Yin Robert Yin is probably the leading expert in case study research design. Use this reading, not the material in deVaus, to gain an understanding of the case study design.

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 didn’t want to conduct a survey.” Case studies are strong, valuable designs that need address the same considerations as 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. Review assignments 1 and 2 and examine how they conform to Yin’s recommendations.
2. Throughout the assignments for this course, except in the case of the experiments, I use the phrase formal hypothesis or less formal proposition. What is the difference between a statistical or formal hypothesis and a proposition?
3. Why is it critical to state a proposition (or a formal hypothesis) when you design a study?
4. According to Yin, it is permissible, even understandable, not to state a a proposition or hypothesis when the purpose of a study is exploration. Case studies are by far the best, and possibly the only, design that is really appropriate for exploration. However, Yin goes on to say that: “Every exploration, however, should still have some purpose. Instead of propositions, the design for an exploratory study should state this purpose, as well as the criteria by which an exploration will be judged successful.” You have probably seen several studies by now that stated a “purpose” or “objective,” but never clearly state any proposition or hypothesis. Do you think those studies were exploratory in nature or, on the contrary, did the researcher simply fail to make his/her propositions or hypotheses explicit?
5. 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?
6. 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?
7. On p. 32, he discusses the necessity to define the boundaries of the case? How is this concept of “boundary of the case related to the concept of a theoretical population that we have discussed?
8. Earlier, (very beginning of the chapter), Yin also talks about the importance of access to the cases. How is this concept related to the idea of an accessible population that we have discussed?

9. 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.

10. 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?

11. 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?

12. How does the use of theory differ in the case study design and some specific methods of data collection or approaches to theory that we have not included in this course such as ethnography, life history analysis, and grounded theory, for example?

13. Does the role of theory differ in the case study design than in other scientific research designs?

14. 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?

15. I actually prefer Yin’s term “analytic generalization” to the term “theoretical generalization.” What does analytic generalization mean?

16. 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?

17. What are the five circumstances in which a single case design is justified? How are these similar to the conditions under which a single experiment is justified (rather than replicated experiments)?

18. Why, given these justifications for using a single case design, is case selection absolutely critical to the quality of the research (Yin’s four ways of judging the quality of a study)?

19. What is the difference between an embedded and a holistic case study design? Given an example where each would be appropriate.

20. What are some of the potential weaknesses in holistic designs, whether they are single or multiple case designs?

21. Explain some of the errors in interpretation that could occur with the use of an embedded design in an evaluation using a case study design? Think about Yin’s comment about the problem of failing to synthesize at the larger, case level.

22. Why are multiple case designs similar to replicated experiments in concept, especially in terms of internal validity?

23. What constitutes a “replication” in a case study design?

24. Why are multiple case designs often considered stronger than single case designs in terms of explanatory power, external validity and internal validity?

25. What are the three reasons or justifications for selecting a single case design that typically cannot be met with a multiple case design?
26. Why is the development of a rich, rigorous theoretical framework critical to adequate replication in case study design?

27. Is it true that case studies can only be used for theory-building, not theory-testing? Explain your answer.

28. Based on what you have learned about experiments, generalization and theory testing and building, explain in your own terms what Yin means by these comments. “The theoretical framework later becomes the vehicle to generalizing to other new, again similar to the role played in cross-experiment (replicated) designs. Furthermore, just as with experimental science, if some of the empirical cases do not work as predicted, modification must be made to the theory.”

29. Explain in your own terms the differences between “sampling logic” and “replication logic.” Discuss the implications of these differences in terms of internal validity, external validity, and explanatory power.

30. Using replication logic, how do you decide how many cases to include in a study?