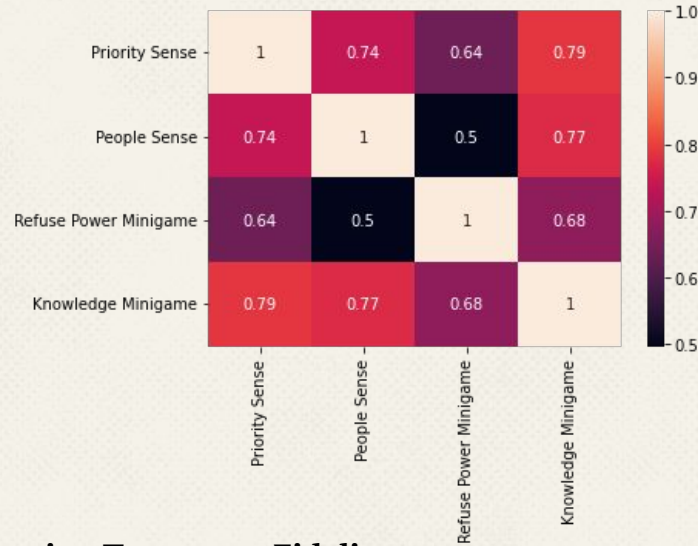


# **Games as a Measure of Risk Prevention**



**By: Harshil Bhullar, Colin Curtis, Tristan Dewing,  
Sean Tjoa, Adhvaith Vijay**

# Evaluating Minigames



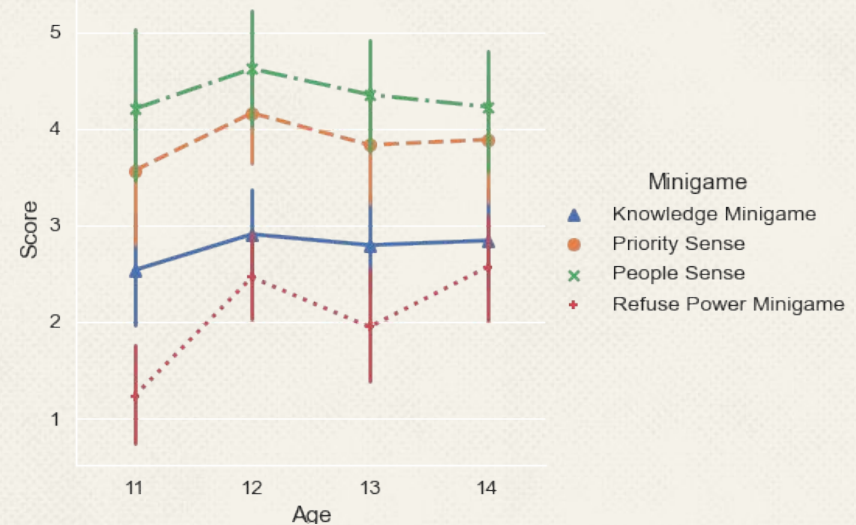
## Ensuring Treatment Fidelity

- The data needed extensive cleaning and transformation
  - Player ID Discrepancies
  - Time Discrepancies
  - Score Retrieval and Normalization

## How do we best prepare children for these situations?

- The relationship between the high correlations of minigames and the objective of this study

Minigame Scores For Avatar Age 11 - 14



## Age and Treatment Efficacy

- Minigame scores overall showed improvement after age 11 but slightly worsened at age 13

The minigames examine situations beyond the students' ages, but students achieved roughly the same scores for each minigame despite their age

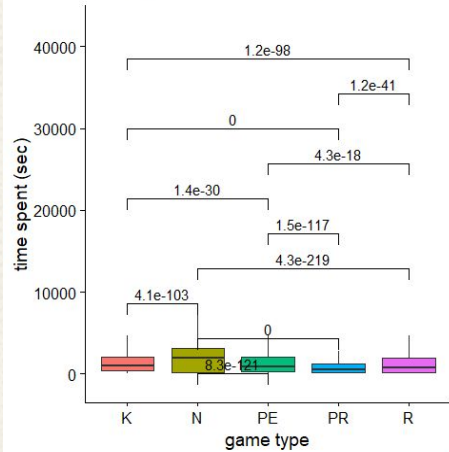
- We recommend testing the Control Group with the same minigames to evaluate efficacy

# Time Spent

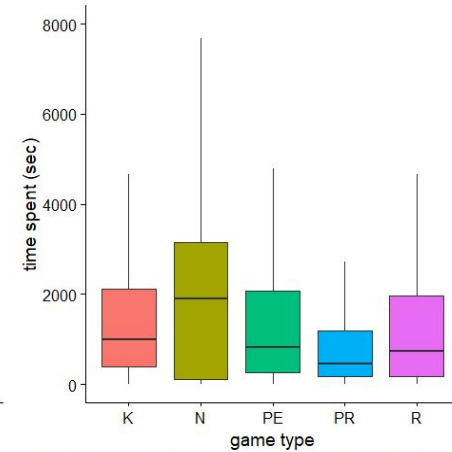
**Effect of Game Type on Player Time Spent**

Plot of time spent by game

game type K N PE PR R



game type K N PE PR R

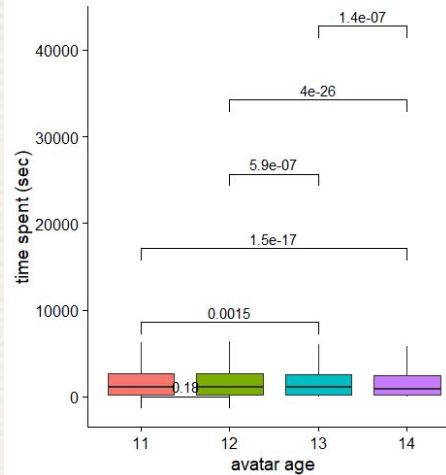


K: Knowledge, N: Normal Game, PE: People, PR: Priority, R: Refuse

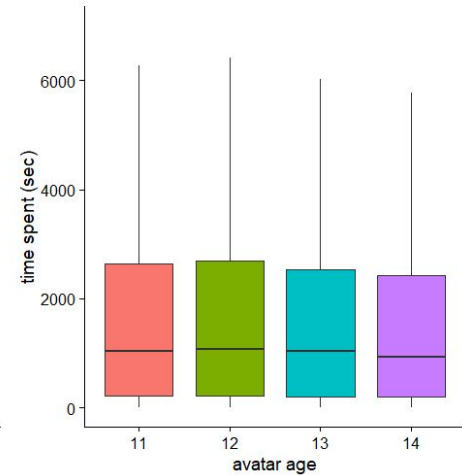
**Effect of Avatar Age on Player Time Spent**

Plot of time spent by age

avatar age 11 12 13 14



avatar age 11 12 13 14



## Concerns regarding treatment administration:

- Normal game events take longer to complete on average than mini games which are more engaging and provide scores for treatment evaluation
- P-values are derived from Wilcoxon Test since data has heavy outliers and is non-normally distributed
  - Outliers removed from barchart visualizations (still preserved in Wilcoxon Tests)

- “Time spent” calculates the difference between the initial and terminating timestamp for each action of a specific player
- The only non-significant difference in average time spent exists between 11 and 12 year olds