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What dataset are you working with: comma\_survey\*

\*I tried working with two other data sets, but I had a lot of trouble with subsetting data and formatting the data in R to run properly, so I was only able to get through this one question.

List 3 questions that you can ask with your dataset.

Q1: Does gender influence someone’s perceived importance of grammar?

Q2:

Q3:

List the associated null hypothesis for each question:

Q1: Gender is independent of someone’s perceived importance of grammar.

Q2:

Q3:

What statistical test(s) will you use to answer each of the questions:

Q1: Chi squared test of independence

Q2:

Q3:

Make a visual plot showing the relationship that you will analyze statistically (e.g. boxplot for t-test or ANOVA; scatterplot for regression; table for chi-square).

Q1:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Gender | Very unimportant | Somewhat unimportant | Neither important or unimportant | Somewhat important | Very important |
| Male |  |  |  |  |  |
| Female |  |  |  |  |  |

Q2:

Q3:

Do your data meet the assumptions required for the statistical test you want to run? Please state the assumptions you examined and whether or not your data meet those assumptions:

Q1: Random sample, independent observations, contingency table has values

Q2:

Q3:

Run the statistical test! Put your results here:

Q1: χ2= 15.97, p-value = .003

Q2:

Q3:

Interpret your results!

Q1: There is a relationship between gender and perceived importance of grammar. According to the table, it looks like women find it more important than men!

Q2:

Q3: