Group 21
Team 21

User Evaluation

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5a. User Evaluation Methodology

We decided, upon researching User Evaluation, to follow a Task Based User Evaluation. With our approach to Participant Recruitment, we took into account that our clients are mostly university students our age with an interest in games, so we decided to ask people from our course in our module, following Graham McAllister's technique of the 6 player types. We then created a google form to make it easier for the Users to give their informed consent, as well as filling in the necessary documents.

We then moved onto the Task Definition aspect, we used some of our documentation team to establish the typical time to complete the user evaluation, which we decided was 30 minutes. We then started to create the sequence of tasks we wanted the users to complete, which we based off a number of things, including weak points of the game, as well as how the progression of the game works.

We then moved onto our Environment Preparation and Evaluation Planning. We decided to physically supervise each test with at least 1 member of the team, but decided that our original idea of having each user do the test on the same machine would be inefficient, as we would be missing some potential bugs that may appear, as well as it taking up more time to set up each user with an identical environment on the same machine. With our planning of the evaluation, we made sure that our system was as up to date as possible, with all branches being worked on being pushed, before running a pilot of the test with one of our team members, deciding to reorder some of the tasks as we thought it would be more logical to follow. We then messaged our users to book a time in for them to run the tests themselves, asking them to record any problems they found, which we discussed with them after they had finished the tests. One issue we had, is that we found we struggled with the implementation of some of the features we were going to include such as some of our minigames, which we then had to only test manually due to time constraints.

After completing all the tests with all users, we found that the interviews we had after with the testers were extremely useful, as we were able to more fully understand their problems they had had with the system. We were able to discuss any observations our team members had throughout the test, as well as talk about some non-usability problems they had found such as not being able to exit stuff as quickly as they would have liked.

Moving onto the compilation of our data, we created a table that showed what we thought were the most important parts of our data, prioritising showing the severity of problems, as well as the amount of times it occurred for all users. Following this we started to make our Design Recommendations, starting with the most severe and most common issues found throughout testing. One of the most pressing changes was the fact that the instructions were found to be unclear by the users, leading us to creating a tutorial at the start of the game to clearly and concisely explain how to operate the game and what the objectives are.

5b. Usability Problems Found

Problem Description	Frequency	Severity	Fix
Tracking of in-game time leads to incorrect days	3	High	Added code to ensure hours cycle through correctly and that day is reset at end of active hours
Study Interaction Not Working	2	High	Fixed area user can do study event
Snake game errors when user loses	2	High	Handled error
Instructions are unclear	4	High	Added tutorial screen to start of game
Leaderboard screen took you to end game screen even if clicked at start of game	1	Medium	Takes you to control screen instead of end screen
Could not find achievements page	2	High	Replaced current icon with a trophy icon
Game did not finish at day 7	1	High	Added another statement to catch
Spacebar not mentioned in controls	2	Medium	Added spacebar to tutorial screen and controls screen
Can save the same name multiple times to the leaderboard	1	Low	Now changed with a write function to a csv file
Found there was not any real negative from over studying and abusing the streaks system	3	Medium	Decreased the values of over studying when energy decreases