



REF 602: SPSS PROJECT #2



Teaching SPSS (50pts)

This project is design to increase your depth of understanding for one specific statistical analysis and familiarize you with the utility and value of data entry, analysis, and interpretation using SPSS. Projects are to be worked on and completed by the student individually; you may use your textbook and lecture notes. Completed projects are due on the **last class day** via BB as listed in the course schedule. You must submit (3 separate files) your teaching document, data file, and output file to complete this assignment.

Research scenario: You are now the statistics instructor. You will be creating a document that teaches students how to conduct a specific statistical test by hand and by SPSS with variables in a data set that you create. Your document should read like a teaching article or a textbook chapter. **Be cautious not to plagiarize your textbook or any other resource you consult for this project. Your teaching document and data file should be original to you.** The idea is that you will create a teaching document that you can give to any student in the course and he/she will be able to learn and understand the statistical test based solely off of the information you have provided to him/her.

- You will create a data set with at least 5 different variables and create data for at least 30 participants. Your data set should include variables of interest to you and your specific discipline. This data set will be used in your teaching examples.
- You will be introducing students to one statistical analysis approach used to address specific research questions (pick one statistical analysis test from Ch. 9, 10, 15-17). Be sure to include the 4-step process in your instruction (when hypothesis testing) and discuss how to construct appropriate hypotheses to analyze the data.

For your selected analysis lesson, include...

- 5 pt 1) Introduce the analysis that you would like to teach to students. Remember you are the instructor so it is expected that you provide examples of your explanations, computations, and elaborations.
 - a. Explain under what circumstance(s) or situation(s) students may choose this particular analysis over others (e.g., why would a student use a correlation to address the specified research question instead of a regression?).
- 5 pt 2) Introduce the student to your data set and explain what the data in each variable represents. What do high numbers in your variables mean versus low numbers, etc.
 - a. **Which** variables in the data file have you chosen to examine to address your specific research question and **why** are these variables appropriate for the analyses (i.e., talk about the type of research question being asked and the scaling of the data)?
- 15 pt 3) Explain how to do the analyses by hand.
 - a. Include formulas and explain what certain elements in the formula represent.
 - b. Describe the process of hand calculations using the 4-step process where appropriate. Walk the student through the hand computations.
 - c. Explain to the student how to write up the results and interpret it in the context of the variables.
- 10 pt 4) Explain how to do the analyses by SPSS.
 - a. Provide screen shots and a walk through of what to click/select in order to conduct the test.
 - b. Provide screen shots of the output (remember to annotate) and provide descriptions to the student in the teaching document where to find key pieces of information in the output to make their conclusions/interpret the results.
- 4 pt 5) Provide clear examples of the statistical analysis.
- 6 pt 6) Provide an overall discussion of the analysis and where to go from there.
 - a. How do students interpret the data/results?
 - b. Explain what the results represent (include the decision, p value, test statistic, and significance). What pieces of information should they include in their interpretation of the results?
 - c. What do these results mean in regards to the research question and hypotheses?
- 5 pt 7) Provide a practice exercise using the same data set.