Stockholm University

Department of Sociology

Introduction to quantitative research design

Advanced level, 7,5 ECTS credits

Course content

The main aim of this course is to provide students with the tools to conduct and evaluate basic research. An appropriate research design link between theory and methods is discussed and students learn how to independently evaluate and choose a research question and an appropriate research design. The conceptual bases of sociological research are discussed and described, along with criteria for concept definition and assessment. The difference between sociological description and causality is described and discussed. In the second part of the course, students receive a brief repetition to basic descriptive analysis along with an introduction to data management with the statistical software Stata. Common sources of error in existing data sets are discussed and investigated using simple sensitivity analysis and simple regression analyses are estimated.

An important goal of the course is to increase interaction among students and promote cooperation. Group work in rotating groups is therefore an important part of the course and participation in group work/discussions is mandatory. In addition to group exercises, the students need to hand in a halfway individual assignment as well as a final exam in terms of a review of a scientific article. The article is chosen after consultation with the course instructor. The written article review is handed in before the seminars concluding the course and at these seminars students will also orally present the chosen article and their review of it to their peers. The oral as well as the written presentation provides students with practical training in understanding and reporting on the research of others in such a way that it become comprehensible to others.

Entry requirements: Bachelors degree with a major in social sciences, 60 credits in Sociology and English B or corresponding.

Learning outcomes

After the course, students are expected to:

- be able to describe the characteristics of a well-founded theory/hypothesis and an empirically testable research question
- be well aware of how to search and find relevant literature and previous research on a given topic
- have good knowledge of the basic concepts of sociological theory and methods
- be able to argue for and assess the advantages and disadvantages of different study designs and methods to answer different research questions
- know and be able to describe the differences between a descriptive and a causal analysis and to recognize a few of the most common statistical analyzes in each area
- critically summarize and evaluate an empirically-based study
- have basic knowledge of simple Stata programming and documentation
- understand and be able to detect basic errors in quantitative datasets
- be able to perform, explain and interpret a few common basic statistical analyzes

Course organization

The course is offered full-time over 4,5 weeks. Course participants and instructors meet approximately twice a week for lectures, group discussions, computer-based exercises and/or seminars. The course is offered in English.

Instruction and examination

Course work consists of documented group discussions, computer-based exercises, a halfway individual home assignment, an article review, written and oral presentations, and lectures.

Apart from the individual halfway assignment and the article review, all course work is based on collaborative group work. Participation in group discussions is therefore mandatory.

The group work is assessed as Pass or Fail.

The individual assignment is assessed according to the criteria Pass with distinction, Pass or Fail.

The article review (including a written and an oral review of the article) is assessed according to the following criteria

Criterion referenced assessment

Criteria	Concepts and basic assumptions	The link between theory and method	Results and conclusions	Approach
Good	Detailed and critical discussion of concepts and basic assumptions	Clear, detailed and critical description of the link between theory and empirical Analysis	Clear and critical description of results and conclusions	Independent approach to the literature
Some shortcomings	Clear description of concepts and basic assumptions	Clear and Detailed description of the link between theory and empirical Analysis	Clear description of results and conclusions	Open approach to the literature
Fail	Unclear and/or uncritical presentation of concepts and basic assumptions	Unclear description of the link between theory and empirical Analysis	Unclear or incorrect description of results and conclusions	Lacks an independent approach to the literature

To receive grades A-E, students have to pass all group exercises as well as the individual halfway assignment.

To get **A**, the article review has to be (i) 'good' on all criteria or, (ii) the article review is 'good' on all criteria except one and the individual halfway assignment was passed with distinction.

To get **B**, the article review has to be (i) 'good' on all criteria except one or, (ii) the article review is 'good' on all criteria except two and the individual halfway assignment was passed with distinction.

To get **C**, the article review has to be 'good' on at least two criteria.

To get **D**, the article review has to be 'good' on at least one criteria.

To get **E**, the article review has some shortcomings on all criteria.

To get **Fx**, the article fails on at least one criteria and/or the student has not passed the group exercises and/or the individual halfway assignment.

To get **F**, the article fails on at least two criteria and/or the student has not passed the group exercises and/or the individual halfway home assignment.

Required readings

Coursebook

Gerring, J, Christenson, D. (2017) Applied Social Science Methodology. An introductory guide. Cambridge University Press.

Swedish Research Council (2017) Good research practice. ISBN 978-91-7307-354-7 Can be downloaded from vr.se

Articles

Brines, J. (1994), "Economic Dependency, Gender, and the Division of Labor at Home", *American Journal of Sociology* 100(3): 652–88.

Davis, S. N. and T. N. Greenstein (2009), "Gender Ideology: Components, Predictors and Consequences", *Annual Review of Sociology*, 35: 87-105

Ultee, W. (2001), "Problem Selection in the Social Sciences: Methodology", International Encyclopedia of the Social and Behavioral Sciences, p. 12110-12117. Downloadable

In addition to this, students are expected to read at least one article chosen by the student her-/himself in consultation with the instructor.

Recommended readings

For repetition of stata:

Long, J. S. (2009). *The Workflow of Data Analysis Using Stata*. Stata Press

For research questions and design

King, G., R. O. Keohane, and S. Verba (1992), *Designing Social Inquiry. Scientific Inference in Qualitative Research*. Princeton (NJ): Princeton University Press.

Achen, C. H. (1982), Interpreting and Using Regression. London: Sage Publications.

Goldthorpe, J.W. (2016). *Sociology as a Population Science.* Cambridge, UK: Cambridge University Press.

Becker, H.S. (1998*). Tricks of the Trade: How to think about your research while you're doing it.* Chicago: University of Chicago Press.

Additional articles will be used as examples in class and information will become available at course start.

Transitory regulations: A student who has been awarded the grade Fx or F twice by the same instructor on the course has the right to have his/her next exam being evaluated by another instructor. If the student so wishes, he/she should contact the director of undergraduate studies.

Schedule
See:

https://cloud.timeedit.net/su/web/stud1/ri107405X76Z56Q5Z86g3Y40y0066Y37Q03gQY5Q54727.html

Date	Time	Room	Subject & Reading	Instructor
Tue 3 Sep	13-15		Introduction G&C 1,2 Assignment 1: Individual	Ann-Zofie Duvander Sunnee Billingsley
Wed 4 Sep	13-15		Causality G&C 3,4,5,6, Assignment 2: Group	Ann-Zofie Duvander
Mon 9 Sep	13-15		Different designs G&C 7, 8,9,10 Assignment 3: Group	Ann-Zofie Duvander
Wed 11 Sep	13-15		Research process G&C 11,12,13,14 Assignment 4: Group	Ann-Zofie Duvander
Mon 16 Sep	13-15		Ethics G&C 16,Research council text Mid-term assignment: Individual	Ann-Zofie Duvander
Wed 18 Sep	13-15		Statistical inference, etc G&C 17,18,19, 20,21,22,23 Assignment 6: Individual article review	Ann-Zofie Duvander
Fri 20 Sep	13-15	B389	Introduction to Stata	Klara Capková
Mon 23 Sep	13-15	B389	To explore, describe and understand a data set Assignment 7: Individual	Klara Capková
Wed 25 Sep	13-15	B389	Multivariate analysis	Klara Capková
Fri 27 Sep	9-11	B389	Multivariate analysis, cont. Assignment 8: Individual	Klara Capková
Tue 1 Oct	9-12		Group 1 seminar on articles	Ann-Zofie Duvander
Tue 1 Oct	13-16		Group 2 Seminar on articles	Ann-Zofie Duvander