



Universität zu Köln

## MA Seminar “Research Design and Research Logic”

Module: CM Research Design // Code: 14335.0701

**Winter Term 2023/24**

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**Lecturer:** Dr. Elifcan Çelebi

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**Office hours:** Tuesday, 15:30-17:00, IBW Room 1.12 (only by appointment).

**Course Time:** Block Seminars on Thursdays, 14:00-17:30

**Place:** IBW, Seminar Room S103

**First and Last Session:** 12.10.2023 – 18.01.2024

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### Course Description

Usually, whenever there is a big fire, there are also fire workers. Should we close all fire stations to prevent future outbreaks? There is also evidence that people who are infected with Covid-19 and get hospitalized have a higher probability of dying than infected people who are not hospitalized. Should we stop hospitalizing infected people? For both questions, the answer should be “no” because the suggested answers “get the causality wrong”, yet for different reasons.

In this course, you will learn how to systemize your causal thinking and reasoning and learn about different research designs for answering causal research questions. In the first two weeks, we will discuss how to formulate a research question and design research. The topics will cover different ways of making causal inferences in political science research, the elements of good research design, general overview of research questions, what a research design is and accordingly how to work with concepts and structure a research paper.

In the following two weeks, our focus will be on causation and causal models. We will make first steps to systemize our causal and theoretical thinking giving an overview of different perspectives

on causation and causal inference. We will learn the basics of causal terms and causal models to demonstrate why the closing of fire stations and non-hospitalization of infected people wouldn't help much in preventing fires and deaths caused by Covid-19.

In the last three weeks, we will discuss different types of research designs, including a map for answering different types of research questions. Quantitative, qualitative, and mixed method designs will be introduced. We will structure and compare the designs across common dimensions – few cases vs many cases; experimental vs observational; qualitative vs quantitative – and carve out their unique strengths and weaknesses for answering research questions.

At the end of the course, you will be familiar with the basic elements of causality-oriented empirical research, different understandings of causation, and a variety of research designs and the research questions one can (and cannot) answer with them.

## **Course Objectives**

Upon completion of this course, the students will be able to:

- Learn the elements of causality-oriented empirical research and approaches of classic and current studies in Political Science
- Critically assess a variety of research designs and what causal research questions can be answered in principle and how.
- Evaluate the implications of different causal models for analysis and for overall research
- Assess the principles and practices of causation and how to theorize causal models
- Develop a research design for a research question of your choice and design a research poster

## **Course Requirements**

The seminar follows a portfolio model of examination, meaning you will complete multiple assignments and submit them via ILIAS within specified deadlines. The format and specific criteria for each assignment will be communicated through ILIAS and in the lectures. Please check

ILIAS regularly. The assignments will be returned to the participants with comments and a grading scheme.

The final grade will be based on the sum of the points earned throughout the following three assignments and is graded using a 100-point scale (see below). Failing a single assignment does not have consequences other than losing points. Therefore, receiving a passing grade as the sum of all assignments at the end of the semester matter.

<b>Task</b>	<b>Deadline for submission</b>
Write a short essay with a research question and its justification (15 points)	23 November 2023
Design a research poster presenting the theoretical part (35 points)	21 December 2023
Write an exposé explaining your research question, its motivation, the theory and causal model, and a research design appropriate to test them (50 points)	15 February 2023

Final grading is based on a 100-point scale:

<b>Points</b>	<b>Grades</b>
100-95	1
94.5-90	1.3
89.5-85	1.7
84.5-80	2
79.5-75	2.3
74.5-70	2.7
69.5-65	3
64.5-60	3.3
59.5-55	3.7
54.5-50	4
49.5-0	5.0 (fail)

## **Prerequisites**

Research Design and Research Logic is a graduate seminar. A general understanding of concepts and theories of comparative politics, as well as knowledge of fundamental quantitative and qualitative research methods, is sufficient to participate in the seminar. The lecture will be held in English. Perfection is neither expected nor required, but students should be able to read, write and articulate themselves in English.

Attendance in the first session is necessary since we will review the syllabus and inform about the assignments. Additional readings and the assignments will be further explained in the first session.

If you have a disability and need assistance during the course, please contact me at any time. If a problem arises during the course (illness, family, etc.) and you need a deadline extension or other assistance, please contact me immediately. Please remember that it is the joint responsibility of lecturers and students to create a respectful, inclusive and attentive atmosphere in the seminar.

Please also regularly check the CCCP information on teaching on the website: <http://www.cccp.uni-koeln.de/en/public/teaching/>

## **Course Material**

Readings will be available as electronic articles through ILIAS. Students are expected to come prepared by completing the assigned readings ahead of each session.

## Course Outline

<b>WEEK I: FOUNDATIONS</b>	
12.10.2023, Thursday	
<b>Session I: Fundamentals and Varieties of Research</b>	12.10.2023, Thursday 14:00-15:30
Compulsory readings: <ul style="list-style-type: none"> <li>- Halperin, Sandra and Oliver Heath (2012): Political Research: Methods and Practical Skills. Oxford, New York: Oxford University Press: Chapter 2.</li> <li>- King, Gary, Robert O. Keohane and Sidney Verba (1994): Designing Social Inquiry: Scientific Inference in Qualitative Research. Princeton: Princeton University Press: Chapter 1.</li> </ul>	
<b>Session II: Research Goals and Research Questions</b>	12.10.2023, Thursday 16:00-17:30
Compulsory readings: <ul style="list-style-type: none"> <li>- Halperin, Sandra and Oliver Heath (2012): Political Research: Methods and Practical Skills. Oxford, New York: Oxford University Press: Chapter 5.</li> <li>- Day, Christopher and Kendra L. Koivu (2018): Finding the Question: A Puzzle-Based Approach to the Logic of Discovery. Journal of Political Science Education 15 (3): 377-386.</li> </ul>	

### *Reading suggestions:*

Pluralism in social science: Della Porta, Donatella and Keating, Michael. 2008. How many approaches in the social sciences? An epistemological introduction. In: Della Porta, Donatella and Keating, Michael (eds.) Approaches and methodologies in the social sciences. Cambridge University Press, pp. 19-39.

Research questions: Martin, John Levi. 2017. Thinking Through Methods: A Social Science Primer. Chicago: University of Chicago Press, Chapter 2: How to Formulate a Question.

Qualt/Quant distinction: Mahoney, J. & Goertz, Garry. 2006. A Tale of Two Cultures: Contrasting Quantitative and Qualitative Research. Political Analysis, 14(3), 227-49.

<b>WEEK II: WRITING A RESEARCH PAPER &amp; WORKING WITH CONCEPTS</b>	
02.11.2023, Thursday	
<b>Session I: How to Write a Research Paper and Design a Research Poster</b>	02.11.2023, Thursday 14:00-15:30
Compulsory readings: <ul style="list-style-type: none"> <li>- TBA on Research Posters</li> <li>- TBA on Designing Ethical Research</li> </ul>	
<b>Session II: Working with Concepts</b>	02.11.2023, Thursday 16:00-17:30
Compulsory readings: <ul style="list-style-type: none"> <li>- Goertz, Garry. 2006. Social Science Concepts: A User's Guide. Princeton University Press. Chapter I: Introduction.</li> <li>- Collier, David and Levitzky, Steven. 1997. Democracy with Adjectives: Conceptual Innovation in Comparative Research. World Politics 49: 430-451.</li> </ul>	

<b>WEEK III: CAUSATION AND CAUSAL MODELS</b>	
16.11.2023, Thursday	
<b>Session I: Perspectives on Causation and Causal Inference</b>	16.11.2023, Thursday 14:00-15:30
<p>Compulsory readings:</p> <ul style="list-style-type: none"> <li>- Rohlfing, Ingo and Christina Isabel Zuber (2021): Check Your Truth Conditions! Clarifying the Relationship between Theories of Causation and Social Science Methods for Causal Inference. Sociological Methods &amp; Research 50 (4): 1623-1659.</li> <li>- Huntington-Klein, Nick (2021): The Effect: An Introduction to Research Design and Causality. Boca Raton: Chapman and Hall/CRC: Chapter 5</li> </ul>	
<b>Session II: Causal Models and Basic Terms</b>	16.11.2023, Thursday 16:00-17:30
<p>Compulsory readings:</p> <ul style="list-style-type: none"> <li>- Huntington-Klein, Nick (2021): The Effect: An Introduction to Research Design and Causality. Boca Raton: Chapman and Hall/CRC: Chapters 6 &amp; 7.</li> <li>- Vander Weele, Tyler (2015): Explanation in Causal Inference. Oxford: Oxford University Press: 22-35.</li> </ul>	

**Reminder:** 23 November 2023 is the deadline for the submission of the first assignment!

<b>WEEK IV: EFFECT AND OUTPUT</b>	
30.11.2023, Thursday	
<b>Session I: Keep the Backdoor Shut</b>	30.11.2023, Thursday 14:00-15:30
<p>Compulsory readings:</p> <ul style="list-style-type: none"> <li>- Huntington-Klein, Nick (2021): The Effect: An Introduction to Research Design and Causality. Boca Raton: Chapman and Hall/CRC: Chapter 8.</li> <li>- <u>Empirical example</u>: Mutz, Diana C. (2016): Harry Potter and the Deathly Donald. PS: Political Science &amp; Politics 49 (4): 722-729.</li> </ul>	
<b>Session II: Walking through the Front Door</b>	30.11.2023, Thursday 16:00-17:30
<p>Compulsory readings:</p> <ul style="list-style-type: none"> <li>- Huntington-Klein, Nick (2021): The Effect: An Introduction to Research Design and Causality. Boca Raton: Chapman and Hall/CRC: chapter 9.</li> <li>- Röth, Leonce (2022): Pathway analysis, causal mediation and the identification of causal mechanisms. In Negri, F. and Damonte, A. (Eds.). Causality in Policy Studies. Springer.</li> </ul>	

<b>WEEK V: QUANTITATIVE RESEARCH DESIGNS</b>	
14.12.2023, Thursday	
<b>Session I: Basics of Quantitative Designs</b>	14.12.2023, Thursday 14:00-15:30
<p>Compulsory readings:</p> <ul style="list-style-type: none"> <li>- Keele, Luke (2015): The Statistics of Causal Inference: A View from Political Methodology. Political Analysis 23 (3): 313-335.</li> <li>- Angrist, Joshua D. and Jörn-Steffen Pischke (2009): Mostly Harmless Econometrics: An Empiricist's Companion. Princeton: Princeton University Press: Chapter 2.</li> </ul>	
<b>Session II: Natural Experiments</b>	14.12.2023, Thursday 16:00-17:30
<p>Compulsory readings:</p> <ul style="list-style-type: none"> <li>- Dunning, Thad (2008): Natural Experiments in the Social Sciences: A Design-Based Approach. Cambridge: Cambridge University Press: Chapter 2.</li> <li>- <u>Empirical illustration</u>: Silva, Bruno Castanho and Sven-Oliver Proksch (2020): Fake It 'Til You Make It: A Natural Experiment to Identify European Politicians' Benefit from Twitter Bots. American Political Science Review: 1-7.</li> </ul>	

**Reminder:** 21 December 2023 is the deadline for the submission of the second assignment!

*Reading suggestions:*

Statistics and Causal Inference: Holland, Paul W. 1986. "Statistics and Causal Inference."

Journal of the American Statistical Association 81(396):945-60.

Regression-Discontinuity Designs: Smith, Leah M., Linda E. Lévesque, Jay S. Kaufman and Erin C. Strumpf (2017): Strategies for evaluating the assumptions of the regression discontinuity design: A case study using a human papillomavirus

Dunning, Thad (2008): Natural Experiments in the Social Sciences: A Design-Based Approach. Cambridge: Cambridge University Press: Chapter 3.

<b>WEEK VI: COMPARISONS AND PROCESS TRACING</b>	
<b>21.12.2023</b> , Thursday	
<b>Session I: Comparative Case Studies</b>	<b>21.12.2023</b> , Thursday 14:00-15:30
Compulsory readings: <ul style="list-style-type: none"> <li>- Lijphart, Arend (1971): Comparative Politics and the Comparative Method. American Political Science Review 65 (3): 682-693.</li> <li>- Georg, Alexander L. and Bennett, Andrew. 2005. Case studies and theory development in the social sciences. MIT Press, chapter 1.</li> </ul>	
<b>Session II: Process Tracing and Causal Mechanisms</b>	<b>21.12.2023</b> , Thursday 16:00-17:30
Compulsory readings: <ul style="list-style-type: none"> <li>- Bennett, Andrew and Jeffrey Checkel (2014): Process Tracing: From Methodological Roots to Best Practices. Andrew Bennett and Checkel, Jeffrey (ed.): Process Tracing in the Social Sciences: From Metaphor to Analytic Tool. Cambridge: Cambridge University Press: 1-37.</li> <li>- Trampusch, Christine and Bruno Palier (2016): Between X and Y: How Process Tracing Contributes to Opening the Black Box of Causality. New Political Economy 21 (5): 437- 454.</li> </ul>	

*Reading suggestions:*

Comparative case studies: Rohlfing, Ingo (2012): Case Studies and Causal Inference: An Integrative Framework. Basingstoke: Palgrave Macmillan: Chapter 4.

Empirical illustration of case comparison: Eckert, Sandra (2010): Between Commitment and Control: Varieties of Delegation in the European Postal Sector. Journal of European Public Policy 17 (8): 1231 - 1252.

Empirical illustration of process tracing: Bonjour, Saskia (2011): The Power and Morals of Policy Makers: Reassessing the Control Gap Debate. International Migration Review 45 (1): 89-122.

<b>WEEK VI: MIXED METHODS RESEARCH DESIGNS</b>	
18.01.2024, Thursday	
<b>Session I: Mixed Methods Research</b>	18.01.2024, Thursday 14:00-15:30
<p>Compulsory readings:</p> <ul style="list-style-type: none"> <li>- Seawright, Jason (2016): Multi-method Social Science: Combining Qualitative and Quantitative Tools. Cambridge University Press.</li> <li>- Lieberman, Evan S. (2005): Nested analysis as a mixed-method strategy for comparative research. American Political Science Review 99 (3): 435-452.</li> </ul>	
<b>Session II: Wrap-up &amp; information on final assignments</b>	18.01.2024, Thursday 16:00-17:30

**Reminder:** 15 February 2023 is the deadline for the submission of the last assignment!