

Daily Spike

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UCLA Statistics | DataFest

What are the predictors of drug use?

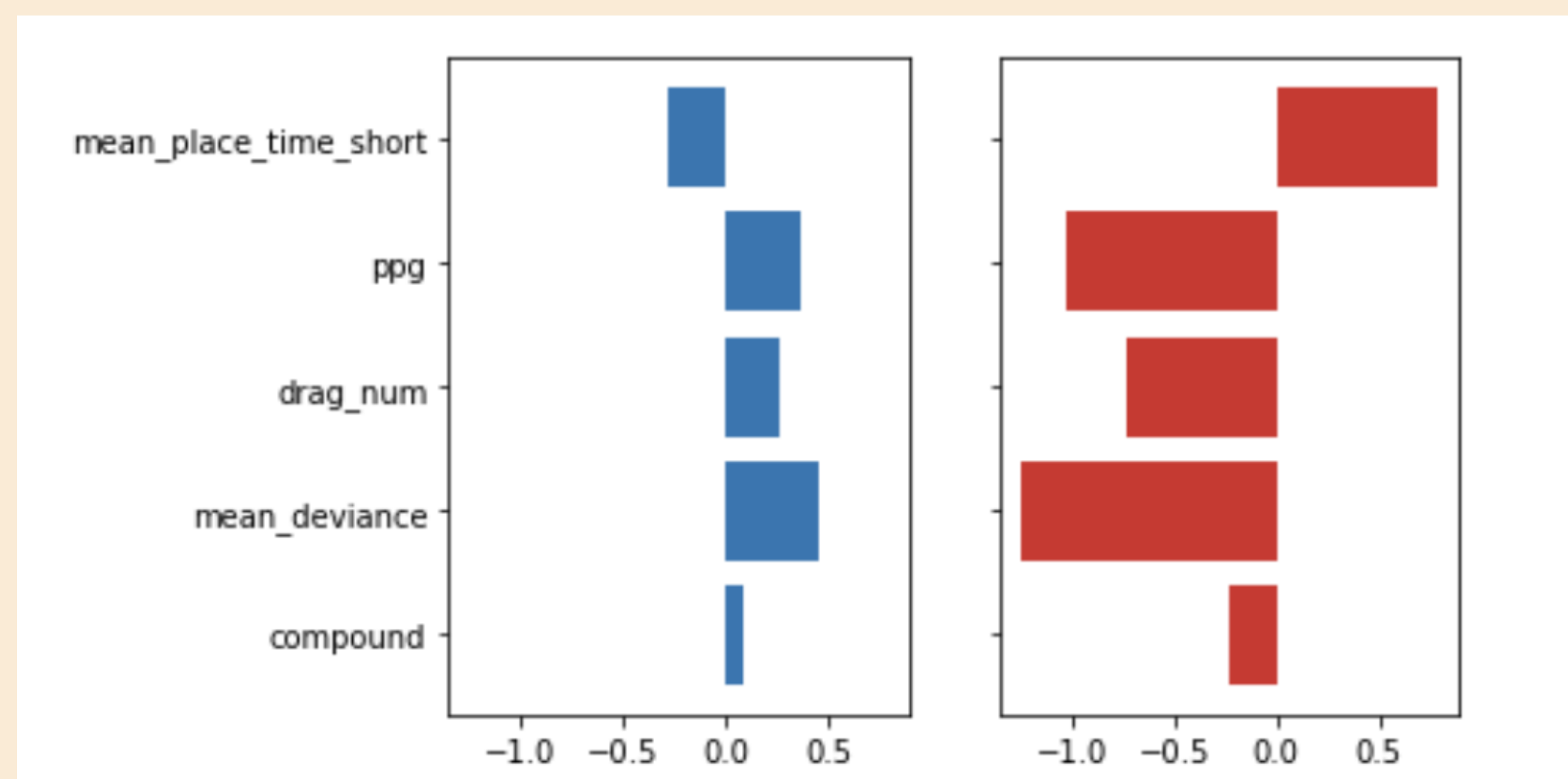
Risk/Protective Factors	Game Relation?
Risky peers	People Mini Game
Low peer refusal skills	Refusal Mini Game
Self-Efficacy	Aspirational Avatar
Positive Relationships	Aspirational Avatar

According to the National Institute of Drug Abuse, one of the most prominent predictors of drug abuse is peer refusal, so we decided to look at any indicators of impulsivity and inability to overcome peer pressure.

Can game-play identify children at risk of drug misuse?

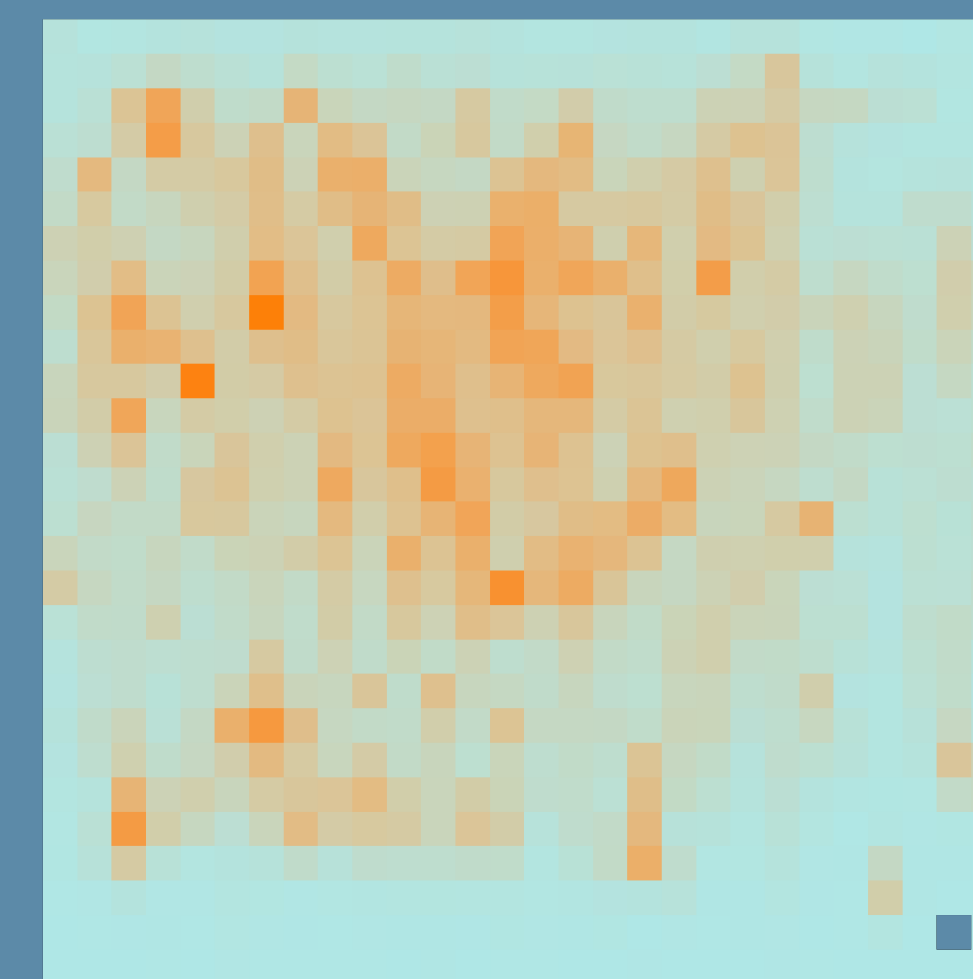
We looked at how players performed on the relationship risk games as well as their responses to the "Aspirational Avatar" survey data to create clusters of risk. The avatar survey data contained almost thirty questions. We focused on thirteen of them by avoiding questions that lacked relevance or that did not offer an opportunity for players to give dynamic answers.

Case Study: Patterns in the People Mini Game

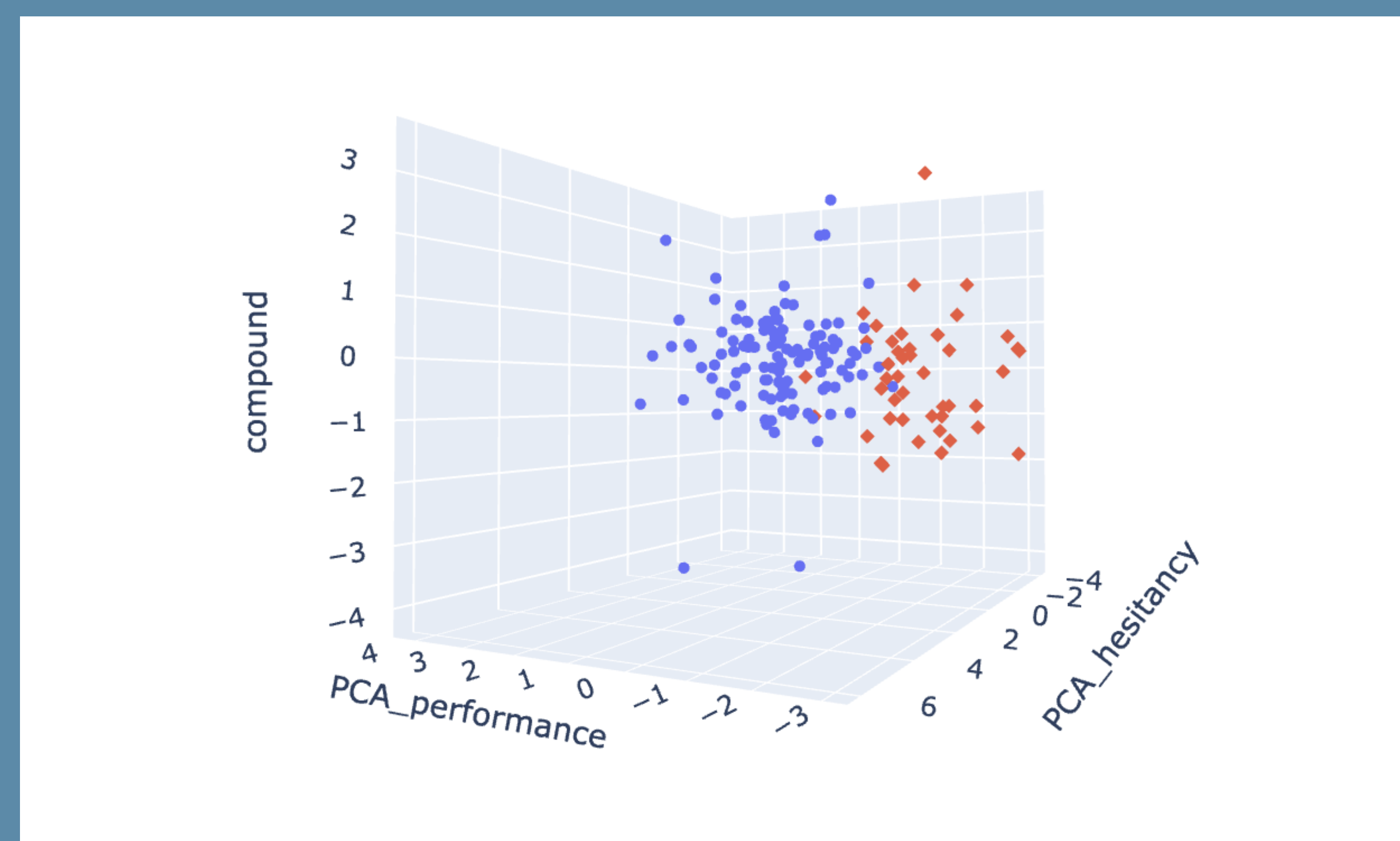


Using **K-Means clustering**, we can identify 32% of the population that is not like the others.

Classifying Preteens Based on Their Answers and Gameplay



Getting from Clusters to Conclusions?



Three behavioral components separated the groups well:

Aspirational Avatar Choices, Hesitancy, and Performance

Classifications Significance by Demographic

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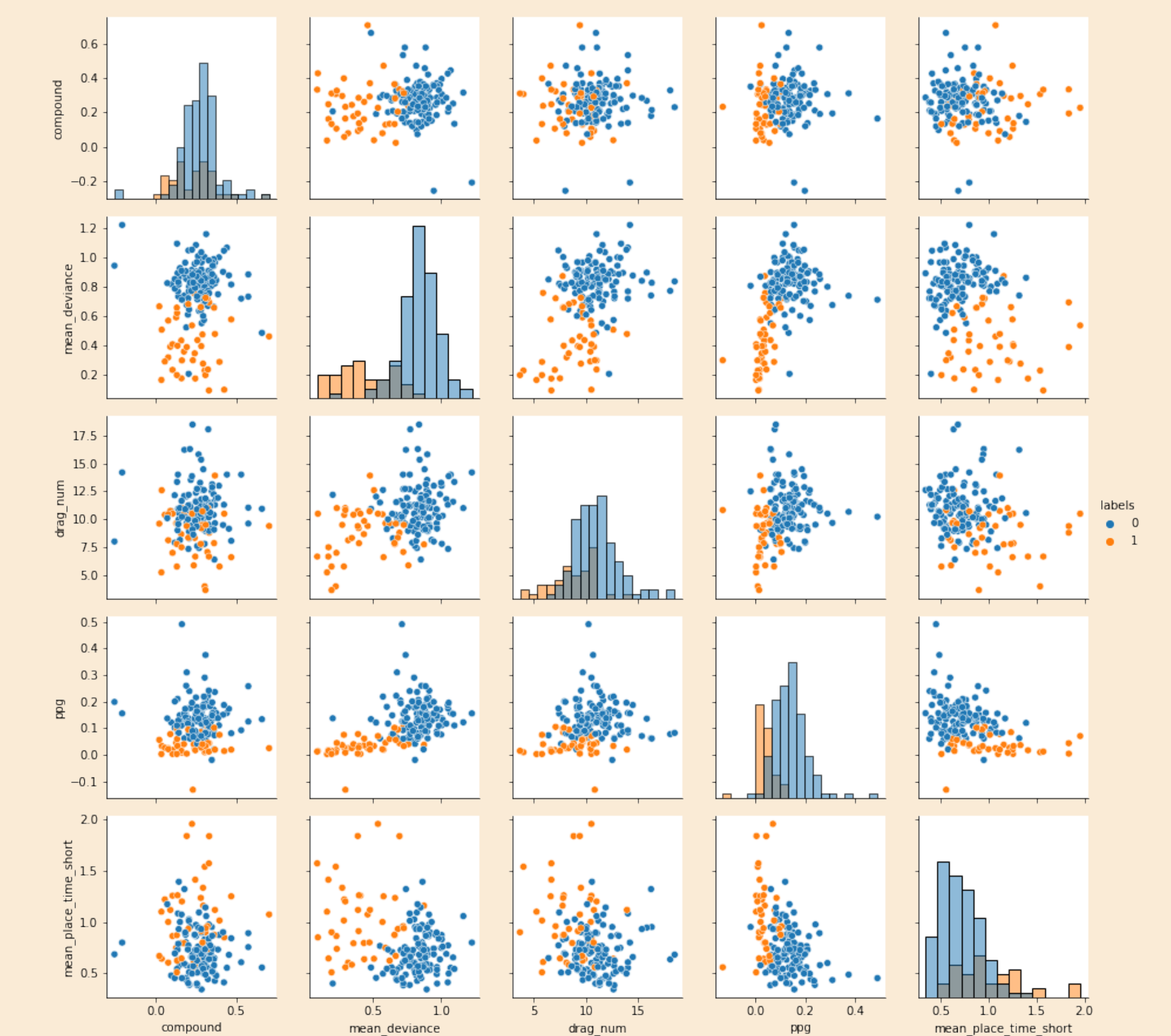
Analysis of Variance Table

Response: y
          Df Sum Sq Mean Sq F value Pr(>F)
factor(gender)      1  0.121  0.12056  0.5563 0.45685
factor(race)        2  0.703  0.35139  1.6214 0.20086
factor(gender):factor(race)  2  1.047  0.52328  2.4146 0.09268
Residuals          159 34.457  0.21671
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
    
```

As you can see, the interaction between gender and race is significant at the 0.10 significance level.

Do it again! From the top!!

- Mini Games
- Click Trends
- Redesign Aspirational Avatar



Testing Statistical Hypotheses

National Institute on Drug Abuse : Drug Use and Addiction

