## **User Evaluation**

Group Number: Cohort 2 Team 7

Group Name: pickNmix

**Group Member Names:** 

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The user evaluation aimed to evaluate the usability, functionality, and overall experience of our game prototype through focusing on its core gameplay features and user satisfaction metrics. Task-based testing was involved in our user evaluation process with the members from the other team in our cohort with the purpose of getting the informed feedback which are relevant to our target audience. Firstly, for recruitment, a minimum of three participants for our user-evaluation were chosen from other teams within our cohort, ensuring familiarity with the game while maintaining objectivity. As our game is designed for the university environment, we believe that our cohort members are the ideal participants to do the user evaluation as they share a lot of similarities with our target user. Therefore, they can provide the relevant information and useful information on our game. Additionally, cohort members were easily accessible, making recruitment convenient and evaluation consistent within time and resource constraints. All the participants received an information sheet outlining their rights and tasks before the user evaluation. After that participants fill out the Informed consent form in order to adhere to the ethical approval guidelines outlined by the department and the university.

The user evaluation tested the core functionalities of the game through a series of important tasks. These include the tasks like constructing the buildings, removing the building, optimising the building placement for the higher student satisfaction, responding to the in-game event, trying to obtain some achievements, and updating the leaderboard. The tasks were presented logically, beginning with easy tasks to improve user confidence before moving on to difficult tasks. This structure aligns with the need to test core functionalities and address risky design features early.

Our data collection procedure combined the interviews, think-aloud protocol (mainly Concurrent Verbal Protocol (CVP)), and debriefing. During the evaluation, participants verbalized their thoughts and decision-making processes as they completed tasks, following the Concurrent Verbal Protocol (CVP). Observations were noted by our team members to identify the successes and failures. After the task completion, semi-structured interviews were conducted with the participants to explore user perceptions, challenges, and recommendations for improvement. A final debriefing session makes sure the participants understand what they completed and the aim of this user-evaluation and then, this session also allows the participants to reflect on their experiences, provides additional suggestions and ask the questions that they want to us. This approach ensures real-time and reflective feedback and also provides a deep understanding of the user-interactions and the areas which are in need of improvements.

The data that we collected during the user-evaluation process includes both quantitative and qualitative data. In aspect of the quantitative data, we collect data on how many participants successfully completed each task, the frequency and type of errors occurred during the evaluation, and numerics rating on the usability from each participant. For the qualitative data, the data such as observational notes during the evaluation, verbal feedback from the participants and their suggestions on our game were collected during the user evaluation process. Collecting both qualitative and quantitative data gave us a clearer vision on the improvements for the game.

This evaluation provided actionable insights into the usability and functionality of our game prototype, highlighting areas for improvement to align with the product brief.

The table below summarizes the issues identified through user feedback collected during the user evaluation process. It categorizes the findings into three columns: **Problem**, **Description**, and **Severity**. The **Severity** column assigns a rating on a scale from 1 to 5, where 0 indicates a minor issue and 10 represents a major issue. This structured format provides a clear overview of the challenges encountered by users and their relative impact on the gameplay experience.

Problem	Description	Severity
Confusion about income	Users do not understand how the income system works, leading to financial issues in the game.	3
Confusion on student satisfaction and staff satisfaction	Users find it confusing on how to interrupt and influence student satisfaction and the staff satisfaction.	2
Game not intuitive for first-time users	The game interface and mechanics are not very user-friendly to the first-time user.	1
Confusion about the move function	Some users find the move function a little confusing.	3
Not knowing what is selected	The user cannot easily identify which type of building is currently selected as the selected item is shown on the very top of the screen.	3
Difficulty starting the game	As the start button for the game is in the right bottom corner of the screen, some users said it would be better to put it on the center of the screen with larger size.	1
Building placement issues	When users try to place the building on the unallowed places, the building is removed from the selection. So, in order to place a building they have to select the building again.	3
Timer starting immediately	The game timer starts right after launching, which is unhelpful and overwhelming for some users as some users might need to take time to learn the game mechanics.	1
Confusion on the achievements.	Users do not know why they got that achievement and they said it would be better if the game told why they achieved it.	1