

Datafest 2022

Play2Prevent

Boundary Breakers
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Agenda

1. Introduction & Motivation
2. Dataset
3. Exploratory Analysis
4. Visualizations
5. Findings



Introduction & Motivation

- Play2Prevent is a game that simulates real life experiences in a person's life and takes them through mini-games that helps the player gain knowledge about different types of harmful uses (alcohol, smoking, drugs, safe sex, etc)
- Hope to predict future behaviours of the players in real life when exposed to these harmful uses

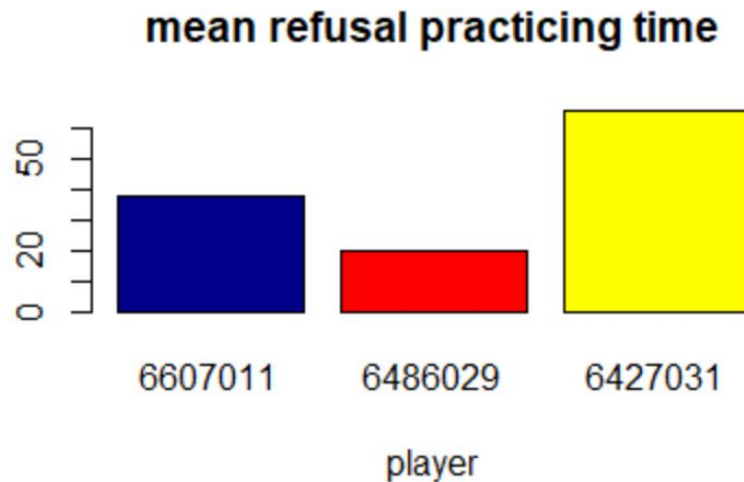
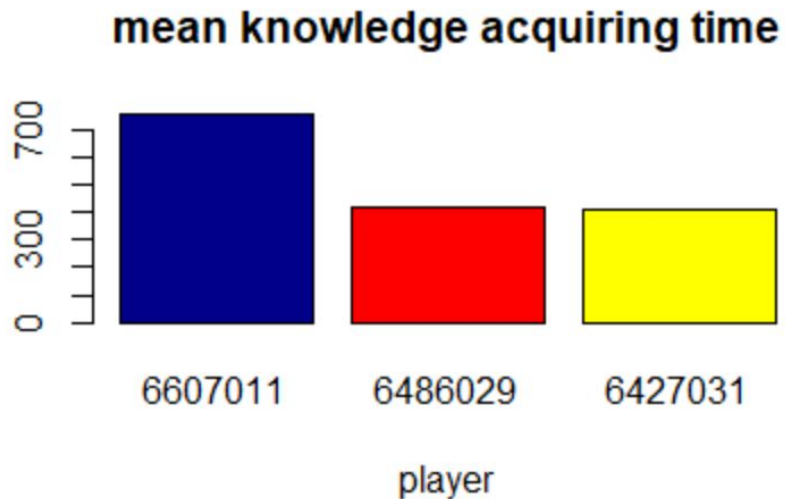


Dataset

- Players' log of 166 players' performance in the game
- 3 individual player files
- Clinical study on efficacy resisting drugs
- Main variables of interest:
 - Session
 - Event_ID
 - Event_category: Knowledge Minigame and Refuse Power Minigame
 - Event_time_dbl
 - S5_scores
- Introducing new variable: time_lapse



Exploratory Analysis - Individuals





Visualizations

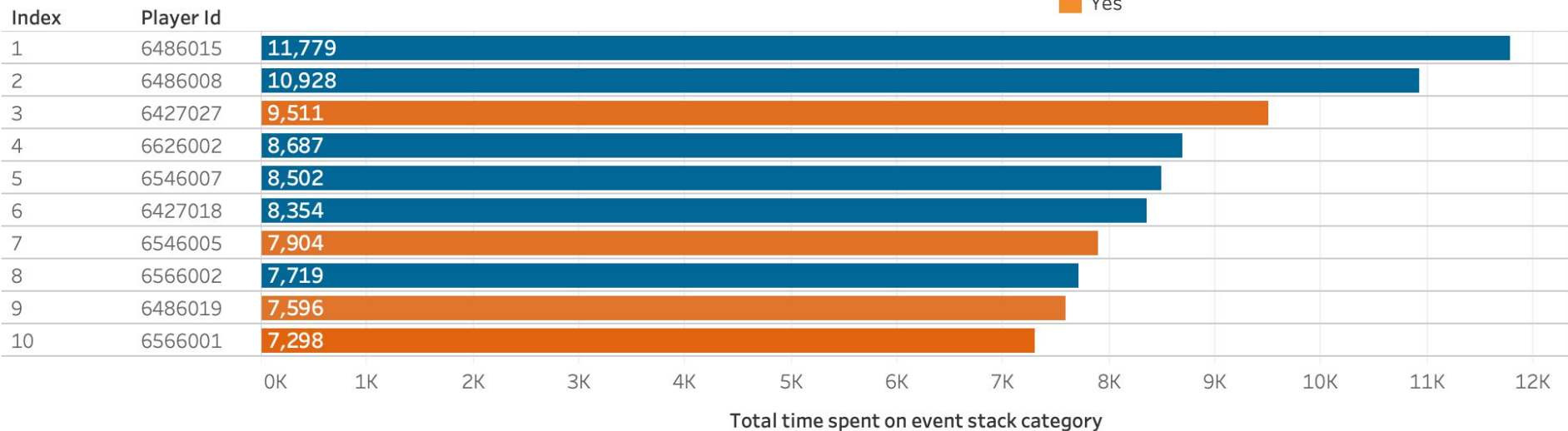
Top 10 players based on the total time spent on event category

Survey Participation

- No
- Yes

Event Category

Refuse Power Minigame



X-axis: Total time spent on event stack (sum of time spent on all events in a partucalr category, across all sessions)

Y-axis: Player ID and Index (taking all 166 players into consideration)

The horizontal bar graph shows the total time spent by each player on an event category and the list of players is sorted in descending order of total time spent.



Visualizations

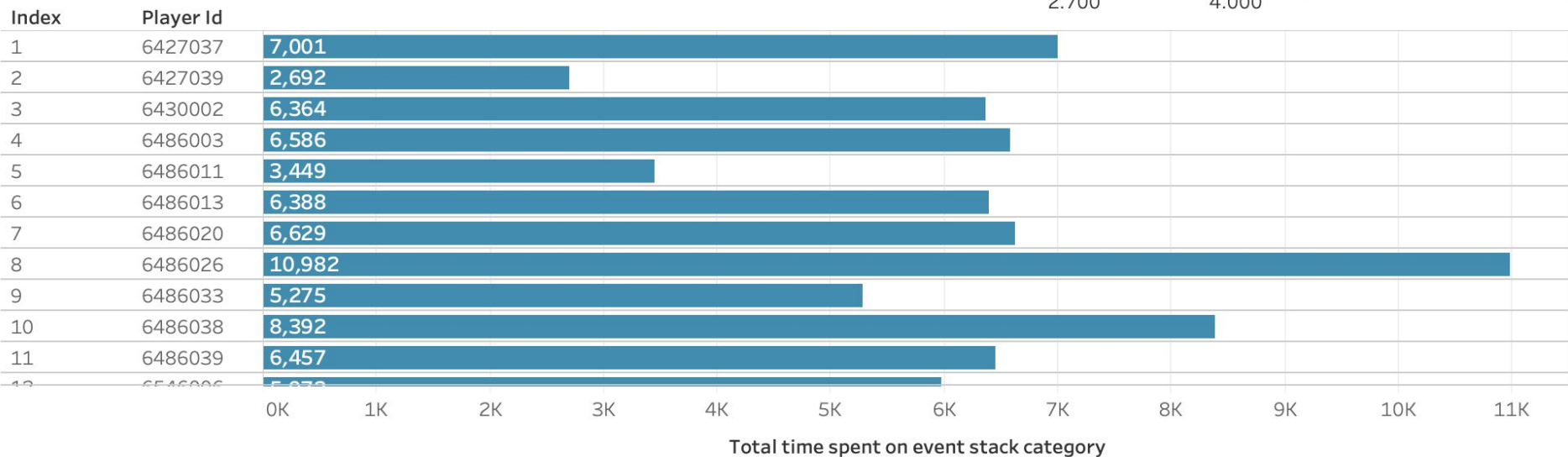
Players by highest-lowest average S5 mean scores

Avg. S5 mean score



Event Category

Knowledge Minigame



X-axis: Total time spent on event stack (sum of time spent on all events in a particular category, across all sessions)

Y-axis: Player ID and Index (only considering the players who participated in Survey)

The horizontal bar graph shows the total time spent by each player on an event category and the list of players is sorted based on their average S5_mean, in descending order. Therefore, the bar graph is color coded based on the average S5_mean criteria.



Analysis - All Participants

RQ1: Does spending more time on the Knowledge/Refusal minigame result in a lower S5-score(Higher resistance)?

RQ2: Does the average S5-score of the two groups (One who spent relatively more time on the Knowledge/Refuse stack than the other) differ?



Analysis - All Participants

H1: More time spent on the knowledge and refusal stack would result in lower S5-scores.

H2: There would be a significant difference between the two groups.(One group spent relatively more time on the Knowledge/Refusal minigame than the other)



Findings

- Participants who spent more time on knowledge minigame tend to spend more time on refusal minigame too. Their S5-scores were still relatively Higher(Low Resistance)
- The average S5-score for the group who spent relatively more time on Knowledge/Refusal stack is not statistically different (P-value = 0.8789, 0.1839) from the other group who spent relatively less time
- Hard to predict the real-life behaviours of the participants by just looking at their game-play.
- Might need to reflect back at the game features and make some improvements to get better results