Improving the Internal Validity of Observational Designs

I expect you to apply these considerations in your own designs for Assignment 3.

There are two major concerns with observational designs. (1) The single-group, one point in time cross sectional design provides almost no basis for drawing conclusions about causality, yet it is probably the most used design in the social sciences. We cannot rely on this design to provide us with a robust understanding of social phenomena. (2) Researchers often fail to incorporate many design features – starting with the use of comparison groups – to strengthen the quality of conclusions that can be drawn from cross-sectional designs. Increased use of the three principles that Shadish made for quasi-experiments could greatly enhance the quality of conclusions drawn from cross-sectional studies. Rubin discusses key recommendations made by Cochran (his doctoral mentor). Consider these key questions as you complete Assignment 5

1. Did you use design components, such as multiple comparison groups or the multiple measures over time, to try to reduce threats to internal validity?

2. Did you use screening criteria and other refinements on sample selection to try to reduce the potential for variables other than those included in the study affecting the outcomes of the study?

3. Did you use statistical control in data analysis to try to reduce threats to internal validity?

4. Did you develop a complex research question that would limit the probability that alternative explanations, other than the one they propose, could account for the results?

5. Did you compare and contrast alternative explanations (compare two or more theories, for example)?

6. Did you provide any evidence that they identified and considered threats to internal validity posted by the use of a cross-sectional design?