

## **Methodology:**

### Recruitment:

Participants were recruited from other groups within the same cohort as our group, who were working on the same project.

### Data collection tools and data:

The evaluation used a task-based Think Aloud (Concurrent Verbal Protocol) approach. Participants completed a predefined set of gameplay tasks while verbalising their thoughts. Observational data was collected through structured note-taking, focusing on task success, user behaviour, confusion, errors, and hesitation.

Additional qualitative data was gathered through brief follow-up questions after task completion to clarify user reasoning and expectations. Participants were also asked to provide simple ratings for aspects such as ease of use and overall satisfaction, providing supporting quantitative data. All data was anonymised and used solely to inform design improvements.

### Procedures:

Participants were first given an information sheet outlining the purpose of the study, the nature of their participation, and how their data would be used. Informed consent was obtained before the session began.

Each participant then received a short, neutral introduction to the game, covering the overall goal without guidance on how to complete specific tasks.

Participants completed the evaluation tasks while thinking aloud (see Appendix A). Throughout the session, evaluators observed interactions and recorded notable behaviours and usability issues. After completing all tasks, participants answered follow-up questions and rated the severity of any issues they encountered. These ratings were later consolidated by the team members.

## **Appendix A:**

### **Tasks:**

#### **1. Start the game and begin playing without any guidance.**

**Purpose:** Check whether the game's starting state is clear and whether users can easily begin gameplay on their own.

#### **2. Move around the maze and use the map to understand where you are.**

**Purpose:** Evaluate whether navigation feels intuitive and whether the map helps users orient themselves within the game world.

#### **3. Explore the environment and interact with at least one visible event or object.**

**Explain what you think it does.**

**Purpose:** Assess whether interactive elements are noticeable and whether their purpose is clear to first-time users.

#### **4. Try to make progress towards the exit while keeping track of the timer.**

**Purpose:** Observe how users balance exploration and time pressure, and whether the main objective is clearly understood.

#### **5. Intentionally trigger a losing condition (for example, letting the timer run out).**

**Purpose:** Evaluate whether the failure state is clearly communicated and whether users understand why they lost.

#### **6. Restart the game after losing and attempt to improve your performance.**

**Purpose:** Test whether recovering from failure is straightforward and whether users feel motivated to try again.

#### **7. Successfully reach the exit before the timer runs out.**

**Purpose:** Assess whether the win condition and success feedback are clear and satisfying.

#### **8. View the post-game summary (such as achievements, score, or leaderboard information).**

**Purpose:** Evaluate whether end of game information is easy to find, understandable, and clearly linked to the player's actions.