

Measurement & Evaluation Replication

SPCD 619
Week 4




So, now what?

- ◆ You know what intervention (IV) or practice you want to research. But, what will you select to measure its effects (i.e., what will be the dependent variables (DV))?
- ◆ Is there more than one behavior or aspect of behavior that could be measured to determine if the intervention/practice is effective? Or to compare two or more interventions? How do you select the most appropriate ones??
- ◆ What kind of measurement system will you use to assess the effect of the IV on the DV?

Moving from Research Question to Design of the Experiment (from D. Francis, 2011)

- “Ex design includes strategies for organizing data collection and data analysis procedures matched to the data collection strategies”
- Specify
 - Who will be observed (selection)
 - What will be observed (measurement)
 - When/how often (timing)
 - Under what conditions will observations occur
 - How will observations be analyzed to address the research question.

What is the difference between measurement and evaluation?



Replication

"... Replication is at the heart of all science" (p. 110, Gast, 2010)

"repeating the effect of the independent variable on the dependent variable" (Gast, 2010, p. 110)

Why replicate?

"Replication is important to assess the reliability of findings (internal validity), the generality of findings (external validity), and to look for exceptions" (Gast, p. 112).

Direct replication is repeating an experimental manipulation between or within participants

- **Intra-participant** replication is repeating the experimental effect with the same participant in the same study (i.e., within participant). (e.g., ABAB, MBD across behaviors)
- **Inter-participant** replication is repeating the same intervention with different participants (i.e., across or between participants in the same study) (e.g., MBD across participants; multiple participants in an ABAB design)

■ **Systematic replication** is making a change in some aspect of the study and replicating it with different participants (making changes to participants, DV, IV, procedures, etc.)

Draft Research Questions

- ◆ Pass your draft research question to your right.
- ◆ Read through the draft question you were passed. Write questions and feedback to help the author of the question clarify his or her question. Consider the three elements we discussed last week as well as other features that make a good (clear) research question.
- ◆ Turn the questions with feedback in.

Elements of a Research Question

- ◆ Participant population
- ◆ Intervention (IV)
- ◆ Measures (DV)
- ◆ Hypothesized outcome – maybe!

Week 5

- ◆ Dr. Megan Griffin will discuss the Fisher et al. study: be ready to ask questions
- ◆ Social Validity
 - ◆ Read
 - ◆ Chapter 7 in your text
 - ◆ Kratochwill et al. pp. 12-17 (WWC Standards for SCD studies)
 - ◆ Kennedy chapter on Social Validity
 - ◆ Strain et al. (2012)
 - ◆ At least look through Montrose Wolf's foundational article on social validity and Thompson et al.'s chapter on behavioral observation.
