|  |  |
| --- | --- |
|  |  |
|  | ReaLearn User Evaluation  Author: Euan Macqueen Project: A Virtual Reality eLearning Authoring Tool Prototype |

# System Usability Scale

As part of the MSc in Software Development, Euan Macqueen asks for your assistance in testing the usability of his application. You will be presented with a web application and a virtual reality scene. You will be tasked with replicating the scene within the “ReaLearn” application’s scene editor.

You will then be asked to provide feedback through a 1 to 5-point scale questionnaire on your experience regarding usability of the application. After the evaluation, you are free to discuss the test with the author.

All data stored regarding the test will be anonymous and purely for testing purposes.

Please note, this confirmation of your participation is not a contract. You are free to withdraw from participation at any time.

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Please tick if appropriate:

* I confirm that I agree to take part of the usability evaluation for the application “ReaLearn”.
* I confirm that I have received the author, Euan Macqueen’s, contact details.

# System Usability Scale

Please note, your answers here must be as honest as possible. Honest feedback will contribute to a better application.

Please rate the following information on a scale of 1 to 5, with 5 being “strongly agree” and 1 being “strongly disagree”.

I consider myself highly skilled with computers, modern web applications or design software’s.

* Yes
* No

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| I think that I would like to use this system frequently. | 1 | 2 | 3 | 4 | 5 |
|  | | | | | |
| I found the system unnecessarily complex | 1 | 2 | 3 | 4 | 5 |
|  | | | | | |
| I thought the system was easy to use | 1 | 2 | 3 | 4 | 5 |
|  | | | | | |
| I think that I would need the support of a technical person to be able to use this system | 1 | 2 | 3 | 4 | 5 |
|  | | | | | |
| I found the various functions in this system were well integrated. | 1 | 2 | 3 | 4 | 5 |
|  | | | | | |
| I thought there was too much inconsistency in this system | 1 | 2 | 3 | 4 | 5 |
|  | | | | | |
| I would imagine that most people would learn to use this system very quickly. | 1 | 2 | 3 | 4 | 5 |
|  | | | | | |
| I found the system very cumbersome to use. | 1 | 2 | 3 | 4 | 5 |
|  | | | | | |
| I felt very confident using the system. | 1 | 2 | 3 | 4 | 5 |
|  | | | | | |
| I needed to learn a lot of things before I could get going with this system | 1 | 2 | 3 | 4 | 5 |
|  | | | | | |

What parts of the system did you find most frustrating to use?

|  |
| --- |
|  |
|  |
|  |

What parts of the system did you find most fluent when using?

|  |
| --- |
|  |
|  |
|  |

Do you recommend any changes to the design?

|  |
| --- |
|  |
|  |
|  |

# Results

## Evaluation Stage One

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SUS Question – Evaluation One | U1 | U2 | U3 | U4 | U5 | U6 |
| I think that I would like to use this system frequently | 1 | 2 | 2 | 2 | 1 | 2 |
| I found the system unnecessarily complex | 3 | 2 | 1 | 2 | 2 | 3 |
| I thought the system was easy to use | 2 | 3 | 3 | 4 | 2 | 3 |
| I think that I would need the support of a technical person to be able to use this system | 3 | 2 | 1 | 1 | 2 | 1 |
| I found the various functions in this system were well integrated | 3 | 2 | 3 | 3 | 4 | 3 |
| I thought there was too much inconsistency in this system | 2 | 3 | 2 | 3 | 2 | 2 |
| I would imagine that most people would learn to use this system very quickly | 3 | 3 | 3 | 4 | 3 | 2 |
| I found the system very cumbersome to use | 2 | 2 | 3 | 3 | 3 | 1 |
| I felt very confident using the system | 3 | 3 | 4 | 5 | 4 | 4 |
| I needed to learn a lot of things before I could get going with this system | 2 | 2 | 2 | 1 | 2 | 2 |
| TOTAL SCORE AFTER CALCULATION | 50 | 55 | 65 | 70 | 57.5 | 62.5 |

AVERAGE SCORE: 60

# Evaluation Stage Two

User 1 (U1) and User 2 (U2) were returning participants in the second stage of user evaluation. The returning users can be seen by their columns matching colour.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SUS Question – Evaluation Two | U1 | U2 | U3 | U4 |
| I think that I would like to use this system frequently | 1 | 2 | 2 | 2 |
| I found the system unnecessarily complex | 1 | 1 | 1 | 2 |
| I thought the system was easy to use | 4 | 4 | 4 | 4 |
| I think that I would need the support of a technical person to be able to use this system | 2 | 1 | 1 | 1 |
| I found the various functions in this system were well integrated | 4 | 3 | 5 | 5 |
| I thought there was too much inconsistency in this system | 2 | 2 | 1 | 1 |
| I would imagine that most people would learn to use this system very quickly | 4 | 3 | 4 | 4 |
| I found the system very cumbersome to use | 2 | 2 | 1 | 1 |
| I felt very confident using the system | 3 | 4 | 4 | 4 |
| I needed to learn a lot of things before I could get going with this system | 1 | 1 | 1 | 1 |
| TOTAL SCORE AFTER CALCULATION | 70 | 72.5 | 85 | 82.5 |

AVERAGE SCORE: 77.5

# Comparison of User One and User Two Between Evaluations

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Evaluation 1 | | Evaluation 2 | |
| SUS Question – Evaluation Two | U1 | U2 | U1 | U2 |
| I think that I would like to use this system frequently | 1 | 2 | 1 | 2 |
| I found the system unnecessarily complex | 3 | 2 | 1 | 1 |
| I thought the system was easy to use | 2 | 3 | 4 | 4 |
| I think that I would need the support of a technical person to be able to use this system | 3 | 2 | 2 | 1 |
| I found the various functions in this system were well integrated | 3 | 2 | 4 | 3 |
| I thought there was too much inconsistency in this system | 2 | 3 | 2 | 2 |
| I would imagine that most people would learn to use this system very quickly | 3 | 3 | 4 | 3 |
| I found the system very cumbersome to use | 2 | 2 | 2 | 2 |
| I felt very confident using the system | 3 | 3 | 3 | 4 |
| I needed to learn a lot of things before I could get going with this system | 2 | 2 | 1 | 1 |
| TOTAL SCORE AFTER CALCULATION | 50 | 55 | 70 | 72.5 |

# Feedback – Evaluation Stage One

Participants were asked to provide any additional comments that they had which would contribute to the testing procedure.

### User 1 Feedback

1. What parts of the system did you find most frustrating to use?

I wouldn’t say frustrating, but it seemed to be loading a lot. There was quite a lot going on too, I wasn’t really sure where to look.

1. What parts of the system did you find most fluent when using?

Adding stuff to the scene was really good. The position and size were really good too.

1. Do you recommend any changes to the design?

Maybe go with less stuff on the screen.

### User 2 Feedback

1. What parts of the system did you find most frustrating to use?

The editing boxes. I was a bit all over the place trying to move things in the scene.

1. What parts of the system did you find most fluent when using?

Adding things to the scene. Adding new scenes and jumping around between them worked really well.

1. Do you recommend any changes to the design?

I’d aim to only give controls for the necessary things. Get rid of all the other stuff.

### User 3 Feedback

1. What parts of the system did you find most frustrating to use?

I think the rotation controls were pretty temperamental. Thought I was getting the hang of it, then it’d go flying.

1. What parts of the system did you find most fluent when using?

Most of it, just the loading of the page constantly was a bit much.

1. Do you recommend any changes to the design?

N/A

### User 4 Feedback

1. What parts of the system did you find most frustrating to use?

Nothing. Found it straightforward and detailed well.

1. What parts of the system did you find most fluent when using?

Positioning inside the scene worked well. The background was great too.

1. Do you recommend any changes to the design?

N/A

### User 5 Feedback

1. What parts of the system did you find most frustrating to use?

Rotating and positioning things inside the scene wasn’t as far as frustrating. It wasn’t difficult, but I just couldn’t get things exactly where I wanted them. Maybe if I was actually using this software, it might have been frustrating.

1. What parts of the system did you find most fluent when using?

Customising basic things like colour, changing background images

1. Do you recommend any changes to the design?

The editing buttons probably.

### User 6 Feedback

1. What parts of the system did you find most frustrating to use?

The edit boxes and adding question. I couldn’t find the thing I was trying to edit.

1. What parts of the system did you find most fluent when using?

Saving updates on objects.

1. Do you recommend any changes to the design?

Maybe add a selection in so its easier to find things added to the scene.

# Feedback – Evaluation Stage Two

Participants were asked to provide any additional comments that they had which would contribute to the testing procedure.

### User 1 Feedback

1. What parts of the system did you find most frustrating to use?

When deleting or adding, it would nice if it didn’t have to reload.

1. What parts of the system did you find most fluent when using?

Rotating the object inside the scene. That was a great idea.

1. Do you recommend any changes to the design?

The reloading of the page constantly was quite interruptive.

### User 2 Feedback

1. What parts of the system did you find most frustrating to use?

N/A

1. What parts of the system did you find most fluent when using?

The rotation felt amazing, was very satisfying. The controls with the icons looked great compared to all that text before.

1. Do you recommend any changes to the design?

N/A.

### User 3 Feedback

1. What parts of the system did you find most frustrating to use?

I think the rotation controls were pretty temperamental. Thought I was getting the hang of it, then it’d go flying.

1. What parts of the system did you find most fluent when using?

Most of it, just the loading of the page constantly was a bit much.

1. Do you recommend any changes to the design?

N/A

### User 4 Feedback

1. What parts of the system did you find most frustrating to use?

The page reloads were a bit much.

1. What parts of the system did you find most fluent when using?

Positioning and rotating were really smooth.

1. Do you recommend any changes to the design?

N/A