

Assignment #3: Using Exploratory Factor Analysis



Assignment Due: **Beginning of Class October 31st**

1. Use the random number generation functions provided by SPSS to set up a factor structure. Explain the steps that you used to do this.
2. Label the observed variables (e.g., measures of verbal and spatial performance).
3. Exchange your data set with a classmate's. Do not reveal anything about your factor structure to your classmate.
4. Using your classmate's data set, conduct a series of EFAs in an attempt to recover the factor structure. What do you conclude about the factor structure? On what do you base your conclusion?
5. How successful was your classmate? What problems did he/she encounter?

Please note that marks will not be determined by the degree of students' success in recovering original factor structures. So, there is no need for classmates to provide hints to each other. It is assumed that you will conduct all appropriate data screening and diagnostic procedures (as should always be the case). So, there is no need to give a detailed report of what you found when you used those procedures. Your write-up for this assignment should be *concise* (three pages maximum of text, as stated in the course outline). Please focus only on what would normally be reported in a "Results and Discussion" section of a journal article. You will be marked on your use of appropriate statistical procedures and your interpretation of them (three quarters of your mark), as well as clarity and organization in writing (one quarter of your mark). Be sure to include your output. Use APA style (5th Edition) when reporting your results. Feel free to consult with your fellow classmates when necessary but complete the assignment on your own.