



Analyzing Drug Refusal Behaviors Among At-Risk Young Teens

Team Name: Abnormal Distribution (E14)

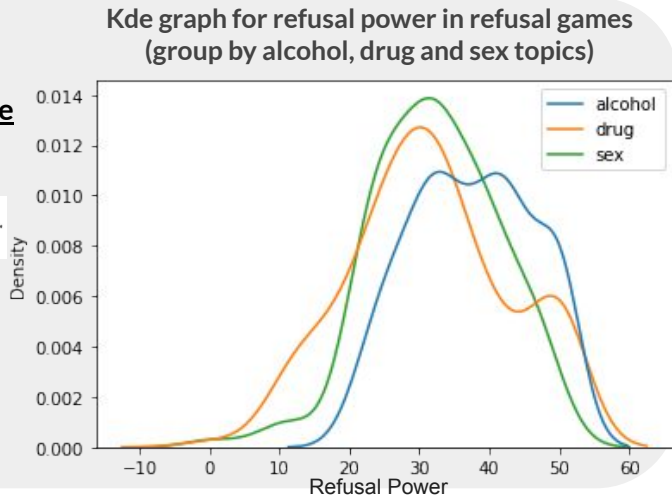
Team members:

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I. At-risk young teens have least refusal power to drugs

- Refusal Mini Game \approx **real-life behavior**
- Metric:

$$\frac{\text{Sum}(\text{Opponent Point Loss})}{\text{Total Rounds}} = \text{Refusal Power}$$
- Group into three topics
- Performed worst in **DRUG-topic** refusal games:
High Variance, Low Mean



III. Aspirational avatar of money, hobby, and friend are the most significant features to analyze the young teen's ability to refuse drugs

Multiple Linear Regression
P-Value

+ 8.99

Money₁ = 0.02

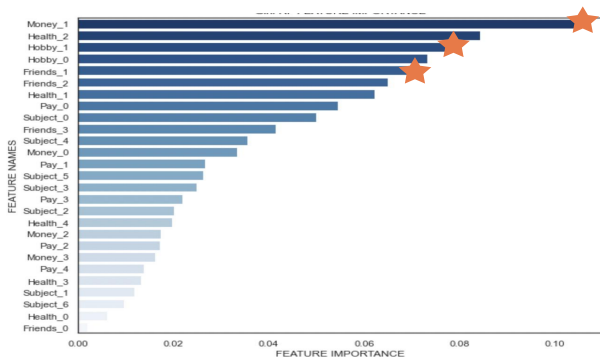
+ 4.60

Hobby₁ = 0.04

- 11.78

Friend₁ = 0.07

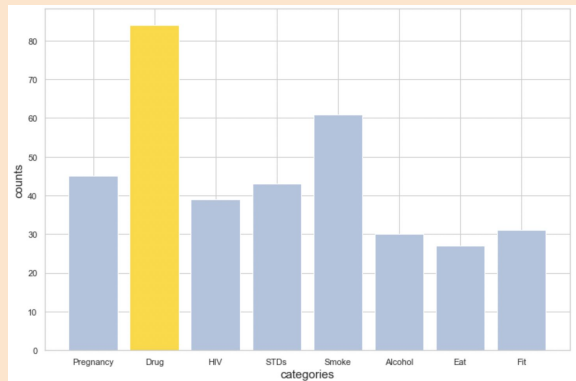
Random Forest Gini Feature Importance



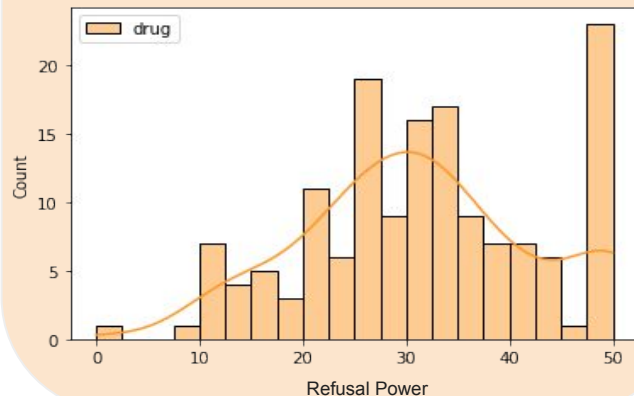
II. Thought \neq Behavior



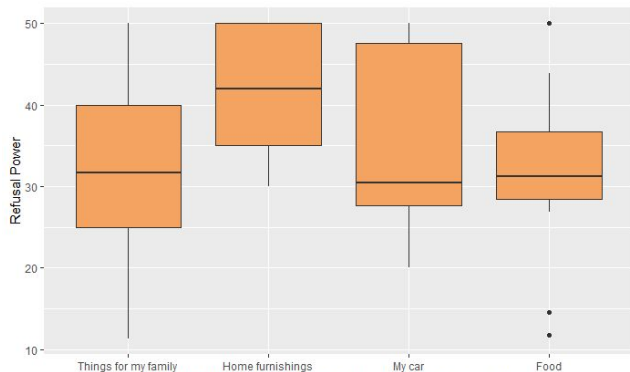
Teens think the easiest health goal is drug



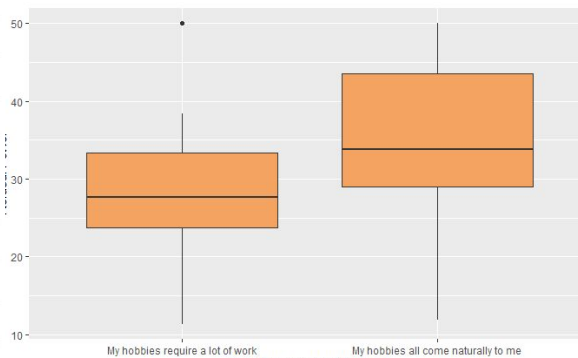
Histogram of refusal power in drug topics shows opposite result



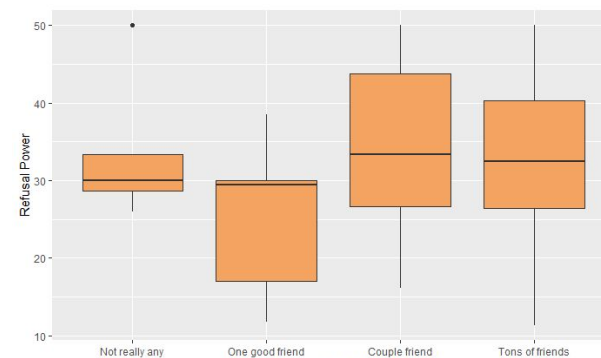
IV. What types of teenagers have lower refusal power to drugs?



Spend most of money on family:
sentimental



Think their hobbies require a lot of work:
stressful



Have one good friend:
dependent



Soft (orange features) characteristics

- Select above types of teenagers data to examine the overlapping response to “Who I am”
- Display most frequent words others use to describe them

V. Insights

- Include more drug-related topics refusal games (currently have two). Teens are lack of awareness about the difficulty to refuse drugs.
- Encourage users to finish “Me Power” profile and carefully design questions with indicative choices. Avatar features can reflect refusal power.
- Give more attention to above types of teens: they might have hard time refusing drugs.