Course syllabus

Research design in psychology 9 hp

Course leaders: Jonas Persson and Katja Boersma, mail to: jonas.person@oru.se, katja.boersma@oru.se. For questions specific to a certain seminar, contact seminar leader:

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Welcome to the doctoral course ‘Research design in psychology’!

# General

The course is divided into two blocks and consists of lectures, individual studies and seminars. Both lectures and seminars will take place on campus (Örebro Univsersity). During the lectures, key concepts for each of the research designs will be presented, along with Seminars function as an to ask questions, present (prepared) reflections, ideas and materials and, on occasion. The two blocks follow two fundamental research designs:  
1. Experimental and quasi experimental group studies (RCT’s) (Block 1)  
2. Observation studies (case control and longitudinal cohort studies) (Block 2)

Attendance at seminars is mandatory in principle. In case you are unable to attend, which can happen due to circumstances, please contact the seminar leader for discussion on how to compensate for absence. Each seminar leader will use their own research as context for discussion and to exemplify. Prior to each seminar, you are expected to have read the assigned literature and have prepared for discussion and occasional presentation assignments.

# Literature

The literature for the course is based one book and selected scientific articles. The book *Experimental and Quasi-Experimental Designs for Generalized Causal Inference* serves as the main literature for this course, together with scientific articles/book chapters that are relevant for each of the topics in the course. In addition, there is one reference book. The content of this reference book (Kazdin’s *research design in psychology*) is basic and you are assumed to be familiar with it at course start as it forms the point of departure of the course. Please make sure to fresh up on the parts in this book that are relevant for the theme of each course block and seminar. NOTE THAT ADDITIONAL LITTERARURE WILL BE ADDED BEFORE THE COURSE.

Please be aware that you will receive additional reading and preparation instructions specific to each following seminar from the respective seminar leaders.

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| Date: | Type of teaching | Topic | Seminar leader |
| Block 1: Introduction and experimental and quasi experimental group studies | | | |
| Week 42, 14/10, 10-12 | Lecture | Introduction | Jonas Persson,  Katja Boersma |
| Week 42, 14/10, 13-15 | Lecture | Experimental design | Martien Schrooten |
| Week 44, 28/10, 9-12 | Seminar | Experimental design | Martien Schrooten |
| Week 44, 28/10, 13-15 | Lecture | Experimental design – Brain imaging and biological psychology | Jonas Persson |
| Week 46, 11/11, 9-12 | Seminar | Experimental design – Brain imaging and biological psychology | Jonas Persson |
| Week 46, 11/11, 13-15 | Lecture | Randomized controlled trials (RCTs) | Katja Boersma |
| Week 48, 25/11, 9-12 | Seminar | Randomized controlled trials (RCTs) | Katja Boersma |
| Block 2: Observational studies and closing seminar | | | |
| Week 48, 25/11, 13-15 | Lecture | Longitudinal design | Sevgi Bayram-Özdemir |
| Week 50, 9/12, 9-12 | Seminar | Longitudinal design | Sevgi Bayram-Özdemir |
| Week 50, 9/12, 13-15 | Lecture | Epidemiological design | Catherine Tuvblad |
| Week 3, 13/1, 9-12 | Seminar | Epidemiological design | Catherine Tuvblad |
| Week 3, 13/1, 13-16 | Seminar | Outro | Jonas Persson,  Katja Boersma |

# Examination

Examination consists of three separate papers, each addressing the theme of one of the blocks. The written paper for block I should focus on designing a study with respectively an experimental or quasi-experimental group study design; the paper for block 2 should focus on designing a study with an observational design.

* Purpose and aims (research question)
* Method
* Reflection

The method should be written as a method section using APA standard. The reflection section should detail reflections on the potential risks, strengths and weaknesses of your choice of methods, making active use of the literature. Included in this should be a more general reflection on possibilities and limitations to draw causal inferences based on the choice of design. The reflection section should also discuss a possible alternative research design that could answer the research question.

Each examination should be maximum 4 pages in length and written in accordance with the Publication Manual of the American Psychological Association (6th edition).

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Specific reading:

*Experimental and Quasi-Experimental Designs for Generalized Causal Inference,* chapter 1 and 8

Kazdin, A. *Methodology: What it is and Why it is so important.*

Holland, P. W. (1986). “Statistics and Causal Inference.” *J. Am. Stat. Assoc.* 81 (396): 945–60.

Shadish, W. R. (2010). Campbell and Rubin: A primer and comparison of their approaches to causal inference in field settings. *Psychological Methods*, *15*(1), 3–17.

Assignment:

Based on the reading material prepare (at least) three topics or questions for the seminar. It can be things that you found interesting but also things that you found challenging or difficult to understand. We would like to give everyone the opportunity to present a portion of the seminar, so please also prepare for a 10-minute talk on the selected topics/questions and how these aspects are relevant to your own area of study.