## **User Evaluation**

## Team 5

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## Method of User evaluation

For the user evaluation, a hallway testing recruitment method was used, where participants were informally recruited from within the cohort meetings by selecting users on the spot, from peers who were easily accessible. This method was chosen because it allowed for quick and efficient feedback collection, without the need for a formal recruitment process, making it ideal for testing the game in a more natural and spontaneous setting. This method also encouraged candid feedback which would provide genuine first impressions and initial reactions to the game, which are critical for evaluating user experience and gameplay engagement.

Before beginning our user evaluation, we provided our participants with an information sheet outlining the purpose of our research and what would be expected of them, informing them that their participation is voluntary and how their data would be processed. Participants were then required to sign a consent form via Google Forms confirming their knowledge of the implications of taking part in this study, their right to withdraw at any time, and their agreement to be observed during the evaluation.

During our testing, each participant was assigned an evaluator who would walk them through the game and make a note of the participants' moves in the game, for instance, whether they tried to unlock certain achievements or were able to react to an event quickly enough, using an observation table template we had prepared. Participants were encouraged to think out loud about their thought process of how to win our game. After our testing, we interviewed each participant with a set of questions regarding what gameplay elements they struggled with and what they would like to change from their experience with the game. They also rated these problems on a severity scale from High to Low. These responses were collected via a Google Form. Our questions and user responses can be found on our website here.

Our procedure for testing was focused on 1 to 1 meetings. We wrote a general plan so our meetings would be efficient, allowing us to get the most data we could in a short time frame. We first planned the initial interaction with the user, where we would give a brief introduction of the project, explain what they would be testing and get the user to fill out the necessary consent forms.

We then came up with 3 tasks we wanted the user to carry out on our game. Our first and most important task was to simply get the user to play a round of the game. We wanted to keep this as general as possible so we could see what the user's attention was drawn to and if they missed anything we thought was intuitive. As they did this we would fill out our observation table ticking off things we hoped they'd complete. We then wanted to test the difficulty of our achievements. We focused on testing our "Maximist" and "Academic Weapon" achievements. If the user didn't get these during their first round we asked them to play again but this time we explained how to get each achievement.

We made sure to pilot our tasks beforehand and on average they took 5-10 minutes to complete. This then gave us time to interview the user afterwards. We thought of some questions that would help us get the user's opinions and get helpful feedback to improve the game. We then noted down each user's response so we could easily use this data to create our table of usability problems.

## Usability problems

Problem ID	Description	Severity	Fixed
P_Tutorial	Players did not know about certain functions or what to do in certain circumstances due to a lack of a tutorial	High	Yes - added tutorial
P_Leaderboard	After finishing the game the leaderboard doesn't appear until you interact again	High	Yes
P_Font_Size	Some users reported that the font size was too small and that could be changed	Low	Yes - font increased in critical areas
P_Event_Visbility	Event notifications are small and should be more visible	Medium-low	Yes - events talked in tutorial
P_Username	Didn't know that they had to change their username in the settings before they started playing to save their own name to the leaderboard instead of a random one	Low	Yes - explained in tutorial
P_Event_Speed	Events were too frequent that it made it difficult for new players to get a score higher than 0	Low	Yes - event timer extended
P_Back_Button	No back button to return to the main menu	Medium	Yes
P_Cooldown	Add a building placement cooldown to make the game flow better	Low	No.