

University of Bremen

Moon Hollow Player Experience Report

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Course: Entertainment Computing

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Introduction

This report presents the results of the Player Experience Inventory (PXI) questionnaire for the game "Moon Hollow". The questionnaire was completed by 7 participants and includes 11 subscales measuring various aspects of the player experience, as well as qualitative feedback on likes and dislikes.

Participants

All participants are students at the University of Bremen and most of them are also enrolled in the course Entertainment Computing.

Quantitative Results

The PXI questionnaire uses a 7-point Likert scale for each item. Scale was represented in the following way: *1 - Strongly disagree, 2 - Disagree, 3 - Slightly disagree, 4 - Neither disagree, neither agree, 5 - Slightly agree, 6 - Agree, 7 - Strongly agree.*

To analyse the data, I calculated the mean (or average) value of each subscale, the median (or the middle) value of the subscale, and the mode (or the most common) value appearing in the subscale. Below are the mean, median and mode scores for each subscale:

1. **Meaning**
 - Mean: 6.19 | Median: 6 | Mode: 6
2. **Mastery**
 - Mean: 6.14 | Median: 6 | Mode: 6
3. **Immersion**
 - Mean: 6.19 | Median: 7 | Mode: 7
4. **Autonomy**
 - Mean: 5.38 | Median: 6 | Mode: 6
5. **Curiosity**
 - Mean: 6.67 | Median: 7 | Mode: 7
6. **Ease of Control**
 - Mean: 6.57 | Median: 7 | Mode: 7
7. **Challenge**
 - Mean: 5.86 | Median: 6 | Mode: 6
8. **Progress Feedback**
 - Mean: 5.29 | Median: 6 | Mode: 7

9. Audiovisual Appeal

- Mean: 6.81 | Median: 7 | Mode: 7

10. Clarity of Goals

- Mean: 6.62 | Median: 7 | Mode: 7

11. Enjoyment¹

- Mean: 6.90 | Median: 7 | Mode: 7

The highest-rated subscales were **Enjoyment (6.90)** and **Audiovisual Appeal (6.81)**, indicating that participants found the game highly entertaining and audio visually appealing. The lowest-rated subscale were **Progress Feedback (5.29)** and **Autonomy (5.38)**, suggesting an area for potential improvement.

Overall, the game was rated with high scores, even the lowest-rated subscales were in between the “slightly agree” and “agree” scale.

Detailed Quantitative Analysis

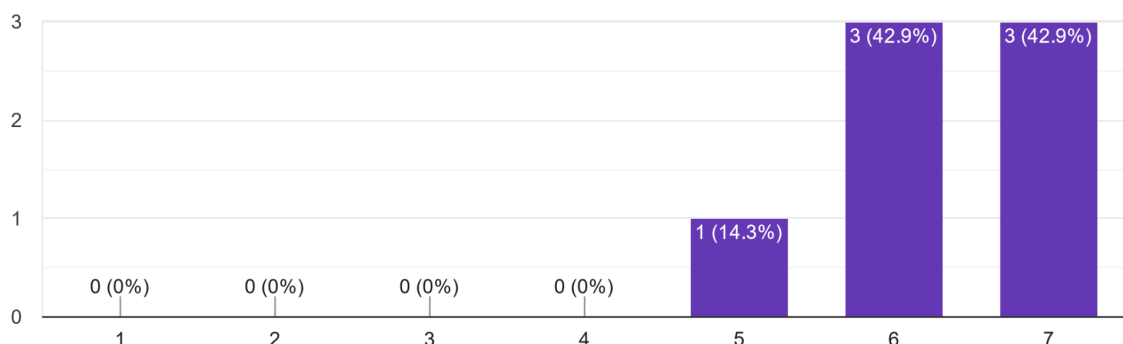
Each subscale contained a number of statements the participants evaluated using the same Likert scale. The subscales can also be categorised into three sections: *Psychosocial Consequences*, *Functional Consequences* and *Enjoyment* which is not the official construct of the PXI but is often found interesting to measure. Below is a detailed description of each section containing the corresponding statements, their average value, and the graph representation of the participants' responses.

Psychosocial Consequences

1. Meaning (6.19)

Playing the game was meaningful to me.

7 responses

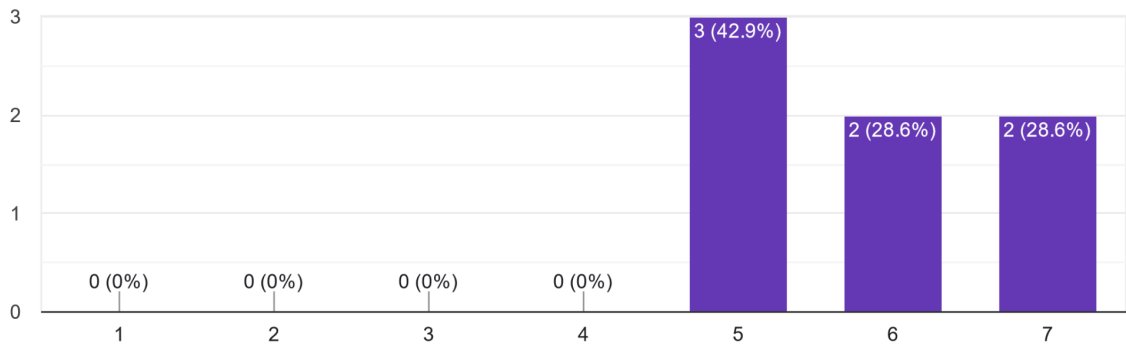


Mean: 6.29

¹ *Enjoyment* is not a construct of the PXI but it may be interesting to measure that as well.

The game felt relevant to me.

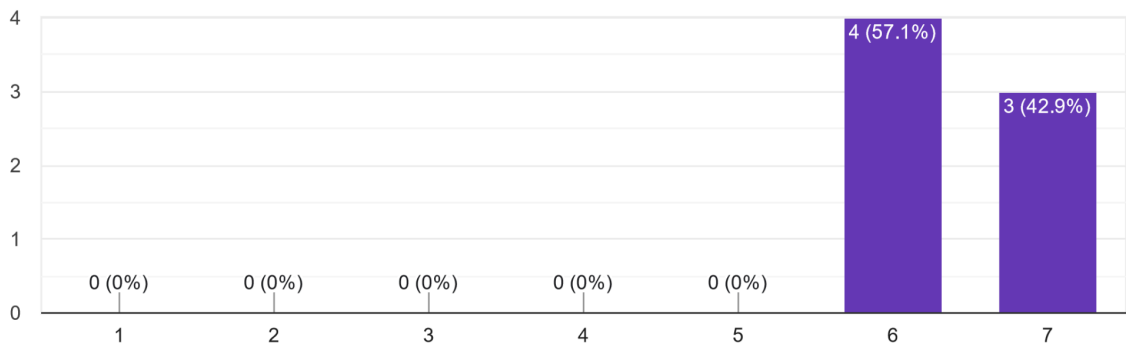
7 responses



Mean: 5.86

Playing this game was valuable to me.

7 responses

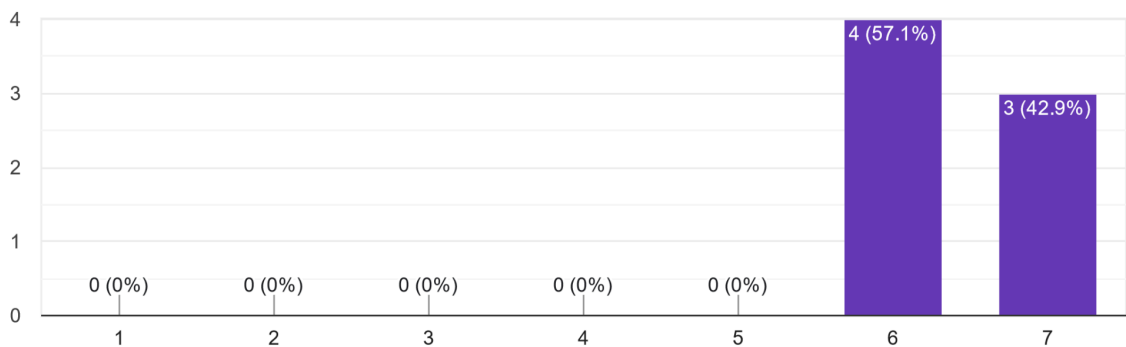


Mean: 6.43

2. Mastery (6.14)

I felt I was good at playing this game.

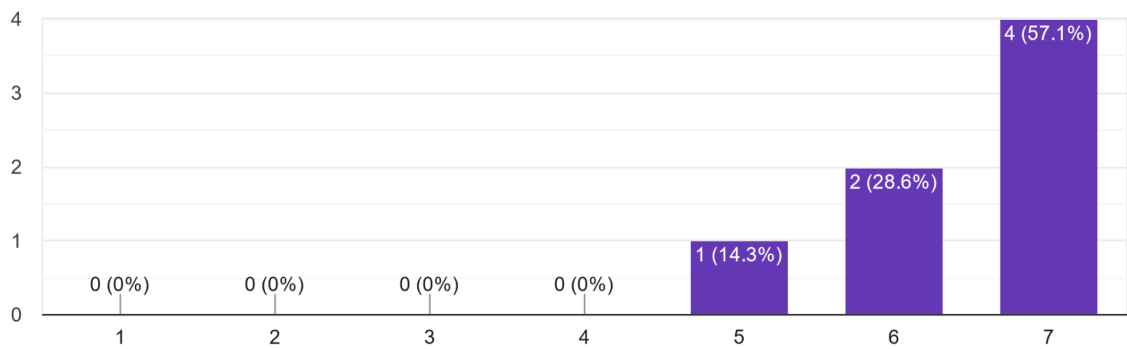
7 responses



Mean: 6.43

I felt capable while playing the game.

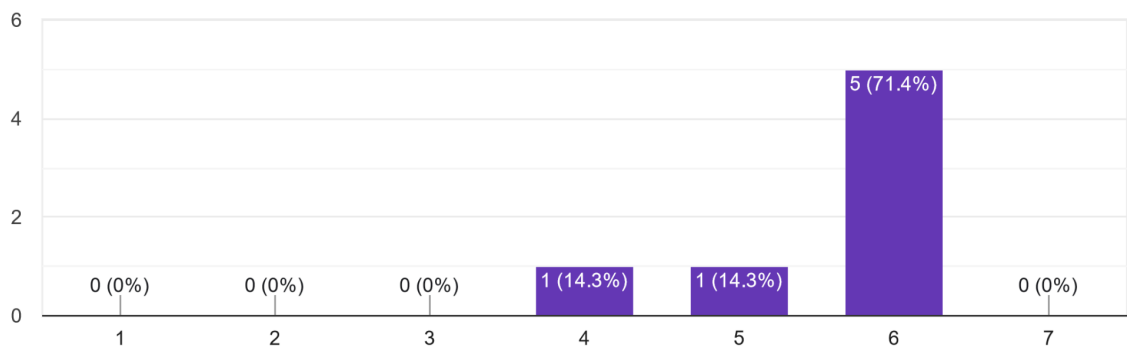
7 responses



Mean: 6.43

I felt a sense of mastery playing this game.

7 responses

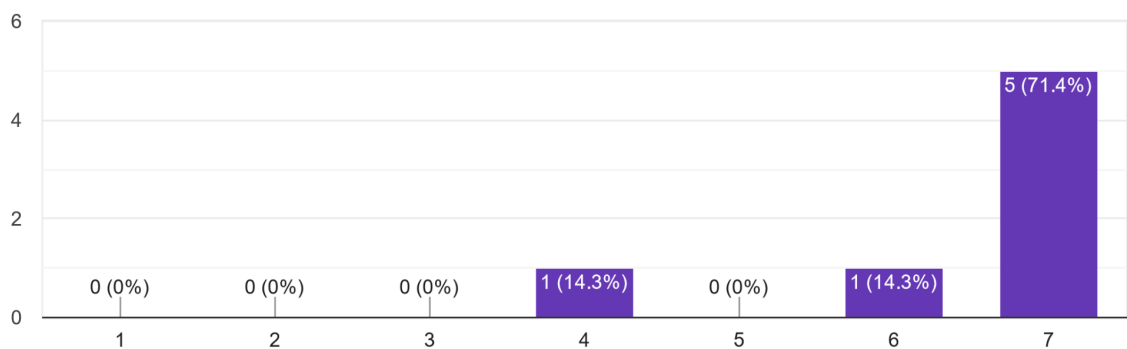


Mean: 5.57

3. Immersion (6.19)

I was no longer aware of my surroundings while I was playing.

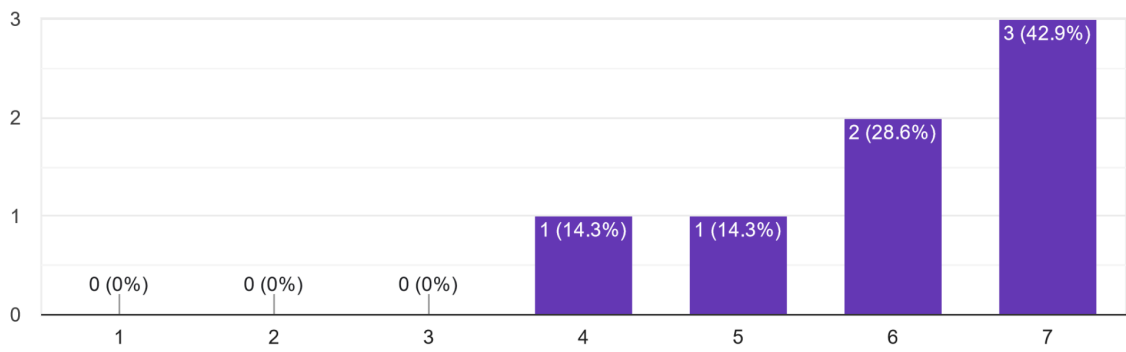
7 responses



Mean: 6.43

I was immersed in the game.

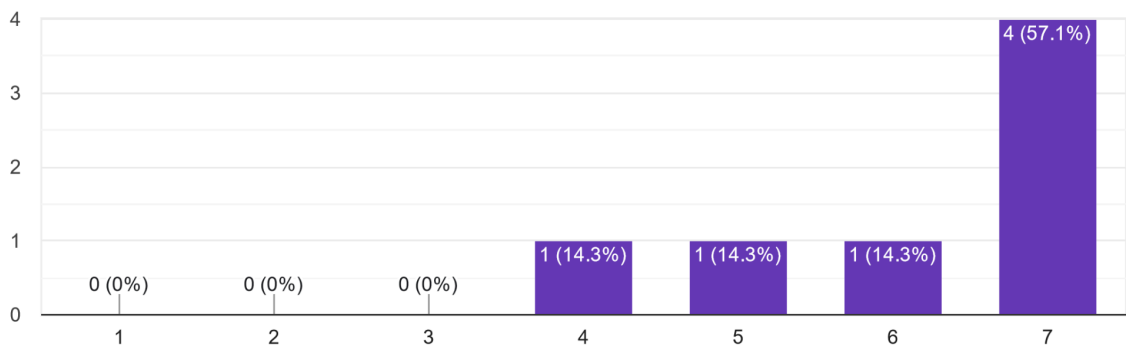
7 responses



Mean: 6.00

I was fully focused on the game.

7 responses

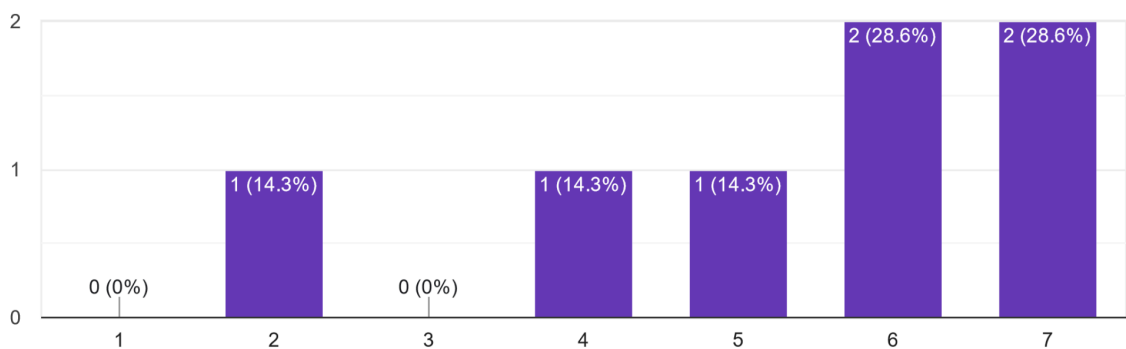


Mean: 6.14

4. Autonomy 5.38

I felt free to play the game in my own way.

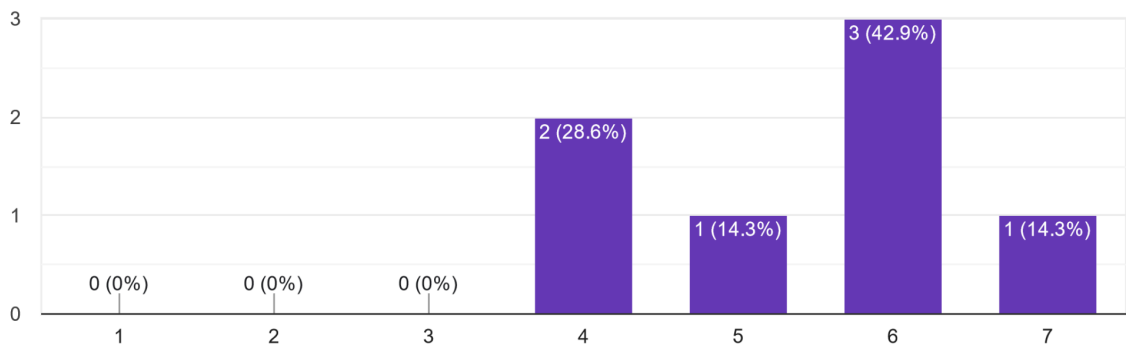
7 responses



Mean: 5.29

I felt like I had choices regarding how I wanted to play this game.

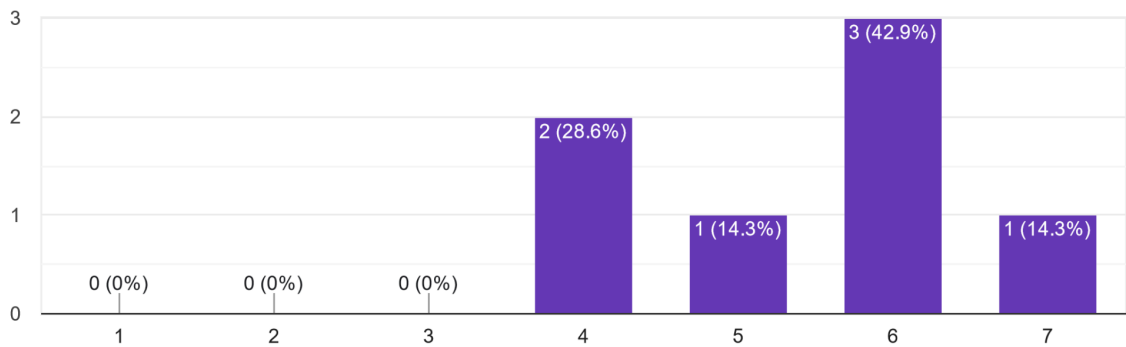
7 responses



Mean: 5.43

I felt a sense of freedom about how I wanted to play this game.

7 responses

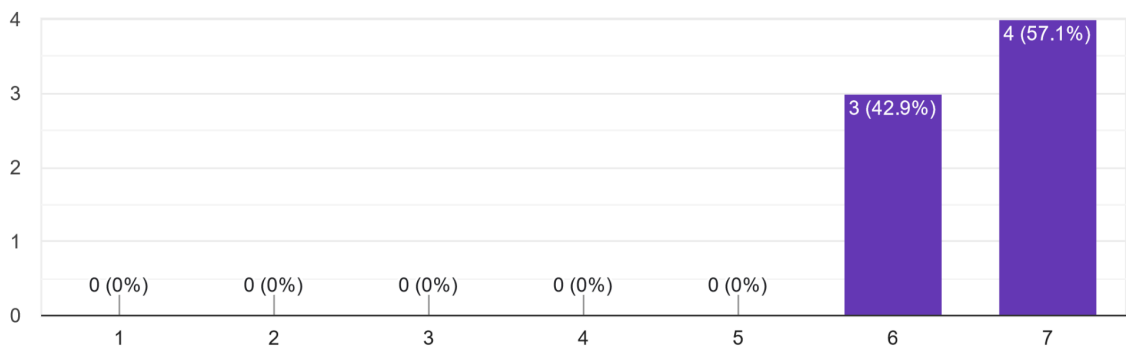


Mean: 5.43

5. Curiosity 6.67

I wanted to explore how the game evolved.

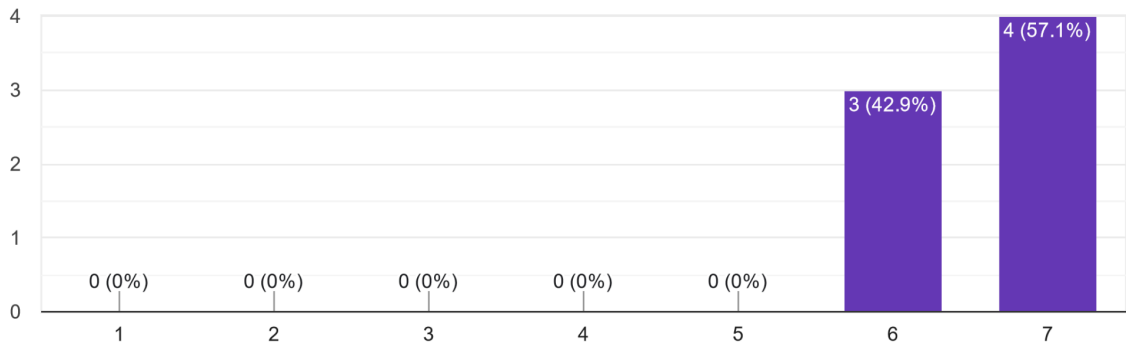
7 responses



Mean: 6.57

I wanted to find out how the game progressed.

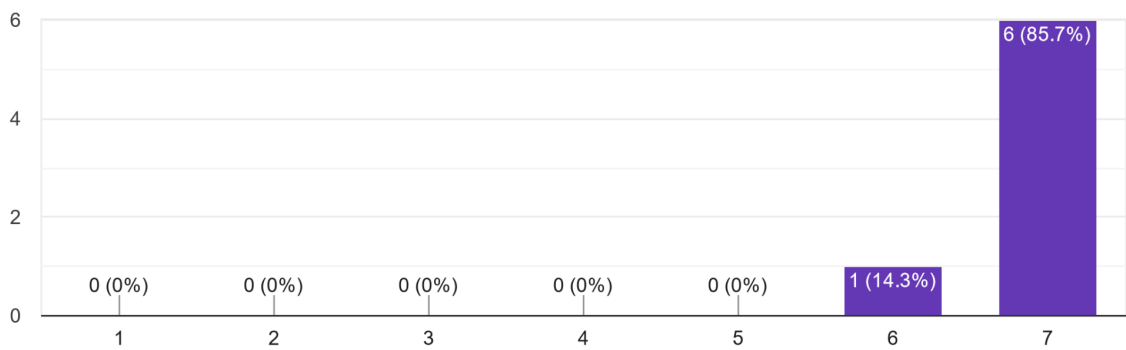
7 responses



Mean: 6.57

I felt eager to discover how the game continued.

7 responses



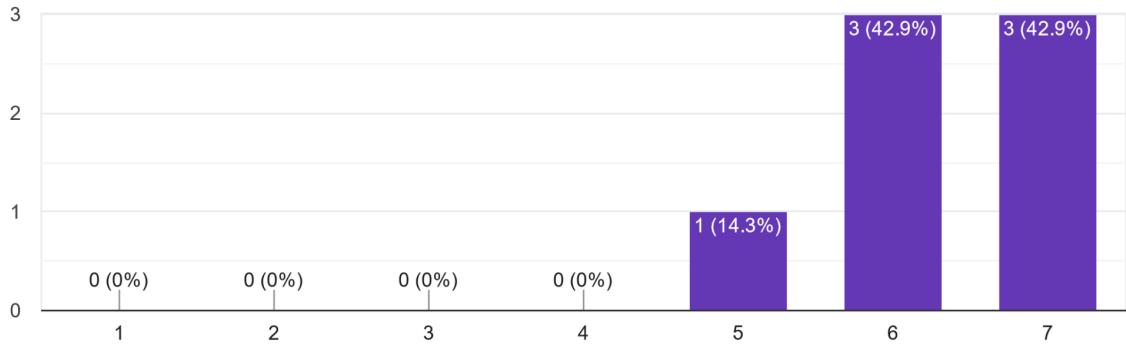
Mean: 6.86

Functional Consequences

6. Ease of Control (6.57)

It was easy to know how to perform actions in the game.

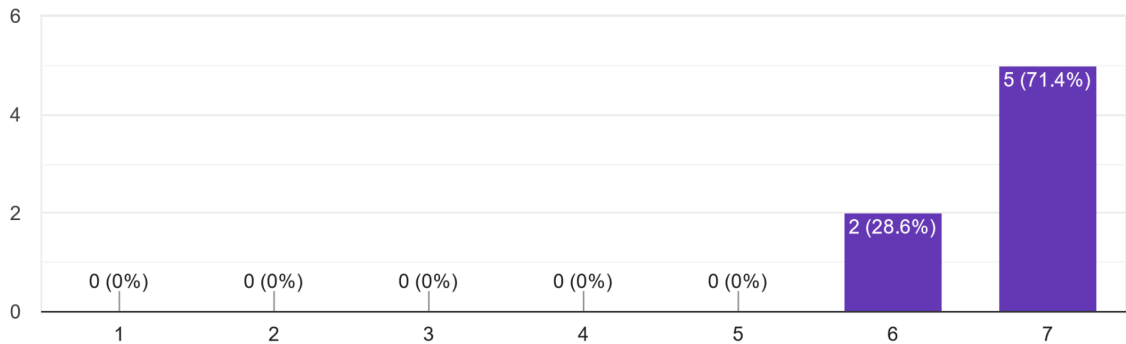
7 responses



Mean: 6.29

The actions to control the game were clear to me.

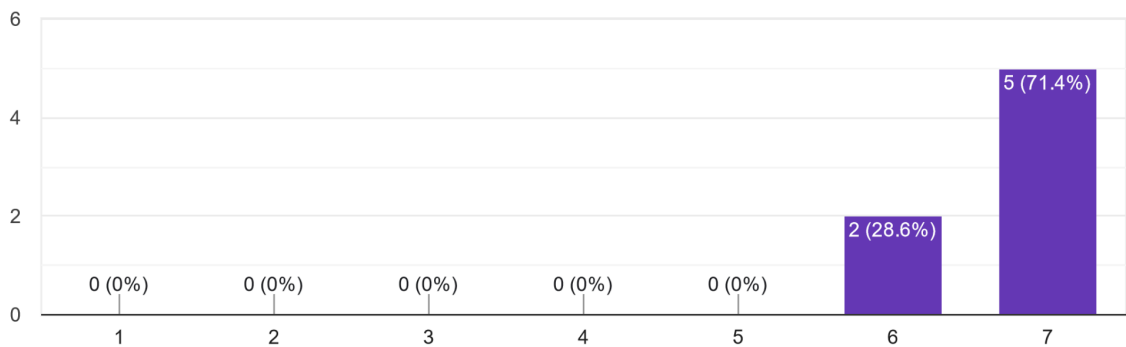
7 responses



Mean: 6.71

I thought the game was easy to control.

7 responses

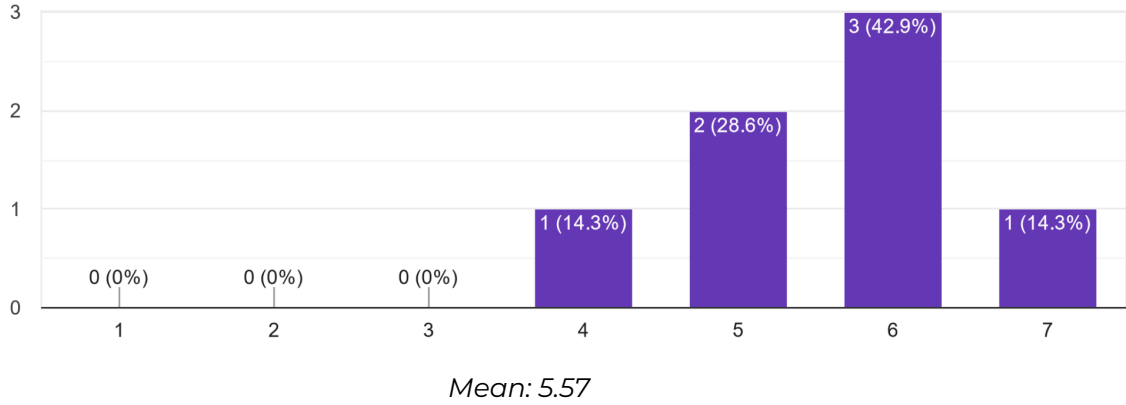


Mean: 6.71

7. Challenge (5.86)

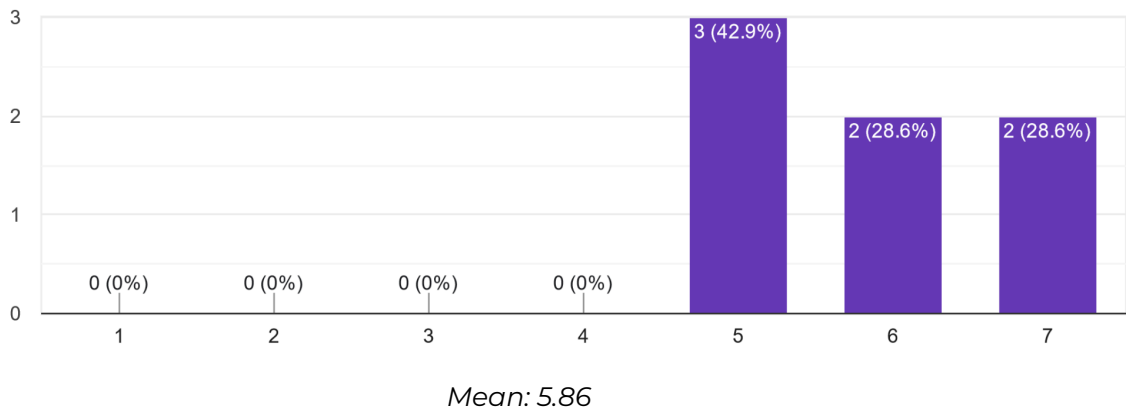
The game was not too easy and not too hard to play.

7 responses



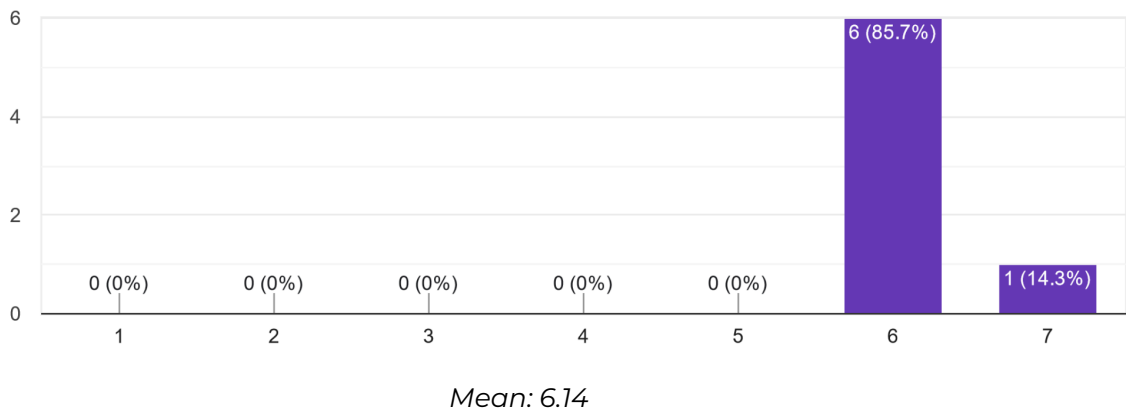
The game was challenging but not too challenging.

7 responses



The challenges in the game were at the right level of difficulty for me.

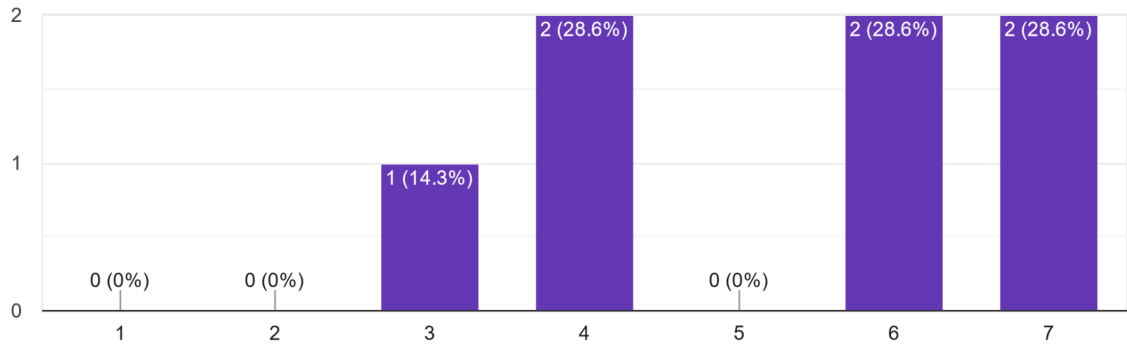
7 responses



8. Progress Feedback (5.29)

The game informed me of my progress in the game.

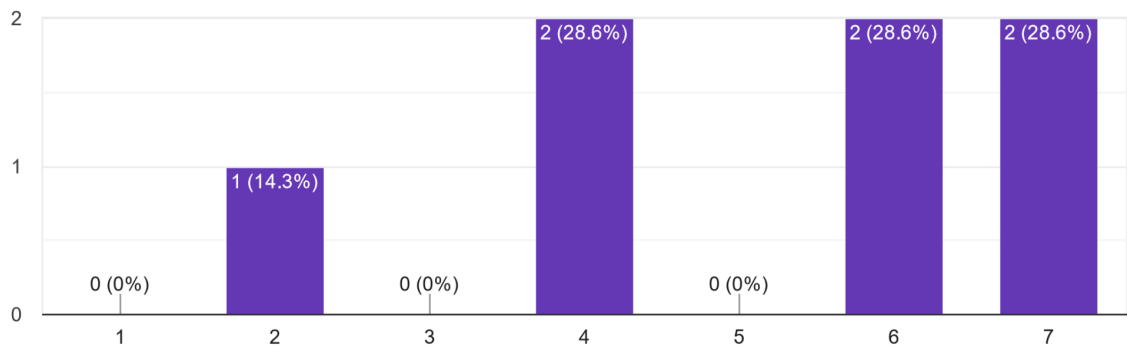
7 responses



Mean: 5.29

I could easily assess how I was performing in the game.

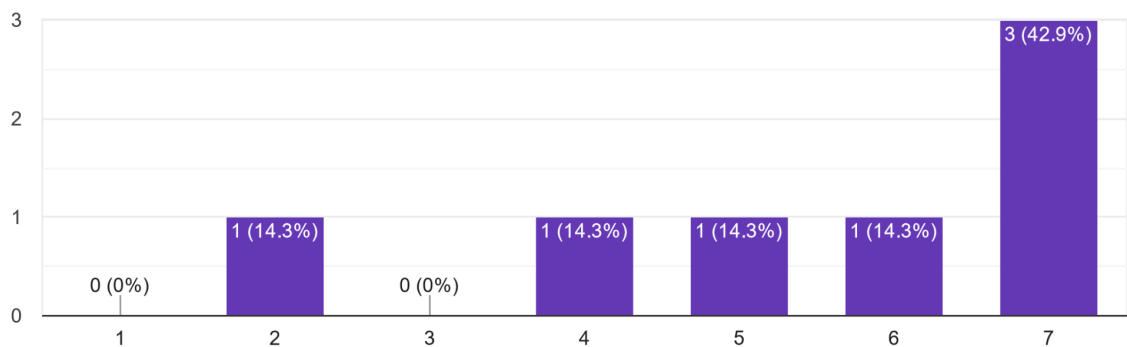
7 responses



Mean: 5.14

The game gave clear feedback on my progress towards the goals.

7 responses

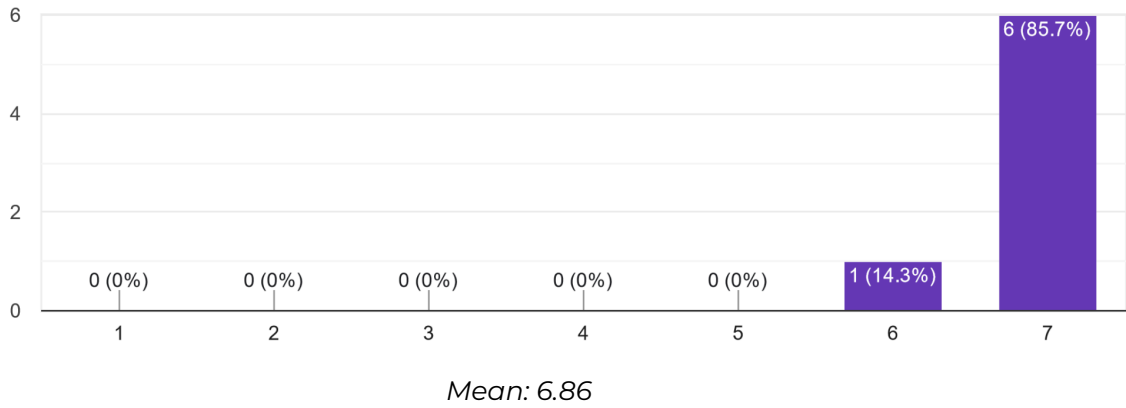


Mean: 5.43

9. Audiovisual Appeal (6.81)

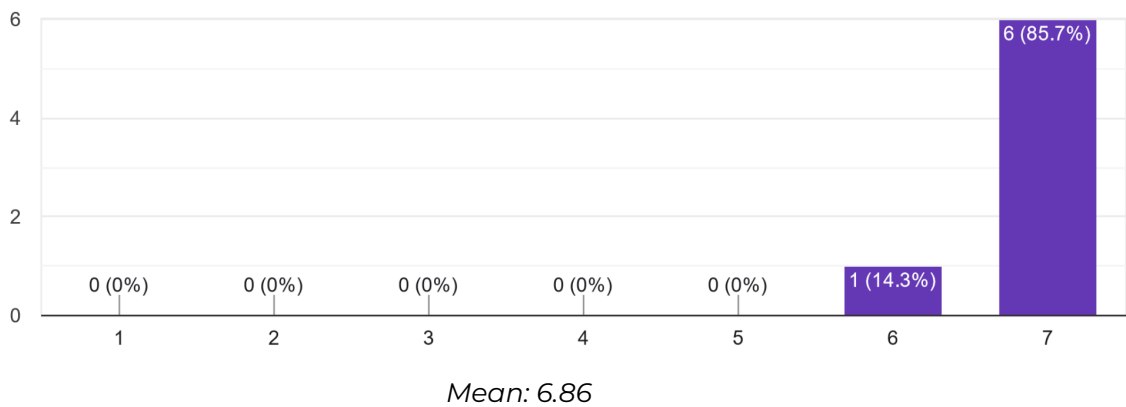
I enjoyed the way the game was styled.

7 responses



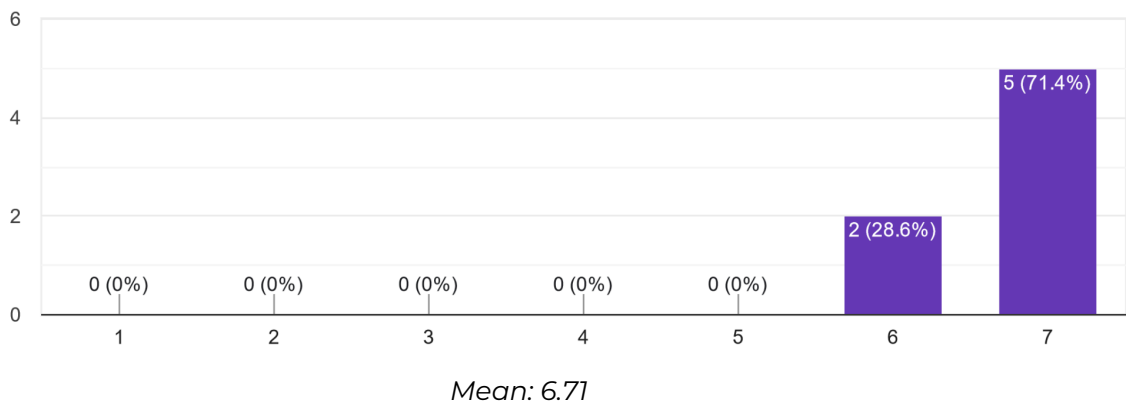
I liked the look and feel of the game.

7 responses



I appreciated the aesthetics of the game.

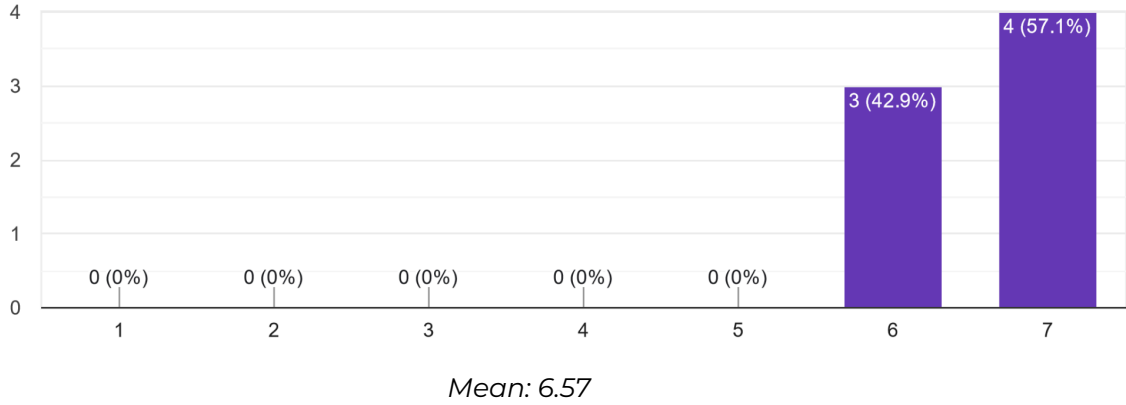
7 responses



10. Goal Clarity (6.62)

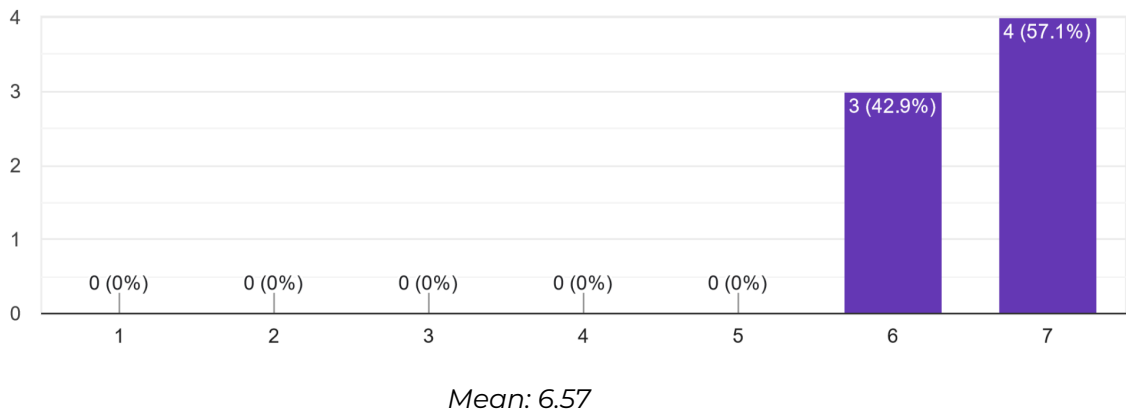
I grasped the overall goal of the game.

7 responses



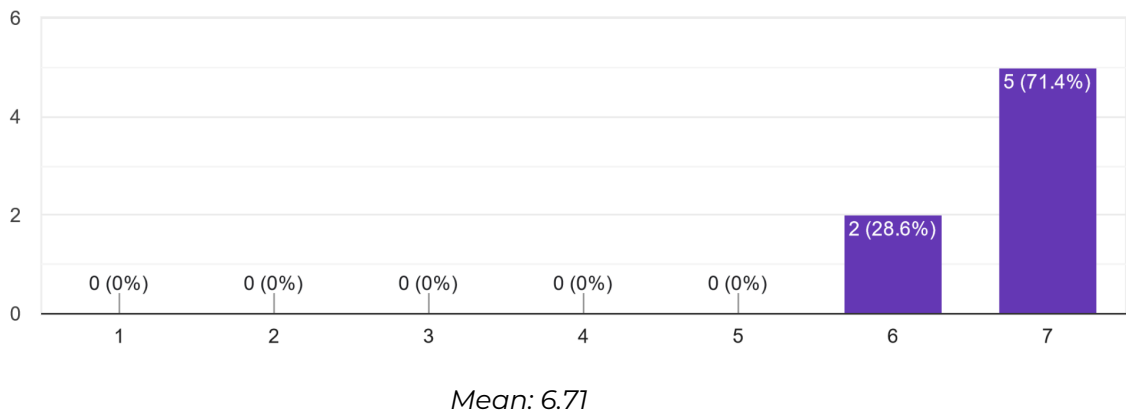
The goals of the game were clear to me.

7 responses



I understood the objectives of the game.

7 responses

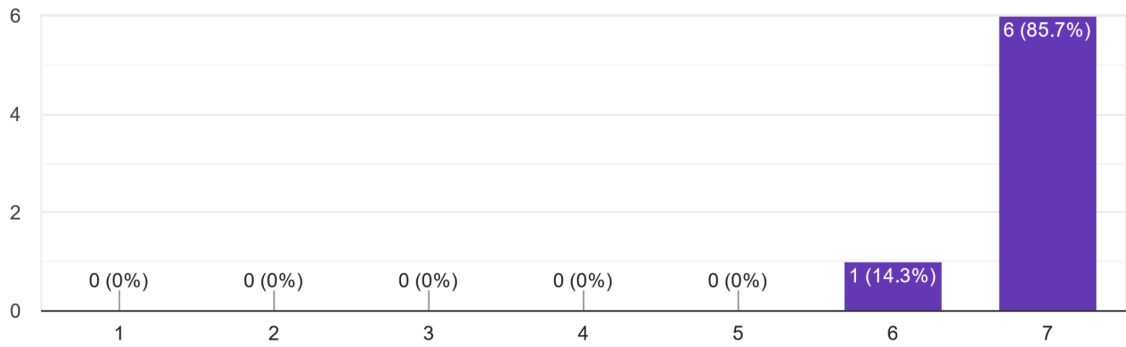


Enjoyment

11. Enjoyment 6.90

I liked playing the game.

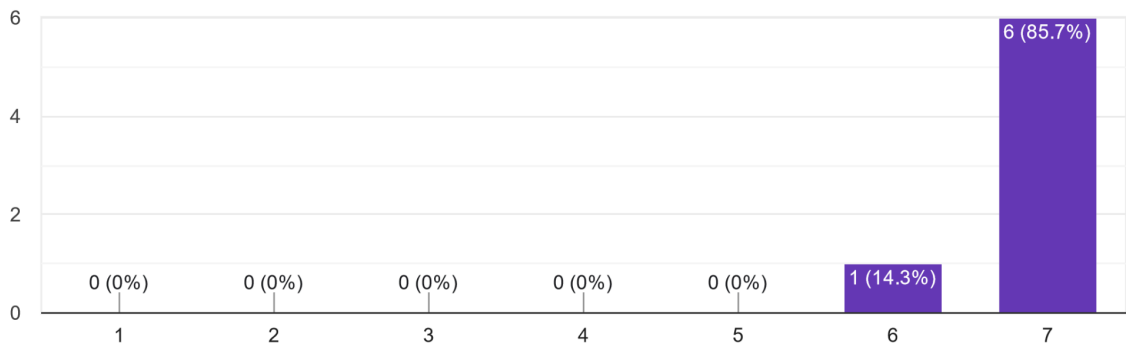
7 responses



Mean: 6.86

The game was entertaining.

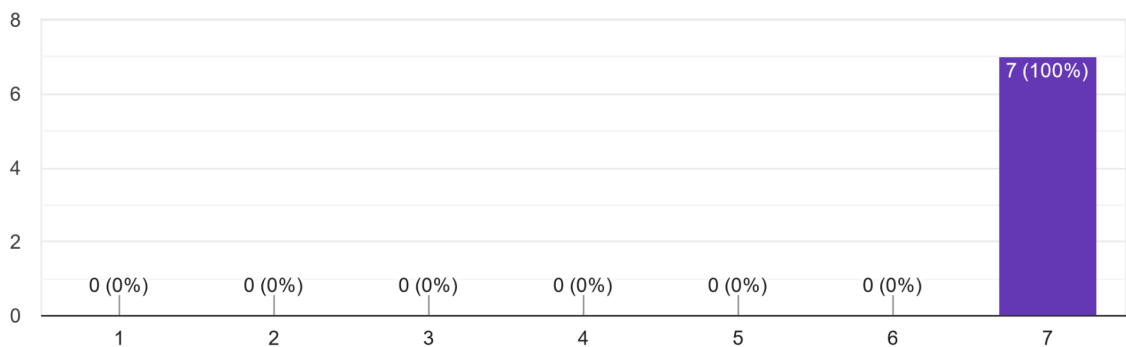
7 responses



Mean: 6.86

I had a good time playing this game

7 responses



Mean: 7.00

Looking deeper into each subscale, the areas for improvement become clearer. I should have given more freedom to players on how to play the game, maybe by adding more alternative paths to take that would also lead to winning the game without having to guess the final riddle.

The other area of concern was not having the clear feedback on progress in the game which could have been handled by a simple progress bar or by having more encouraging messages after each riddle being solved. The challenge of the game could be worked on too. Having extra hints or multiple guesses when solving the riddles could have given the players a better user experience.

Despite those issues, the high score in the *Enjoyment* section shows that the participants still enjoyed playing the game and found it entertaining.

Qualitative Summary

The questionnaire contained two text fields asking participants to describe what they liked and disliked in the game. Below is the summary of what they wrote.

What participants liked about the game

1. **Visual Aesthetics:** Multiple participants praised the game's graphics, art style, and overall visual appeal.

Participant 1: *"The game is highly enjoyable, with impressive graphics..."*

Participant 4: *"I really enjoyed the look of the game..."*

Participant 7: *"I like the concept of the game, the overall visual aesthetics... I also like the various scenes, like the cat cafe and the library, etc."*

2. **Engaging Gameplay:** The riddles were frequently mentioned as an enjoyable aspect, with players appreciating the challenge they provided. One participant appreciated the narrative elements and the sense of progression.

Participant 1: *"The storyline and challenges are thoroughly engaging. I also appreciate the clear instructions provided in the game."*

Participant 2: *"the riddles are so tough! I loved them."*

Participant 3: *"...the riddles"*

Participant 4: *"Also I liked the riddles! For some of them, I really had to think for a moment to guess the answer correctly. Which was fun too!"*

Participant 5: *"Nice riddles."*

- 3. Atmosphere:** The spooky theme, accompanied by appropriate sound effects and background music, was well-received.

Participant 3: *"the creepy music"*

Participant 4: *"I really enjoyed the look of the game, as well as the sounds that accompanied it while playing. It really immerses you into that spooky theme and makes it even more fun to play it!"*

Participant 6: *"The music is good..."*

Participant 7: *"...the sound effects, and the perfect background music"*

- 4. Character Design:** The cat character was specifically mentioned as cute and enjoyable, and one participant listed ghosts as a nice element to the game.

Participant 2: *"The cat is really cute."*

Participant 3: *"...the cat"*

Participant 7: *"The ghosts were a nice element and too cute to ignore."*

- 5. Player movement:** Some participants found the cat's ability to jump really high fun.

Participant 2: *"I love flying cats."*

Participant 7: *"It was also very fun with the player movements and being able to jump really high."*

What participants disliked about the game

- 1. Riddle Difficulty:** While some enjoyed the challenge, others found certain riddles too vague or difficult while one participant suggested that the riddles should be more tough.

Participant 1: *"...riddles can be more tough."*

Participant 3: *"When I couldn't guess the right answer, when the riddle was a little too vague..."*

- 2. User Interface:** There was some confusion about how to input answers to riddles, and the aspect ratio for Mac users was not perfect.

Participant 2: *"I was unsure how to enter riddle answers (like if i could say "a candle" or just "candle") also i said "i am dead" when asked the ghost question but that did not count! :)"*

Participant 3: "... the small issues with the screen aspect ratio"

- 3. Visual Clarity:** One participant mentioned difficulty seeing the cat character against the background in certain scenes.

Participant 7: "*At some points, like right when the screen loads to play the game, I couldn't see the cat immediately cause it blends with the background*"

- 4. Game Mechanics:** A player noted that ghost movement during riddle dismissal led to unexpected life loss.

Participant 7: "*When you try to answer the riddle and then dismiss the screen the ghosts still move (right before you click 'dismiss') and I lost lives because I couldn't see the main screen.*"

- 5. Progress Impact:** One participant felt that solving riddles didn't sufficiently impact game progress.

Participant 7: "*I would have liked more of a visual feedback for getting the riddles right and also for them to have some effect on the game's progress (the second time I played it I went right to the final clue and I still won)*"

Conclusion

Overall, Moon Hollow appears to be a well-received game with high scores in enjoyment, audiovisual appeal, and curiosity. Players particularly appreciated the game's aesthetics, atmosphere, and the challenge provided by riddles. Areas for potential improvement include clearer progress feedback, fine-tuning riddle difficulty, and addressing some user interface issues. Furthermore, the issue with ghosts moving while the overlay after solving the riddle is present is an oversight that went unnoticed while testing and is easily fixable.

Unfortunately, this game could only be tested on Windows so the aspect ratio for Macs ended up being slightly off.

The strong positive feedback on the game's visual and auditory elements suggests that these are key strengths to maintain in future developments. The varying opinions on riddle difficulty indicate that finding the right balance of challenge might be crucial for broader player satisfaction.

References

- [1] Player Experience Inventory Documentation:
<https://playerexperienceinventory.org/docs>

Appendices

1. PXI Questionnaire:
<https://forms.gle/yjUXkyG5EG76w5J77>
2. Responses to the Questionnaire:
<https://docs.google.com/spreadsheets/d/1kAXV-yJN5vYfmIZohi0b9f6xb9V9qUHgGzUIYmFyUE/edit?usp=sharing>