Experimental Methods in Social Sciences—INWS0059

Statistics: "That's not an experiment you have there, that's an experience."

Sir Ronald A. Fisher (1890–1962)

University of Turku
INVEST
Turku, Finland

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General Overview

Program: Ma and PhD programs in 'Inequalities, Interventions and New Welfare State,' University of Turku.
Instructor: Héctor Bahamonde, PhD, Docent.
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w:www.HectorBahamonde.com
Office Hours and Zoom Meetings: Schedule time with me here.
Course websites: Moodle (students) & Peppi (instructor only).
Time: Always from 12.15 pm to 1.55 pm.
Room: Pub-368.

Fall 2025 dates:

Lecture #1: 27.10.

Lecture #2: 03.11.

Lecture #3: 10.11.

Lecture #4: 17.11.

Lecture #5: 25.11.

Lecture #6: 02.12.

Motivation

In this course, we cover a range of experimental designs, each offering unique strengths while raising important questions. How does the controlled setting of lab experiments deepen our understanding of behavior in isolated conditions, and what boundaries does it set for causality? In survey experiments, to what extent do findings generalize to diverse populations, and how does question framing influence participant responses? With field experiments, how well does real-world application balance external validity with ethical considerations? Finally, natural experiments offer another dimension: what insights can naturally occurring events provide about causal relationships, and how can researchers ensure the robustness of such insights? Moreover, how can we ensure that our pursuit of knowledge upholds ethical standards, safeguarding the dignity, rights, and well-being of participants while enhancing the integrity

and impact of our research? This course assesses diverse experimental designs, exploring their unique strengths and opening new avenues for inquiry and critical thinking.

Objectives

This course is designed to provide students with a comprehensive understanding of experimental methods in the social sciences. By the end of this course, students will master the ability to conceptualize various types of experiments. They will develop strong analytical skills to interpret and analyze experimental data. Students will engage in critical discussions about the strengths and weaknesses of experimental approaches, and how these approaches contribute to broader scientific inquiries. Finally, students will enhance their communication skills, improving their ability to clearly articulate experimental findings through written reports, with a focus on discussing the implications of research results. This course aims to equip students with the tools needed to contribute to the growing field of experimental research in social sciences.

Academic Integrity

I expect nothing but the best out of my students.

- I expect students to do their reading *before* class.
- Practical exercises should be turned in *before* class begins.
- I do *not* answer emails during weekends.

☞ **Plagiarism**: Plagiarism will not be tolerated. Make sure you follow the University's rules and definitions of plagiarism. Also, make sure you know how to cite your work.

☞ **Using AI**: The use of artificial intelligence tools (e.g., ChatGPT) is **forbidden** in this course. The *only* exception is for grammar and style correction, which *must* be explicitly reported by the student on the assignment itself.

☞ **Late work**: I won't accept late work.

Evaluations

1. **One reaction paper submitted online**: You will submit one reaction paper. You have to choose the week, i.e., the topic. **The only week you *cannot* choose is Lecture #3**.

   Reaction papers are topical, i.e., they focus on themes rather than particular pieces. Also, reaction papers are critical assessments of the reading material, i.e., **they are *not* summaries**. Make sure you do *all* your readings *before* start writing. **Reaction papers are due *before* my lecture and submitted in the course's respective `Moodle` assignment section** (late papers and/or submissions via email will *not* be considered). Make sure the length of your paper is never below 1k words but never longer than 1.5k words (I'll stop reading beyond that limit). Also, be sure to support your claims citing what you think is relevant; bear in mind aspects of citation format, and please, be economical (quotes should not exceed two sentences).

   ☞ The following questions are intended for guidance only, and are meant to inspire you in your critical assessment. Reaction papers usually focus on *a* grand question such as: *What are the possible advantages/disadvantages of this particular methodology? How/where else would you apply this methodology? Is this methodology feasible in your particular area of research? Do you think this methodology posits ethical issues if applied in your area of research?*

2. **One in-class written assignment**: On **Lecture #3** there will be a 30-minute written test where you will write an essay using pencil and paper. I will give you the question(s). All readings assigned until (including) Lecture #3 may be included.

3. **One "Guided Tour" to the PCRC Decision-Making Lab**: In the context lab experiments, we will visit the PCRC lab and possibly, participate in an ongoing study. Attendance *and* participation are mandatory. We will vote on the visit's time on the first day of class. Please cast your vote today here.

Recommendations

Readings:

- ◇ Angus Deaton (2009). "Instruments of Development: Randomization in The Tropics, and the Search for the Elusive Keys to Economic Development".
- ◇ Guido Imbens (2010). "Better LATE Than Nothing: Some Comments on Deaton (2009) and Heckman and Urzua (2009)." In: *Journal of Economic Literature* 48.2, pp. 399–423.
- ◇ Rebecca Morton and Kenneth Williams (2010). *Experimental Political Science and the Study of Causality: From Nature to the Lab*. Cambridge University Press.
- ◇ Daniel Ho et al. (2007). "Matching as Nonparametric Preprocessing for Reducing Model Dependence in Parametric Causal Inference." In: *Political Analysis* 15.3, pp. 199–236.
- ◇ Journal of Experimental Political Science.

Talks:

- ◇ **InvestHub "Brown Bag" Talks**: I organize the monthly talks at InvestHub, where we discuss ongoing research, including experimental and quasi-experimental studies. Participation in these seminars is *highly* encouraged.

Schedule and Required Readings

1. **Lecture #1**: **Causal Inference in Social Sciences**.

   - ◇ Overview:
     - James Druckman (2022). "The Scientific Process and How to Think about Experiments." In: *Experimental Thinking: A Primer on Social Science Experiments*. Cambridge University Press, pp. 15–50.
     - Stephen Morgan and Christopher Winship (2014). "Counterfactuals and the Potential Outcome Model." In: *Counterfactuals and Causal Inference*. Cambridge University Press, pp. 37–76.
     - David Freedman (1991). "Statistical Models and Shoe Leather." In: *Sociological Methodology* 21, pp. 291–313.
   - ◇ Students cast their votes (`CLICK HERE`) and chose time for the "Guided Tour" to the PCRC Decision-Making Lab.

2. **Lecture #2**: **Survey Experiments: Conjoint and List Designs**.

   - ◇ Overview:
     - Brian Gaines, James Kuklinski, and Paul Quirk (2007). "The Logic of the Survey Experiment Reexamined." In: *Political Analysis* 15.1, pp. 1–20.

- Kevin Mullinix et al. (2015). "The Generalizability of Survey Experiments." In: *Journal of Experimental Political Science* 2.2, pp. 109–138.

◇ Application #1—conjoint experiments:

- Jens Hainmueller, Daniel Hopkins, and Teppei Yamamoto (2014). "Causal Inference in Conjoint Analysis: Understanding Multidimensional Choices via Stated Preference Experiments." In: *Political Analysis* 22.1, pp. 1–30.
- Thomas Leeper, Sara Hobolt, and James Tilley (2020). "Measuring Subgroup Preferences in Conjoint Experiments." In: *Political Analysis* 28.2, pp. 207–221.

◇ Application #2—list experiments:

- Graeme Blair and Kosuke Imai (2012). "Statistical Analysis of List Experiments." In: *Political Analysis* 20.1, pp. 47–77.
- Hector Bahamonde (2022). "Still for Sale: The Micro-Dynamics of Vote Selling in the United States, Evidence from a List Experiment." In: *Acta Politica* 57.1, pp. 73–95.

◇ **Programming demo**: statistical analysis of conjoint data in `R` (time permitting).

3. **Lecture #3**: **Lab Experiments**.

◇ In-class written assignment.

◇ Overview:

- Damien Bol (2019). "Putting Politics in the Lab: A Review of Lab Experiments in Political Science." In: *Government and Opposition* 54.1, pp. 167–190.

◇ Applications:

- Vote buying: Hector Bahamonde and Andrea Canales (2022). "Electoral Risk and Vote Buying, Introducing Prospect Theory to the Experimental Study of Clientelism." In: *Electoral Studies* 80, p. 102497.
- Political participation: John Duffy and Margit Tavits (2008). "Beliefs and Voting Decisions: A Test of the Pivotal Voter Model." In: *American Journal of Political Science* 52.3, pp. 603–618.
- Clientelism [**Bonus!** "*Lab-in-the-Field*" Experiments]: Jessica Gottlieb (2017). "Explaining Variation in Broker Strategies: A Lab-in-the-Field Experiment in Senegal." In: *Comparative Political Studies* 50.11, pp. 1556–1592.

4. **Lecture #4**: **Natural Experiments**.

◇ Overview:

- Thad Dunning (2012). *Natural Experiments in the Social Sciences: A Design-Based Approach*. Cambridge University Press, Ch. 1 and Ch. 2.

◇ Applications:

- Physical appearance and elections: Hector Bahamonde and Outi Sarpila (2024). "Physical appearance and elections: An inequality perspective." In: *Political Psychology* 45.3, pp. 623–642.
- Income redistribution: Daniel Doherty, Alan Gerber, and Donald Green (2006). "Personal Income and Attitudes Toward Redistribution: A Study of Lottery Winners." In: *Political Psychology* 27.3, pp. 441–458.
- Origin of banking systems: Stephen Haber (2012). "Politics, Banking, and Economic Development:" in: *Natural Experiments of History*. Harvard University Press, pp. 88–119.

5. **Lecture #5**: **Field Experiments**.

- ◇ Overview:
  - Alan Gerber and Donald Green (2012). "Introduction." In: *Field Experiments: Design, Analysis, and Interpretation*. W.W. Norton. Chap. 1, pp. 1–19.
- ◇ Applications:
  - Turnout: Salomo Hirvonen, Jerome Schafer, and Janne Tukiainen (2024). "Policy Feedback and Voter Turnout: Evidence from the Finnish Basic Income Experiment." In: *American Journal of Political Science* April 2023, pp. 1–18.
  - Vote buying: Pedro Vicente (2014). "Is Vote Buying Effective? Evidence from a Field Experiment in West Africa." In: *The Economic Journal* 124.574, pp. 356–387.
  - Corruption: Alberto Chong et al. (2015). "Does Corruption Information Inspire the Fight or Quash the Hope? A Field Experiment in Mexico on Voter Turnout, Choice, and Party Identification." In: *The Journal of Politics* 77.1, pp. 55–71.

6. **Lecture #6**: **Ethics**.
   - ◇ Overview:
     - Rebecca Morton and Kenneth Williams (2012c). "History of Codes of Ethics and Human Subjects Research." In: *Experimental Political Science and the Study of Causality*. Cambridge University Press. Chap. 11, pp. 403–454.
     - Rebecca Morton and Kenneth Williams (2012b). "Ethical Decision Making and Political Science Experiments." In: *Experimental Political Science and the Study of Causality*. Chap. 12, pp. 455–499.
     - Rebecca Morton and Kenneth Williams (2012a). "Deception in Experiments." In: *Experimental Political Science and the Study of Causality*. Cambridge University Press. Chap. 13, pp. 500–522.

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Bahamonde, Hector and Outi Sarpila (2024). "Physical appearance and elections: An inequality perspective." In: *Political Psychology* 45.3, pp. 623–642.

Blair, Graeme and Kosuke Imai (2012). "Statistical Analysis of List Experiments." In: *Political Analysis* 20.1, pp. 47–77.

Bol, Damien (2019). "Putting Politics in the Lab: A Review of Lab Experiments in Political Science." In: *Government and Opposition* 54.1, pp. 167–190.

Chong, Alberto et al. (2015). "Does Corruption Information Inspire the Fight or Quash the Hope? A Field Experiment in Mexico on Voter Turnout, Choice, and Party Identification." In: *The Journal of Politics* 77.1, pp. 55–71.

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Gottlieb, Jessica (2017). "Explaining Variation in Broker Strategies: A Lab-in-the-Field Experiment in Senegal." In: *Comparative Political Studies* 50.11, pp. 1556–1592.
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Imbens, Guido (2010). "Better LATE Than Nothing: Some Comments on Deaton (2009) and Heckman and Urzua (2009)." In: *Journal of Economic Literature* 48.2, pp. 399–423.
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Morgan, Stephen and Christopher Winship (2014). "Counterfactuals and the Potential Outcome Model." In: *Counterfactuals and Causal Inference*. Cambridge University Press, pp. 37–76.
Morton, Rebecca and Kenneth Williams (2010). *Experimental Political Science and the Study of Causality: From Nature to the Lab*. Cambridge University Press.
– (2012a). "Deception in Experiments." In: *Experimental Political Science and the Study of Causality*. Cambridge University Press. Chap. 13, pp. 500–522.
– (2012b). "Ethical Decision Making and Political Science Experiments." In: *Experimental Political Science and the Study of Causality*. Chap. 12, pp. 455–499.
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