

# User Evaluation

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## Report

We all had at least one person test the game, this took place in person/online. We had a list of things to look out for and to focus on when they were playing the game. They included- Win/lose, Completion time, Errors and their severity and navigations. There was also a list of usability ratings we asked to get the overall opinion for the system for each user. When we conducted the user testing, we provided the users with an Information Sheet and a consent form. (Provided from the VLE). We also filled out the ethics form as well.

Using all the information, we compiled this into a google sheets document. From here we could see what the main errors were which helped us to focus on to make the game more usable. We chose to do this in this format as it allowed us to see clearly what the main errors were, therefore we knew what the priorities to fix were.

The procedure we took when getting users to test the game allowed them to see and experience the game as if they were playing it for the first time. We gave little to no prompt to the user and prompted them to talk throughout. This was useful as it allowed us to see how they approached the game and if any errors came up which we didn't notice.

From the data we collected, we got a variety of results. Some people understood the concept of the game better than others. This resulted in those people getting higher scores and more streaks. The biggest errors we found from user testing were:- Some streaks didn't show up at the end of the game, despite doing everything correct to earn a streak. Also, the leaderboard didn't update for one user. One error that every user pointed out was there should be an enter button after the number memorizer game. The severity for this was average as it was mainly just inconvenient and not overly important. As every user had this problem we planned to fix this. Also, one user pointed out the same thing for the leaderboard by not having an enter button.

We decided to also evaluate the system against a standard system Usability Scale[1], using the following criteria:

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

From these, the overall users score is then calculated using this formula

$$2.5 * ((\text{Each Odd numbered Question} - 1) + (5 - \text{each Even numbered Question}))$$

This results in a score out of 100, each users score is detailed below

## Users Scores

U1	U2	U3	U4	U5	U6	U7
82.5	62.5	85	82.5	72.5	97.5	87.5

Overall, using this ranking the users gave us scores between 62.5 and 97.5, with the median score being 82.5, this shows us that the users we tested on thought the game was functionally good and easy to learn.

From this User testing, we feel our game fits the target audience based on this data and feedback we received.

## Usability Problems

Users	Problem	Severity
U1	Pressed enter before adding the number in during the Number guesser minigame	4
U1	No Timer for the Number guesser minigame	2
U1	Forgot to eat a lot, asked for a pop-up	2
U2	No enter button on the minigame	3
U2	Found the mouse annoying to use for the activities	4
U2	Didn't receive streaks that they should've	5
U4	Failed to update the Leaderboard - could be user error though	3
U4	Wasn't aware of what to do - failed to study and so failed	3
U5	Tried to press enter rather than using the mouse for the minigames	3
U5	Requested Timer for the number memorisation game	2
U5	Wanted a prompt to know the purpose of the game/ aims	4
U6	Wanted a pop up of when to eat as found the day went too fast	3
U7	Tried to press enter for minigame text input	1
U7	Didn't study for 2 days and still got a score when it should have been an automatic 0.	5

## **References**

[Information Sheet](#)

[Informed Consent Form](#)

[CS Fast-Track Ethical Approval Form](#)

[1] How to use the system usability scale (SUS) to evaluate the usability of your website - usability geek,

<https://usabilitygeek.com/how-to-use-the-system-usability-scale-sus-to-evaluate-the-usability-of-your-website/> (accessed May 22, 2024).