

DEPARTMENT OF SOCIAL SCIENCES
Center for Doctoral Studies in the Social
and Behavioral Sciences
Prof. Thomas Gschwend, Ph.D.

UNIVERSITY OF
MANNHEIM



Visitors

D 7, 27 · Room 301/302
68131 Mannheim · Germany
Telephone +49-621-181-2087
Fax +49-621-181-3699
E-Mail: gschwend@uni-mannheim.de
www.sowi.uni-mannheim.de/gschwend

Assistant (Christel Selzer)

Telephone +49-621-181-2413
E-Mail: methods@uni-mannheim.de

Research Design

Spring 2009

Time Wed. 8:30-10:00

Place D7, room 307

Office Hours Wed. 10:00-11:00

Description: Quick-and-dirty number-crunching ‘quantoids’ face them. Carefully describing and interpreting ‘smooshes’ face them. No matter where they stand on ontological and epistemological grounds and how we stereotype the respective ‘other side’, all researchers face similar challenges posed to core issues of research design. A **research design** is a plan that specifies how you plan to carry out a research project and, particularly, how you expect to use your evidence to answer your research question.

The goal of this course is twofold. First, it should provide an overview about the universe of potential research designs for causal inference and their advantages and disadvantages. Second, this course should enable students to see the trade-offs involved in choosing a particular research design in their research projects. Consequently, students are expected to have some own ideas about potential research questions to be able to actively participate in those seminar-style meetings that are organized within this lecture course.

Requirements: There are three different requirements for this course.

- 1) Prepare the readings in advance so that you can come to class with particular questions in mind. You will learn primarily by reading and then discussing that material with your instructor and classmates. The more actively you participate in the discussions the easier it will be to comprehend the new material and the more fun we will have working on this together. The **readings** will be provided by email well in advance.
- 2) Besides reading and discussing the material, an effective way to gain sensitivity for those research design issues is to try to replicate an existing article. I suggest choosing an article that caught your interest anyway while searching for a topic. Make sure you can get hold of the data early on. A brief **replication report** (2-3

pages) about your success in replicating a study together with your results is due (right after Easter recess) **22 April 2009**.

- 3) Finally I expect you to come up with a research question and write a first version of a short draft research proposal through which you can demonstrate your competence in rigorously applying the issues that were taken up in this course to the design of a potential (Master or PhD) research project that will answer your research question. Since this should be an exercise that might be of help later on I suggest to merely emphasize methods and data more than the relevance of the research question (which generally leads to long literature review and a substantive defense of the problem's importance). For this class I will be looking for a project that is well-defined and feasible as well as methodologically sound. Consider the **draft proposal** as a take-home exam that is due on the date the administration will schedule our final exam (I think it will be the second and third week of June).

18 February Introduction

25 February Core Issues of Research Design

1) In the introduction of Gschwend/Schimmelfennig (2007) there is a 2x2-typology of research designs on page 14. Can you come up with exemplary research questions that would fit in each of these four cells?

2) Do you believe KKV mantra that for all types of research design there is the same underlying logic of inference?

3) What are "observable implications" of a theory? Provide an example.

☞ King, Gary; Robert Owen Keohane, and Sidney Verba. 1994. "The Science in Social Science." In *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton: Princeton University Press, 3-33.

☞ Gschwend, Thomas, and Frank Schimmelfennig. 2007. "Introduction: Designing Research in Political Science – A Dialogue." In *Research Design in Political Science: How to practice What They Preach?* Ed. Thomas Gschwend and Frank Schimmelfennig. Houndmills: Palgrave MacMillan, 3-33.

☞ Gschwend, Thomas, and Frank Schimmelfennig. 2007. „Conclusion: Lessons for the Dialogue between Theory and Data." In *Research Design in Political Science: How to Practice What They Preach?* Ed. Thomas Gschwend and Frank Schimmelfennig. Houndmills: Palgrave MacMillan, 216-225.

4 March

Conceptualization and Measurement

- 1) Do you have an example ready of a fuzzy concept? Any idea on how to specify it further to improve it?
- 2) Make up an example of an unreliable measure with high validity.

- ☞ Wonka, Arndt. 2007. „Concept Specification in Political Science Research.” In *Research Design in Political Science: How to Practice What They Preach?* Ed. Thomas Gschwend and Frank Schimmelfennig. Houndmills: Palgrave MacMillan, 41-61.
- ☞ Miller, Bernhard. 2007. “Making Measures Capture Concepts: Tools for Securing Correspondence between Theoretical Ideas and Observations.” In *Research Design in Political Science: How to Practice What They Preach?* Ed. Thomas Gschwend and Frank Schimmelfennig. Houndmills: Palgrave MacMillan, 83-102.
- ☞ De Vaus, David. 2001. “Tools for Research Design.” In *Research Design in Social Research*. Ed. David De Vaus. Thousand Oaks, CA: Sage, 117-133.

11 March

Case Selection

- 1) What are KKV’s guidelines for case-selection?
 - 2) What is the problem with selection on the dependent variable? Does it hold for data-set as well as causal-process observations alike?
 - 3) Do you agree with Ebbinghaus’ warnings of a “Lets-take-what-we-can-get” approach to case selection?
- ☞ King, Gary; Robert Owen Keohane, and Sidney Verba. 1994. “Determining What to Observe.” In *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton: Princeton University Press, 115-149.
 - ☞ Collier, David; James Mahoney, and Jason Seawright. 2004. “Claiming Too Much: Warnings about Selection Bias.” In *Rethinking Social Inquiry: Diverse tools, Shared Standards*, ed. Henry E. Brady and David Collier. Lanham: Rowman & Littlefield, 85-102.
 - ☞ Ebbinghaus, Bernhard. 2005. “When Less is More.” *International Sociology* 20(2): 133-152.
 - ☞ Seawright, Jason, and John Gerring. 2008. “Case Selection Techniques in Case Studies Research: A Menu of Qualitative and Quantitative Options.” *Political Research Quarterly* 61(2): 294-308.

18 March

Statistical Control

- 1) What is the logic of statistical control within a quantitative research design?
- 2) Is this logic the same for factor-centric and outcome-centric research designs?

☞ Clarke, Kevin A. 2005. "The Phantom Menace: Omitted Variable Bias in Econometric Research" *Conflict Management and Peace Science* 22(4): 341-352.

☞ Sieberer, Ulrich. 2007. "Selecting Independent Variables: Competing Recommendations for Factor-Centric and Outcome-Centric Research Designs." In *Research Design in Political Science: How to Practice What They Preach?* Ed. Thomas Gschwend and Frank Schimmelfennig. Houndmills: Palgrave MacMillan, 163-182.

25 March

Causal Inference

1. What is the problem for causal inference with non-experimental data and which solutions are there?
2. In what sense do different conceptions of causality differ from one another and what are the consequences in terms of research design?

☞ King, Gary; Robert Owen Keohane, and Sidney Verba. 1994. "Causality and Causal Inference" In *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton: Princeton University Press, 75-91.

☞ Goldthorpe, John H. 2001. "Causation, Statistics and Sociology." *European Sociological Review* 17(1): 1-20.

1 April

Replication & Publication

☞ King, Gary. 1995. "Replication, Replication." *Political Science and Politics* 28(September): 444-452.

☞ King, Gary. 2006. "Publication, Publication." *Political Science and Politics* 39(January): 119-125.

Easter Recess

No class

22 April

Causal Inference with Observational Data

1. What is the problem for causal inference with non-experimental data?
2. Which potential solutions are out there?

- 📖 Nichols, Austin. 2007. "Causal Inference With Observational Data." *The Stata Journal* 7(4): 507-541.
- 📖 De Vaus, David. 2001. "Causation and the Logic of Research Design." In *Research Design in Social Research*. Ed. David De Vaus. Thousand Oaks, CA: Sage, 34-52.
- 📖 Winship, Christopher, and Stephen L. Morgan. 1999. "The Estimation of Causal Effects from Observational Data." *Annual Rev. Sociol.* 25: 659-706.

29 April

Causal Inference in Case Studies

Can causal inferences in factor-centric and outcome-centric case studies be approached by the same logic?

- 📖 Gerring, John, and Rose McDermott; 2007. "An Experimental Template for Case Study Research." *American Journal of Political Science* 51(3): 688-701.
- 📖 Jasjeet S. Sekhon. 2004. "Quality Meets Quantity: Case Studies, Conditional Probability and Counterfactuals." *Perspectives on Politics* 2(2): 281-293.
- 📖 Dür, Andreas. 2007. "Discriminating among Rival Explanations: Some Tools for Small-n Researchers." In *Research Design in Political Science: How to Practice What They Preach?* Ed. Thomas Gschwend and Frank Schimmelfennig. Houndmills: Palgrave MacMillan, 183-200.

6 May

Narratives and Case Study Design

1. What are strengths and weaknesses of case study research designs?
2. In what sense can analytic narratives ameliorate a given case study design?

- 📖 Bates, Robert H, Avner Greif, Margaret Levi, Jean-Laurent Rosenthal, and Barry R. Weingast. 1998. "Introduction." In *Analytic Narratives*. Princeton: Princeton University Press, 3-22.
- 📖 Bennett, Andrew, and Colin Elman. 2006. "Qualitative Research: Recent Developments in Case Study Methods." *Annual Review of Political Science* 9: 455-476.
- 📖 Gerring, John. 2004. "What Is a Case Study and What Is It Good for?" *American Political Science Review* 98(2): 341-354.

13 May

Experiments

1. What is the difference between these traditions?
2. For what type of questions would you design an experiment?

- 📖 Druckman, James, Donald P. Green, James H. Kuklinski, and

Arthur Lupia. 2006. "The Growth and Development of Experimental Research in Political Science." *American Political Science Review* 100(4): 627-635.

☞ McDermott, Rose. 2002. "Experimental Methodology in Political Science" *Political Analysis* 10(4): 325-342.

20 May

Simulation

1. Be prepared to come-up with a potential example of how you might employ a simulation methodology as part of a research design for your hypothetical master thesis.

☞ Benoit, Kenneth. 2001. "Simulation Methodologies for Political Scientists." *Political Methodologist* 10(1): 12-16.

☞ Cederman, Lars-Erik. 2001. "Agent-Based Modeling in Political Science." *Political Methodologist* 10(1): 16-22.

☞ Clough, Emily. 2001. "Computational Modeling from a Graduate Student Perspective." *Political Methodologist* 10(1): 26-28.

☞ Laver, Michael. 2005. "Policy and the Dynamics of Political Competition." *American Political Science Review* 99(2): 263-281.

☞ Taber, Charles S. 2001. "Of Spells, Potions and Computational Social Science." *Political Methodologist* 10(1): 23-26.

☞ Macy, Michael M., and Robert Willer. 2002. "From Factors to Actors: Computational Sociology and Agent-Based Modeling." *Annual Review of Sociology* 28: 143-146.

27 May

Nested Analysis

1. Is Nested Analysis a panacea for all research design problems?

2. If not, under what conditions and for what type of problems is it a reasonable addition to our toolbox?

☞ Lieberman, Evan S. 2005. "Nested Analysis as a Mixed-Method Strategy for Comparative Research." *American Political Science Review* 99(3): 435-452.

☞ Rohlfing, Ingo. 2008. "What You See Is What You Get – Pitfalls and Principles of Nested Analysis In Comparative Research." *Comparative Political Studies* 41(11): 1492-1514.

3 June

Semester Wrap-up