Learning Guide: Case Study Designs

Robert Yin is probably the leading expert in case study research design. Obviously, Gorard disagrees with him and says so (by name) in his book. I am more positive about the value of case studies – although I am also very, very leery of the term because people use the term to mean anything. They just "paste it on" if they don't know what else to call their design – usually because their design isn't actually a design that can produce anything more than a description of one case or event. That is NOT what we mean by a case study in this class.

Yin states that there are four critical considerations in case study designs. Two are related to clearly articulating the constructs of interest in a study, construct validity and reliability. These are also crucial concerns in the development of research instruments (like interview protocols or surveys) and are covered in FYC 6802 Advanced Research Methods for the Social Sciences. You already know what internal and external validity mean. I would add a fifth consideration, explanatory power. In summary, the *same concerns in design apply to case studies as to all other designs.* Put another way, case studies require the same careful consideration as other designs and are not a "default label" to apply when the researcher does not want to deal with design considerations. Unfortunately, the case study has a bad reputation among many researchers because the term is continually misused to refer to what are, frankly, not research designs at all: "I selected this household to study because it seemed interesting" or "This is a case study because I have only one unit of observation" or "This is a case study because I have only one unit of observation" or "This is a case study because I didn't want to conduct a survey." Case studies can be valuable designs, but the research must address the same design considerations as we do with all other designs.

- 1. Yin lists five critical components of all research designs, the study question, the propositions, the units of analysis, the logic linking the data to the propositions, and the criteria for interpreting the findings. He makes some specific recommendations for developing a study question. Can you explain why each of these is important?
- 2. How does Yin's comment that every exploratory study should state the criteria by which the exploration will be considered successful reflect the important of external validity, internal validity, and explanatory power in scientific research and evaluation?
- 3. Yin discusses the importance of defining the unit of analysis in case study designs? Do you think his comments apply to other designs that we have considered as well, especially the cross-sectional and longitudinal designs? Why or why not?
- 4. Yin discusses the relationship between design decisions and analysis. If it has been some time since you have thought about the material about analysis, particularly qualitative analysis, you may want to review that material. Data from case studies can be analyzed quantitatively, statistically. However, as Yin points out it is common for researchers to use qualitative methods of analysis for case studies, largely because of the emphasis on depth of data needed to explain complex phenomena and the critical importance of theoretical generalization in interpreting the findings in case studies. How do Yin's ideas relate to our discussions of theoretical versus statistical generalization?
- 5. Yin stresses the importance of identifying and addressing rival explanations in interpreting the results of case studies. What other authors, discussing which other research designs, have made the same point?

- 6. I especially appreciate Yin's comment that the use of the case study is not a way for the researcher to "hurry off to the field" without having to bother with things like defining a theoretical framework, stating an explicit research question, defining propositions, etc. After having read what Yin has to say about the role of theory in case study, have you changed your ideas about what the case study design requires of the researcher?
- 7. I actually prefer Yin's term "analytic generalization" to the term "theoretical generalization." What does analytic generalization mean?
- 8. The diagram and discussion on pp. 38-39 compare characteristics of sampling for experiments, case studies and "surveys" (cross-sectional and longitudinal designs). Why is sample selection (or case selection) for case studies more similar to that of experiments than the other two design groups?
- 9. What is the difference between an embedded and a holistic case study design? Given an example where each would be appropriate.
- 10. Why are multiple case designs similar to replicated experiments in concept, especially in terms of internal validity?
- 11. Is it true that case studies can only be used for theory-building, not theory testing? Explain your reasoning.