User Evaluation Report

ENG1

Team 10

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a) User Evaluation Method (≤ 1 Page)

Participants and Recruitment

A total of seven (7) participants took part in the evaluation. Participants were recruited from other teams within the same cohort who were not involved in the design or development of the prototype. This recruitment strategy ensured unbiased, fresh perspectives on the system's usability.

Data Collection Methods

We employed a real-time observation method while participants played the game. This approach allowed us to capture participants' spontaneous and subconscious reactions, which they might not have been consciously aware of or able to articulate afterward. Following the gameplay session, participants were asked to complete an evaluation survey using a Google Form (Link: https://docs.google.com/forms/d/1NQJKQHe6US9zPOnSV-Oqgpaeiqv6v6vepWZle6JTvzk/edit#responses). This post-task survey enabled participants to reflect on their experience in a more relaxed setting and report any issues or feedback more thoroughly.

During the real-time observation, multiple team members were involved in data collection. Each member was assigned specific observation tasks to improve efficiency, accuracy, and to ensure that no critical usability issues were overlooked. The assigned tasks included:

- Recording bugs encountered by users and assessing how negatively they affected the user experience
- Asking post-task semi-structured questions
- Writing down participants' verbal comments and feedback
- Recording the number of events completed and the time taken to finish the game

Procedure

Before the evaluation began, participants were asked to read a consent form. We briefly explained the purpose and procedure of the evaluation and obtained verbal consent from each participant. Participants were also required to indicate their consent by selecting "Yes" on a Google consent form (Link: https://docs.google.com/forms/d/e/1FAIpQLSclGnP10eR9BTOz7uCYfdhULBIk85kf8F66DVwhER-Y8oovHA/viewform).

Participants then played the prototype game on our personal laptop. During gameplay, they were asked to complete a set of representative tasks that reflected the system's core functionality:

- Start the game
- Pause the game and return to the main menu
- Change the volume to the maximum level
- Find the Energy Drink
- Unlock the door
- Play the game and attempt to escape (maximum of 5 minutes)
- Locate and view their score

Each group member independently recorded their observations using a laptop or written notes. Immediately after gameplay, participants were asked semi-structured questions to discuss any difficulties encountered and to rate the severity of identified problems. After the in-person discussion, participants were asked to complete the evaluation survey sent to their university email. Finally, all team members consolidated their observation data into a shared document for analysis.

b) Usability Problems Identified (≤ 1 Page)

The following table summarizes the usability issues identified through real-time observation and post-gameplay survey responses. Each issue is categorized according to its average severity level, rated on a scale from 1 (minor) to 5 (critical).

	Usability Problems	Average Severity	Summary
1	Bugs Negatively Affecting Gameplay	**1**	According to the evaluation survey, the majority of participants reported encountering zero to one bug during gameplay. The issues identified included the door not fully disappearing during the key event and minor collision bugs involving walls and objects. Participants generally indicated that these bugs did not significantly impact their overall gameplay experience.
2	Game Difficulty Being Too Hard or Too Easy	**1**	The game difficulty was generally perceived as appropriate. Most participants selected ratings of 3 - 4 in the difficulty section of the evaluation survey. In response to the question regarding enjoyment, the majority of participants selected the highest rating (5). Most participants were able to escape the university map on their second or third attempt, which aligned with the intended difficulty level. However, one participant suggested that the penalty for being caught by the dean could be slightly reduced to improve the gameplay.
3	Insufficient Clarity on Event Effects	**2**	According to our observation, most participants were able to complete more than half of the events. However, several participants were unclear about what positive or negative effects they received from completing certain events. This suggests that additional visual or textual feedback may be needed to clearly communicate how events influence the player.
4	Limited Visibility of Essential UI Elements	**2**	Some participants seemed to be unaware of their remaining time before losing the game. One participant suggested increasing the font size and using more prominent colors for the timer to improve visibility and ensure that players can easily monitor time information during gameplay.
5	Unclear Controls and Inadequate Onboarding	**2**	Several participants expressed confusion regarding the control scheme at the start of the game, specifically whether movement was controlled using the arrow keys or the WASD keys. Additionally, one participant commented in the survey that using the WASD keys would be more preferable than the arrow keys, as they are located closer to the interaction key (E).