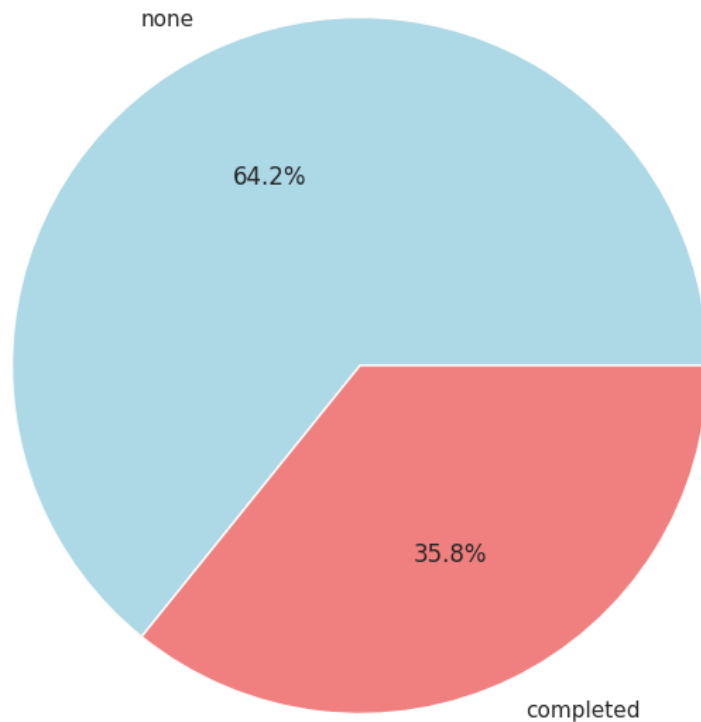**Summary of Student Performance Analysis**

This analysis explores various factors influencing student performance using visualizations.

1. Test Preparation Completion (Pie Chart)

- 64.2% of students did not finish the course that prepared them for the test.
- Only 35.8% of them finished it, suggesting that their academic readiness may need to be improved.
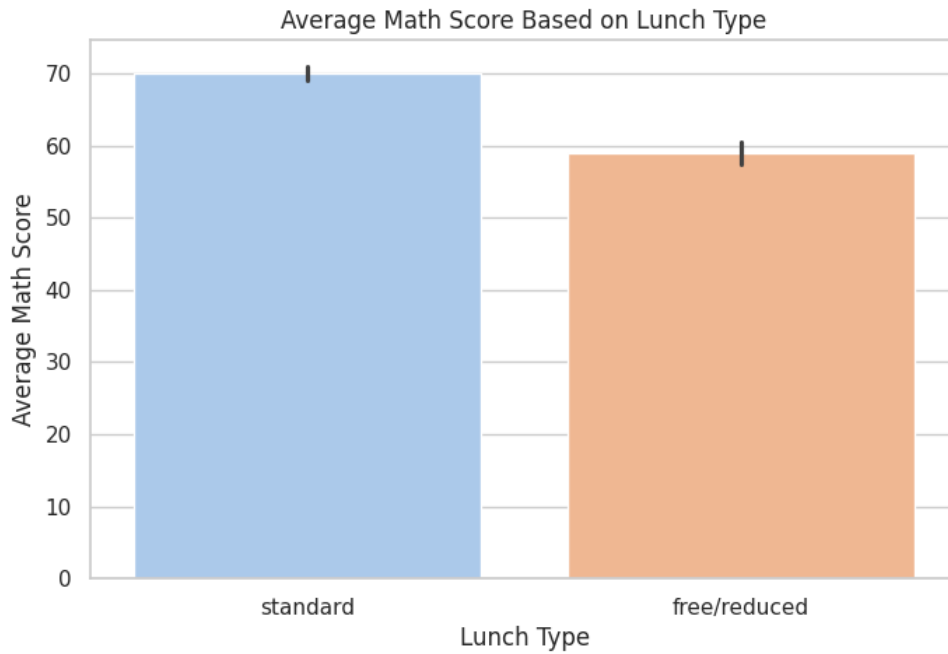
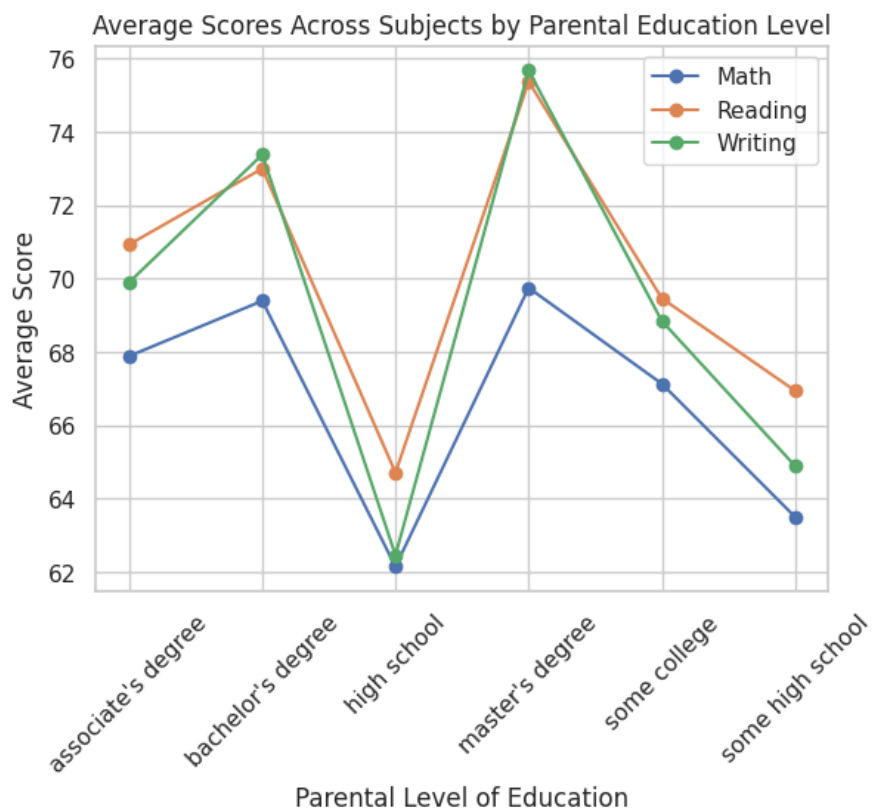Proportion of Students Who Completed Test Preparation Course

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2. Math Scores by Lunch Type (Bar Chart)

- The average arithmetic scores of students who have regular lunches are noticeably higher.
- Students who receive free or reduced lunches typically receive lower scores, indicating that financial background may have an effect on academic achievement.
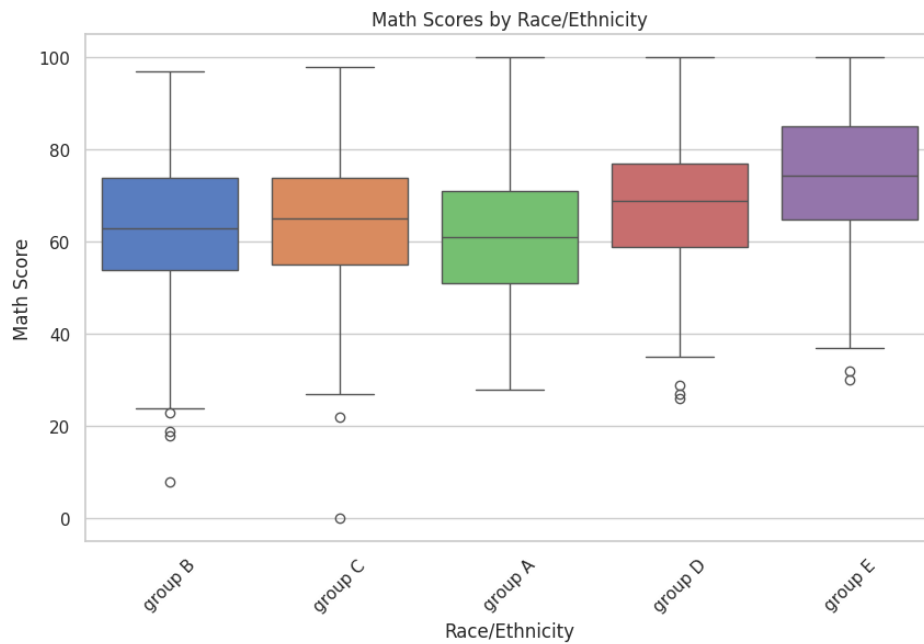
Average Math Score Based on Lunch Type

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3. Average Scores by Parental Education (Line Plot)

- Students who have parents with a master's degree do the best in every subject; students whose parents only have a high school diploma receive the lowest marks.

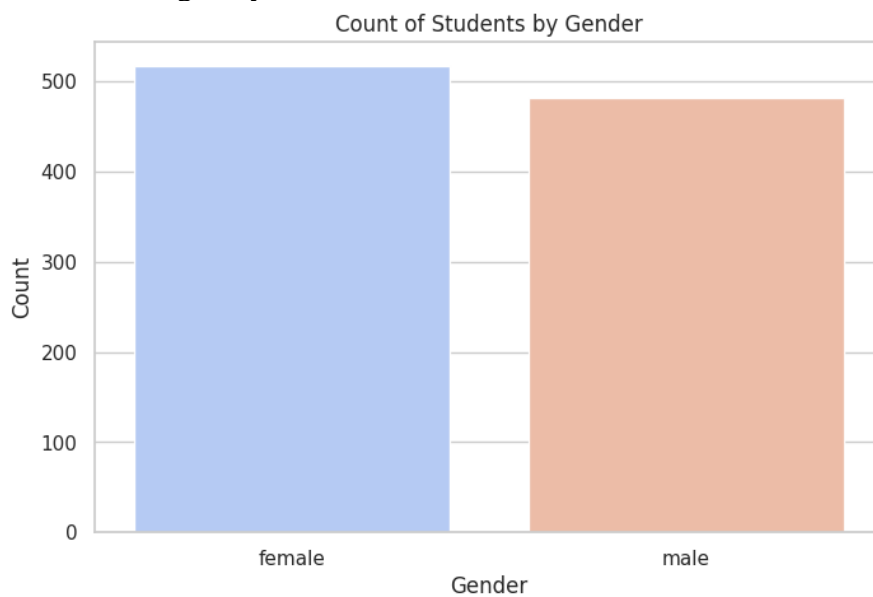Average Scores Across Subjects by Parental Education Level

-

4. Math Scores by Race/Ethnicity (Box Plot)

- The median math scores of Group E students are the highest.
- Group B's ratings vary the most, indicating varying levels of educational support.

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5. Student Count by Gender (Count Plot)

- The distribution is fairly balanced, with no discernible gender gap.
- There are marginally more female students than male students.

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6. Correlation of Scores (Bubble Chart)

- There is a significant positive link between reading and math scores.
- Children who perform well in both subjects tend to have larger bubbles (better writing scores).

Bubble Chart: Math vs Reading Scores (Bubble Size = Writing Score)