

Quantitative Research Methods for Social Work and Social Sciences

Block I

Teaching team

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Organization

2023, June 5 - 8 – 9h15-13h; 14h-17h00

Content

This course is an introductory doctoral seminar for students interested in learning about quantitative research methods. Quantitative research methods provide strategies and tools for collecting, analyzing, and interpreting social phenomena in numbers. Quantitative research questions the prevalence of a social construct, or individual and social behaviors, and surveys and measures the factors that correlate with, influence, or cause social phenomena. The purpose of quantitative research methods is to improve knowledge and understanding of the social world and allows information about a sample population to be generalized to a larger population.

The course starts with an overview of the main quantitative research designs. Students will learn to distinguish between observational/descriptive, correlational, and experimental setups and recognize the strengths and limitations of the different research designs (*day 1*). Then, we will delve into the several steps that guide quantitative research by highlighting the importance of the deductive process through which the researcher empirically tests social theories. In doing so, we will discuss how to derive hypotheses and the process of operationalization which enables the researcher to turn abstract concepts into measurable observations. Students will familiarize themselves with the different variable types (nominal, ordinal, and interval/continuous) and the concepts of scale and indicator (*day 2*). We then move on to data collection methods, focusing primarily on survey design and management and sampling methods by exploring the advantages and disadvantages of different sampling techniques (probabilistic and non-probabilistic sampling techniques). The course will also offer students a glimpse at secondary data sources using open administrative data (*day 3*). Finally, the course introduces students to quantitative data analysis techniques. They will learn how to describe data and identify patterns in data distribution (e.g., distribution, central tendency), the basics of bivariate correlation analysis, and multiple linear regression (*day 4*).

Throughout the course, numerous examples of research articles published in peer-reviewed journals in line with the interests of the students participating in the class will be examined and discussed, relying as far as possible on pieces of research that have used the research methods and techniques learned in the seminar.

Evaluation forms

Students will be assessed on their ability to read, analyze and interpret the content of one scientific paper applying a quantitative research method and published in a peer-reviewed journal. Students must complete a pre-organized form accurately describing the research design, the main objectives, the hypotheses, the variables used to measure the primary concepts, the data employed, and the analysis technique.

The assignment is due within three weeks of the end of the seminar to obtain the credits.

Learning goals

Understand and recognize the goals, strengths, and limitations of different quantitative research designs.

Learn how to test social theories empirically through operationalization processes.

Familiarize with the procedure of collecting, processing and analyzing numerical data using surveys and sampling techniques.

Explain validity and reliability as they relate to quantitative research

Outline the basic principles of data analysis

Transferable competences

Critically evaluate research methodology

Adopt proper technical language when reading, analyzing, and presenting quantitative research.

Acquire basic skills to analyze social phenomena in their complexity from a macro perspective.

Bibliography

Main references:

Babbie, E. (2008). *The basics of social science research*. New York: Thomson Wadsworth. [Part Two, Three, and Four; sections related to quantitative research methods only]

Corbetta, P. (2003). *Social research: Theory, methods and techniques*. Sage. [Part Two: Quantitative techniques]

Suggested additional literature and materials:

Agresti, A. (2018). *Statistical methods for the social sciences*. Pearson Education.