

PROJECT SPECIFICATION

## Test a Perceptual Phenomenon

### Responses to Project Questions

CRITERIA	MEETS SPECIFICATIONS
Question 1: Identify variables in the experiment	Q1: Question response correctly identifies the independent and dependent variables in the experiment.
Question 2a: Establish hypotheses	Q2a: Null and alternative hypotheses are clearly stated in words and mathematically. Symbols in the mathematical statement are defined.
Question 2b: Establish a statistical test	Q2b: A statistical test is proposed which will distinguish the proposed hypotheses. Any assumptions made by the statistical test are addressed.
Question 3: Report descriptive statistics	Q3: Descriptive statistics, including at least one measure of centrality and one measure of variability, have been computed for the dataset's groups.
Question 4: Plot the data	Q4: One or two visualizations have been created that show off the data, including comments on what can be observed in the plot or plots.
Question 5: Perform the statistical test and interpret your results	Q5: A statistical test has been correctly performed and reported, including test statistic, p-value, and test result. The test results are interpreted in terms of the experimental task performed. Alternatively, students may use a bootstrapping approach to simulate the results of a traditional hypothesis test.
Question 6: Digging deeper and extending the investigation <i>Question 6 is optional and does not need to be answered in order to meet project specifications.</i>	Q6: Hypotheses regarding the reasons for the effect observed are presented. An extension or related experiment to the performed Stroop task is provided, that may produce similar effects.