**Assignment 2: Three Occasion Change**

(Own Data)

This assignment is intended to highlight and familiarize you with three conceptualizations of change – residualized gain scores, trend scores, and individual curves. The general task is to conceptualize and obtain the three types of variables using three occasions of your data.

**Assignment**

1. Choose THREE occasions from your data for modeling (1 variable). Create a data set containing individuals with complete data on all three occasions only. Use this data set for analysis.

**Hint**: in R, you can create a data set with complete cases using: *X[complete.cases(X),]*, where X is the name of your full data set.

1. Residualized Gain Scores
   1. Write out the equation for the residualized gain model.
   2. Run the model for pairs of consecutive occasions (T1 and T2; T2 and T3) and save the residualized gain scores
   3. Create a table summarizing results of the models (Regression table)
   4. Create an accompanying Table of Summary Statistics for the residualized gain scores (means, SDs, skewness, and kurtosis)
   5. Write a few sentences reporting the results and their interpretation.
2. Trend Scores
   1. Write out the equations for obtaining the trend scores for 3 occasions. If you have unequally spaced occasions, use the correct coefficients from the *contr.poly* function.
   2. Compute the linear and quadratic trend scores for your data.
   3. Create an accompanying Table of Summary Statistics (means, SDs, skewness, kurtosis, correlations).
   4. Write a few sentences reporting the results and their interpretation.
3. Individual Curves
   1. Write out the equation for obtaining the individual curve.
   2. Compute the individual curves parameters (Intercept and Slope) for your data
   3. Create an accompanying Table of Summary Statistics (means, SDs, correlations)
   4. Create a plot of the predicted curves.
   5. Write a few sentences reporting the results and their interpretation.

\*\*Prepare the text, tables, and figures in a format that conforms to APA style. It may be useful to consult the APA Publication Manual. The objective is to have a basic framework in place that can be used for future assignments (and hopefully publications).

**Please upload your completed assignment to Canvas by the beginning of class in Week 3.**