User Evaluation

Cohort 3 Team 4

Kiran Kang

Hannah Rooke

Ben Slater

Abualhassan Alrady

Cassie Dalrymple

Charles MacLeod

Dash Ratcliffe

Harley Donger

Recruitment
The evaluation involved 7 participants, all recruited from other ENG1 project teams in our cohort (cohort 3) and had no prior experience with the current game, but had somewhat of an understanding of how the game worked through the product brief. Using a large number of participants meant that we could identify more issues from the inherited system and from our additions made to meet Assessment 2 requirements. Participants were recruited through direct contact during scheduled practical sessions. It was communicated that participation was voluntary and unpaid.

Ethical Procedures
To meet ethical requirements, all participants were provided with an information sheet outlining the purpose of the study, what participation involved, the voluntary nature of participation, data anonymity, and contact details for our team. The users also completed a consent form through a Google Form before testing to confirm informed voluntary participation. No personally identifiable information was collected.

Evaluation Procedure
Each user completed a task-based usability evaluation, where participants were given a task sheet instructing them to play the game naturally with the goal of escaping the maze within the time limit, without prior explanation of mechanics or event behaviour. The task sheet also encouraged them to think aloud, explaining their thought process to our team members. Prompts were given to users to explore the main menu (adjusting volume, viewing achievements, starting the game, etc). If they became stuck or were set to miss an event, they were given prompts, in order to give the user a complete experience of the game, and so that we could get a complete set of responses to the post test interview questions.

A task-based evaluation was chosen because it reflects the realistic interactions the user will have with the game and allows any usability issues to be identified in this context. In addition to this, it allowed the team to observe any moments of confusion, frustration, or satisfaction that may not be captured through task completion alone. After this, participants were asked a series of questions to express their opinion of the game and suggest any improvements.

Each session followed this structure:

1. The user reads the information sheet and signs the consent form.
2. The user plays with the objective of escaping. The user receives prompts from member the team if they seem stuck/miss a main feature.
3. Team member makes observation based notes on user's behaviour and think aloud comments.
4. The participant takes part in post test interview, which are documented by the team.

Each session lasted approximately 15-20 minutes.

Data Collection
The following data were collected:

- Observational notes: the evaluator recorded user behaviour: navigation choices, hesitations, response to prompts, and visible confusion during gameplay.
- Verbal think aloud comments: participants verbally expressed their thoughts, expectations, and frustrations while playing the game; these were documented by the team member.
- Post test interview responses: after gameplay, participants answered structured questions about clarity, usability, and overall experience.

The data collected was stored in separate Google Docs, and organised into tables in preparation for the analysis of responses, and identification of issues. All consent records were stored separately to ensure confidentiality is upheld, where all data is anonymous.

Tools Used
Google Docs for the information sheet, task sheet, observational notes, post test interview questions, post test interview responses. Google Forms for the consent form.

Usability Problems Table

This table includes what the problem is, the ID, its severity rating and any notes/evidence of this during the user evaluation session. We used Jakob Nielson's method on what to use for the severity ratings:

1. *Cosmetic problem*, meaning it shouldn't be fixed unless we have extra time
2. *Minor usability* problem so fixing this should be a low priority
3. *Major usability* problem where it is important to fix hence it has a high priority

ID	Usability Problem	Description	Severity	Frequency	Users
U_Collisions	Player collision on corners and tight gaps	Some players frequently collided with wall edges, doorways, narrow routes, and the bottom right puddle, making it difficult to move smoothly around tight corners, particularly when moving quickly. This interrupts gameplay flow and can cause momentary loss of control.	3 - Major	3	P1, P4, P5
U_PlayerVisibility	Player hard to see at game start	At the start of the game, the player visually blends with the floor texture, making it difficult for the user to immediately locate their character and understand where they are positioned within the maze.	3 - Major	1	P1
U_ItemLearnability	Item purpose unclear on first encounter	The purpose of some items, particularly the check in code, is not immediately clear when first picking them up, leading users to brief confusion.	2 - Minor	3	P1, P5, P6
U_ScoreVisibility	Scoring and counters not immediately noticeable	The scoring system, including how events and time affect the score, is not immediately apparent during gameplay: some users understood scoring mechanics late or after completing the game.	2 - Minor	2	P1, P5
U_SlowPlayerMovement	Player movement feels slow	The default movement speed of the player felt slow to one user, which can make navigation feel less responsive, even though the user noted that it remains playable given the map size and time limit.	2 - Minor	1	P6
U_EnvironmentContrast	Interactable elements blend with environment	Certain interactable items visually blend into the surrounding floor textures, making them less noticeable and increasing the risk that new players may overlook them during normal gameplay.	2 - Minor	1	P4
U_EventText	Text effects reduce readability	Animated text effects (e.g. associated with puddle interactions) reduce readability, making some on screen messages harder to read and understand quickly.	1 - Cosmetic	1	P6
U_BackgroundMusic	Lack of background music	One player suggested having background music.	1 - Cosmetic	2	P5

References:

[1] J. Nielsen, "Severity Ratings for Usability Problems," *Nielsen Norman Group*, 1994. https://www.nngroup.com/articles/how-to-rate-the-severity-of-usability-problems/ (accessed Dec. 30, 2025).