# Factorial ANOVAs

A recent prison study measured inmates on their sensation seeking and examined its interaction with the medications prisoners were currently taking. Do medications influence the differences in different forms of sensation seeking?

Between subjects: IV: takemeds – yes or no for taking medications.

Repeated measures: IV: Sensation seeking: Disinhibition, boredom susceptibility, thrill and adventure seeking, experience seeking.

DV: Score on the sensation seeking subscales – higher scores indicate higher sensation seeking behavior.

Data screening: Please include a relevant picture or information (like Mahalanobis scores/cut offs) for each of the following:

1. Accuracy – sensation seeking scores should be 0-10 and any decimals should be rounded to the nearest whole number.
2. Outliers
3. Normality
   1. Skew/Kurtosis
4. Linearity
5. Homogeneity
6. Sphericity

What is the critical F-value for this test at alpha = .05?

Run this ANOVA in SPSS. Paste the appropriate information below (yes you will have to paste one twice – make sure they match the right question).

Paste ANOVA and main effect means for taking medications here:

Paste ANOVA and main effect means for sensation seeking here:

Paste ANOVA and interaction means here:

Run a post hoc analysis for the appropriate effect. Paste your boxes and describe what you did here (i.e. dependent t, independent t, Tukey, etc.).

Calculate the Cohen’s d values for each post hoc analysis and list below (use the online chart, but make sure you use the right tab). You will include these values in your write up.

IN A SEPARATE WORD DOCUMENT:

Write up a results style section for this experiment.

1. Include a brief description of the experiment and variables.
2. Include a brief section on the data screening/assumptions.
3. Include the all F-values for main effects and interactions (so there should be three of them no matter what).
4. Include the post hoc results from follow up tests (remember, effect sizes!).
5. Include a figure of all the means in one chart (be sure to make sure you go back and check what is required for the figure).