

PLATO PhD course in research design



Vienna, 12-14 March 2018

24 January 2018

Objectives

The main objectives of the course are to understand the organisation and presentation of political science research, the framing of a research question and its relation to the broader literature, the development and review of causal explanations, the construction of valid and reliable measures for the key variables of interest to the project.

Course outline

The workshop will introduce students to fundamental issues in the design of research in comparative political science and assist them in the development of their own research project and the development and revision of a useful research design.

The sessions will be organized in a workshop mode, focusing mostly on participants' own plans for research based on short assignments to be handed in beforehand. These assignments will enable students to address the following questions: What is the research question, how does it relate to previous research, and why is it interesting? What are the potential answers to – hypotheses about – the question? Which concepts must be defined in order to investigate those possibilities? How will these concepts be measured? What are the threats to validity and reliability? What challenges will occur in gathering and analysing the data and how can they be accounted for?

Session 1: Introduction

No specific written assignment, but read Nørgaard, A. S. (2008) 'Political Science: Witchcraft or Craftsmanship? Standards for Good Research', *World Political Science Review* 4(1): 1-28.

Session 2: What we know and what we need to know – literature overview and research question

Developing a good research question is the most important - and often the most difficult part of the research process. A crucial precondition for developing a good research question (and research design in general) is understanding previous research

in your area: What do we already know and how do we know? The first session will therefore deal with the development of as well as the purpose of the literature review.

Assignment

List the most important research areas related to your topic and the five most important insights of each these research areas. On that basis, answer the following: What are the controversies related to your research area/topic? What are the white spots or grey areas? Are there any counter-intuitive/surprising/unexpected empirical observations? How do these relate to your research question?

Sessions 3 and 4: The theoretical approach

This session will focus on the choice of the general theoretical approach for your research. Scholars use very different theoretical approaches to investigate the same real-world phenomena. Legislative behaviour, for example, is often studied using a rational choice approach that focuses on actors' exogenous preferences (most prominently re-election) and utility maximising strategies. Other scholars, by contrast, explain legislative behaviour with sociological or historical approaches that focus, for example, on (historically rooted) parliamentary norms, traditions and culture. The choice of theoretical approach will therefore have a profound impact on the development of concepts, hypotheses and explanatory variables.

Assignment

- A) List the most important theoretical approaches used in your research area. Provide a justification of your choice of theoretical approach for your research (provide at least three good arguments).
- B) Choose an approach you are NOT using and summarise its basic assumptions. Discuss why you did NOT choose this theoretical approach.
- C) Reflect on how this approach could be used to address your research question: What additional insight could it generate?

Session 5 and 6: What do you want to explain and what is your best guess about what the explanation(s) might be?

These sessions are about identifying correct causal inferences and refuting biased or wrong associations. During recent decades, political science has gravitated from model-based towards design-based approaches so as to facilitate the identification of causal effects. The counterfactual model of causality, as embodied by the Neyman-

Rubin causal framework, has enabled the increasing unification of disparate methods around a common conceptual language. The two sessions are devoted to discussing the conceptual foundations of causal inference and the tools applied within this framework such as matching or regression discontinuity. However, we will not discuss specific statistical methods and techniques, but rather general conceptual fundamentals that also apply to qualitative research.

Assignment

A) Does your thesis aim at analysing causal effects and causal relations. If not: why? If yes: Please think about the validity of your argument and the adequacy of your research design. How do you identify the causal effects at stake, and what are your plans and strategies to guard against wrong or biased inferences and the consequences of confounding variables?

B) Provide a very short summary of your theoretical framework and hypotheses, listing dependent and independent variables. Try to put this into some sort of schematic form (e.g. a diagram with causal flows).

C) Think about what other variables or factors might be relevant. How will you deal with all the surrounding complexity or 'noise'? How do you plan to 'get rid' of confounding variables?

Sessions 7 and 8: Case selection

Whether you choose a quantitative or a qualitative design, choosing the cases you want to investigate, is a fundamental issue. This includes the decision on the number of cases (single N, small N or large N) as well as the selection criteria. Especially with small-N comparisons, researchers also need to beware of the 'too many variables, too few cases' problem. In this session we will therefore focus on the advantages and disadvantages of small-N and large-N designs and discuss different methods of case selection. We will also demonstrate that strategies of case selections are closely linked with methods of causal inferences as discussed in the previous sessions 5 and 6.

Assignment

A) What cases will you chose for your research and why? Discuss the selection technique, providing at least three supporting arguments for the selection as well as three possible disadvantages.

B) For small/N designs: develop a matrix of the independent variable combinations and fill in your cases. Reflect on the ratio of variables to cases in your design.

Session 9: Data and methods: Why should we believe your results?

Theoretical arguments and conceptual frameworks need to be attached to empirical observations. This session focuses on strategies to select appropriate data which is linked to underlying theoretical concepts and conceptual frameworks. We also carefully discuss whether the specific data (type) allows you to meaningfully answer your research question. Finally, we also address feasible strategies for the collection of primary data, the exploitation of secondary data sources, and standards of data documentation, maintenance, and archiving.

Assignment

A) How will you operationalise your variables and what empirical data will you use? How can this data support your ideas about what's going on? How can it *challenge* these ideas?

B) List the most common methods used in your research area. Provide a short summary of your own method and at least three good arguments for your choice.

C) Discuss the limitations of your approach: what are the validity and reliability threats you have to deal with, and how will you do so? What are the limits to the generalisability of your research results?

D) Do you have a plan to file your data and to make it accessible to other researchers? Will you be prepared to meet replication standard established by the leading journals of the discipline?

Session 10 and 11: Planning it all

Successful research depends not only on a well thought-out design, it also requires careful planning. In particular, researchers need to think about the various tasks involved in completing a project and to be aware of things that can go wrong. Research based on data derived from interviews, for example, depends very much on access to/availability of the relevant interviewees and their willingness to provide the needed data. What happens if this is not the case, is there a plan B?

Assignment

Make a preliminary list of the various tasks that need to be completed in your dissertation project and list all the components of the project (e.g. access to specific actors for interviews or ability to obtain particular documents/data) that are needed to make the project a success. What are the challenges and problems you may encounter? How would you be able to deal with them?

Teaching

The course will take the form of an intensive three-day seminar to discuss the foregoing questions. Some core readings are recommended to all participants. Participants then select further specialist readings from the list set out below.

Course leaders

- **Katrin Auel**, Institute for Advanced Studies Vienna
- **Guido Tiemann**, Institute for Advanced Studies Vienna

Participation

The course is offered as part of the MSCA-ITN PLATO project (The Post-Crisis Legitimacy of the European Union). For the 15 PLATO PhD researchers, this PhD course in research design is mandatory.

Preparations

Participants are expected to complete and hand in all assignments in advance, to make at least one presentation during the seminar and to contribute actively to the discussions (estimated work load: 3 weeks). Each of the six assignments listed below should be completed in a short text of 1 to 2 pages maximum and focus on students' own research plans. Students should be prepared to present their assignments during the seminar. The key purpose of the course is to provide participants with guidance for and comments on their research design development.

Examination

All participants personally decide whether to take a formal examination or not – also depending on the formal requirements established by the PhD-granting institutions:

- Participants may submit a paper of 6-8,000 words outlining their research design for assessment after the course. Final deadline for submission is 1 June 2018. The paper will be evaluated within eight weeks after submission.
- Students who chose to submit a paper that is graded 'pass' by the course providers will receive a course certificate recommending 10 ECTS credits.
- Participants who do not submit a paper will receive a certificate of attendance recommending 5 ECTS credits based on the preparatory work and presentation.
- Note that in order to obtain ECTS credits for this course, prior approval by the PhD coordinator at the home institution of the doctoral student will be required.

Schedule

For each topic four to six PLATO PhD researchers will be asked to present their related assignments, followed by comments and discussion with the other participants.

12 March 2018	Research question, literature and theoretical approach
08.30-10.00	Session 1: Introduction and discussion: What is good political science?
10.30-12.00	Session 2: What we know and what we need to know – literature overview and research question
13.00-14.30	Session 3: Choosing a theoretical approach
15.00-16.30	Session 4: Choosing a theoretical approach cont.

13 March 2018	Causality, comparison and cases
08.30-10.00	Session 5: Causal explanations I: the experimental “gold standard”
10.30-12.00	Session 6: Causal explanations II: inference with observational data
13.00-14.30	Session 7: Choosing cases: case studies
15.00-16.30	Session 8: Choosing cases: comparative studies

14 March 2018	Data, methods and getting it all done
08.30-10.00	Session 9: Data and methods: why should we believe you?
10.30-12.00	Session 10: Planning it all: challenges and pitfalls
13.00-14.30	Session 11: Planning it all: publication and replication (and final group discussion)

Literature

- Adcock, Robert and David Collier (2001), 'Measurement Validity: A Shared Standard for Qualitative and Quantitative Research', *American Political Science Review* 95:3, 529-45.
- Best, Henning and Christof Wolf (2015), *The SAGE Handbook of Regression and Causal Inference*, London: Sage.
- Brady, Henry E. and David Collier (eds.) (2010), *Rethinking Social Inquiry: Diverse Tools, Shared Standards*, 2nd edn. Lanham, MD: Rowman & Littlefield.
- Checkel, Jeffrey (2006), 'Tracing Causal Mechanisms,' *International Studies Review* 8:2, 362-370.
- Collier, David and James E. Mahon Jr. (1993), 'Conceptual 'stretching' revisited: adapting categories in comparative analysis', *American Political Science Review* 87:3, 845-55.
- Collier, David and James Mahoney (1996), 'Insights and Pitfalls: Selection Bias in Qualitative Research', *World Politics* 49:1, 56-81.
- Davis, James W. (2005), *Terms Of Inquiry: On the Theory and Practice of Political Science*, Baltimore: Johns Hopkins University Press.
- Dunning, Thad (2012), *Natural Experiments in the Social Sciences: A Design-Based Approach*, Cambridge: CUP.
- Fearon, J. D. (1991) 'Counterfactuals and Hypothesis Testing in Political Science', *World Politics* 43:2, 169-195.
- Geddes, Barbara (2003), *Paradigms and Sandcastles: Theory Building and Research Design in Comparative Politics*, Ann Arbor: University of Michigan Press.
- Gerber, Alan S. and Donald P. Green (2012), *Field Experiments: Design, Analysis, and Interpretation*, New York: WW Norton.
- Gerring, John (2004), 'What is a case study and what is it good for?', *American Political Science Review* 98:2, 341-354.
- Gerring, John, (2012), *Social science methodology: A unified framework*, Cambridge: CUP, 2nd ed.
- Gerring, John (2017), *Case Study Research: Principles and Practice*, Cambridge: CUP, 2nd ed. (draft version available legally from <http://blogs.bu.edu/jgerring/methodology/>)
- Goertz, Gary (2006), *Social Science Concepts: A users guide*, Princeton: PUP.
- Gschwend, Thomas and Frank Schimmelfennig (eds.) (2011), *Research Design in Political Science: How to Practice What They Preach*, London: Palgrave.
- Hancké, Bob (2009), *Intelligent Research Design. A Guide for Beginning Researchers in the Social Sciences*, Oxford: Oxford University Press.
- Imbens, Guido W. and Donald B. Rubin (2015), *Causal Inference for Statistics, Social, and Biomedical Sciences. An Introduction*, Cambridge: CUP.

- Keating, Michael and Donatella della Porta (eds.) (2008), *Approaches and Methodologies in the Social Sciences*, Cambridge: CUP (especially chapters 2, 3, 4, 11, 14, 16).
- Keele, Luke (2015), 'The Statistics of Causal Inference', *Political Analysis* 23:3, 313-335.
- King, Gary (1995), 'Replication, Replication', *PS: Political Science and Politics* 28:3, 444-452.
- King, Gary (2006), 'Publication, Publication', *PS: Political Science and Politics* 39:1, 119-125.
- King, Gary, Robert O. Keohane and Sidney Verba (1995). *Designing Social Inquiry: Scientific Inference in Qualitative Research*, Princeton: PUP.
- Lieberman, Stanley (1994), 'More on the Uneasy Case for Using Mill-Type Methods in Small-N Comparative Studies', *Social Forces* 72:4, 1225-37.
- Lijphart, Arend (1971), 'Comparative Politics and the Comparative Method', *American Political Science Review* 65:3, 682-93.
- Lijphart, Arend (1975), 'The Comparable Cases Strategy in Comparative Research', *Comparative Political Studies* 8:2, 158-177.
- Mahoney, James and Gary Goertz (2006), 'A Tale of Two Cultures: Contrasting Quantitative and Qualitative Research', *Political Analysis*, 14, 227-49.
- Morgan, Stephen L. and Christopher Winship (2014), *Counterfactuals and Causal Inference. Methods And Principles For Social Research*, Cambridge: CUP.
- Nørgaard, Asbjørn S. (2008), 'Political Science: Witchcraft or Craftsmanship? Standards for Good Research', *World Political Science Review* 4:1, 1-28.
- Pearl, Judea and Madelyn Glymour (2016), *Causal Inference in Statistics - A Primer*, New York: Wiley.
- Peters, B. Guy (1998), *Comparative Politics. Theory and Methods*, New York: NYU Press.
- Przeworski, Adam and Henry Teune (1970), *The Logic of Comparative Social Inquiry*, New York: Wiley.
- Ragin, Charles (1991). *Issues and Alternatives in Comparative Social Research*. Leiden: E. J. Brill (especially introduction)
- Sartori, Giovanni (1970), 'Concept misformation in comparative politics', *American Political Science Review* 64:4, 1033-53.
- Sartori, Giovanni (1991), 'Comparing and miscomparing', *Journal of Theoretical Politics* 3: 243-57.
- Savolainen, Jukka (1994), 'The Rationality of Drawing Big Conclusions Based on Small Samples. In Defense of Mill's Methods', *Social Forces* 72:4, 1217-24.
- Seawright, Jason (2016), *Multi-Method Social Science: Combining Qualitative and Quantitative Tools*, Cambridge: CUP.

- Sekhon, Jasjeet S. (2004), 'Quality Meets Quantity: Case Studies, Conditional Probability and Counterfactuals', *Perspectives on Politics* 2:2, 281-293.
- Toshkov, Dimitr (2016), *Research Design in Political Science*, London: Palgrave.

Some more practical literature

- Blaxter, Loraine, Christina Hughes and Malcolm Tight (2010), *How to research*, Buckingham: Open University Press (4th ed.).
- Bonjean, Charles M. and Jan Hullum (1978), 'Reasons for journal rejection: An analysis of 600 manuscripts', *PS: Political Science and Politics* 11, 480-3 (old, but still useful!).
- Dunleavy, Patrick (2003), *Authoring a PhD. How to Plan, Draft, Write and Finish a Doctoral Thesis or Dissertation*, London: Palgrave.
- Hall, Peter A. (1990), 'Helpful Hints for Writing Dissertations in Comparative Politics', *PS: Political Science and Politics* 23:4, 596-598.
- Most, Benjamin A. (1990), 'Getting Started on Political Research', *PS: Political Science and Politics* 23:4, 592-596.
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- Przeworski, Adam and Frank Salomon (1995), 'The Art of Writing Proposals: Some Candid Suggestions for Applicants to Social Science Research Council Competitions', available via <https://www.ssrc.org/publications/view/7A9CB4F4-815F-DE11-BD80-001CC477EC70/>
- Webster, William G. (1998), *Developing and writing your thesis, dissertation or project: a book of sound advice about conceptualising, organizing, development and finalizing your terminal graduate research*, Ramon, CA: Academic Scholarwrite.
- Weeks, Gregory (2006), 'Facing Failure: The Use (and Abuse) of Rejection in Political Science', *PS: Political Science and Politics* 39: 4, 879-882, online available at: https://clas-pages.uncc.edu/gregory-weeks/wp-content/uploads/sites/43/2012/04/WeeksG_2006PSarticle.pdf

Contact

For practical questions, contact IHS administrative manager Sigrid Stemberger (stemberger@ihs.ac.at)

For questions related to the course outline and programme, contact Katrin Auel (ael@ihs.ac.at) or PLATO project manager Marit Eldholm (marit.eldholm@arena.uio.no)

Facts

Credits:	5-10 ECTS
Level:	PhD
Teaching:	12-14 March 2018
Examination:	Paper of 6,000-8,000 words
Teaching language:	English