



DEPARTMENT OF PSYCHOLOGY

PX33003, General Research Methodology: Design, Analysis and Report , 15 credits

Allmän forskningsmetodik: design, analys och rapport , 15 högskolepoäng

Third-cycle level / Forskarnivå

Confirmation

This syllabus was confirmed by the Department of Psychology on 2018-09-21, and was last revised on 2024-05-21. The revised course syllabus is valid from Autumn semester 2024.

Responsible Department

Department of Psychology, Faculty of Social Sciences

Entry requirements

The student must be enrolled in doctoral studies.

Learning outcomes

After completing the course the PhD student shall be able to:

Knowledge and understanding

- demonstrate familiarity with scientific principles, methodology, and research design in psychological research
- demonstrate an understanding of the meaning of scientific scrutiny
- demonstrate knowledge of current regulations for ethics and the ethical review process in psychological research
- show insight into the analytical aspects of scientific inquiries
- present knowledge of the analytical tools used in psychological research
- explain research reviews and their characteristics

Competence and skills

- formulate and argue for empirical psychological research questions and research ethical considerations
- choose analytical tools given a specific problem statement
- demonstrate the ability to design a literature review

Judgement and approach

- discuss and reflect on the researcher role and the responsibilities and tasks associated with the role
- identify issues in research ethics that may arise in psychological research studies
- evaluate methodological strengths and weaknesses in various research designs with respect to explanatory ambitions and empirical prerequisites
- critically examine published empirical studies, literature reviews, and meta-analyses in psychological research

Course content

The course covers central aspects of the research process, as well as principles and issues related to the role as a researcher, problem formulation, research ethics, research planning, scientific review, research design, statistical data analysis, qualitative methods of analysis, literature reviews and meta-analyses.

Sub-courses

1. Research and ethics in psychology (*Forskning och forskningsetik i psykologi*), 3.5 credits

The sub-course covers two fields; the researcher's role and research ethics in psychology. The researcher's role is highlighted based on what it means to be a researcher and what tasks a researcher has. Additionally, we briefly discuss the research process, open-science, and the review process along with its purposes. Research ethics in psychology is addressed based on current legislation, regulations, and practices. The sub-course also highlights good research practices, the ethics application process, as well as handling and storage of data.

2. Design issues in psychological research (*Designfrågor i psykologisk forskning*), 3 credits

The sub-course addresses central concepts, assumptions, and considerations in the planning of research studies, with a particular emphasis on validity issues. The application of validity and reliability issues associated with different types of research designs (e.g., qualitative methods, experiments, cross-sectional studies, longitudinal studies, mixed methods) is highlighted.

3. Principles of data analysis (*Principer för dataanalys*), 6 credits

The sub-course covers basic principles in quantitative and qualitative data analysis. Statistical hypothesis testing as well as issues related to knowledge generalization are discussed. The sub-course addresses quantitative multivariate methods as well as qualitative analysis methods with different epistemological assumptions. The possibilities and limitations of different methods are clarified.

4. Literature reviews and meta-analysis (*Litteraturöversikter och meta-analyser*), 2.5 credits

This sub-course covers different types of research reviews, how they are conducted and reported. Principles for inclusion/exclusion of primary studies are covered, as well as choice and analysis of moderating factors. Statistical measures in meta-analysis are explained, such as average effect size and homogeneity of effect size. The sub-course includes a section in

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which review and design of literature reviews are covered.

Types of instruction

Teaching will take place in the form of lectures, seminars, and workshops.

Language of instruction

The course is given in Swedish but can be given in English if necessary

Grades

The grade Pass (G) or Fail (U) is given in this course.

The sub-courses are graded separately.

Types of assessment

All teaching can form the basis for examination. Examination will take place through oral presentations, seminars, individual written assignments or exams.

Attendance is mandatory at seminars and workshops. Arrangements to compensate for absence are made in agreement with the course coordinator.

Course evaluation

The course coordinator is responsible for ensuring that doctoral students are given the opportunity to provide an anonymous, written course evaluation at the end of the course. After the course is finished, the course coordinator writes a course report, which includes a summary of the course evaluation. The course report is processed in the Drafting committee for doctoral studies (FUB) and will be communicated to the doctoral students who will start the next course. The report will be made available for doctoral students.