



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

UNIVERSITY OF HELSINKI

www.helsinki.fi/yliopisto

14.2.2017

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.

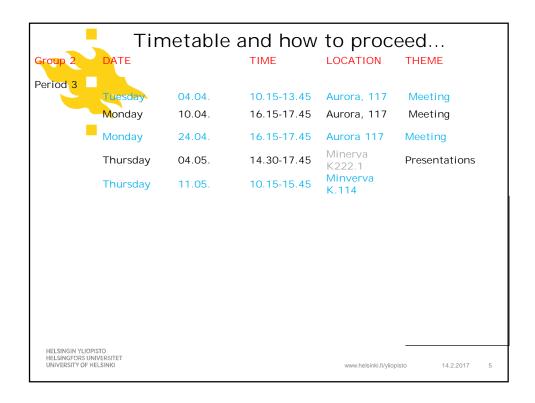
HELSINGIN YLIOPISTO HELSINGIO SUNIVA Dipper Saddle River, NJ: Merrill/Pearson. Chapters 1, 2, 6–9.

UNIVERSITY OF HELSINGI

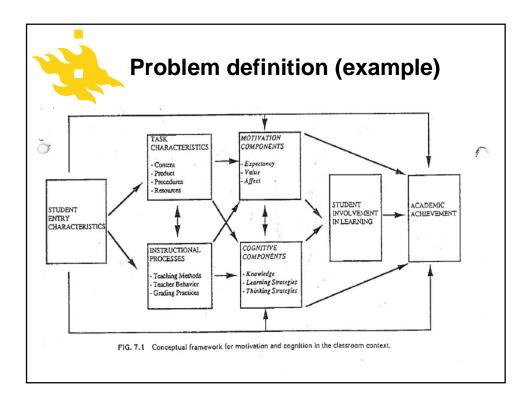
Other literature based on the research topic

14.2.2017

Timetable and how to proceed... TIME **LOCATION THEME** Period 3 10.15-11.45 uesday 31.01. Aurora, 117 Baseline Thursday 16.15-17.45 Aurora, 117 02.02. Literature hunt IND TUTORING 10.15-13.45 Tuesday 07.02. Aurora 117 4 x 30min IND. TUTORING Thursday 09.02. 10.15-13.45 Aurora 117 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 Aurora 117 Commenting R-16.15-17.45 Tuesday 21.02 (meeting) plans Meeting Tuesday 10.00-12.00 Aurora 117 28.02 Research plan Thursday 02.03 10.00-12.00 Aurora 117 presentations HELSINGIN YLIOPISTO HELSINGFORS UNIVERSITET UNIVERSITY OF HELSINKI w.helsinki.fi/yliopisto 14.2.2017







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

HELSINGIN YLIOPISTO HELSINGFORS UNIVERSITET UNIVERSITY OF HELSINKI

www.helsinki.fi/yliopisto

14.2.2017

The major assumptions of objectivism are:

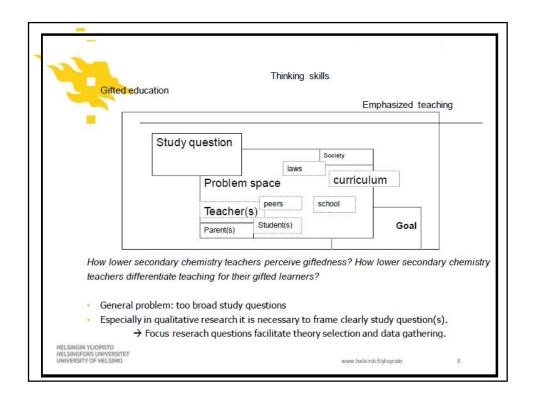
- (1)There is a real world consisting of entities structured according to their properties and relations. Categorization of these entities is based on their properties.
- (2) The real world is fully and correctly structured so that it can be modeled.
- (3) Symbols are representations of reality and can 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).

14.2.2017

Quantitative problems **Predictors** Outcomes Family SES Motivation Expectancies Gender **Emotions** Values Attention School Support achievement needs Two basic question formats: 1) Is there assossociation (=correlation) between students' attention and values of schooling? Hypothesis: There is no association between atteen values of schooling. 2) To what extend school achievement is dependent of gender. Hypothesis: There are no differences between genders

- 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)
- a Interaction is described and accordingly analyzed and interpreted

HELSINGFORS UNIVERSITET
UNIVERSITY OF HELSINKI www.helsinkl.fit/yliopisto 14.2.2017 11





Some guidelines for the research plan

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

HELSINGIN YLIOPISTO HELSINGFORS UNIVERSITET UNIVERSITY OF HELSINKI

www.helsinki.fi/yliopist

14.2.2017

13



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?

HELSINGIN YLIOPISTO HELSINGFORS UNIVERSITET UNIVERSITY OF HELSINKI

www.helsinki.fi/yliopisto

14.2.2017

14



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?

HELSINGIN YLIOPISTO HELSINGFORS UNIVERSITET UNIVERSITY OF HELSINKI

www.helsinki.fi/yliopist

14.2.2017 15





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?

HELSINGIN YLIOPISTO HELSINGFORS UNIVERSITET UNIVERSITY OF HELSINKI

www.helsinki.fi/yliopisto

14.2.2017

16



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?

HELSINGIN YLIOPISTO HELSINGFORS UNIVERSITE UNIVERSITY OF HELSINKI

www.helsinki.fi/yliopis

14.2.2017

17

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?

HELSINGIN YLIOPISTO HELSINGFORS UNIVERSITET UNIVERSITY OF HELSINKI

www.helsinki.fi/yliopisto

14.2.2017

18



6. Dissemination

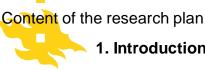
Have you considered in what form will your findings be presented and to whom (not only participants of the STEP)?

How will you ensure anonymity of the participants in publications?

To whom does the research belong after its publication?

HELSINGIN YLIOPISTO HELSINGFORS UNIVERSITET UNIVERSITY OF HELSINKI

14.2.2017



- 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. Theorethical frame
- 3. Method
- 4. Timetable

HELSINGIN YLIOPISTO HELSINGFORS UNIVERSITET UNIVERSITY OF HELSINKI

5. References

www.helsinki.fi/yliopisto

14.2.2017