PSY 650: RESEARCH SEMINAR
Midterm Outline

The following is a descriptive outline of the content that will be covered in the Midterm. Please note that all information covered between our first and last class is fair game. However, what is provided in this document highlights many of the major topics that will be covered in this exam. It is highly suggested that you review all your text chapter notes, assigned journal article readings, and corresponding notes. There may also be a few bonus questions for extra points. As you can tell from the format, the majority of the exam will be essay/short answer. There may be a few open-ended/multiple choice questions on the topic statistics/measurement information (the last topic in this outline).

- You will be asked to read and evaluate a descriptive abstract of a study. There will be multiple questions to answer based on this abstract. This will be a significant portion of the exam. The following highlights most of the key topics that you should be familiar with.
  - Research Question
  - Hypotheses
  - Experimental Designs (pre-quasi-full)
  - Research Design (e.g., pre-test/post-test; factorial; crossover)
    - Just like the articles for your Research Summary Sheets, you should be familiar with each design and be comfortable with the language associated with each
  - Sampling
  - Independent and Dependent variables
    - Operationally Define
    - Nominal vs. Categorical
    - Selected vs. Manipulated
  - Bias in Research
    - Sampling, Participant, Experimenter
  - Experimental Validity
    - Internal (and threats)
    - External (and threats)
  - Alpha, Statistical Significance, Power
  - Type I and Type II Error
  - Effect Size
  - Know how to summarize results/make conclusions; identify strengths/limitations of a study

- There will be an essay question on the scientist-practitioner model. What is it? Why important to counselors?

- There will be a few questions on your knowledge of a literature review.
  - Sources used for a literature review
  - Use of databases
  - Knowledge of APA style

- There will be a significant essay question on Efficacy vs. Effectiveness. Of course, this will also include knowledge of Empirically Supported Treatments (ESTs).
  - Be able to define Efficacy and Effectiveness and have a discussion on similarities/differences, including internal/external validity.
  - Be able to discuss Empirically Supported Treatments within the context of its formal development as being the gold standard (argument for why it is “good”) and criticisms by others (argument for why it is “bad”).
  - Why is this discussion relevant?
    - e.g., managed care, research-practice
    - Also can consider article on research and statistic techniques in the JCD.
  - Why is a list of psychological treatments that cause harm relevant? How to recognize a harmful treatment; an example or two of treatments that cause harm
  - Consumer Reports study
    - Significant findings; why relevant?
  - Factors to consider when implementing an EST into an organization.
Know some basic Statistics/Measurement information
  o Measurement Scales
  o Measures of Central Tendency
  o Normal Distribution (including percentiles)
  o Skewed Distribution
  o Standard Scores
    ▪ z score – know the equation
    ▪ T score – know the equation