

Summary

IN5000/9000

What we are doing today

Learning outcomes as defined on the course website

Underlying (philosophical) assumptions ~ **paradigms**

Characteristics of **methodologies**

Methods for gathering and analysing qualitative material

General information about the exam

Publishing a “quiz” for those who want to prepare for the exam
with your fellow students

Learning outcomes

- Explain and compare different
 - qualitative **research paradigms** including the interpretive, critical, and positivist paradigms
 - qualitative **methodologies** including case studies, action research, and ethnography
 - **methods** used in qualitative empirical research in informatics including interviews, observations, photos and documents
- Explain and illustrate the **relationships** between research questions, paradigms, methodologies and methods
- **Position** and discuss **your own and others' research** with respect to the qualitative research paradigms
- Make qualified and well-motivated choices of research methodology for your own research and assess others' choices of methodology

Learning outcomes reformulated

In this course, the overarching goal is for you to become aware of the strengths and weaknesses of qualitative research.

It is for you to be able to ask questions related to how your study will give new knowledge to the field and evaluate how different approaches (methodologies and methods) gives different knowledge.

Understand how underlying assumptions relates to what kind of knowledge is generated.

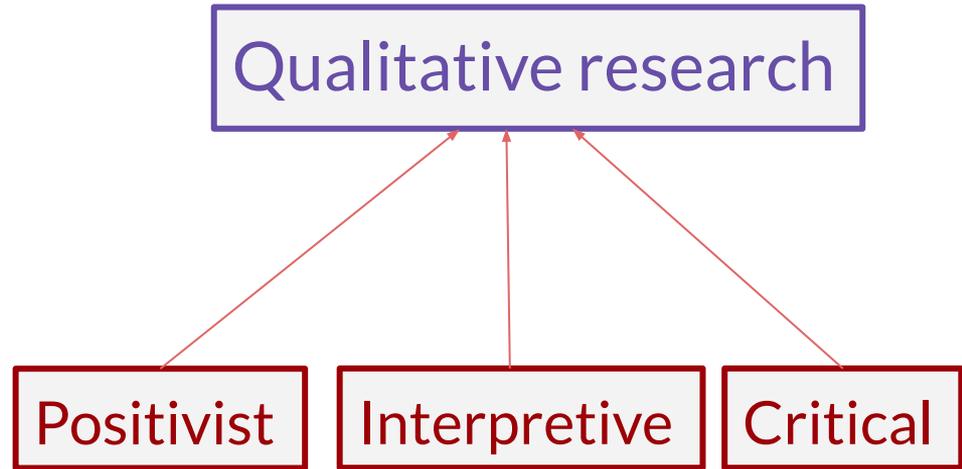
Paradigms

underlying philosophical assumptions in all research

Underlying (philosophical) assumptions

All **research** is based on some (explicit or implicit) underlying philosophical assumptions about what constitutes valid research and which research methods are appropriate.

These assumptions are called **paradigms**. In this course, we talk about research within three paradigms:



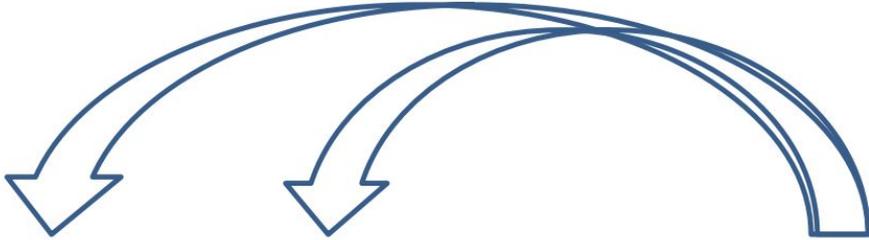
Paradigms are underlying philosophical assumptions that influences/guides the qualitative research carried out

Philosophical assumptions



Research questions

Methodology → Method → data → Analysis/design



Underlying philosophical assumptions in the **positivist paradigm**

Social reality is objective, testable and independent of theoretical explanation

The researcher should be objective and unbiased

The researcher should be a detached value-free spectator, only an observer of the objects of study

Theories and hypotheses can be tested independently of an understanding of meanings and intentions

Lawlike relations can be discovered in organizations, and the purpose of research is to increase our predictive understanding of phenomena

Scientific research should have formal propositions, quantifiable measures of variables, and hypothesis testing - cases are of interest only as representative of populations

Underlying philosophical assumptions in the interpretative paradigm

Social reality is socially constructed - The aim is to understand phenomena through the meanings people assign to them. Access to meaning is through social constructions, such as talking.

Focuses on the full complexity of human sense-making as a situation emerges. Not predefined dependent and independent variables.

Interpretive methods of research in IS are “aimed at producing an understanding of the context of the information system, and the process whereby the information system influences and is influenced by the context” (Walsham 1993, p.4-5).

The hermeneutic circle – the ‘logic’ of interpretation is irreducibly circular: parts cannot be understood without the whole, data and concepts cannot be understood without theory and context etc

Underlying philosophical assumptions in the critical paradigm

Similar to interpretive research except that in addition:

A focus on critique – critique of the prevailing social conditions and system of constraints

Consider the complex relationships between human interests, knowledge, power and forms of social control.

Challenge prevailing communities of assumptions

Challenge established social practices

Have an ethically based stance

Some types of critical theory suggest individual emancipation and/or improvements in society

2+2=?

How far is it to the moon?

What is your favourite colour?

Am I a good teacher?

How good is the University of Oslo?

Is it cold or hot outside today?

Is it cold or hot in our room?

What is the best movie?

What happens if you pour olive oil into water?

What happens if you pour Coca Cola into water?

How do you determine if a movie is good?

Questions to discuss with your fellow students and for reflection on the concepts of truth and knowledge

What is truth?

Can we know the truth?

What can we know?

Why should we know?

Research questions

Descriptive: Open up for descriptions of conditions or situations, and explanations of how something changes or stays unchanged.

Evaluative/ normative: We ask which value something has. Normative arguments are required to answer evaluative questions.

Constructive: Evaluating something can logically be used to suggest and discuss improvements to it.

(Kalleberg 1992, 2002)

Quick summaries

of the defining characteristics of the **methodologies**
covered by this course

Methodologies

While **paradigms** are philosophical assumptions about research and the world, **methodologies** are strategies of inquiry.

Methodologies discussed in this course:

(NB: The term methodology is used differently than in Myers (living version)).

Descriptive:

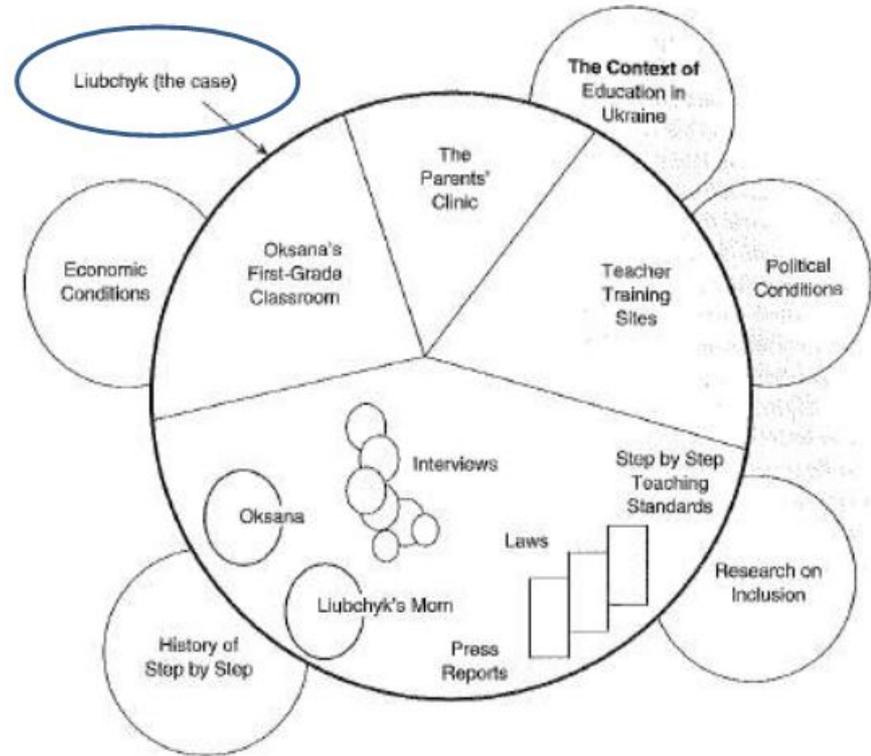
- ★ Case study
- ★ Ethnography
- ★ Grounded theory

Constructive:

- ★ Action Research
- ★ Design methodologies

Lecture 4: Case study

- ▶ Investigate a phenomenon in its context
- ▶ The boundaries between phenomenon and context are not clear-cut
- ▶ A case is a specific, unique, bound system (Stake 2005)



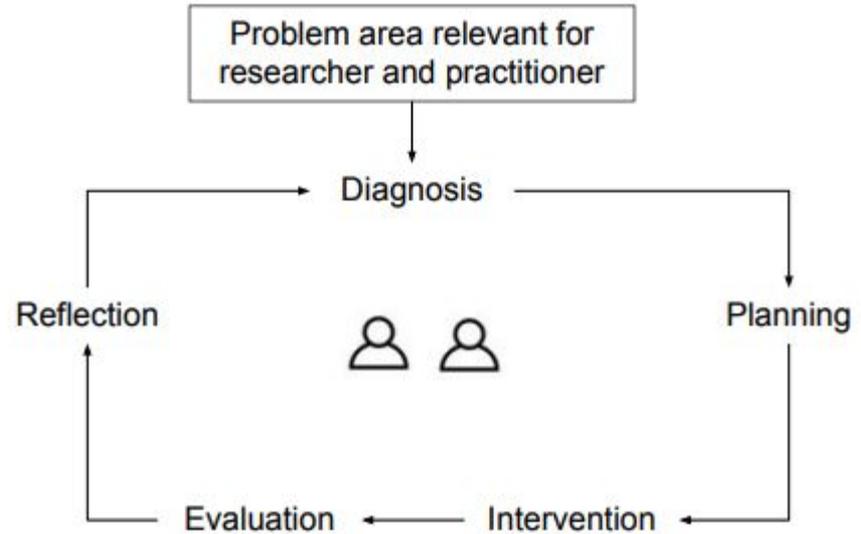
Lecture 5: Ethnography

- ▷ Study of social practices and interactions as they unfold in everyday life
 - ▶ In design: Studies of systems and artifacts as they are used in context
- ▷ Long-term and in-depth
- ▷ Descriptive rather than prescriptive
- ▷ Participant observation ~ immersion in the field
- ▷ The researcher's positionality influences access to the field, what is seen, and the interpretation
- ▷ Reflecting on positionality during fieldwork, analysis, and when writing up the research is crucial



Lecture 6: Action research

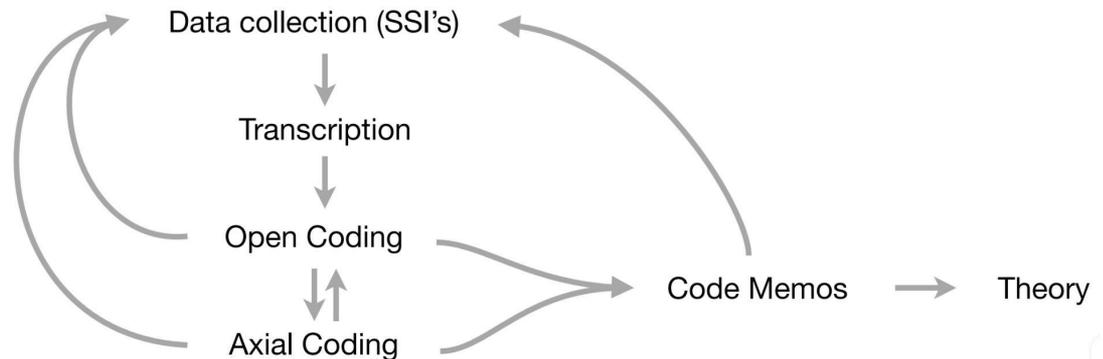
- ▷ Solve practical problems
 - ▷ Contribute to research
 - ▷ Work with an organization that experience a problem
 - ▷ An 'engaged' methodology
- ▶ Doing interventions:
- ▷ Introducing new IT-artifacts
 - ▷ Introducing new methods and processes
 - ▷ Competence building
 - ▷ Changing organizational structures, etc.



Lecture 7: Grounded theory

- ▷ A methodology and an analytical approach for developing theory *grounded* in your data
- ▷ How should you treat existing literature when doing GT?
- ▷ Open and axial coding

*Tips for further reading:
White and Weatherall
(2000) is an example on
using GT*



Lecture 8: Design research

- ▷ Research is about developing knowledge while design is about making artifacts/prototypes/sketches.
- ▷ The same activity can produce both knowledge and artifacts



Design methodologies mentioned

- ▶ Participatory design
 - ▷ Future users participate in the design process
 - ▷ Empower people with less power
 - ▷ Focus on the process (or the artifact)
- ▶ Research through design
- ▶ User centered design

Methods for gathering qualitative material

◆ Interviews

(unstructured, semi-structured, structured)

◆ Observation

(passive, participant)

◆ Document analysis

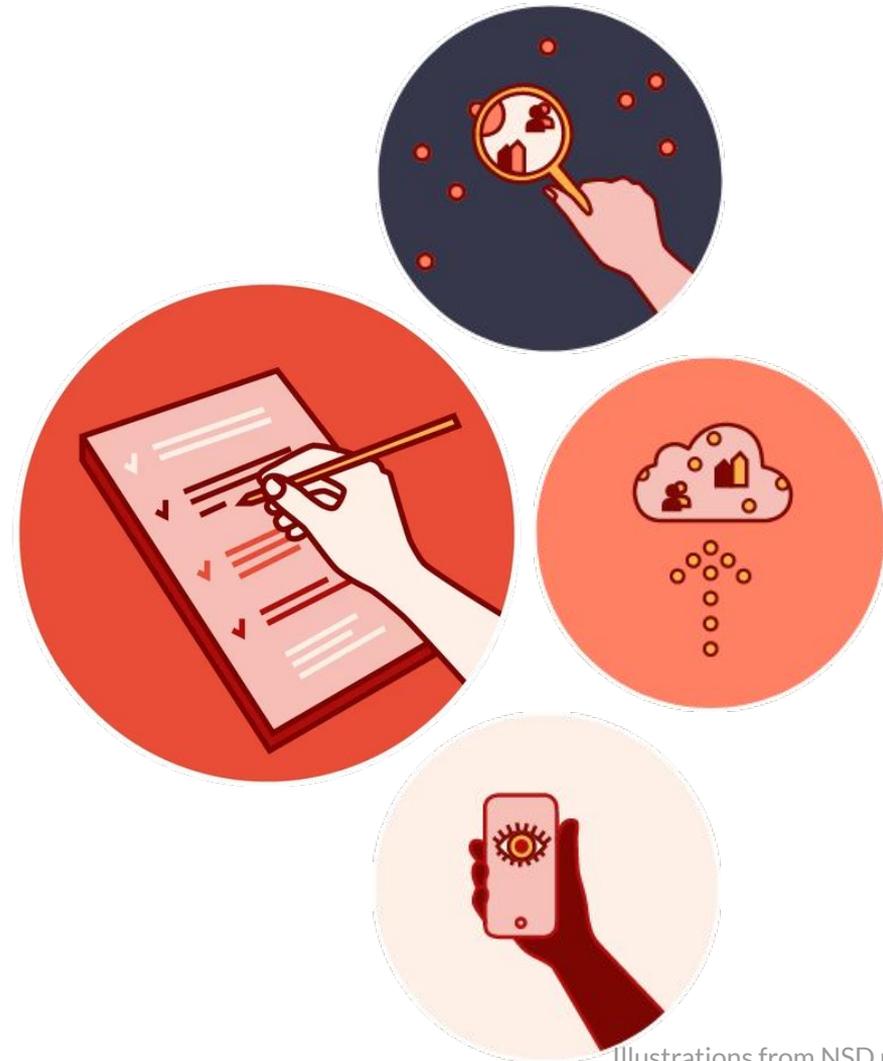
(text, video, photo)

◆ Design workshops

- ◇ What can you learn from the different methods?
- ◇ What kind of data do you get?
- ◇ What practical issues may occur?
- ◇ How will you take notes?
- ◇ When or why is it useful to use several different methods?

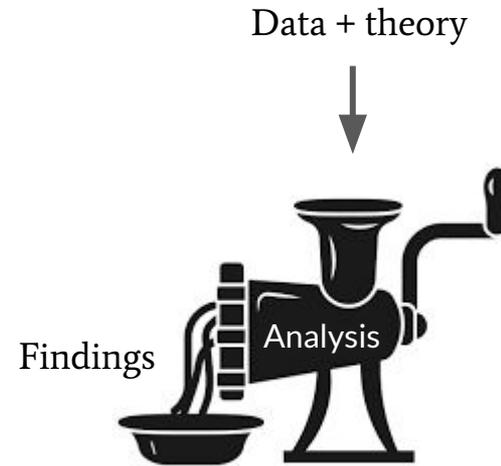
Lecture 10: Ethics and privacy

- Guidelines for involving people in research
 - When should you contact the NSD?
 - Internet Research Ethics
 - The Mosaic Effect
- * Are there other societal issues with your research?



Methods for analysis of qualitative material

- Breaking something down into smaller parts to gain an understanding of it. Put it together in new ways to learn something new.
- What can you see in your data?
- What role should theory have?
- Systematic methods for analysis vs. a loose approach (e.g., Walsham 2006)
- Data analysis software



IN5000 = Philosophy of Science (Lite)

The course is just a snapshot of the field.

Note that due to philosophical convictions

- Not everyone agree on what is good research / science and not.
- Not everyone agree on terminology.

These disagreements can be deeply rooted. This is why the course and its curriculum may be confusing. There are no right or wrong answers.

The overall goal of this course is to teach students how to evaluate their own research study design.

During the exam, the main point is to show that you have your own thoughts -- using the curriculum even if it is difficult.

Paradigm	Ontology «What is reality?»	Epistemology «How can I know reality?»	Theoretical perspective «Which approach do I use to know something?»	Methodology «How do I go about finding out?»	Method «What techniques do I use to find out?»
Positivism	There is a single reality or truth.	Reality can be measured and hence the focus is on reliable and valid tools to obtain these measurements.	Positivism Post-positivism	Experimental research, survey research	Usually quantitative, such as sampling, measurement and scaling, statistical analysis, questionnaire, focus groups, interviews
Constructivist / Interpretive	There is no single reality or truth. Reality is created by individuals in groups.	Reality needs to be interpreted. It is used to discover the underlying meaning of events and activities.	Reality needs to be interpreted (interpretivism). Phenomenology, symbolic interactionism, hermeneutics, critical inquiry, feminism	Ethnography, grounded theory, phenomenological research, heuristic inquiry, action research, case study, feminist standpoint research	Usually qualitative, such as qualitative interview, participant observation, non-participant observation, discourse analysis, life history, narrative, theme identification
Critical	Realities are socially constructed entities that are under constant internal influence.	Reality and knowledge is both socially constructed and influenced by power relations from within society.	Marxisme Queer theory Feminism	Critical discourse analysis, critical ethnography, action research, ideology, critique	Ideological review, civil actions, open-ended interviews, focus groups, open-ended questionnaires, open-ended observations, and journals
Pragmatism	Reality is constantly renegotiated, debated, interpreted in light of its usefulness in new unpredictable situations.	The best method is one that solves problems. Finding out is the means, change is the underlying aim.	Deweyan pragmatism Research through design	Mixed methods, design-based research, action research	Combines both qualitative and quantitative methods. Other methods include data mining, expert review, usability testing, physical prototyping
Subjectivism	Reality is what we perceive to be real.	All knowledge is purely a matter of perspective.	Postmodernism Structuralism Post-structuralism	Discourse theory, archaeology, genealogy, deconstruction	Auto ethnography, semiotics, literary analysis, pastiche, intertextuality.

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PARADIGMS

Positivist
“Reality is objective”

Interpretive
“Reality is shaped by human experiences and social contexts”

Critical
“Social reality is historically constituted”

✓ Myers
 ✓ Walsham
 (2006, 2012)

METODOLOGIES

Case study

- ✓ Walsham
- ✓ Flyvbjerg
- ✓ Stake

Ethnography

- ✓ Murphy & Marcus
- ✓ Verne
- ✓ Blomberg

Action Research

- ✓ Davison, Martinsons & Kock
- ✓ Checkland & Holwell

Grounded Theory

- ✓ Mills, Bonner & Frances
- ✓ Urquhart & Fernandez

Design methodologies

- ✓ Frayling
- ✓ Verne & Bratteteig

METHODS

For data gathering

- 1 Interview
(semi/un)structured
Focus groups
- 2 Observation
passive, participant
- 3 Design workshops
- 4 Document analysis
text, photo, video
- 5 Diary study

For analysis

- 1 Systematic Text
Condensation
- 2 Thematic Analysis
- ✓ Crang & Cook
- ✓ Malterud
- ✓ Braun & Clarke

CONCEPTS

Role

Insider / outsider
 Reflexivity
(not bias)

Ethics

Privacy and consent
 Societal impact
 Storing data

Scientific rigour

Generalizability
 Validity
 Bias

- ✓ Crang & Cook
- ✓ Myers
- ✓ Walsham
(2006, 2012)
- ✓ Flyvbjerg
- ✓ Mills, Bonner & Francis

When planning to conduct a qualitative study, ask yourself:

When is it useful? Which methods should I use?

What knowledge am I looking for? How should I analyze my data?

What do I need to do to find knowledge that will allow me to answer my research question?

Regarding the exam



Zoom exam room:

<https://uio.zoom.us/j/63318385006?pwd=eFp5K3h4Mnhkcy9JQ0QyemppRW53Zz09>

	Monday May 31st	Tuesday June 1st	Wednesday June 2nd	Thursday June 3rd	Friday June 4th
8:30 - 8:50	Examiner meeting	Christina Grønhaug	Vetle Utvik	Mariann Gundegjerde	
9:00 - 9:20		Eir Linnea Glimsdal	Nina Justnæs	Mattias Ovesson	Niels Gabriel Theissen
9:30 - 9:50		Andrea Ulshagen	Maja Thomassen	Pilasilda Anton-George	Stian Grimsrud
10:00 - 10:20					
10:30 - 10:50	Silje Marie Flaaten	Runa Jacobsen	Linda Österberget	Maria Løvland Johansson	Elisabeth Vossgård
11:00 - 11:20	Tora Jarsve	Steffen Ekeberg Bråten	Thea Nordgulen	Irina Pene	Carolyn Kavita Tauro
11:30 - 11:50	Johanne Thunes	Thao Tran	Live Nordli	Yuanwei Qu	Agnes Dyvik
12:00 - 13:00					
13:00 - 13:20	Jacob Ommundsen	Silje Helene Lund	Marthe Berntzen	Yogita Thakral	Christian Schulz
13:30 - 13:50	Maren-Elise Saarenpää Øien	Claudia Sikora	Selina Demi	Tina Helene Bunæs	Ragnhild Bassøe Gundersen
14:00 - 14:20	Håkon Nygård	Sandra Nguyen	Gwendolyn Borchsenius	Henriette Elde	Sara Løkken
14:30 - 14:50					
15:00 - 15:20	Sigvart Bretteville-Jensen	Mikael Olsen Rodvelt	Steven Nguyen	Vegar Brorson	Handing out grades (via Zoom)
15:30 - 15:50	Julie Thoen	Stian Rustad	Janni Rasmussen	Alexander Fife	
16:00 - 16:20	Rajani Shrestha	Silje Nielsen Kvillum	Snorre Ødegård		

Explanation: We don't know exactly how much time it will take to hand out the grades. We have purposefully made these time slots with some overlap so we may move forward even if we do not need 25 minutes for each exam day. Grades will be handed out in "chronological order" and if you are not present in the Zoom waiting room during the designated time slot we will go to the next student group when we are finished with everyone present. (Please let us know if this doesn't make sense!)

Day you had your exam	Time slot for when you may receive your grade (if you wish)
Monday	15:00 - 15:25
Tuesday	15:15 - 15:40
Wednesday	15:30 - 15:55
Thursday	15:45 - 16:10
Friday	16:00 - 16:25

Zoom-room for receiving your grade:

<https://uio.zoom.us/j/65201854654?pwd=VkN4MjNuNTlqMmIzRGNFMONRUXU3Zz09>

Exam format

Main topics	Subtopics
Case study	<ul style="list-style-type: none"> ● Paradigm ● Methods for data gathering ● Empirical data ● Methods for analysis ● Ethics ● Reflexivity, intersubjectivity & positionality ● Theoretical sampling, saturation & adequacy
Ethnography	
Action research	
Grounded theory	
Design research	

Before the exam, you can choose one main topic that you will spend the first half (approx. 10 minutes) of the examination discussing. The subtopics listed in the table above are relevant to discuss within all the main topics.

You are free to bring anything you want to the exam, but we advise you not to bring too much! A mind-map may be helpful to some of you.

Exam

You have chosen to talk about case studies. You elaborate on what a case study is, when it is useful to do one, what types of case studies you know about, what methods are typically used, etc.



- ▷ **It is important to show that you have read the mandatory curriculum**
 - ▶ What did you learn from reading article A, B, and C?
 - ▶ You do not have to namedrop the authors, but should know the content of each paper.
- ▷ If you do not manage to show us that you have read the curriculum, we have to ask questions to check if you have (e.g., “what have you learned from the curriculum about this topic?”)
 - ▶ **This does not necessarily mean that you have said anything wrong, but that we need you to elaborate!**
- ▷ If it makes it easier for you, you can use examples to talk about the different topics.
 - ▶ For example, if you plan to do a case study for your Masters project, you can use this to illustrate your points.
 - ▶ You can also use different examples (from the curriculum, lectures etc).
- ▷ **Tips! Practice talking about the different topics (out loud by yourself or with others)**