

Introductory course Concepts and Design

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About the introductory course

- <http://www.uio.no/studier/emner/hf/imk/MEVIT4800/v09/>

What is scientific method?

- "Methods in the social sciences consists of the systematic and planned procedures that are specifically aimed at establishing knowledge and theories ... **These methods constitute guidelines for how reliable knowledge and valid theories about society can be developed.** In addition, the methods include criteria and procedures for assessing knowledge and theories..."

(Grønmo 2004:28)

Choices in the research process

- Chose and operationalize the **research question**.
- Chose **methods** for collecting data.
- Chose **material** (data) that can enlighten the research question.
- Chose **techniques** for analysing the data.
- Chose **how to present** the results.

Østbye et al (2007):19

Example - quantitative study

- Chose and operationalize the **research question**.
 - Does UiO-students trust NRK news more than TV2 news?
- Chose **methods** for collecting data.
 - Survey
- Chose **material** (data) that can enlighten the research question.
 - 800 students randomly selected from the student register
- Chose **techniques** for analysing the data.
 - Statistical analysis
- Chose **how to present** the results.
 - Tables in powerpoint presentation.

Example - qualitative study

- Chose and operationalize the **research question**.
 - What influences UiO-students' trust in NRK and TV2 news?
- Chose **methods** for collecting data.
 - Qualitative interviews
- Chose **material** (data) that can enlighten the research question.
 - 15 students from different study programs are selected.
- Chose **techniques** for analysing the data.
 - Hermeneutic analysis of interviews.
- Chose **how to present** the results.
 - Lecture with quotations that illustrate findings.

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- Chose **material** (data) that can enlighten the research question.
- Chose **techniques** for analysing the data.
- Chose **how to present** the results.

The reseach question

- Issue/theme
- Question
- Hypothesis
- The research question expresses "the distance between what we know and what we want to know" (Grønmo 2004:63).

The reseach question

- Issue/theme
 - Digitalization of television and new relations of power.
- Question
 - Who are the important gatekeepers in the digital TV-landscape?
- Hypothesis
 - Established companies lose control in digital tv markets.
- The research question expresses "the distance between what we know and what we want to know" (Grønmo 2004:63).

The research question

- Descriptive
- Explanatory
- Understanding

The research question

- Descriptive
 - What characterizes youth's use of social networking sites?
- Explanatory
 - Why do more girls than boys use social networking sites?
- Understanding
 - How can we understand youth's use of social networking sites in relation to other social arenas?

Kinds of sources

- **Actors**
 - Participant observation
 - Structured observation
- **Respondents**
 - Semi/unstructured interviews
 - Structured questionnaires
- **Texts**
 - Qualitative content analysis
 - Quantitative content analysis

Grønmo 2004:125

Basic concepts

- **Units of analysis**
 - Objects of investigation (can be persons, actions, meanings).
- **Variables**
 - Characteristics of the units.
- **Values (categories)**
 - Variations in the characteristics.

What is what?

"Youth use the Internet for democratic participation to a larger degree than older people."

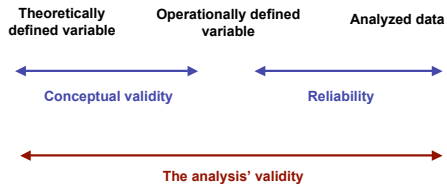
Operationalisation

- **Theoretical definition**
 - States relations to concepts that has more precise meaning.
 - Ex: *democratic participation are citizens' expressions directly to local of national politicians.*
- **Operational definition**
 - States which operations must be conducted in order to assess if an empirical phenomenon is covered by the concept.
 - Ex: *survey asking citizens if they have used the Internet (needs operationalization) to communicate (needs operationalization) to politicians (needs operationalization)*
 - Questions in the survey needs to be made explicit.
- **Operationalization**
 - The process from theoretical to operational definition.

The quality of a study

- **Reliability**
 - Accuracy in the investigation (collection, processing and analysis of data).
- **Validity**
 - Data's relevans for the research question. Are we investigating what we claim to be investigating?
- **Conceptual validity (definisjonsmessig validitet)**
 - Compliance between theoretical and operational definition.
 - Is democratic participation operationalized in a sensible way?

The analysis' validity



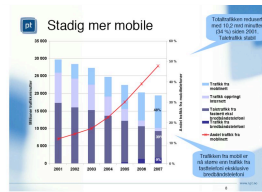
Gronmo 2004:25

Universe and sample

- **Universe (population)**
 - All units that the research question concerns.
- **Sample (utvalg)**
 - The units investigated.
- **Statistical generalization**
 - Concluding from sample to universe.

Kinds of samles

- **Population studies**
 - All units in universe.
- **Pragmatic samples**
 - Best judgement.
- **Probability samples**
 - All units have a known chance larger than zero to be included in the sample.
- **Strategic samples**
 - Sampling from theoretical considerations.



Statistical generalization

- Generalization requires probability sampling:
 - Simple random sampling (enkelt tilfeldig utvalg)
 - Systematic sampling
 - Stratified sampling
 - Cluster sampling (klyngeutvalg)



Theoretical generalization



- Strategic sampling
 - Quota sampling
 - Convenience sampling (slump)
 - Self-sampling
 - Snowballing
