



GÖTEBORGS UNIVERSITET

Faculty Board of Education

PDA086 Research methodology, inquiry and data analysis, 15 higher education credits

Second Cycle

1. Confirmation

The syllabus was confirmed by the Board of the Department of Education and Special Education on October 19 2010 to be valid from the spring term of 2011.

Department: Department of Education and Special Education

Content area: Social science

Field of education: Education

2. Position in the educational system

The course Research methodology, inquiry and data analysis, 15 higher education credits, is given within the International Master Programme in Educational Research, at the Faculty of Education. The course can also be given as a single subject course.

3. General prerequisites

To be eligible for the course Research methodology, inquiry and data analysis, 30 higher education credits on second cycle level are required.

Proficiency in English is required, equivalent to English B in the Swedish upper secondary school with at least a Pass mark, or a valid test of English as a foreign language TOEFL (232 computer-based), 575 (paper based) or IELTS with a minimum score of 6,0 in all scores, alternatively a Bachelor's degree from an education held in English.



4. Course content

The course introduces students to educational research methods and broadens understanding of science (vetenskap) and its relationship to educational and social issues. The aim of the course is to offer students the tools to conceptualize their master's theses in terms of research questions and design, methodology, data collection, and analysis. The course is designed to provide prospective educational researchers with a broad introduction to research methodology and guided opportunities to explore the application of research methods in educational contexts.

This course is divided into two main areas focusing on the following topics: (1) the goals of educational science, philosophy of educational research, and elements of research design; (2) selection and application of different methodologies for conducting research. A part of the course will include an overview of epistemology, ontology, and methodology in both positivist and *interpretivist* inquiries. Another focus will be on reading and understanding a variety of papers regarding empirical research that has used different techniques, so as to develop awareness of possible solutions to problems that the students may encounter as independent researchers in the future; and to formulate a research question and translate it into an empirical step-by-step approach for working with data. The course is a continuation of the introductory course that will be offered in the previous term, which partly addresses some of the first three learning outcomes below.

5. Learning outcomes

After completion of the course the student is expected to be able to:

- Describe and analyse different research traditions, alternative research philosophies, paradigms, and methods for research; and identify and critically evaluate research methodologies used in research articles and reports in the area of education and special education.
- Identify various ways to collect quantitative data and articulate the world view underlying this methodological approach.
- Apply different statistical concepts/procedures such as analysis of variance, graphs, numerical summaries, normal distribution, correlation, regression analysis, probability, statistical inferences, hypothesis tests, and chi-square tests.
- Formulate a viable research question and identify and interpret patterns in quantitative data.
- Conduct qualitative studies in educational context. Topics include coding, analysis, interpretation and writing; ethnographic research methods; hermeneutic, etnometodological and phenomenological research methodologies; qualitative case study research methods and others within interpretive paradigm.
- Formulate a viable research question and identify and interpret patterns in qualitative data.
- Independently integrate and use knowledge pertaining to the contents of the course.
- Critically read, extract information from, evaluate, and summarize research in the educational sciences; and utilize library research and evaluate the reliability of sources.
- Explain ethical issues pertaining to educational science research with human subjects.



6. Required reading

List of required reading enclosed.

7. Assessment

The time in class will be split between lectures, small group exercises and discussions. Obligatory attendance in all course activities is required for a passing grade. The examination format to be used in the course will be group discussions with a protocol to be passed to the course leaders, individual oral presentations of specific issues, and individual home exams.

In case of absence from the whole or part of an exam, the student will have to complete a home exam.

A student who has failed a test twice has the right to change examiners, if serious motivation can be provided. A written application should be sent to the Board of the Department.

8. Grading scale

The grades are Fail, Pass or Pass with Distinction.

9. Course evaluation

Evaluation is an integrated part of the course module. The course will be evaluated continuously and the students' opinions will be taken into consideration in a dialogue, but also by a final written evaluation at the end of the course. The results will be discussed with the students during the course and will function as a guide for further development of the course.

10. Additional information

The language of instruction is English.

LITERATURE

PDA086 Research methodology, inquiry and data analysis

Bryman, A. (2004). *Social research methods*. Oxford: Oxford University Press. (535 pages).

Cohen, L., Manion, L. & Morrison, K. (2008). *Research methods in education*. New York: Routledge. (Sixth edition) (592 pages)

Hartas, D. (2009). *Educational Research and Inquiry: Qualitative and Quantitative Approaches*. London: Continuum (pages 452)

Mertens, D. M. (1998). *Research methods in education and psychology: Integrating diversity with quantitative and qualitative approaches*. Thousand Oaks, CA: Sage. (369 pages).

Pring, R. (2000). *Philosophy of Educational Research* (London, Continuum). (160 pages)

Optional Texts

Muijs, D. (2004). *Doing quantitative research in education*. London: Sage (pages 240)

Punch, K. F. (1998). *Introduction to social research: Quantitative and qualitative approaches*. London: Sage.