

## Basic Principles of Research Design and Strategy

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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 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. Second, this course should facilitate doctoral students to be able to see the trade-offs involved in choosing a particular research design in their research projects. Consequently, doctoral students are expected to develop own ideas about potential research questions and actively participate in those seminar-style meetings that are organized within this lecture course.

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.

A **reading list** is provided below. Students are requested to send a **research outline on their individual doctoral project** (1 page) to [schaft@iamo.de](mailto:schaft@iamo.de) until **14.10.2020**. Be prepared for a **concise presentation (3 minutes)** of your doctoral project during the course.

### Day 1 (09.00 – 18.00)

- Research Question
  - What makes a good research question?
- Core Issues of Research Design
  - The Research Process
  - 5 Strategies for Developing New Ideas & Research Questions
  - Universe of Research Designs
- Conceptualization and Measurement
  - Rules for Concept Specification
  - What is Measurement?
  - Validity, Reliability, Comparability
- Case Selection
  - The Virtues of Random Selection

- How to Select Cases Intentionally?
- Rationales for Selecting a Case Study
- What's the Matter with Selection Bias?

## Day 2 (09.00 – 18.00)

- Causal Inference with Observational Data
  - Correlation vs. Causation
  - Different Conceptions of Causality
  - Rubin Causal Model (RCM): The Potential Outcome Framework
  - How to make meaningful comparisons?
  - Randomization & Blocking
  - Quasi-Experimental Research Designs (Statistical Control, Matching, IV, RD...)
- Causal Inference in Case Studies
  - Factor- and Outcome-Centric Designs
  - Causal Inference for Comparative Case Studies (Synthetic Control)
  - Traditional and Probabilistic Strategies
  - Process Tracing
- Improving Interpretation: Graphs vs tables
  - Why care about communicating results?
  - Tables vs. Graphs
  - Maximize the Data-Ink Ratio!

In case we have time and there is popular demand, Prof Gschwend will also be happy to provide short sessions from a research design perspective on: Nested Analysis or Simulation as a Research Design Tool or Statistical Control or How to write a publishable paper ...

## Course registration

The course is free of charge. **Please note that a maximum of 15 students can participate.** In case you would like to register, please send an email to Franziska Schaft / [schaft@iamo.de](mailto:schaft@iamo.de) **until 12.10.2020**. Places will be allocated in the order of incoming registration emails.

## Contact IAMO Graduate School

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## Readings

- 📖 King, Gary, Robert Owen Keohane and Sidney Verba. 1994. *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton: Princeton University Press. (entire book)
- 📖 Gschwend, Thomas, and Frank Schimmelfennig. 2011. *Research Design in Political Science: How to Practice What They Preach?* Houndmills: Palgrave MacMillan. (entire book, in particular chapters 1-3, 5, 12)
- 📖 Brady, Henry E. and David Collier. 2004. *Rethinking Social Inquiry: Diverse tools, Shared Standards*, Lanham: Rowman & Littlefield (chapters 1-2, 6, 12-13)
- 📖 Collier, David. 2011. "Understanding Process Tracing." *PS: Political Science & Politics* 44(4): 823–830.