**Two Categorical Interaction (Data Set 3)**

* Check for missing values.
* Create an interaction term (transform compute).
* Run the analysis as a hierarchical MLR.
  + Ask for statistics – r 2 change, part and partials.
  + Plots, zpred in Y, zresid in X, normal PP, histogram.
  + Save – Mahalanobis, cooks, leverage
  + Options – exclude missing pairwise.
  + Step 1 = main effects
  + Step 2 = interaction.
* Check for outliers, multicollinearity, normality, homogeneity, homoscedasticity.
* Model summary – is the overall model significant for main effects (model 1)?
  + If so, are the individual predictors significant?
  + Interpret Betas.
* Model summary – is the addition of the interaction significant?
  + If so, pick ONE variable to examine (SLOPE VARIABLE).
  + Look at that variable in the model two coefficients box.
  + See if that slope is significant (simple slope 1).
* Flip the coding for the OTHER variable (FLIPPING VARIABLE).
  + Recode the 0s as 1s and the 1s as 0s (transform > recode).
  + Rerun the regression with the coding flipped for FLIPPING VARIABLE.
  + Look at the SLOPE VARIABLE and see if that Beta value is significant.
* Make a graph.
  + Use the original regression from the first run to plot the low-high combinations.
  + You will use 0 and 1 as your “low and high” numbers to plot the graph.
* Write up – will include model summary information, main effects, model summary for interaction, two simple slopes for your SLOPE VARIABLE.

**One categorical, one continuous (Data Set 4):**

* Check for missing values.
* Create an interaction term (transform compute).
* Run the analysis as a hierarchical MLR.
  + Ask for statistics – r 2 change, part and partials.
  + Plots, zpred in Y, zresid in X, normal PP, histogram.
  + Save – Mahalanobis, cooks, leverage
  + Options – exclude missing pairwise.
  + Step 1 = main effects
  + Step 2 = interaction.
* Check for outliers, multicollinearity, normality, homogeneity, homoscedasticity.
* Model summary – is the overall model significant for main effects (model 1)?
  + If so, are the individual predictors significant?
  + Interpret Betas.
* Model summary – is the addition of the interaction significant?
  + If so, use the continuous IV as your SLOPE VARIABLE.
  + Look at that variable in the model two coefficients box.
  + See if that slope is significant (simple slope 1).
* Flip the coding for the categorical variable (FLIPPING VARIABLE).
  + Recode the 0s as 1s and the 1s as 0s (transform > recode).
  + Rerun the regression with the coding flipped for FLIPPING VARIABLE.
  + Look at the SLOPE VARIABLE and see if that Beta value is significant.
* Make a graph.
  + Use the original regression from the first run to plot the low-high combinations.
  + For the continuous variable, you will use the mean + 1SD for the “high group” and the mean – 1SD for the low group.
  + For the categorical variable, you will use 0 and 1 for low and high groups.
* Write up – will include model summary information, main effects, model summary for interaction, two simple slopes for your SLOPE VARIABLE.

**Two continuous (Data Set 5):**

* Check for missing values.
* Create centered variables. Create an interaction term (transform compute).
* Run the analysis as a hierarchical MLR.
  + Ask for statistics – r 2 change, part and partials.
  + Plots, zpred in Y, zresid in X, normal PP, histogram.
  + Save – Mahalanobis, cooks, leverage
  + Options – exclude missing pairwise.
  + Step 1 = main effects
  + Step 2 = interaction.
* Check for outliers, multicollinearity, normality, homogeneity, homoscedasticity.
* Model summary – is the overall model significant for main effects (model 1)?
  + If so, are the individual predictors significant?
  + Interpret Betas.
* Model summary – is the addition of the interaction significant?
  + If so, use one as your SLOPE VARIABLE.
  + Look at that variable in the model two coefficients box.
  + See if that slope is significant (average simple slope).
* Create LO and HI terms for the FLIPPING VARIABLE.
  + HI variable = FLIPPING VARIABLE – 1 SD.
  + LO variable = FLIPPING VARIABLE + 1 SD.
* Create new HI and LO interaction terms.
* Run *two* new regressions.
  + One for your HI and HI interaction (high simple slope).
  + One for your LO and LO interaction (lo simple slope).
* Make a graph.
  + Use the original regression from the first run to plot the low-high combinations.
  + You will use the mean + 1SD for the “high group” and the mean – 1SD for the low group.
* Write up – will include model summary information, main effects, model summary for interaction, three simple slopes for your SLOPE VARIABLE.