



683207 Research Seminar, 4 op

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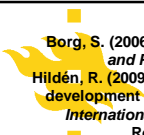
Goals of Research Plan Seminar

Objective
After completing this study unit, students

- **understand** the nature of phenomena in Education and its challenges as a research focus, and they are able to distinguish the relations between the theories and practices of educational sciences
- **know** the epistemological foundations, research approaches and core concepts of educational research
- **can justify** an investigative approach in teacher's work and **act as a critical educational professional** who researches and develops one's own work
- **can design a research or project** proposal, **implement** it, and **prepare** a report of the completed work
- **are able to engage** in communal construction of knowledge by participating in scientific discussions about the other students' studies and pedagogical products
- **have received preparedness to carry out** a thesis for the Advanced Studies of Education

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Foreign languages

Borg, S. (2006). *Teacher Cognition and Language Education: Research and Practice*. London: Continuum. Selected Chapters.

Hildén, R. (2009). Transforming language curricula through a research and development project: A case from Finland. In T. Autio & E. Ropo (Eds.), *International Conversations on Curriculum Studies* (pp. 235–256). Rotterdam, the Netherlands: Sense Publishers.

Hinkel, E. (Ed.) (2005). *Handbook of Research in Second Language Teaching and Learning*. Mahwah, NJ: Erlbaum. (Selected chapters.)

Additional literature

Selected chapters from the following as suggested by the lecturers:

Dörnyei, Z. (2007). *Research methods in applied linguistics: Quantitative, qualitative, and mixed methodologies*. Oxford, UK: Oxford University Press.

OR

Paltridge, B. & Phatiki, A. (Eds.) (2015). *Research Methods in Applied Linguistics. A Practical Resource*. Oxford : Oxford University Press.

SCIENCE SUBJECTS


Chemistry, Mathematics and Physics

Creswell, J.W. (2005/2008). *Educational research: Planning, conducting and evaluating quantitative and qualitative research*. 2nd or 3rd Edition. Upper Saddle River, NJ: Merrill/Pearson. Chapters 1, 2, 6–9.

Other literature based on the research topic

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 **Timetable and how to proceed...**


Group 2 DATE

Period 3

| | | TIME | LOCATION | THEME |
|-----------|--------|-------------|-------------------------|-----------------------------|
| Tuesday | 31.01. | 10.15-11.45 | Aurora, 117 | Baseline |
| Thursday | 02.02. | 16.15-17.45 | Aurora, 117 | Literature hunt |
| Tuesday | 07.02. | 10.15-13.45 | Aurora 117 | IND. TUTORING 4 x 30min |
| Thursday | 09.02. | 10.15-13.45 | Aurora 117 | IND. TUTORING 4 x 30min |
| Tuesday | 14.02. | 10.15-13.45 | Aurora 117 | Meeting |
| Thursday | 16.02. | 16.15-17.45 | Aurora 117 | Writing Res-plan |
| Tuesday | 21.02. | 16.15-17.45 | Aurora 117 (meeting) | Commenting R-plans |
| Wednesday | 02.03. | 10.15-12.15 | Aurora 117 | Research plan presentations |
| Wednesday | 04.04. | 10.15-13.45 | Aurora 117 | |
| Monday | 10.04. | 16.15-17.45 | Aurora 117 | |

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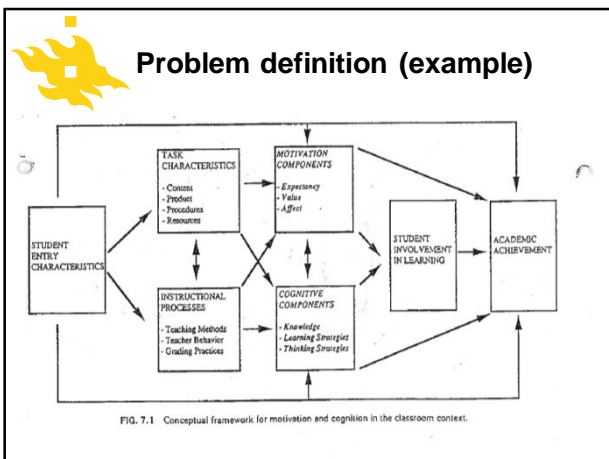
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Introduction to classroom research

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Problem definition is related to methodological approach

Epistemology is the nature of how knowledge is generated, and it serves as the foundation of educational research design.

A) Quantitative research (objectivist epistemology) is conducted from an, which à assumption that knowledge exists in the world independent of people and is waiting to be "discovered".

à hypotheses about connections

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The major assumptions of objectivism are:

- (1) There is a real world consisting of entities structured according to their properties and relations. Categorization of these entities is based on their properties.
- (2) The real world is fully and correctly structured so that it can be modeled.
- (3) Symbols are representations of reality and can only be meaningful to the degree that they correspond to reality.
- (4) The human mind processes abstract symbols in a computer-like fashion so that it mirrors nature.
- (5) Human thought is symbol-manipulation and it is independent of the human organism.
- (6) The meaning of the world exists objectively, independent of the human mind and it is external to the knower (Jonassen, 1992a; Lakoff, 1987).

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Quantitative problems

Predictors

Family SES
Gender
Attention
Support needs

Outcomes

Motivation
- Expectancies
- Emotions
- Values
School achievement

Two basic question formats:

1) Is there association (=correlation) between students' attention and values of schooling?


Hypothesis: There is no association between attention values of schooling.

2) To what extent school achievement is dependent of gender.
Hypothesis: There are no differences between genders

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B) Qualitative researchers generally operate from different epistemological perspectives:

- à E.g., constructionism which assumes that knowledge is created by interaction between people and their world (working hypotheses)
- à Interaction is described and accordingly analyzed and interpreted

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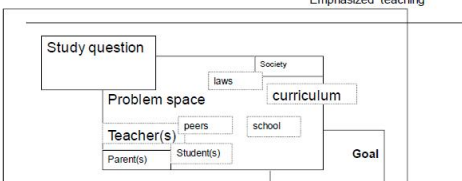
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Gifted education

Thinking skills

Emphasized teaching



How lower secondary chemistry teachers perceive giftedness? How lower secondary chemistry teachers differentiate teaching for their gifted learners?

- General problem: too broad study questions
- Especially in qualitative research it is necessary to frame clearly study question(s).

→ Focus research questions facilitate theory selection and data gathering.

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Some guidelines for the research plan

1. Background
2. Procedure
3. Timetable
4. Methodology
5. Ethical issues
6. Dissemination

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1. Background

Why is this research important?
 What other studies have there been in this area?
 How will this research add to knowledge in this area?
 What do you want to find out?
 What is the main question you wish to answer?
 What are the specific questions you will ask to address the main question?

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2. Procedure

Will you be doing this research on your own or with others?
 Who are you targeting in this research?
 How many people (questionnaires/case files) do you intend to have?
 Where will the research take place?
 Will participants be clearly and fully informed of the purpose of the research study (How you ensure this?)
 How will participants be clear about the expectations of the researcher?
 Do you have an information sheet and a consent form for participants?
 Supervisory arrangements - how do you intend your research to be supervised and monitored and by whom?

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3. Timetable

When will your research start and finish?
 Are there particular stages to the research - e.g. piloting, then main research?
 If so, what are they?
 Is the timetable realistic?
 Is it influenced by external constraints or deadlines?
 If so, how you can be prepared for the obstacles?

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4. Methodology

What sort of data will you be collecting, for example, numbers, talk to people directly, texts or a mixture of these?

What is the main analyses you will use to carry out the research (statistical or , qualitative ones)?


How will you select your sample?

How will you recruit your sample?

How will you collect your data?

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5. Ethical issues

Is there any potential risk or harm to participants or yourself? If yes à , what are the potential risks and what do you intend to do to reduce them?


How will you obtain informed consent?

How will participants be given the opportunity to complain? Will you be insured against professional negligence claims?

How will you deal with complaints made against you by participants?

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6. Dissemination


Have you considered in what form will your findings be presented and to whom (not only participants of the STEP)?

How will you ensure anonymity of the participants in publications?

To whom does the research belong after its publication?

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Content of the research plan

- 1. Introduction
 - 1.1 About phenomenon in question and importance of the study
 - 1.2 Previous studies about phenomenon (in brief)
 - 1.3 Study goal
- 2. Theoretical frame
- 3. Method
- 4. Timetable
- 5. References

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