Doodlebird Research Project

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Our plan is to explore the effects of adding competitive extrinsic elements to a single-player game, and how this affects the player's motivation.

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Concept

Does comparing a player's results to others increase their motivation to play?

Or just having some social competitiveness in the game affect motivation and engagement?

Research Question

Methodology

Game Used: Doodlebird (Flappy Bird)

Data Collection Tool: Unity generated csv, Google Forms

Analysis Tool: Excel, Google Sheets

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5 Test Plan

Players will be given a pre-demographic survey

The test will be broken down into 2 separate playtest sessions:
1. The game will only track the player's current high score
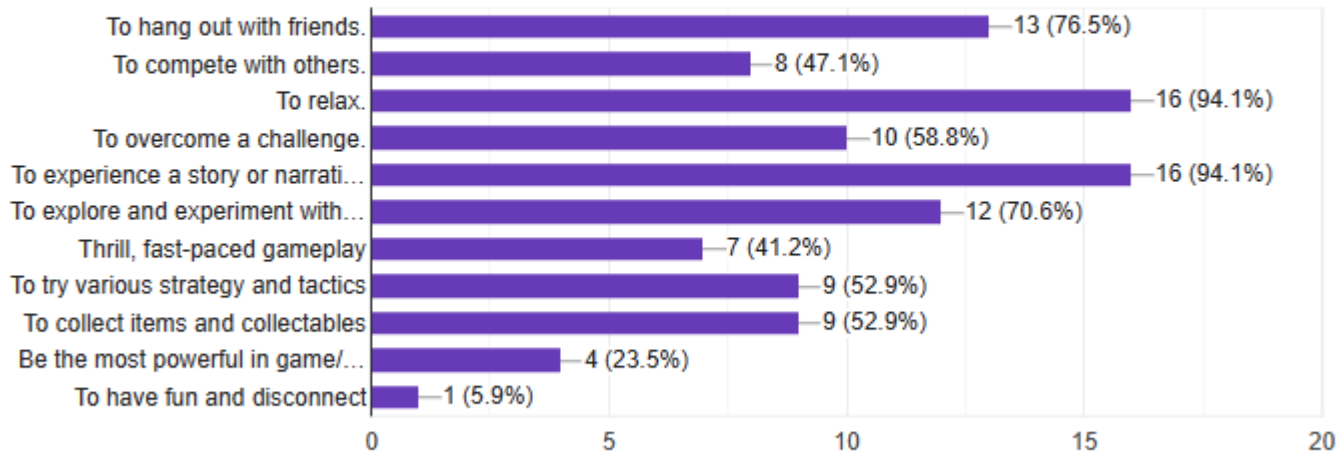2. The game will feature a multiplayer scoreboard including other players' scores

There will be a post-game survey at the end of each playtest session

Gamer Demographic
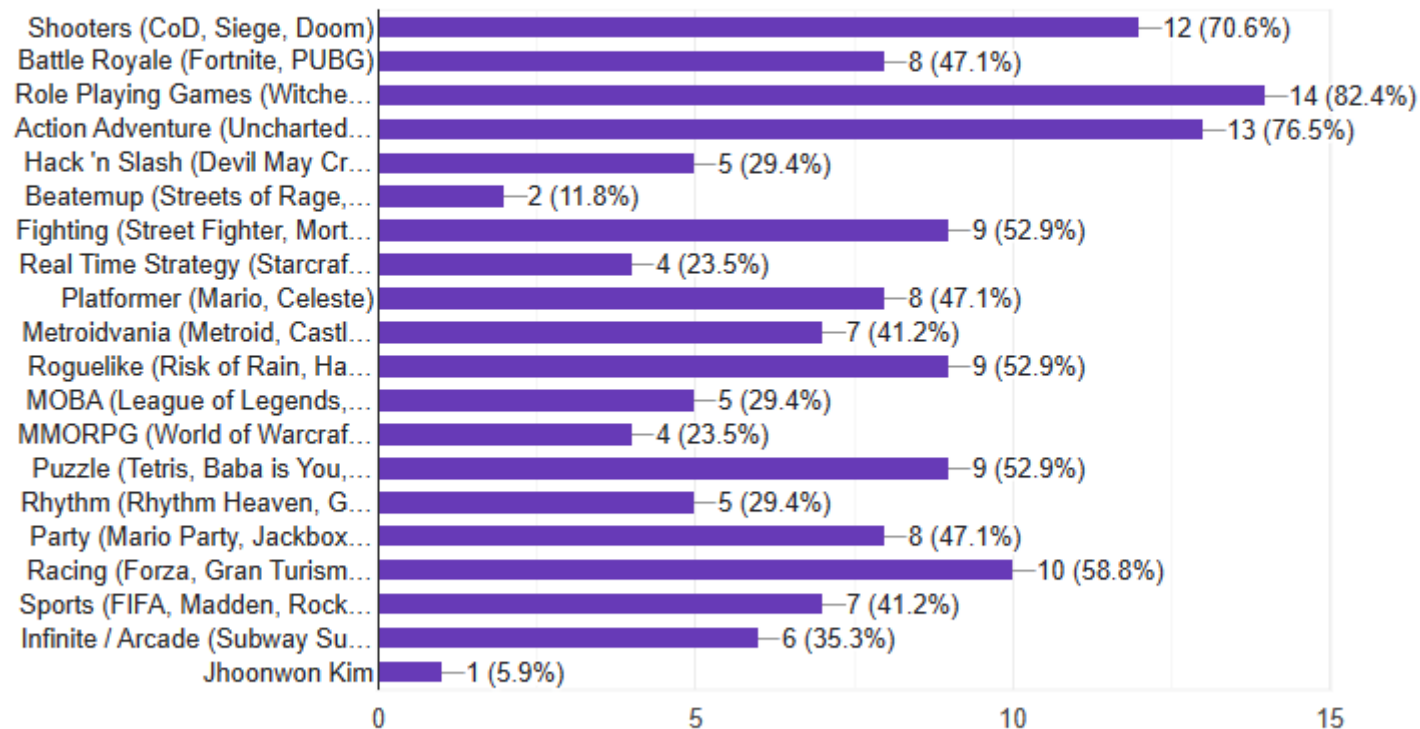

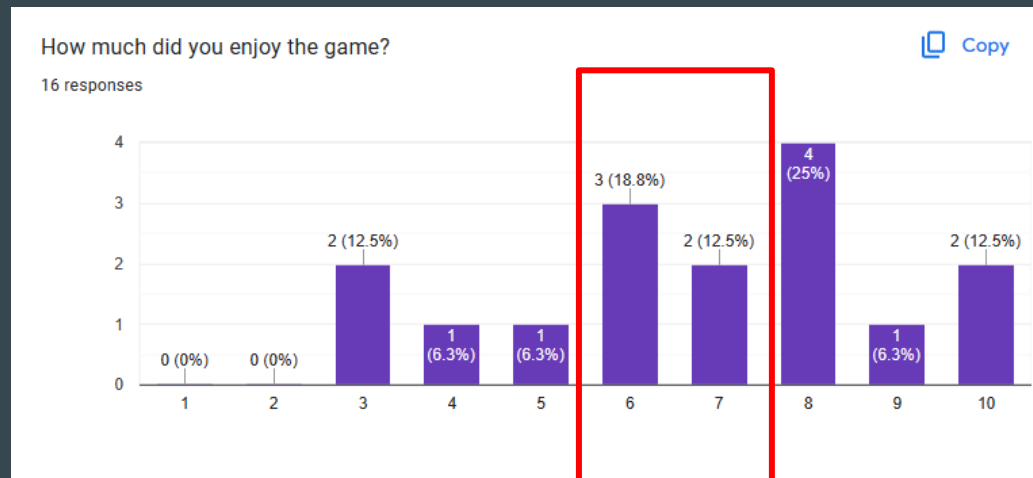Why do you play video games? (Select all that apply).

17 responses

Copy

Response	Count
To hang out with friends.	13 (76.5%)
To compete with others.	8 (47.1%)
To relax.	16 (94.1%)
To overcome a challenge.	10 (58.8%)
To experience a story or narrati...	16 (94.1%)
To explore and experiment with...	12 (70.6%)
Thrill, fast-paced gameplay	7 (41.2%)
To try various strategy and tactics	9 (52.9%)
To collect items and collectables	9 (52.9%)
Be the most powerful in game/...	4 (23.5%)
To have fun and disconnect	1 (5.9%)

What kind of games do you play? (Check all that apply)

17 responses

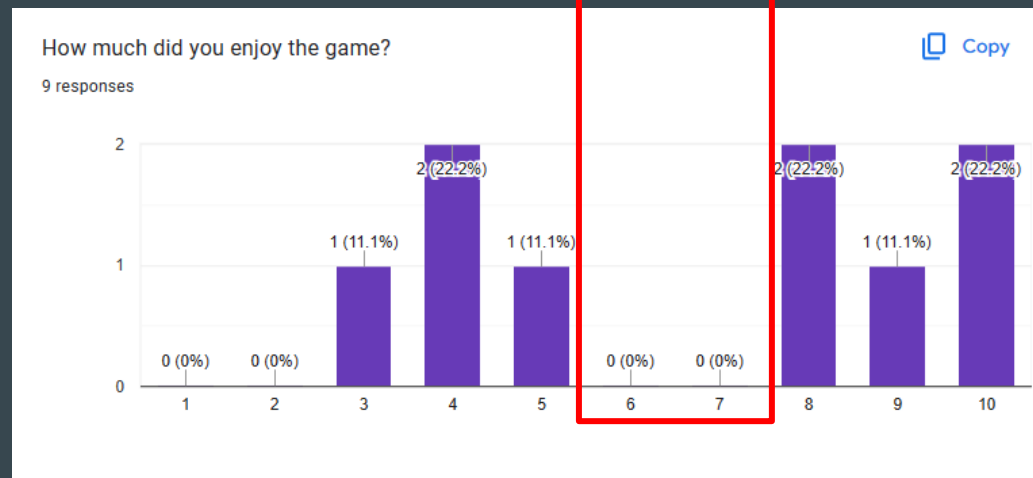| Category	Count
Shooters (CoD, Siege, Doom)	12 (70.6%)
Battle Royale (Fortnite, PUBG)	8 (47.1%)
Role Playing Games (Witche...)	14 (82.4%)
Action Adventure (Uncharted...)	13 (76.5%)
Hack 'n Slash (Devil May Cr...)	5 (29.4%)
Beatemup (Streets of Rage,...)	2 (11.8%)
Fighting (Street Fighter, Mort...)	9 (52.9%)
Real Time Strategy (Starcraf...)	4 (23.5%)
Platformer (Mario, Celeste)	8 (47.1%)
Metroidvania (Metroid, Castl...)	7 (41.2%)
Roguelike (Risk of Rain, Ha...)	9 (52.9%)
MOBA (League of Legends,...)	5 (29.4%)
MMORPG (World of Warcraf...)	4 (23.5%)
Puzzle (Tetris, Baba is You,...)	9 (52.9%)
Rhythm (Rhythm Heaven, G...)	5 (29.4%)
Party (Mario Party, Jackbox...)	8 (47.1%)
Racing (Forza, Gran Turism...)	10 (58.8%)
Sports (FIFA, Madden, Rock...)	7 (41.2%)
Infinite / Arcade (Subway Su...)	6 (35.3%)
Jhoonwon Kim	1 (5.9%)

Results (Trial 1)

Results (Trial 2)

Results (Trial 1)

How would you rate your own skill level in this game?
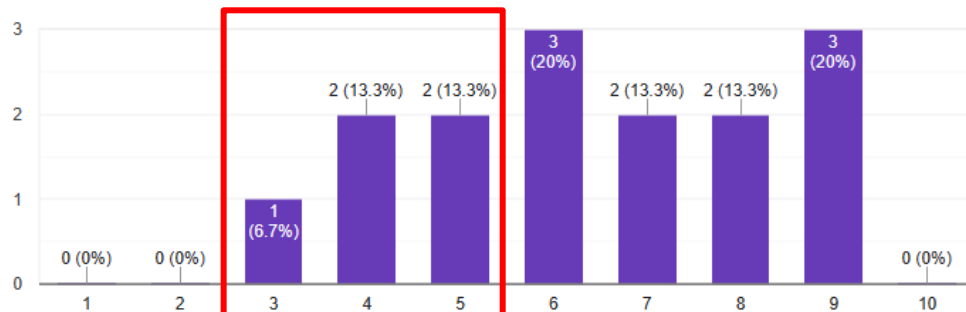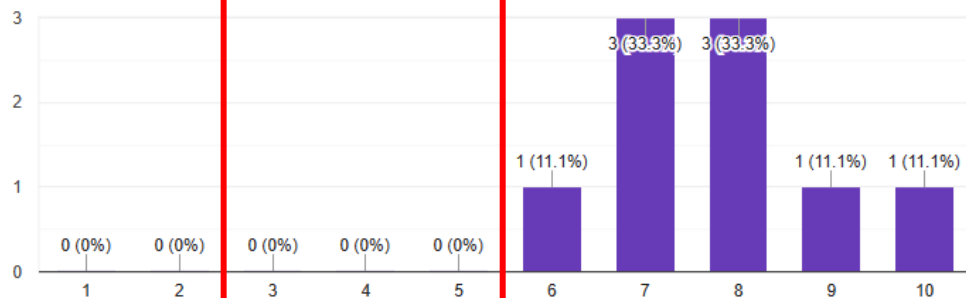
15 responses

Results (Trial 2)
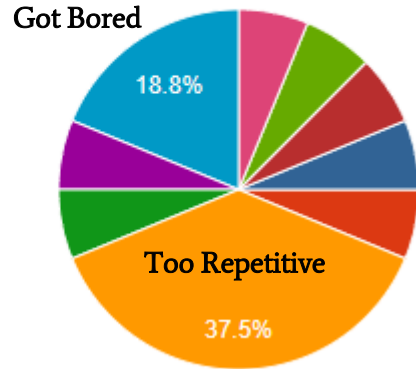

How would you rate your own skill level in this game?

9 responses

Results (Trial 1)   (Trial 2)

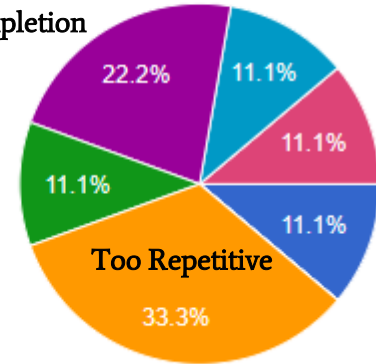Why did you decide to stop playing?

16 responses

Got Bored

18.8%

Too Repetitive

37.5%

Why did you decide to stop playing?

9 responses

Sense of
Completion

22.2%   11.1%

11.1%

11.1%

11.1%

Too Repetitive

33.3%

- My focus is on **my score** all the time. There is no need to compete with others before I feel good about myself.

- I saw some people that I knew and that made me try even harder. Just to prove that I'm better at this **than them**.

- Because a good feeling is always trying to better yourself but the better feeling is to try score better **than people you know**.

- So hopefully **they'll** see my name in the leaderboard and try to **beat my score**.
- I like **winning**. I like being on top.

Conclusion

- In a single-player game, the scoreboard added purpose to the game (social, achievement)

- Players felt more confident overall when they had access to other players' high scores

- Players found the game being more enjoyable despite there were no additional features added for trail 2 version of game

Limitation

- Recruitment was done via convenience sampling, our participant group may be biased
- Limited time for multiple iterations of our research
- Limited sample sizes
- Gender bias (majority participants are male)
- Players all had prior experience with our choice of game, which may impact their engagement