PLAY2PREVENT: IS GAMEPLAY BEHAVIOR ASSOCIATED WITH EFFICACY IN RESISTING DRUGS?

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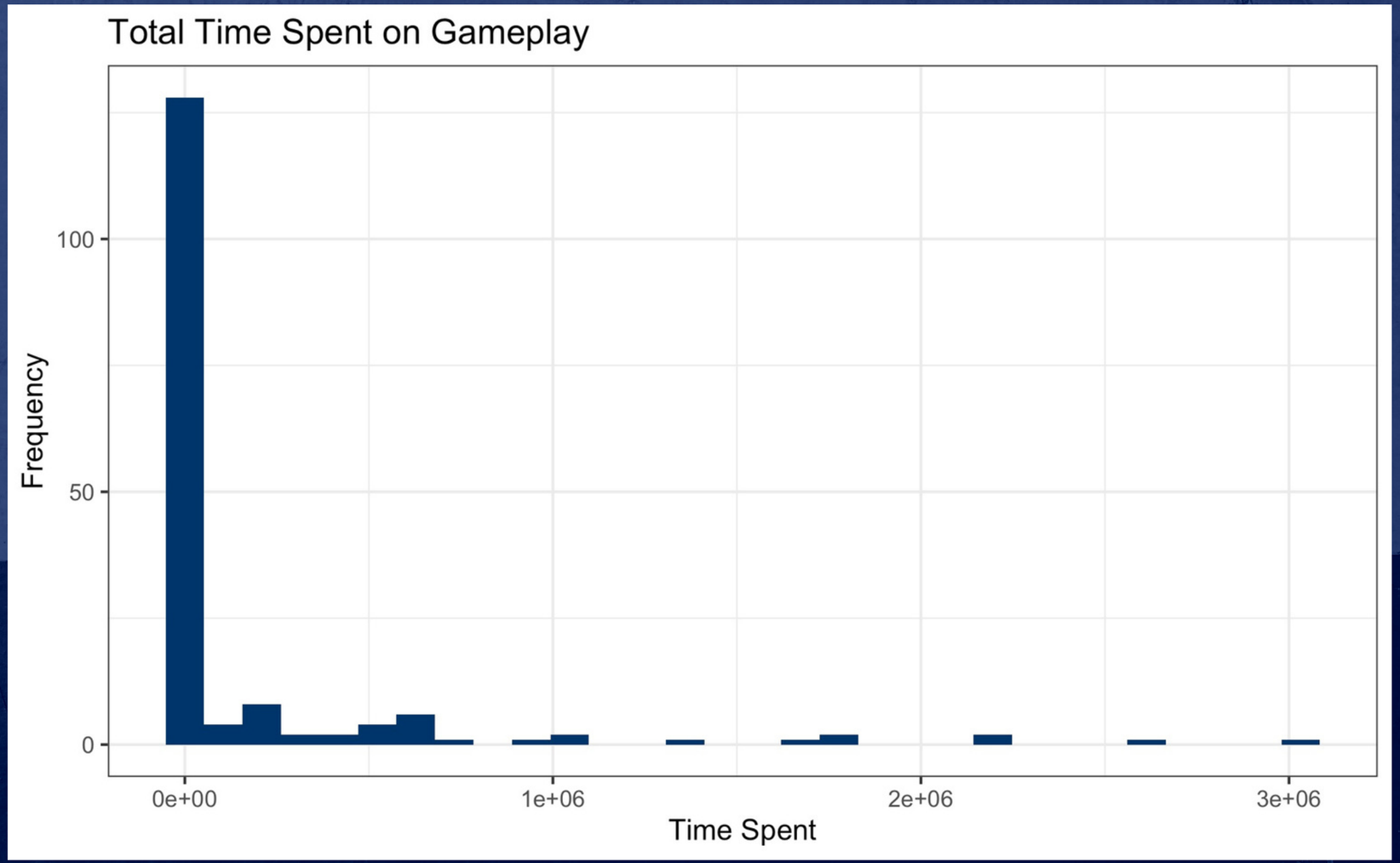
Idea

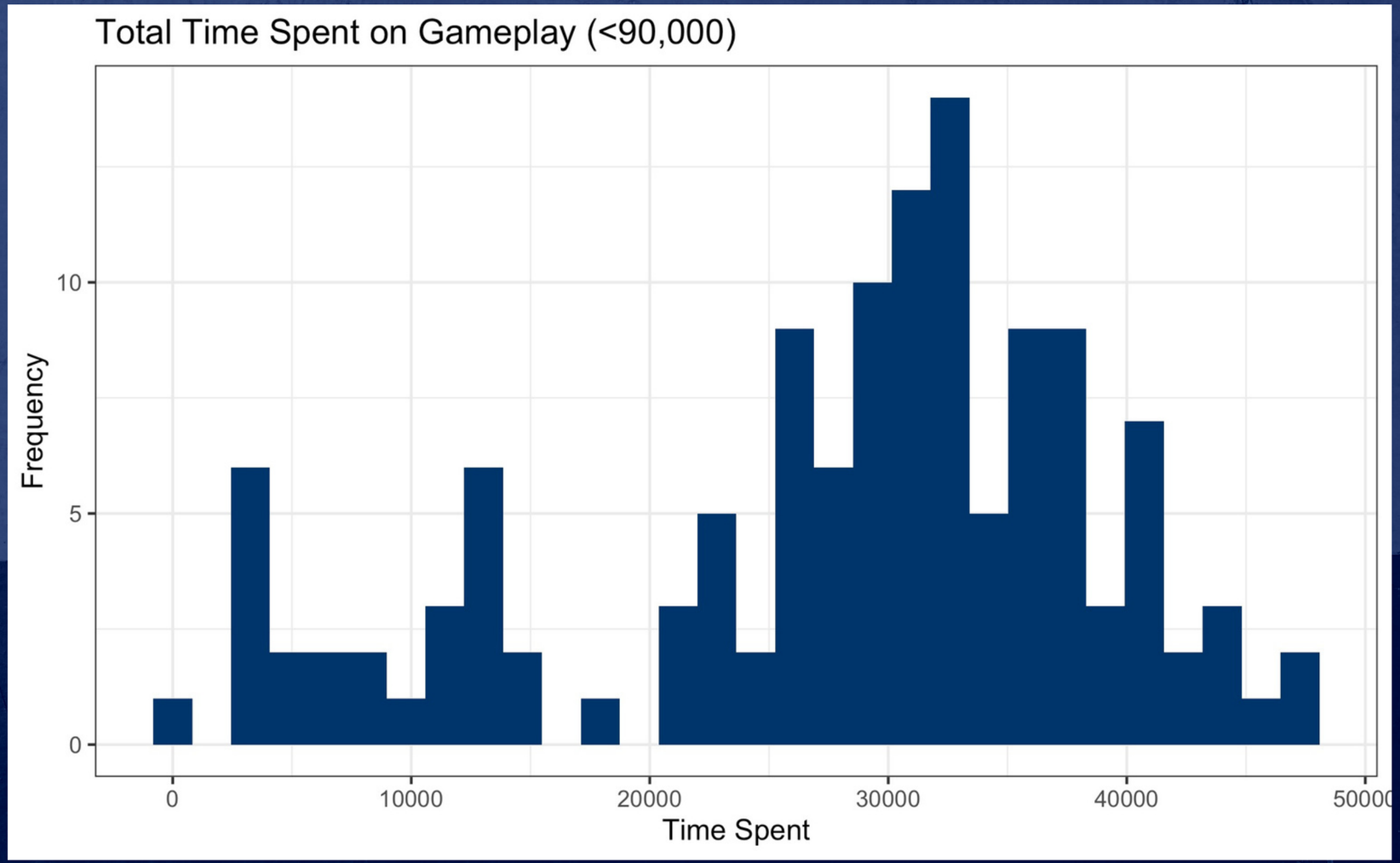
Which aspects of gameplay are associated with scores on the post-completion survey? Higher scores are associated with a lower efficacy in resisting drugs.

- Total time spent in gameplay?
- Number of events?

Let's Explore the Data! : Time Spent



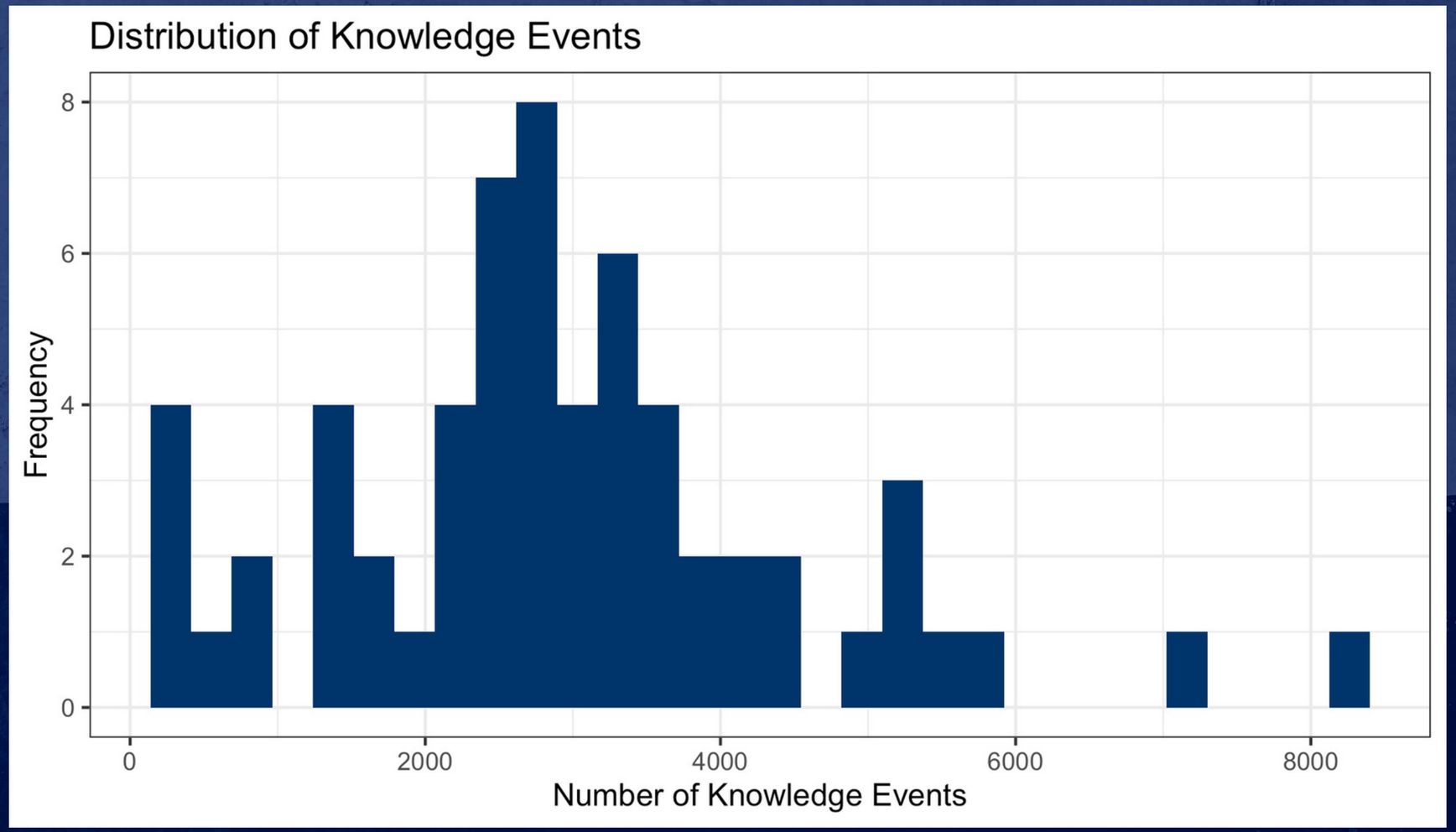
Let's Explore the Data!: Time Spent



Let's Explore the Data! : Events

- Calculate the number of different kinds of events the player participated in during the game:
  - Knowledge
  - Priority Sense
  - People Sense
  - Refuse Power
  - Challenge

Let's Explore the Data! : Knowledge



Model

- Linear Regression to understand effects
- Player's Mean Score on Survey ~ Total Time Spent + Knowledge + Priority Sense + People Sense + Refuse Power + Challenge

Model Results

```
Coefficients:
                 Estimate Std. Error t value Pr(>|t|)
(Intercept)     3.857e+00  7.911e-02  48.751  < 2e-16 ***
knowledge      -8.617e-05  3.215e-05  -2.680  0.00974 **
challenge      -1.200e-05  2.951e-05  -0.407  0.68595
priority_sense  9.907e-05  6.819e-05   1.453  0.15208
refuse_power   -2.240e-05  7.048e-05  -0.318  0.75179
people_sense    5.536e-05  3.129e-05   1.769  0.08250 .
time            1.019e-07  8.649e-08   1.179  0.24368
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Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
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Model Results

- Number of Knowledge Events is statistically significant
  - On average, a 1000 increase in the number of Knowledge events corresponds to a 0.08 decrease in the player's mean score
- Others features were not statistically significant

Discussion and Conclusion

- Number of Knowledge Events is statistically significant
  - On average, a 1000 increase in the number of Knowledge events corresponds to a 0.8 decrease in the player's mean score
- Others features were not statistically significant

- Suggestions:
  - Add more opportunities in the game to participate in Knowledge Minigames
  - Prioritize showing Knowledge Minigames

Thank you.