

Pedagogical Curriculum - Experimental Methods in Social Sciences

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Target Group

The intended audience for the lecture “**Survey Experiments in Political Science**,” part of my course “**Experimental Methods in Social Sciences**,” consists of graduate students pursuing a master’s degree in a social science field, particularly those engaged in master’s thesis projects.

Learning Contents and Outcomes

- Identify the appropriateness, strengths and weaknesses, of standard political science experiments based on hypotheses and research questions.
- Analyze experimental output data.
- Communicate experimental results in an effective way by plotting and interpreting statistical output tables.
- Issues of external and internal validity, as well as ethical considerations (including pre-registration and open science) are also covered.

Teaching Methods

My way of teaching this course uses a diverse set of techniques, emphasizing a “learn by doing” approach. My teaching philosophy includes:

- **Theory:** I deliver traditional lectures on various experimental methodologies. Students prepare by reading assigned materials beforehand. In lectures, we discuss the pros and cons of each design and identify the types of research questions they best address.
- **Practice:** In lab sessions, I provide a (simulated) dataset and a Stata/R script for students to follow. These scripts, created by me, guide students through data processing and cleaning steps (e.g., “reshaping” data for conjoint experiments) and move towards statistical analyses and interpretation, with a strong focus on plotting. Importantly, (1) students can keep these materials for future reference, (2) students may choose between Stata or R (as I know very well both).

Evaluation of Learning Outcomes

I prioritize fostering critical thinking in my students. Each lecture covers topics such as specific experimental designs or ethical considerations in experimental methodology. To nurture critical thinking, students choose to submit four reaction papers before lectures, providing their personal views to assigned readings. These papers require students to justify their reactions, ensuring thoughtful engagement. Additionally, a practical programming take-home homework is assigned, focusing on statistical analyses of experimental data. Students work with different (simulated) datasets (including conjoint and list experiments) to interpret results, producing relevant tables and plots. Students may choose between Stata or R.

Methods for Gathering Feedback

Student feedback is collected through traditional teaching evaluations and open office hours. These sessions offer an opportunity for students to ask questions and give feedback outside the classroom environment.

Pedagogical Approaches

- Material is presented through assigned readings and lectures.
- Students engage in clearly defined activities (readings, reaction papers, labs and homework).
- Students are encouraged to develop their own perspectives on various experimental approaches.