



ANÁLISIS DE TEXTO AUTOMATIZADO EN CIENCIAS POLÍTICAS Y SOCIALES

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Language: English
Schedule: 09:00-13:00

General description

Survey experiments have established themselves as one of the most powerful (and increasingly used) methodological tools in contemporary political science for identifying causal relationships in contexts where pure observation is insufficient. This course offers advanced training focused on the design, implementation, and analysis of survey experiments, aimed at students and researchers who already have a foundation in quantitative methods and now wish to delve deeper into the experimental techniques most commonly used in current research, as well as the practices of transparency and open science that are now required in this field.

Through applied case studies and practical exercises, participants will understand the fundamentals of experimental methodology, its advantages and limitations, and will learn to design rigorous experiments, anticipate problems of internal and external validity, document their decisions transparently, and analyze the resulting data using appropriate statistical tools.

Objectives

- Understand the fundamentals of causal inference as applied to experimental design (potential outcomes, randomization).
- Be familiar with the main classical experimental designs, such as Solomon's four-group design, and their implications for meeting standards of internal and external validity.
- Distinguish between and apply the main types of survey experiments: framing, list, conjoint, endorsement, and vignette experiments, among others.
- Calculate the necessary statistical power and justify the sample size.
- Begin analyzing experimental data and estimating average and heterogeneous causal effects.
- Understand the role of pre-registration and transparency in experimental research, and develop a pre-specified analysis plan.

Requirements

Prior knowledge of quantitative methodology, survey design, and statistics applied to the social sciences is recommended. Students must bring a laptop to fully participate in the course.

Class Schedule

Session 1: Fundamentals of Causal Inference and Classical Experimental Designs

- Advantages and disadvantages of the experimental method. Its defining characteristics and comparison with other methods. When should experiments be conducted?
- The framework of potential outcomes and the role of randomization in causal identification. Requirements for causal inference.
- Internal validity and external validity in social science experiments.
- Classic experimental designs:
 - Post-test-only design with a control group.
 - Pre-test/post-test design with a control group.
 - Solomon's four-group design as a combination of the two previous designs (two groups with a pre-test, two without, crossed with treatment/control) to control for the pre-test priming effect and isolate the pure treatment effect.
 - Quasi-experimental interrupted time series design. Natural events.
- Threats to validity and control strategies (maturation, history, measurement-induced sensitization, etc.).

Session 2: Types of survey experiments

- Review and analysis of different types of survey experiments. Between-subjects design, within-subjects design. Framing experiments, which analyze the effect of different informational frames on attitudes; list experiments, which allow for the indirect measurement of preferences or sensitive behaviors; conjoint experiments, which estimate the causal weight of different attributes combined in a choice task; endorsement experiments, which infer attitudes toward a political figure based on support for a position that the figure endorses; and vignette experiments, which study judgments and decisions in response to manipulated hypothetical scenarios.
- Criteria for choosing the most appropriate design based on the research question and the type of bias to be avoided.
- Design and programming of a survey experiment. Quality criteria.
- Opportunities for experiment design using generative AI.
- Workshop: Designing My Own Experiment (I).

Session 3: Implementation, transparency and Analysis

- Calculation of statistical power and sample size. Verification of treatment validity (manipulation check).
- Pre-registration and transparency in experimental research:
 - The reproducibility crisis and the role of pre-registration as a methodological response.
 - The difference between confirmatory and exploratory analysis.
 - Development of a pre-specified analysis plan.
 - Pre-registration platforms (OSF, EGAP, AsPredicted) and their practical use.
 - Open science practices: publication of data, code, and materials; reporting standards for social science experiments.
 - Ethical implications: informed consent, invasion of privacy, weighing of harm and its justification, review by ethics committees.
- Estimation of average treatment effects (ATE) and analysis of heterogeneous effects.
- Checking for balance between groups and post-randomization diagnostics.



- Workshop: Designing My Own Experiment (II).
- Practical case study on replication.

Methodology

We will combine theoretical sessions (which will always be participatory) with guided practical exercises, discussions of published studies that serve as inspiration, and work with real or simulated experimental data. We will encourage small-group work to design an original experiment over the course of the three sessions, for which participants will receive constructive feedback from the instructor. If necessary, tutoring sessions can be arranged, and the instructor will also be fully available to answer questions via email.

Learning outcomes

By the end of the course, participants will be able to identify and apply the most appropriate experimental design for their research question, choose among different types of survey experiments depending on the phenomenon under study, pre-register their design and analysis plan in accordance with current transparency standards, conduct the experiment using the appropriate tools, and analyze and interpret the results in accordance with current standards for experimental research in political and social sciences.