

## Research Designs

Typically, following feedback from the presentation of a problem statement, research projects progress to the research design stage. The aim of presenting a research design is to gain feedback that would cause you to change the research design before you implement it. Thus, you should aim to give as much detail — succinctly — as possible in order for the group to think about whether each element is a good fit given your research question, hypotheses, and context.

The research design need not involve field research nor original data collection, though many may. Fully specifying a research design based on a natural experiment — even one that uses existing datasets — is as beneficial as it is for an experimental design, though done less frequently. In this group, we can change that.

This document is a template for a more or less complete statement of a research design. For presentations, all of these decisions need not be completed; for those that are not, include a brief discussion of potential options so the group can help you think through them.

For a description of the different types of causal identification strategies typically discussed in the workshop, see the “Working Paper” document.

### 1 Abstract

- 150 word abstract on question and research design.

### 2 Motivation

- This can be theoretical, empirical, or logical.

### 3 Research question

### 4 Hypotheses

- Describe your research hypotheses
- Make sure to include expected effect directions and magnitudes with your hypotheses if relevant, as well as any expected heterogeneous effects.

### 5 Research context

- Briefly describe the salient features of the context, including the countries or regions where the study will take place (if relevant), and why this is a good context in which to answer your research question.

### 6 Research design

#### 6.1 Summary

- Describe your research design in brief.

## 6.2 Target population

- Describe the population of individuals, cities, regions, countries, etc. you wish to make inferences about.

## 6.3 Sampling strategy

- Describe the procedure by which units enter your dataset, whether you sample directly from the target population or not.

## 6.4 Intervention

- Describe the intervention/treatment whether or not you randomly assign it.

## 6.5 Assignment mechanism or identification strategy

- This is either your randomization procedure if your study is a randomized experiment or the assignment mechanism that you assume in the case of natural or quasi-experimental designs.
- If you're conducting an observational study, make sure to discuss the justification for your identification strategy

## 6.6 Estimation strategy

## 6.7 Measurement strategy

- Describe how you will measure your outcomes and covariates, and if the key outcomes are survey questions include question text.

## 6.8 Simulation evidence on the properties of the design

- This could be done using the DeclareDesign package or you can write your own simulation.

## 7 Ethical issues

- Discuss the ethical issues in your research and any human subjects concerns, as well as how you address these issues.
- Defer to the discussions in 200E on these issues and the Belmont Principles.

## 8 Timeline

- Describe the timeline in weeks of data collection, treatment implementation (if relevant), and analysis.