DATAFEST 2022

TEAM FISHSWISH

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Background

Our data is collected from the PlayForward: Elm City Stories game, gathered from 166 participants across 6 weeks with participants playing the game for 60-75 mins twice weekly. The *logs* dataset included in game interactions, including options chosen for minigames. We also received data from an *S5* (self-efficacy for drug use resistance) assessment of these participants' ability to avoid drugs, which was taken at different points throughout the study.

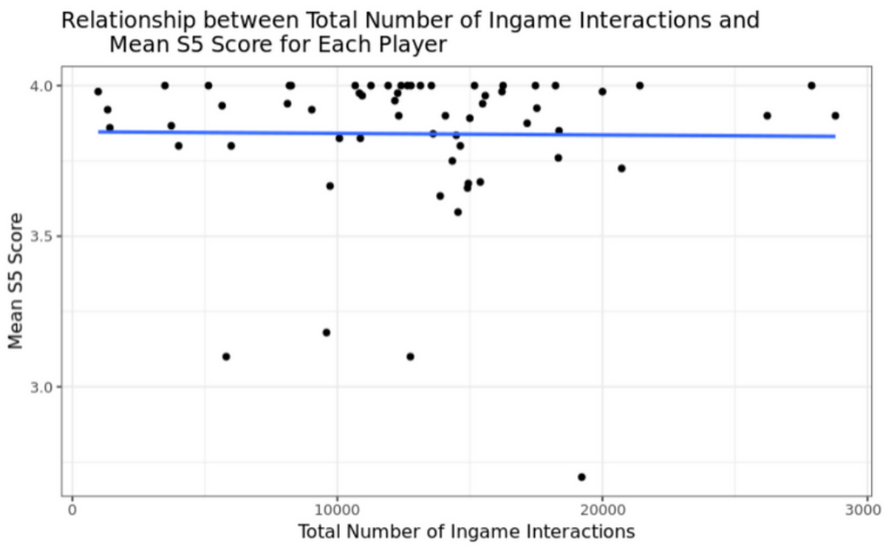
From these datasets, we investigated whether game data could be used as a predictive tool of resistance to drug use. This would help in the development of evidence-based assessment tools to identify and potentially intervene with kids who are struggling. We tried to identify variables within the data that could correlate with real-world decision-making.

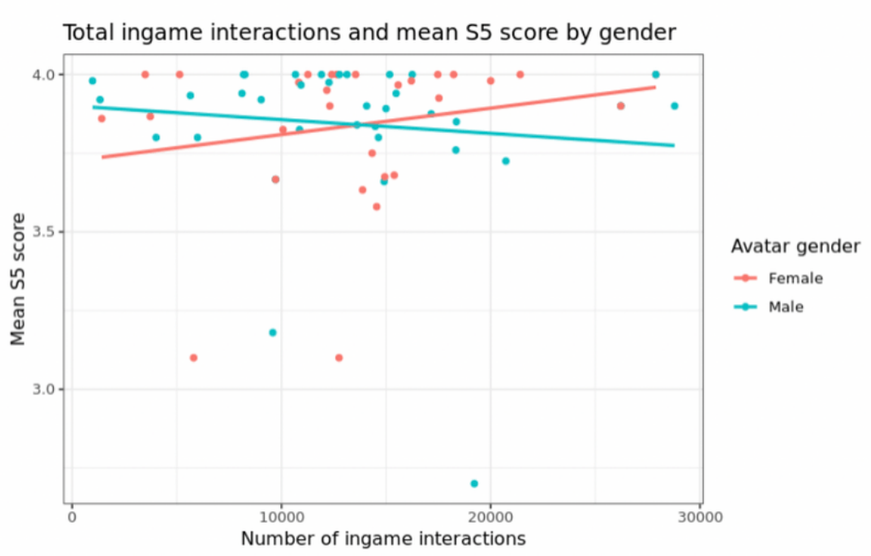
Methodology

We conducted our statistical analysis using R, which allowed us to perform logistic regression analysis, create plots of the data, and conduct hypothesis testing to identify variables in the *logs* dataset that could correlate with significant differences in drug use efficacy, as measured by S5 scores .

Check out our website at https://www.fishswish.net/ to learn more!

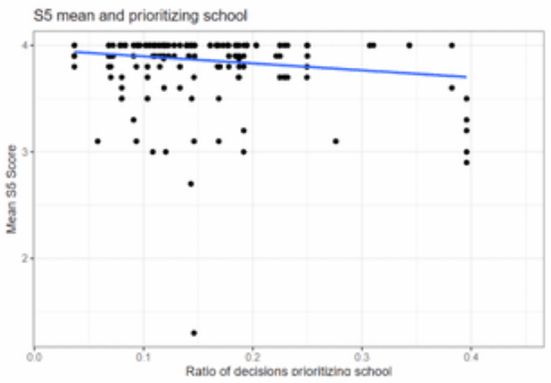
Results



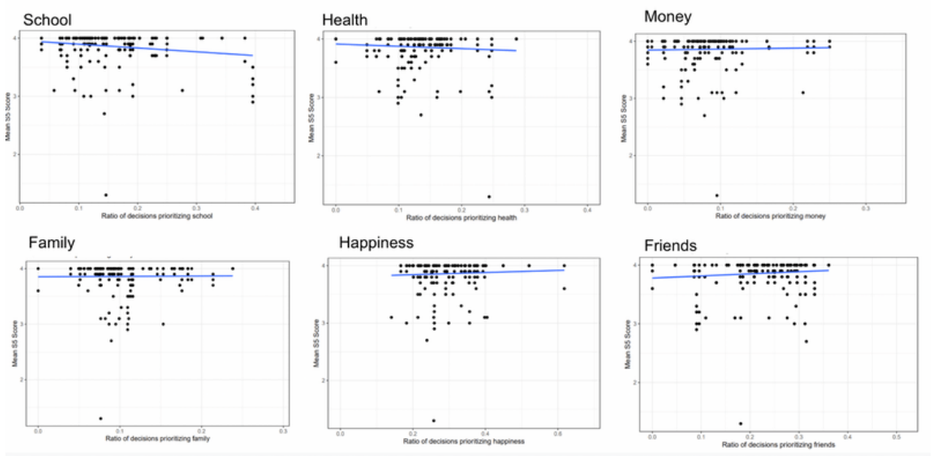


Priority minigame trends

- We graphed S5 scores vs percentage of times a player prioritized each value



Appendix- priority minigame data



Priority	Correlation with S5 score	Slope	P value
School	***Negative***	***- 0.656***	***0.0004***
Health	Negative	- 0.395	0.141
Family	Positive	0.0668	0.817
Money	Positive	0.167	0.498
Happiness	Positive	0.188	0.271
Friends	***Positive***	***0.361***	***0.0238***

Conclusion

Overall, our results suggest that interacting with the game more, meaning with more interactions and more choices, correlates slightly with a higher score, indicating a higher likelihood of taking drugs. The lack of variability in S5 scores and general gameplay path may limit the usefulness of this game as both a predictive and behavior changing tool. We found the players' recorded interactions with minigames to have more variation, therefore further investigation could hold more significant results.