User Evaluation

Group 9 - Campus Tycoon

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To collect the data we needed for the user evaluation, we contacted people we knew in the university to fill out the table regarding the problems found in the game. This included people such as other students, i.e housemates, coursemates etc. To get the most accurate results we used a variety of people from different courses, not just those from computer science. This prevents bias in the case of only finding problems relating to more complex aspects of usability that people working on similar projects may focus on.

The procedure we took to collect the data from the users was giving them a list of tasks to complete and then providing a table for them to fill out. This table included sections where the user could list problems that they found with the game after playing through, in addition to a section where users can expand on this giving details of the issue, aiding us in rectifying the problem. A severity rating section is at the end of the table where users can rate the problem with a given scale to score it on severity (5 being extreme and 1 being very minor).

The appropriate ethical procedures were followed where the users were provided with an information sheet and completed consent forms prior to doing the user evaluation. Our procedure of collecting data (including extra information) was sent to and approved by the respective member of staff. We also ensured all user evaluations were completed in a controlled environment under the same conditions. These conditions were replicative of that which the user would play the game in their own time.

Tasks:
- Placing buildings
  - Place one building of every type
- Moving buildings
  - Attempt to move 3 buildings
- Deleting buildings
  - Attempt to delete 2 buildings
- Placing roads
  - Place roads around a building you have placed
- Pausing/resuming
  - Pause and resume the game
- Editing settings
  - Attempt to edit the volume and resolution of the game
- Accessing leaderboard
  - View the leaderboard after you have achieved a new high score to see it reflect the change

Table of Usability Problems

Person	ID	Problem	More Details	Severity (1-5)
1	1	Not obvious how to place multiple things at once.	Unclear what keybinds are to new users → shift key functionality not explained. This issued difficulty when attempting to place multiple roads at once, as placing them one at a time is time-consuming.	3
1	2	Unclear how to move the map on the screen	User assumed the map could be moved via click and drag, but was able to find wasd keyboard controls easily.	3
1	3	Unclear how to enter username at end of game.	User expected either the enter button to submit their username after typing it in, or their to be a submit button, but instead there was only an ambiguous "menu" button.	1
2	4	Confusing Settings	Although the settings menu was easily locatable, the difference between the Resolution and Fullscreen field provided confusion. Changing one always changed both, leading the user to question why a button for both was necessary.	3
2	5	Controls unclear (keyboard)	User requested some kind of tutorial or controls menu as they couldn't identify keyboard shortcuts, such as zooming or moving the map. This control menu was since added as we thought this problem would cause a serious usability issue.	4
2	6	Difficulty pausing the game.	It is not immediately obvious how to pause the game as there is no explanation of keyboard shortcuts, and the pause/resume button is relatively small. In addition, the user assumed that pressing the large pause button in the centre would resume the game, but this functionality is not implemented.	2
3	7	Unclear where buildings could be placed.	Although when hovering buildings they appear red outside the border of the map making it clear they cannot be placed there, they do not appear red when hovered over pre-existing buildings, roads or water. Despite the fact that the game will not allow you to place them there.	3
3	8	Achievements unclear	There were not many achievements, and since those earned are not displayed on the end screen they were easy to forget about/ignore.	5
3	9	Confusion about roads	The user did not understand the benefit of placing roads, and felt that the game would have benefited from an explanation about what affected the student satisfaction score.	2
3	10	Difficulty de-selecting buildings	The user noted that once a building type had been selected, it could not be deselected, although other building types can be changed to.	3