

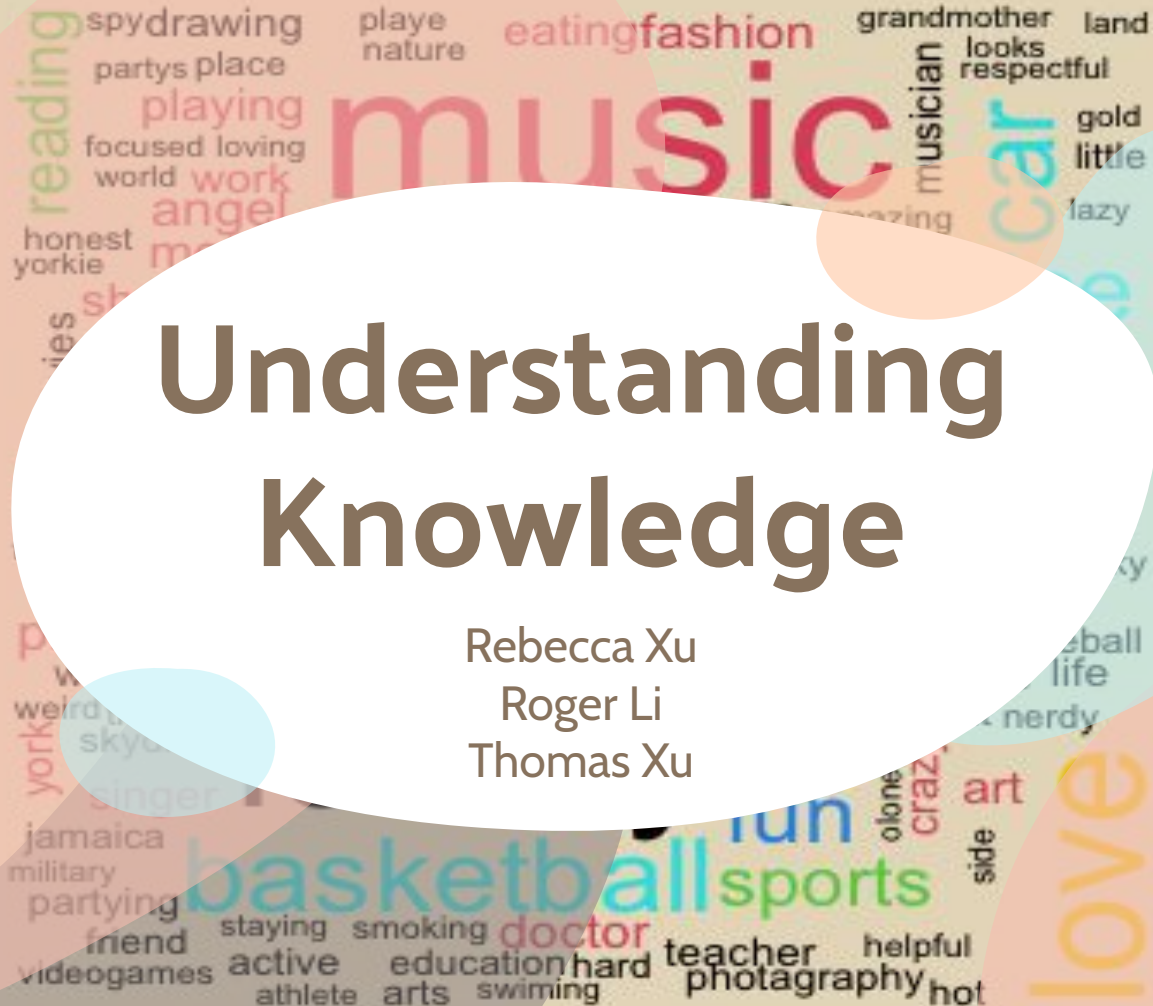
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Understanding Knowledge

Rebecca Xu

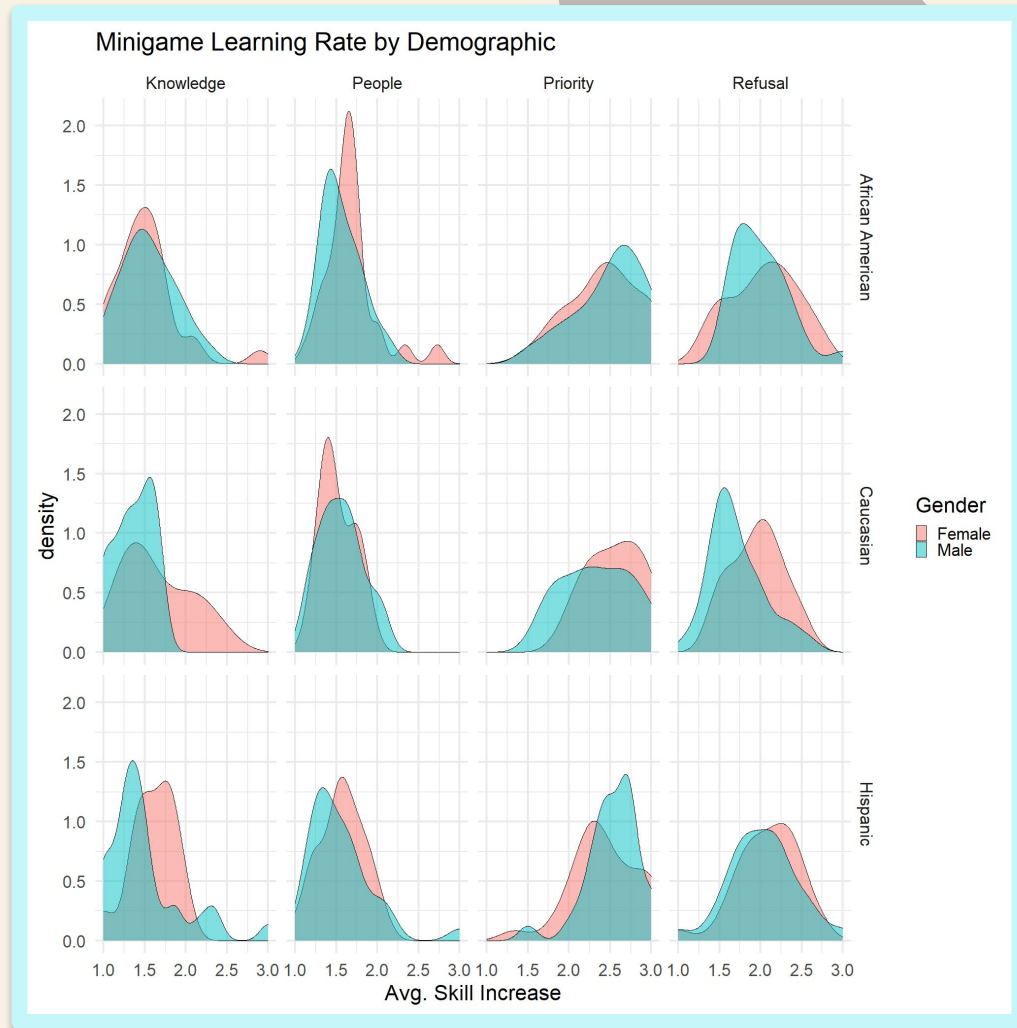
Roger Li

Thomas Xu



Exploring Minigame Demographics

- Plots average change in skill score density of each gender faceted with the different minigames and race
- Motivated to find groups that struggled in certain minigames
- Significant differences in the Knowledge density plots, specifically Caucasian male and female plots



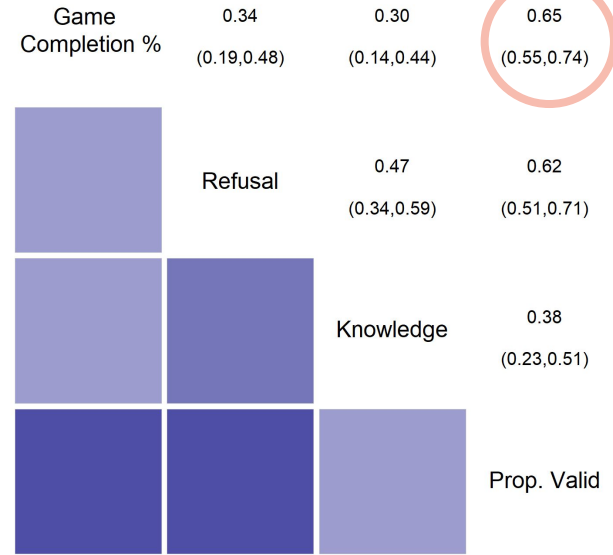
Which students need attention?

~52% of students scored 60% or higher in the knowledge minigame .

From a random forest model using only gender, ethnicity, and action efficiency, we can identify students who scored below 60% with 66% accuracy

Accuracy improves to 73% if we add improvement rates for other skills to the model

Correlation Plot shows the relationship between variables of interest



Scatterplot shows students who get further into the game perform better on the knowledge test

