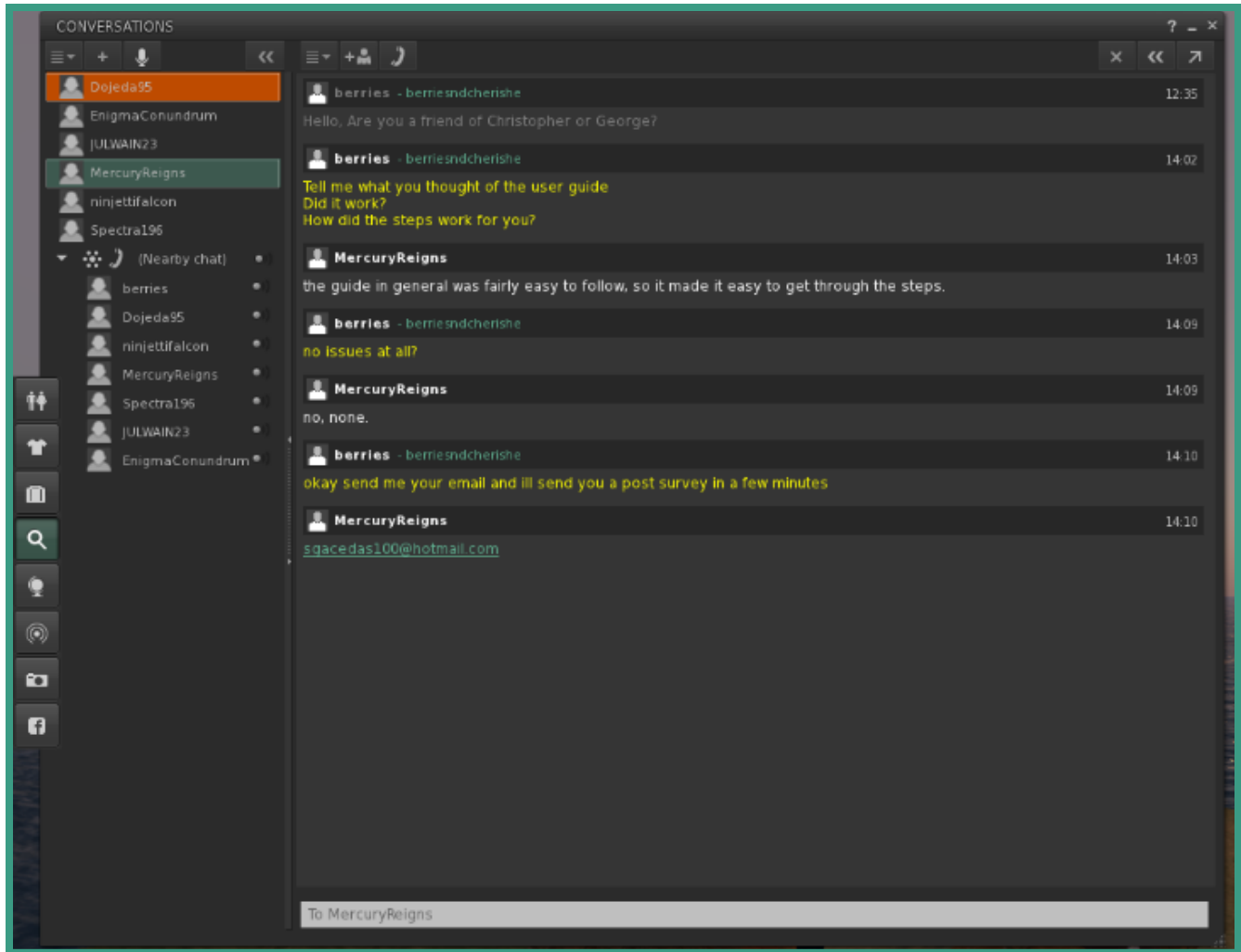
On the following pages, you will find screenshots we took during our online focus group:
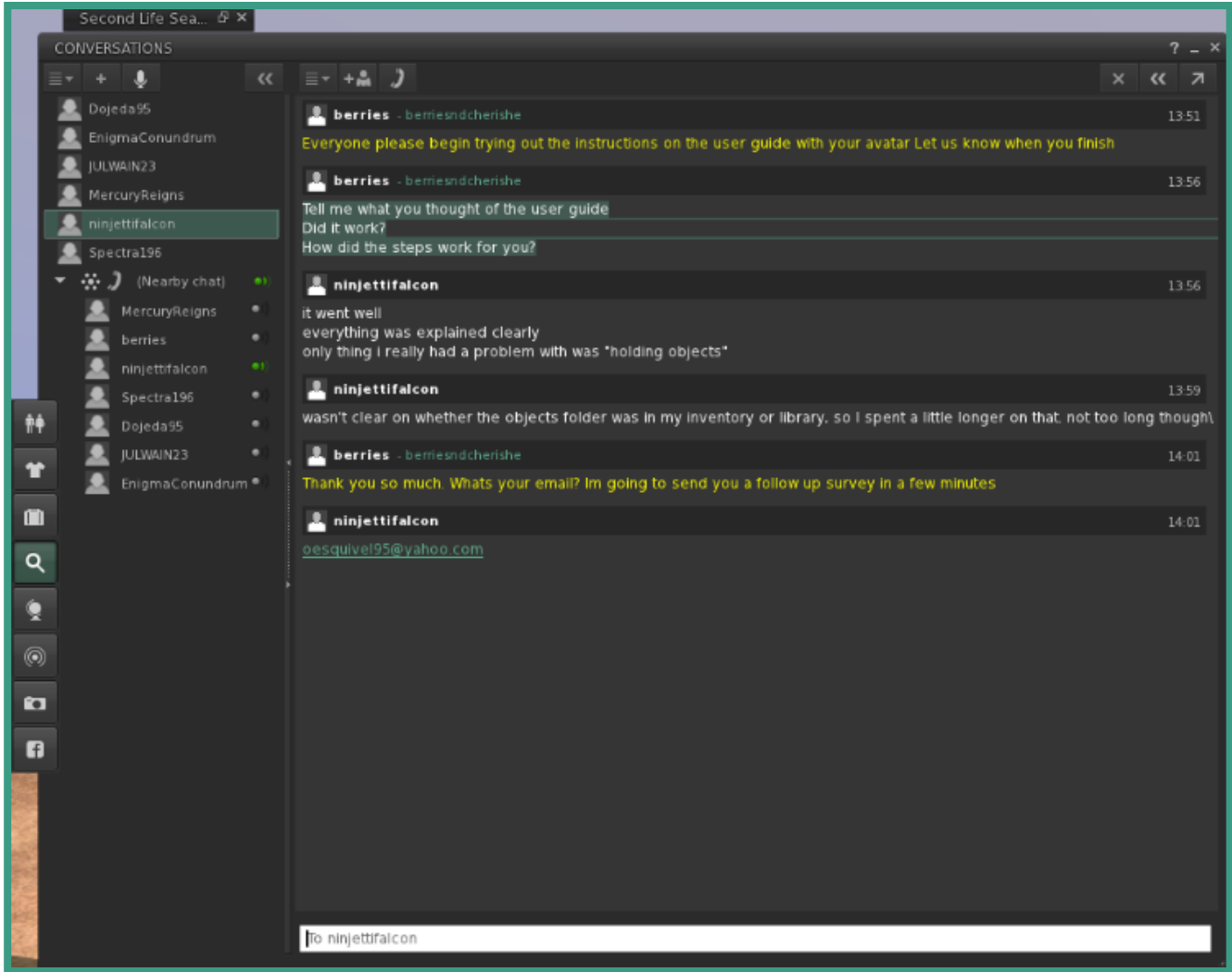
Screenshot of a ninjettifalcon's comments on our QRG.
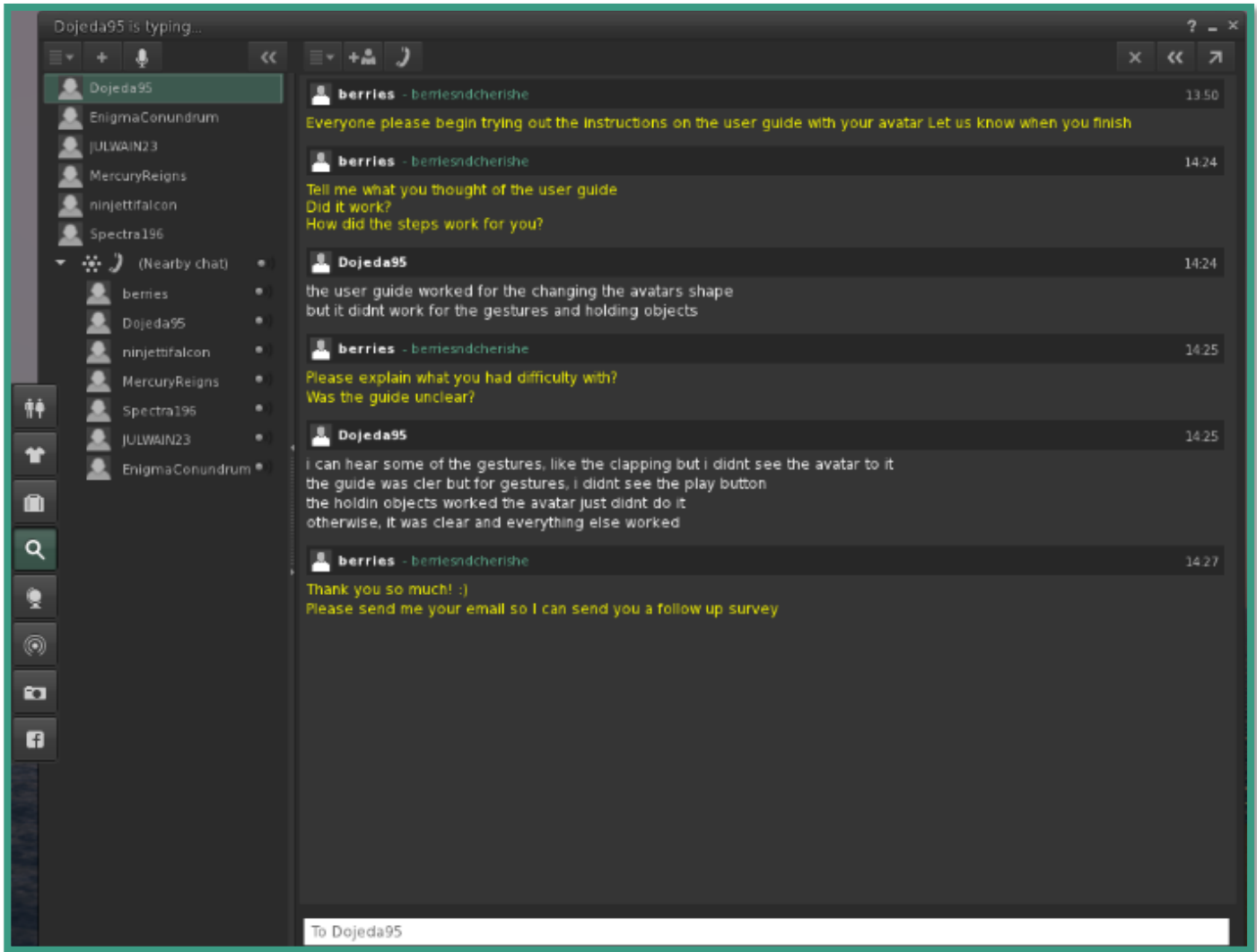
Screenshot of a Dojeda95's comments on our QRG.

Screenshot of MercuryReigns' comments on our QRG.
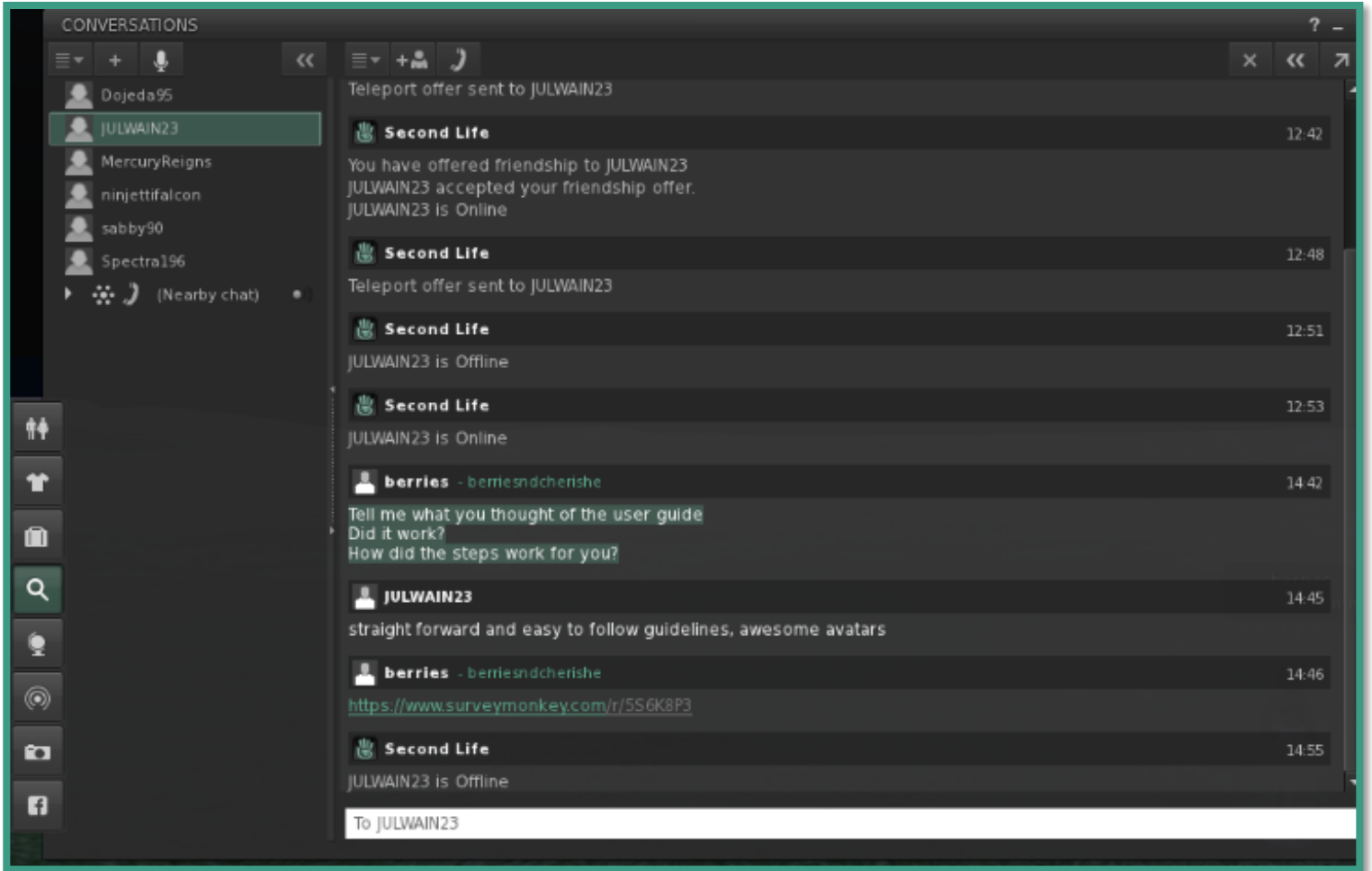
Screenshot of JULWAIN23's comments on our QRG.
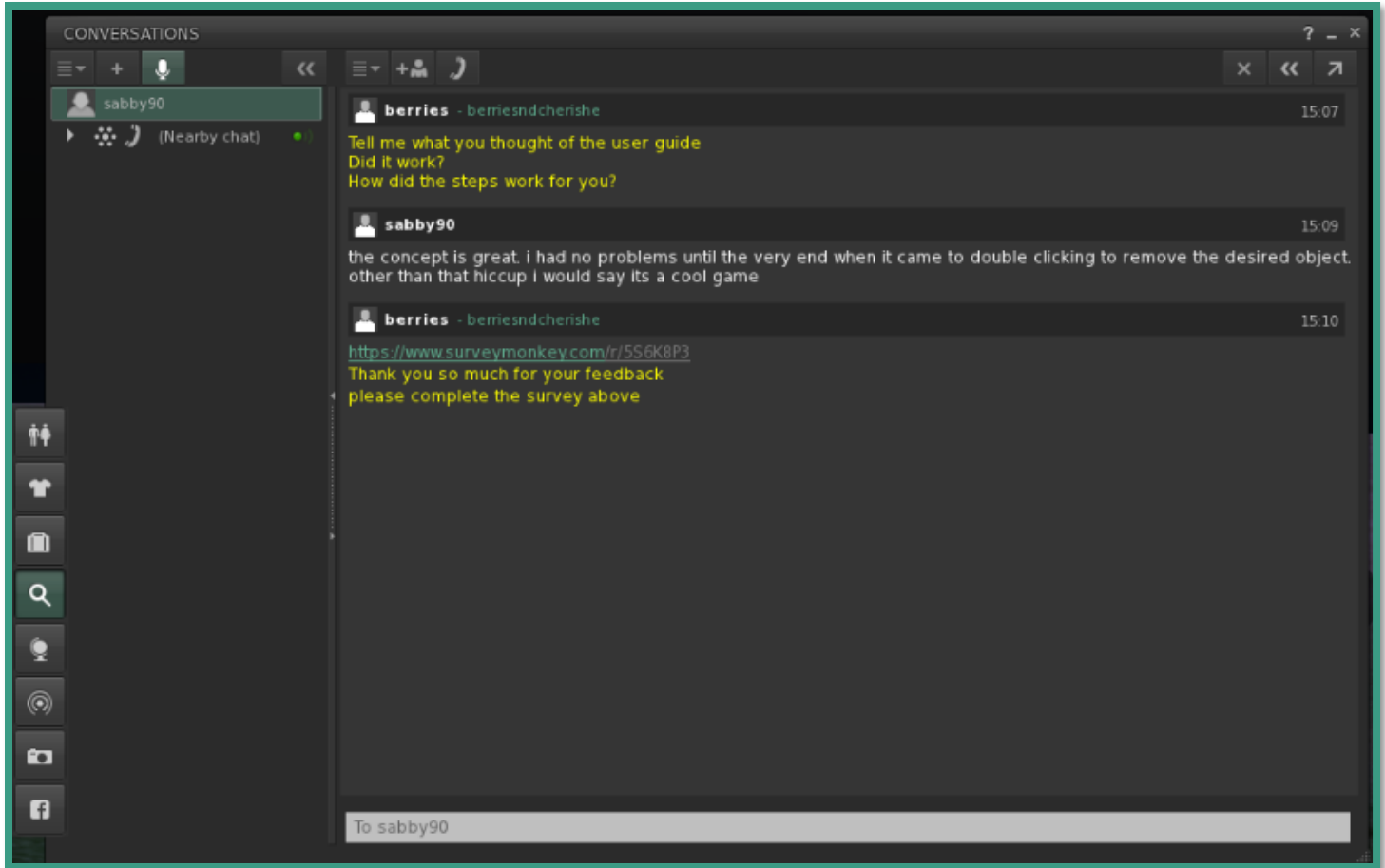
Screenshot of sabby90's comments on our QRG.

Exit Questions and User Impressions

At the end of our session, we asked the participants four questions:

- Did you like your experience with Second Life?
- Would you consider using Second Life in your free time?
- Do you feel this site is an environment where students would be comfortable having virtual classrooms? Why or why not?
- How difficult was it for you to navigate your avatar through City Tech Island?

Our participants stated that they would most likely not use Second Life outside of an educational environment and were not particularly fond of their experience with Second Life, despite the ease of mobility they had within the platform. They did state to noticing a potential for the use of virtual classrooms, particularly for those who may have disabilities.

Recommendation

Based on the feedback we received from our participants we have edited our collaborative QRG to create one which we believe to be our best possible version. For the final revision of our QRG, the "Holding Objects" and "Using Gestures" sections were edited the most because they lacked clarity and contained poor word choices. In addition, the images for each section except the "Selecting a Pre-made Avatar" section were updated to be more useful to the user. Hyphens were added to the word "Double-click" as well. Finally, the Second Life logo was decreased in size to increase the amount of space available for the images and added steps.

In the "Using Gestures" section:

Edits Made	Reason for Edits
The location of the gestures folder was specified to be above the trash icon.	Participants were unable to find the gestures folder.
A new step that states the user must be in the "My Inventory" tab before proceeding was added.	Participants were confused on which tab they should access.
The images now show a gesture option being clicked and used on an avatar.	Participants did not find the images useful in understanding what they should do.
The fact that the gestures folder is a folder and not a button was clarified.	Participants were confused from the poor choice of words.

In the "Holding Items" section:

Edits Made	Reason for Edits
The title of the section was changed to "Holding Items" from "Holding Objects"	The original title caused confusion because "objects" was the name of the folder and "item" was what the avatar used, causing confusion.
The location of the objects folder was specified to be above the trash icon.	Participants were unable to find the objects folder.
A new step that states the user must be in the "My Inventory" tab before proceeding was added.	Participants were confused on which tab they should access.
A new step that states the user must be in the "My Inventory" folder before proceeding was added.	Participants were confused on which folder they should access.
The images now show an item being clicked and used on an avatar.	Participants did not find the images useful in understanding what they should do.

In the "Changing an Avatar's shape" section:

| Edits Made	Reason for Edits
Steps 2, 3 and 5 were reworded.	Changes were made to improve clarity and grammar.
The images now show a body part being changed from the menu and the result of that change on an avatar.	Participants did not find the images useful in understanding what they should do.

The finalized QRG can be found on the following page.

SECOND LIFE

Quick Reference Guide

## Customizing for Roleplay in Second Life

Selecting a Pre-made Avatar

1. Click **Me** > **Choose an Avatar** from the menu bar.
2. Click on a tab (*Fantasy, Classic, etc.*) to preview the portraits of useable avatars.
3. Click **Select** on an avatar's portrait to use the highlighted avatar.
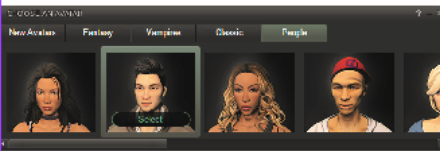
Using Gestures

1. Click **Me** > **Inventory** from the menu bar.
2. Click the **My Inventory** tab.
3. Double-click on the folder named **My Inventory**.
4. Double-click on the folder named **Gestures** (*located above trash*) to display a list of folders.
5. Double-click on one of the folders. Each folder contains different gestures.
6. Click on the desired gesture.
7. Click **Play** to use the highlighted gesture.
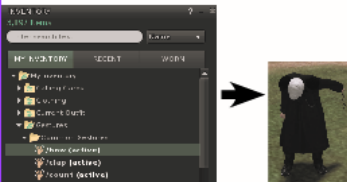
Changing an Avatar's Shape

1. Right click your avatar.
2. Click **Edit my Shape** to display a list of changeable body parts.
3. Click on the body part option you would like to change the shape of.
4. Click and hold the slider to the left or right to change the appearance of the body part.
5. Click **Save as** to save your changes.

Holding Items

1. Click **Me** > **Inventory** from the menu bar.
2. Click the **My Inventory** tab.
3. Double-click on the folder named **My Inventory**.
4. Double-click on the folder named **Objects** (*located above trash*) to display a list of holdable items.
5. Double-click on an item to make your avatar hold it.
6. Double-click on the item again to remove it from your avatar.
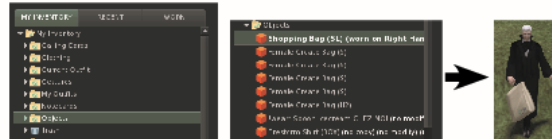
Final revised QRG.

Appendices

Preliminary Survey Questions

1. What is your name?

2. What is your age?
   - 18 to 24
   - 25 to 34
   - 35 to 44
   - 45 to 54
   - 55 to 64
   - 65 to 74
   - 75 or older

3. Where do you currently attend school?
   - New York City College of Technology
   - CUNY
   - SUNY
   - Not Applicable

4. How familiar are you with Virtual World platforms? (i.e Second Life, I.M.V.U, Sloodle)
   - Very Familiar
   - Not Familiar
   - Somewhat Familiar
   - Other (please specify)

5. What setting have you been in while using Virtual Reality?
   - Academic Setting
   - Home
   - Professional Competitions
   - Other (please specify)

6. Have you heard of the Virtual World called Second Life?
   - Yes
   - No

7. How often have you interacted with the Second Life platform?
   - Once
   - More than once
   - No interaction whatsoever
   - Other (please specify)

8. What have you used Second Life for?
- Personal reasons/ Pleasure
- Academic Work
- Research Study
- Not Applicable

Post Survey Questions

1. How useful was this quick reference guide?
- Very useful
- Somewhat useful
- Not useful
- Other (please specify)

2. How helpful were the images in the quick reference guide?
- Very useful
- Somewhat useful
- Not useful

3. Do you have any suggestions on how to improve this quick reference guide?
- No suggestions
- If yes, please explain below

4. Did you have any difficulties following the instructions provided in the quick reference guide?
- No, the instructions were clear.
- The instructions were a bit difficult to follow.
- I was not able to follow the instructions at all.

5. How long did it take you to complete the tasks described on the quick reference guide?
- 0-5 minutes
- 5-10 minutes
- 10-15 minutes
- More than 15 minutes

6. How effective was the "Using Gestures" section of the Quick Reference Guide?
- Very effective
- Somewhat effective
- Not effective

7. How effective was the "Holding Objects" section of the Quick Reference Guide?
- Very effective
- Somewhat effective
- Not effective

8. How effective was the "Changing the Avatar's Shape" section of the Quick Reference Guide?
- Very effective
- Somewhat effective
- Not effective

9. How effective was the "Selecting a Pre-Made Avatar" section of the Quick Reference Guide?
- Very effective
- Somewhat effective
- Not effective

10. How effective was the design of the Quick Reference Guide?
- Very effective
- Somewhat effective
- Not effective

Sketches

Contextual interview sketch 1.

Contextual interview sketch 2.

Contextual interview sketch 3.