

# PSYC 2317: Statistical Methods for Psychology

Tarleton State University

Week 12 Homework

Fall 2019

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For both problems below, you'll need to download the `survey1.jasp` file from Canvas.

1. Use JASP to conduct an analysis of variance, where *political view* is the independent variable, and the dependent variable is a variable of interest to you (the following are some good ones: books, TV, exercise, drinks, GPA, GRE-Quantitative).
  - (a) Write down specific definitions for the null hypothesis  $\mathcal{H}_0$  and the alternative hypothesis  $\mathcal{H}_1$ .
  - (b) Report the  $F$  statistic (with degrees of freedom) and the  $p$ -value. What do you conclude?
  - (c) Compute the effect size  $\eta^2$  and explain what it means.
  - (d) Perform a post-hoc test on the condition means. Which means are the same? Which are different?
2. Repeat the previous exercise, but this time use *hair color* as the independent variable.