

[Return to "Data Analyst Nanodegree" in the classroom](#)

Test a Perceptual Phenomenon

REVIEW

HISTORY

Meets Specifications

Responses to Project Questions



Q1: Question response correctly identifies the independent and dependent variables in the experiment.

Exactly, the dependent variable represents the output or outcome of the experiment (response time), while the independent is the variable that is changed or controlled (different conceptual conditions).

<https://www.thoughtco.com/i-ndependent-and-dependent-variables-differences-606115>



Q2a: Null and alternative hypotheses are clearly stated in words and mathematically. Symbols in the mathematical statement are defined.

For the Mathematical expression of the null and alternative hypothesis, you use the proper symbols to denote population means μ and frames the discussion in a way that shows that you understand the difference between population and sample. Please consider to explicitly indicate that μ represents the population mean response time.



Q2b: A statistical test is proposed which will distinguish the proposed hypotheses. Any assumptions made by the statistical test are addressed.

The statistical test that you choose is appropriate "dependent t-test".



Q3: Descriptive statistics, including at least one measure of centrality and one measure of variability, have been computed for the dataset's groups.



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.

Well done! the charts depict the difference between the two conditions.

Please note that line plot is not appropriate for the data. Connecting the data points with a line implies a sequential relationship between participants, but participants are independent of each other - the performance of one participant should not imply anything specifically about the performance of the next.



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.

Well done for the implementation and the clear interpretation of the statistical test



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.

 [DOWNLOAD PROJECT](#)

[RETURN TO PATH](#)