Nick Kelly

5/9/2024

Newm-N328

Section 19456

Final Project

Design Process

The data I chose to use has student performance data and shows whether a student participated in a test prep course. So, there are numerical variables measuring test scores and there is a binary variable saying if a student participated in the test prep course or not. Since I do not have a lot of experience with java script, I wanted to keep my visualization simple. I felt that a scatter plot comparing the test scores across the three categories was challenging enough and sufficient as a visualization.

The visualization is a 3x3 matrix comparing math, reading, and writing scores. Since I want to know if taking a test preparation score had any impact on these scores, I color encoded the binary yes or no variable. Blue represents the test prep course was not taken, and orange represents that the test prep course was taken. I believe the matrix view is an intuitive view of all 3 variables. The interactivity is with a brush feature. You can select certain chunks of the chart to highlight specific areas. For example, maybe the user wants to see roughly what the top 75% of scores represents. Highlighting the top of the chart with the brush feature will highlight the selected area and will dim the rest of the chart. You can really see that the test prep course had some impact on scores, because the visualization shows large clusters of orange (test prep taken) near the top of the chart.