**# Hypotheses**

For simple linear regression, the chief null hypothesis is H0 : β1 = 0, and the corresponding alternative hypothesis is H1 : β1 6= 0. If this null hypothesis is true, then, from E(Y ) = β0 + β1x we can see that the population mean of Y is β0 for every x value, which tells us that x has no effect on Y . The alternative is that changes in x are associated with changes in Y (or changes in x cause changes in Y in a randomized experiment).

**#Analysis Plan for Each Hypothesis**

A simple linear regression was calculated to predict DV based on IV. Examine by how many units does the DV change for each unit increase of the IV.

The associations between dependent and independent variables are presented by means of unstandardized linear regression coefficients and 95% confidence intervals

A statistical power analysis was performed for sample size estimation, based on data from pilot study/published study X (N=…), comparing …. to ….. The effect size (ES) in this study was …., considered to be extremely large/large/medium/small using Cohen's (1988) criteria. With an alpha = .05 and power = 0.80, the projected sample size needed with this effect size (GPower 3.1 or other software) is approximately N = ….. for this simplest between/within group comparison. Thus, our proposed sample size of ..N+.. will be more than adequate for the main objective of this study and should also allow for expected attrition and our additional objectives of controlling for possible mediating/moderating factors/subgroup analysis, etc.

**#Results with APA Style Table - apa.reg.table**

Descriptive Statistics: Mean (SD) of IV and DV. Range of values

As planned, we used a linear regression analysis to predict DV from IV (b = .#, 95% CI[#,#]). The CI is fairly \_\_\_, but indicates that each unit of additional IV is associated with a # unit of additional DV (# to # scales). Relative to other predictors of DV, this is a \_\_\_ relationship. One caution in this analysis is the (outliers;restricted range;out of range estimates; predicting for something not in the data set; not a random sampling).

Make specific predictions:

Based on this regression analysis, participants with a IV score of # would be predicted to have a DV of #, 95% CI[#,#]. This indicates that the DV in this group is likely to be (meaningful descriptor of DV).

**Prediction interval:** Based on this regression analysis, a participant with a IV score of # would be predicted to have a DV of #, 95% PI[#,#]. This is a /very long/ prediction interval, but it indicates that a participant at this /low/ score on the IV is very /unlikely/ to be a the /highest/ level for DV.

A significant regression equation was found (F(#,#)=#,p=#), with an R2 of #.