

Laboration fenomenografi



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Lab task

- Analyse how students perceive the concepts of "object" and "class".
- The study should consist of a phenomenographic analysis of excerpts from interviews.

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Idag

- Labben, syfte
- Var passar fenomenografi in i ett intellektuellt landskap?
- Vad är fenomenografi?
- Hur gör man en fenomenografisk studie, framförallt en analys?
- Labben
- Vad säger resultaten?
- Sammanfattning

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Purpose of lab

- Apply concepts from Theory of science.
- Get a feel for
 - how qualitative research can be performed
 - what kinds of results it can offer.
- Discuss differences and similarities between positivistic and non-positivistic research.
- Get a new perspective on "object" and "class"

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Questions to consider during lab

- What is research?
- What is evidence?
- What is the role of the researcher?
- To what extent is the researcher present in the results?
- What is non-positivistic research?

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What does it mean to learn something?

Unfortunately (?)...

- General case:
A "meaningless" question
- It all depends on
"what you mean by learning"
or "how you see things"

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A research approach/methodology/framework

- Offers a way to perform research in learning.
- Organizes "ways to see things".
- A lens with a certain focus.
- With a specific research approach:
Some issues get clearer, others blurred.

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Research frameworks within learning

Quantitative	Qualitative
Quantitative results	Descriptions
Observable variables, "hard" evidence	Interpretations, researcher is present
Social environment constitute an objective reality	Social environment is constructed
Experiments	Studies in naturalistic settings
The "science method"	Non-positivistic
Positivistic research	

Phenomenography

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So, what is phenomenography not ? And what is it?

- Phenomenography does not discuss the nature of the world, if something exist "in reality" or not.
- That is, phenomenography is not about *ontology*
- Instead, phenomenography is way to approach pedagogical research.
- That is, phenomenography is a methodology) to gain knowledge about how students understand something

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What is phenomenography?

- Describes learning and understanding from the learners' perspective
- Aims at analysing and describing the different ways in which students' understand something.
- Discusses learning in a collective.
- Outcome: A few qualitatively different ways, in which something is understood within a student cohort.

Example: The concepts of "class" and "object"; the role of the teacher

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Phenomenography

The students study OOP

OOP

The researcher studies the different ways in which the students understand OOP

Researcher

Students taking a course

The researcher is a learner in relation to his study object

The researcher shapes and becomes a part of the results

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Examples of phenomenographic results

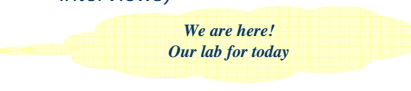
- How do students go about programming? (Booth, 1992)
 - Expedient.* Cut-and-paste
 - Constructional.* Build from examples
 - Operational.* "It works"
 - Structural.* Underlying structure
- What is a computer network protocol? (Berglund, 2002)
 - A way to communicate between two computers.*
 - A method for communicating on an internet.*
 - A set of rules.*
 - A standard.*

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How do we do phenomenography?

- Formulation of the research question (What do we want to know?)
- Data Collection (Often collected through interviews)
- Analyses 
- Deploying the results (Use the insights in the teaching)

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Literature




- Marton & Booth, 1997
- Eckerdal & Thuné, 2005, available from GP page
- Eckerdal & Berglund, 2005
- Berglund, 2005, <http://publications.uu.se/theses/abstract.xsql?dbid=5754>
- Berglund & Wiggberg, 2005, available from GP page
- <http://www.ped.gu.se/biorn/phgraph/welcome.html>

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Analysis

- Read transcripts
 - Go into them. "Live the interviewee".
 - Do not assign values
- Cut out relevant parts
 - Do not study quotes/transcripts in isolation.
 - See the individual against the many
- Sort in piles
 - What does a pile tell me? 
 - Does this fit with the whole? 
 - Is there a structure between the piles? 
- Hints
 - Aim for 2 -5 categories
 - Remember that the categories do not describe individuals. That is, one individual can "appear" in many categories.
 - Make sure you can verbalise the research question as well as the categories
 - Go in a dialogue with data
 - Remember that you are a part of the results.

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Uppgift

- Du får 29 intervjuutdrag. Gör en fenomenografisk analys, exempelvis på "studenters uppfattning om objekt", "studenters uppfattning om klass", "har det gått till att lära OOP", eller något annat relevant ämne som data inbjuder dig att studera.
- Lämna in: Namn på kategorierna, kortfattade kategoribeskrivningar, citatnummer i varje kategori. Skriv egna namn.
- Arbeta 2 -3 personer.
- Du använder säkert inte alla utdrag.
- Data kommer från en studie vid en civingutbildning på UU.

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