User Evaluation

Cohort 1 Group 7

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A) Methodology:

Recruitment:

Participants were chosen from the other teams within the same cohort, with one participant taken from each group. As explicitly stated in the requirements, it was conducted within the cohort and a total of 3 participants were chosen and evaluated the system.

Data Collection Tools and Data:

- **Protocol Followed:** Think Aloud Protocol (Concurrent Verbal Protocol (CVP))

  The think-aloud protocol was used. Participants were required to navigate through the game while verbalising what they were thinking in real time as they encountered the events and explored the game. The protocol was chosen for its simplicity and suitability for the project, as it captured participants' decision making processes in real time and helped to identify difficulties they encountered, as well as how the game was received by the users.

- **Severity rating:** Range from 1 to 5

  The participants were asked to give a severity rating to each issue they encountered during the gaming experience. The severity rating ranged from 1 to 5, with 5 indicating a major problem.

- **Data Collection:** Observation and Feedback

  Data was mainly collected via observation and feedback. All problems encountered were noted as usability problems via observation during the gameplay. Upon completion of the session, participants were given a chance to describe the problems they encountered and gave a severity rating.

Procedures:

- **Participant Briefing**: Participants were provided with an information sheet outlining data usage, participant rights, and potential risks. After signing the consent forms, they were briefed on the game and the purpose of the evaluation.
- **Evaluation tasks**: Each participant was given a set of tasks to complete during and after gameplay. The game was purely based on participants' intuitive behavior. The tasks consisted of general gameplay objectives which did not explicitly instruct participants on how to proceed. (see Appendix A for task details)
- **Data Collection**: During the gameplay, including moments where participants were confused and frustrated, all issues were noted. Upon completion of the gameplay, participants gave feedback on the problems they encountered and gave severity ratings to each issue.

B) Usability Problems:

ID	Usability problems encountered by users	Description	Severity rating	User feedback	Design Recommendation
1	Accessibility instruction was not given	There was no instruction for usage of the keyboard and any other instructions to date	4	"If there was instruction for which keys to use and how to pause was given. It would have been really helpful"	Add accessibility instruction
2	Don't know if the score is high or low	The participant did not understand whether the score he/she got was high or low.	3	"I understand how the calculations are working but I do not know if the score I get is high or low"	Add section that states highest possible score to get
3	Cannot put your name	At the beginning participants tried to include the name but was not able to	3	"It is annoying to put the name on txt file to include my name"	Make it in-game
5	The check-in code point is not worth the time it takes to take them.	The participants mentioned check-in code score was not high enough	2	"It does not feel like the check-in code gives enough points"	Increase the check-in code's points
6	The hat event was hard to find	The hat event did not change anything in visually which made it difficult to know if they scored it	3	"I do not know where it was put on"	Change the statue visually

Appendix A

Tasks:

1. **Performance**
   Task 1: Start and restart the game
   Purpose: This ensures the user understands the starting mechanism and the game is operating without trouble.
2. **Visual Clarity**
   Task 2: Move the character and escape from the Dean.
   Purpose: To determine whether the players correctly understand the visual animations and proceed the game without difficulty.
3. **Achievement and Score System**
   Task 3: Score points, trigger events, and check the achievement board
   Purpose: Test whether users understand the achievement and score system by triggering events and scoring the points.
4. **Time Allocation**
   Task 4: Play until time runs out.
   Purpose: Evaluate whether the prolonged game session causes any discomfort while checking how users interact with the game during extended time.
5. **Losing State**
   Task 5: Lose the game
   Purpose: Check if the losing conditions are easy to understand and follow.
6. **Winning State**
   Task 6: Win the game
   Purpose: Check whether the winning condition is clear and users can find it.
7. **Leaderboard**
   Task 7: Enter a name into the leaderboard
   Purpose: To ensure that the leaderboard works as intended, while checking whether the structure and displayed information is understandable for users to input their scores.
8. **User Engagement**
   Task 8: Encounter all events and obstacles.
   Purpose: To make sure that all events and obstacles are encounterable during the gameplay. In addition, it was included to assess how users interact with the events and overcome it.
9. **Navigation**
   Task 9: Explore menus and change the settings
   Purpose: Check whether users navigate the menu and modify the interface according to their preference.