

# Analysis and writing it up

INF5220  
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# Feedback RP 2

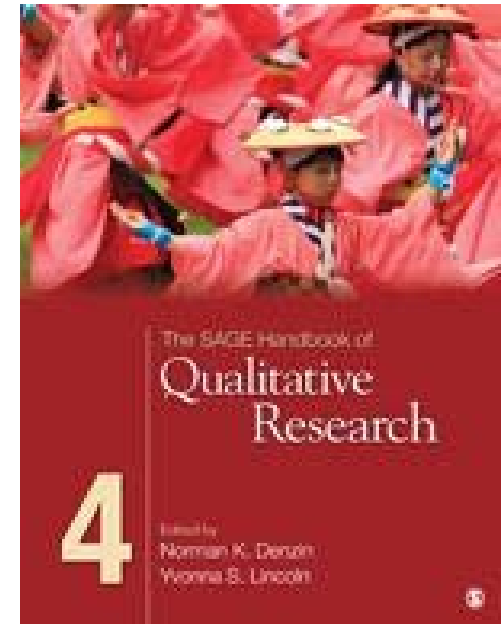
- Research literature vs. document analysis
- Remember to write group number and group members!
- Include log to document participation in the assignments
- Consider, and write how you will do the research – be concrete!
  - How will you recruit informants? How will you get access to the organization/group of people?
  - How will you observe? Collect documents? Practical and ethical obstacles? Consider how you might solve them.
- Important to use concepts from the course literature to describe what you plan to do (and refer to the source).
- Use literature from this course rather than other courses
  - Can look similar on the surface, but can be based on conflicting premises about research-a risk of contradicting oneself
  - Knowledge of this course's literature is what will benefit you in the exam

# Feedback RP 2

- References to a chapter in a book

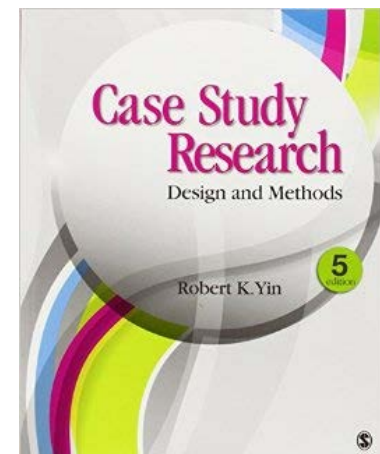
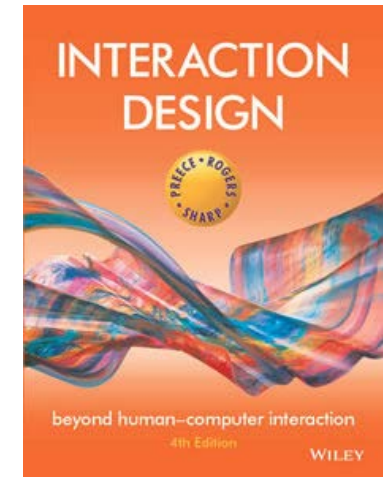
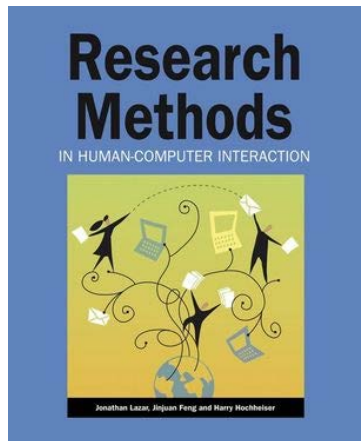
Stake (2005) in the text refers to:

Stake, R. E. (2005). Qualitative Case Studies. In N. L. Denzin, Y. (Ed.), *The Sage Handbook of Qualitative Research*, (Vol. 17, pp. s. 443-466): Sage Publications.



# Other literature

- Preece, Sharp and Rogers: Interaction Design beyond human-computer interaction, 2015, John Wiley & Sons Ltd (**INF 1500/1510**)
- Lazar, Feng and Hochheiser: *Research Methods in HCI*, 2010. Wiley (**INF 2260**)
- Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks, CA: Sage.



## Preece, Sharp and Rogers on data gathering

«.. data gathering is a central part of **establishing requirements**, and of **evaluation**. Within the requirements activity, the purpose of data gathering is to collect sufficient, accurate, and relevant data so that **a set of stable requirements can be produced**, within evaluation, data gathering is needed in order to **capture users' reactions and performance with a system or prototype**»

# ANALYSIS AND WRITING

Difficult to separate «writing» and analysis»

- Writing and thinking is intertwined (van Maanen 2006)
- Reworking and re-re-re...-working is quite normal

What is analysis?

- To make formal sense of empirical material generated through fieldwork by reconsidering it, looking at it carefully and critically (Crang & Cook 2007:133).
- «It's about translating a messy process into a neat product" (Crang & Cook 2007, p 133)
- View relationships between patterns as 'structures' in the data which create explanations (Madden 2010:148-149)

# Analysis starts early

- Analysis starts early in the research process
  - Focusing and refocusing of research aims and questions
  - Phasing and addressing specific issues with specific people
  - Methods used and the kinds of data they help you to construct
  - Who you choose to involve
  - Issues in the interview guide
  - Photos and stories from you and your participants
  - The way you made sense of research experiences in your diary



# Doing analysis

Analyzing field material, you can ask the following questions:

- What are people doing?
- What are they trying to accomplish? How, exactly, do they do this?  
What specific means and/or strategies do they use?
- How do members talk about, characterize, and understand what is going on? What assumptions are they making?
- What do I see going on here? What did I learn from these notes?
- Why did I include them? (Emerson et al. 1995:146)



# Analysis in practice

- Thematic indexing: “With a color pen I marked out (circled or boxed in) events of interest. These color marks are attended by comments, explanations and references to similar and other events of interests. All of this is written in the margin or on blank back pages of my field material. Sometime I made notes on the cover of a piece of field material to indicate thematic events in the text” (Finken 2005, using Sanjek 1990 to talk about thematic indexing)
- A code is «a term that tells the ethnographer that a theme or issue of interest is to be found at this point in their fieldnotes.» (Madden 2010, p 142)
- Take backup – work on copies!!!!



# A looser approach



Walsham (2006):

«I write impressions during the research, after each interview for example.

I generate more organized sets of themes and issues after a group of interviews or a major field visit.

I then try to think about what I have learnt so far from my field data.

If this sounds a rather subjective and relatively unplanned process, well it is. I believe that the researcher's best tool for analysis is his or her own mind, supplemented by the minds of others when work and ideas are exposed to them» (p. 325).

About software for analysis:

“The software does not remove the need for thought”

# Contradictions

What with contradictions and things that don't fit together?

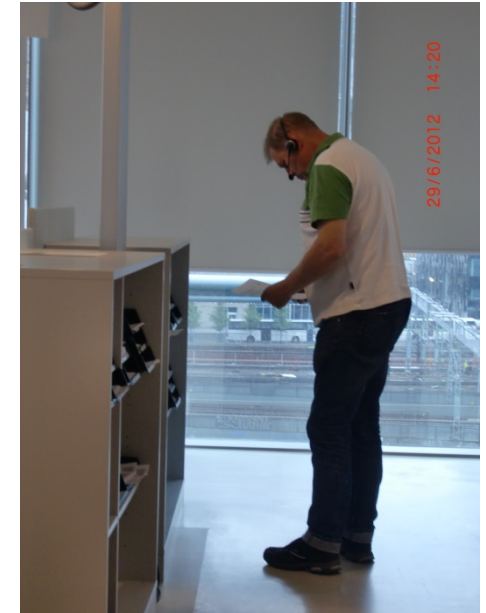
- Registration error?
- Difference between sources?
- Erroneously grouping of different phenomena?

This will lead you to:

- Clarify your interpretations between two conflicting sources, or
- Decide that this contradiction is part of normal human inconsistency, or
- Think that it is an important part of your understanding of a topic

These iterations gives you an understanding of important themes and events

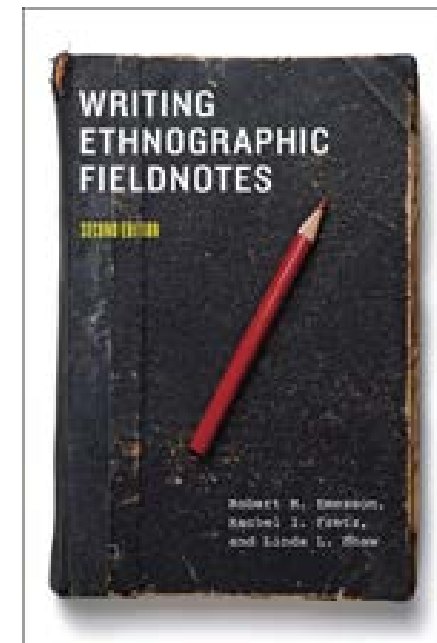
- These may turn into chapters in your master or thesis



# Analysis and theory

- Theory and the generation of data cannot be separated.
- We bring theory to the field - data do not stand alone, **analysis unfolds in all phases of field research** (observations, when recording fieldnotes, when coding the notes in analytical categories, and when developing theoretical propositions).

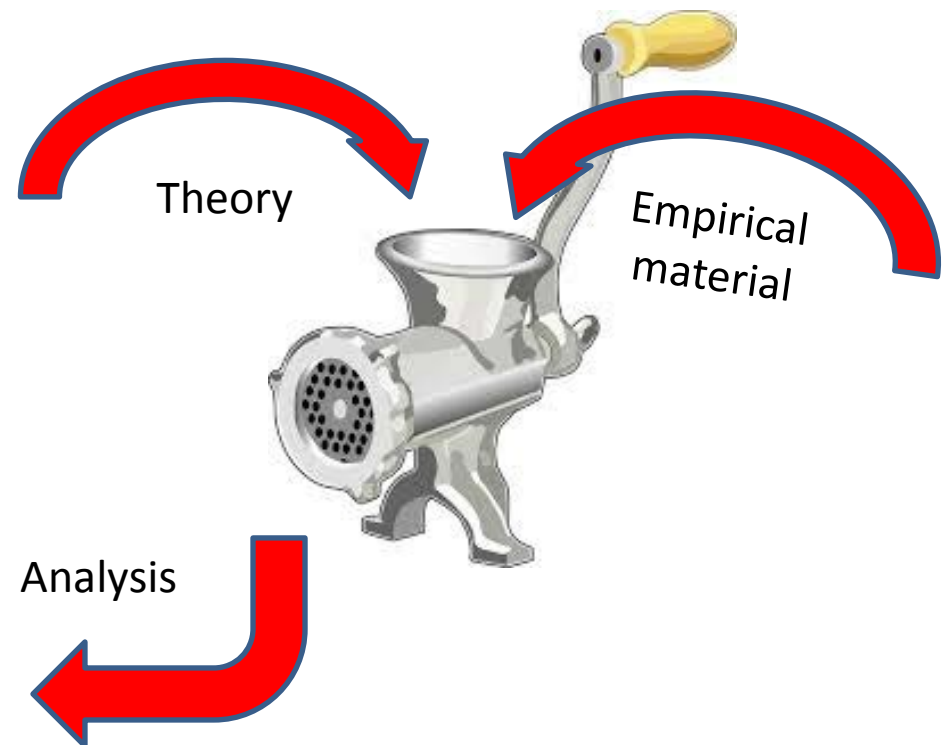
Emerson, R. M., R. I. Fretz and Shaw, L. (1995): *Writing Ethnographic Fieldnotes*. The University of Chicago Press.



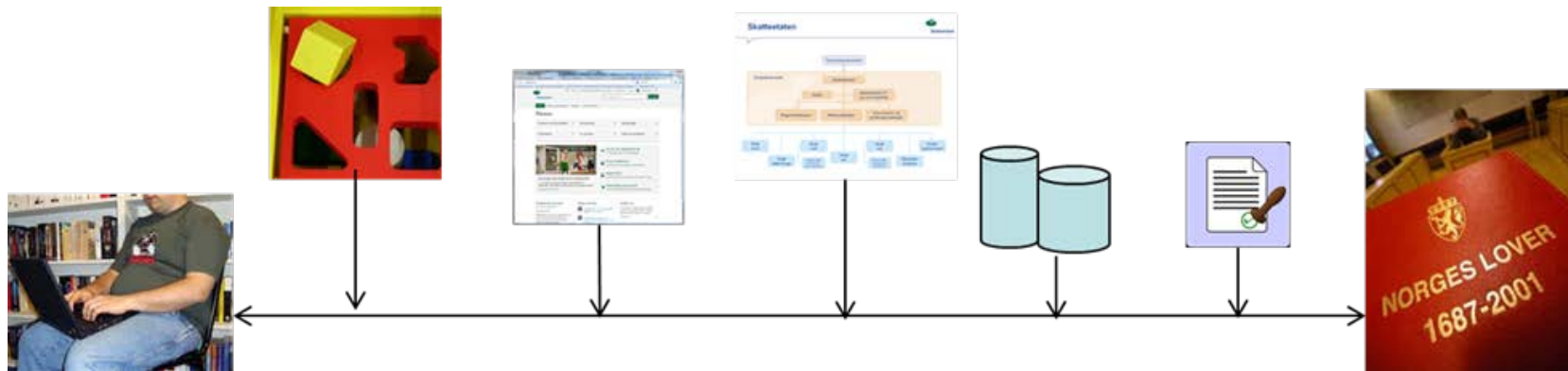
# Analysis as a grinder

With or without theory

Theoretical concepts as sensitizing  
GT – «without theory»



# Example: Guri's analysis



Citizens' challenges with doing taxes (Verne 2015, p. 61-96)

5. Into the telephone calls .....	53
5.1 The citizen and his or her life circumstances .....	55

5.2 The shape-sorting box .....	57
5.3 Using the online services .....	60
5.4 Internal structures .....	63
5.5 Technical issues and anomalies .....	65
5.6 Manual tasks and documentation .....	68
5.7 Laws and regulations .....	71
5.8 Making things more complicated .....	73
5.8.1 Employers and other private enterprises .....	74
5.8.2 Other public agencies .....	77
5.8.3 Municipalities .....	79
5.9 Other kinds of requests .....	80
5.9.1 Unproblematic calls .....	81
5.9.2 Different responses to similar requests .....	81
5.10 The advisor's strategies .....	84
5.11 Different levels of complexity .....	86

# Other approaches to analysis

- Conversation Analysis
- Discourse Analysis





# WRITING

Why is **writing style** an issue?

- A «realist» account pretends to describe «the world as it is»
- Indicate that «knowledge involves perfect omniscient sight» (C&C 2007, p. 153)
- Representations cannot be expected to be stable
- We are creating and making stories, there is no “natural” way
- Reflexivity, positionality

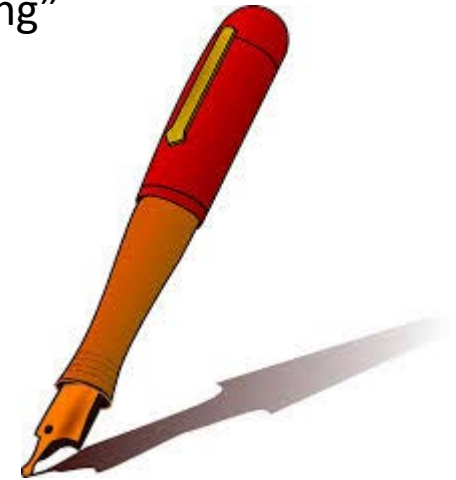
Crang & Cook (2007)



# WRITING

“We co-constitute the field with our informants. So we have tried to suggest and show ways of representing those entanglements through (...) styles of writing”  
(Crang & Cook 2007, p. 202)

- Writing through codes (build on the coding)
- Autoethnographic writing (personal and co-construction)
- Montage-writing (fragmentary understandings arranged alternatively)
- More traditional top-down (in Sørensen)



We are creating and making stories, there is no “natural” way.

“Set your own criteria early on in terms of ‘aims’ of your research: e.g. ‘to use (this form of writing) to achieve (these sorts of effects)’. Then invite your reader to judge what follows accordingly” (Griffiths 2004 in Crang & Cook 2007, p. 206).

"It is hard to over-emphasise the importance of good writing." (Myers living version)

**Overall message from Crang & Cook and Sørensen: find your own voice and style**

# WHAT GOES WHERE IN A MASTER THESIS OR DISSERTATION?

- Title
- Summary /Abstract (1 page)
- Acknowledgements
- Table of content

- Introduction
- Literature review
- Theoretical chapter
- Methodology and empirical setting
- Analysis chapter(s)
- Discussion/Interpretation
- Conclusion

*What others have done*

*Goes into the grinder*

*Discuss with yourself  
- and others*

- References
- Appendix

# Introduction

Setting the stage.

Provide the readers with knowledge about the content and answer the question: what is this piece of work about? Give the reader a short precise presentation of the content of your work, including the motivation for your study: what are you inquiring (object/subject of investigation) – how and in what way is it important for a broader audience?

Present:

Your main motivation for conducting your study  
(explain in what way your study is important)

Describe the area of your research (the problem domain)

- The purpose of your research, incl. your research question(s)
- Your contribution

A brief description of how you attempt to find out  
(methodology/ methods/theory/analytical concepts)

You could also try to answer:

What is the target audience?

What is your personal motivation for this study?

Sketch the structure (content in each chapter) of the thesis

# Literature review

Position your work vis á vis related and/or similar research. In doing so, you show your contribution to a specific research area.

- A survey of literature (journals, conference proceedings, books) on areas relevant to your research question(s) and study. What do you see as challenges in relation to existing literature on the topic you're studying (e.g. this topic is new; this is underresearched; or, x has never been approached from this methodological or theoretical angle)? Do you find inspiration in the literature? State similarities and differences. Write one section pr. each subject matter that you locate. If no or limited research has been published on your specific topic think alternatively about it (does it concern organization of something, functionality, use, design, categorization, decision--making, did the field merge into another field, etc.)
- Conclude the chapter with summarizing what you want to develop further (vis á vis the existing literature) or what you see as a challenge. A summary could be presented in a list, model, etc. Each issue could correspond to your analytical chapters or sections in your analytical chapter; but they should definitely be discussed in the discussion or conclusion of your thesis.

# Theoretical chapter

Description of the theory and/or the analytical concepts you have chosen to work with.

- In what way is the theory/concepts fruitful when engaging with your material? Both in the field, when analyzing, and writing up your thesis. Argue for your choice of theory, framework, or concepts, and justify your choice.
- Do not explain the theory, framework, or the concepts with examples from your fieldwork in this chapter (save it for your analyses).
- If you aim at developing theory (using Grounded Theory), present theory on GT and structure your chapter in a way that leads up to your motivation (e.g. argument such as: the theory needs elaboration in this and this way, which I will provide insight on in xxx way).

# Empirical setting chapter

Describe: Where, what, whom, when, duration of time and why.

Provide a description of the setting/field/place/object of study. In this chapter you should argue for and justify your choices: how/why did you select your 'case' and its participants?

Not always a separate chapter. You could present this information in the methodology chapter in a section devoted to describing your case.

- Provide an overall impression of the 'place' where your research unfolded --> the specific background information that is necessary (helpful) for understanding your case; but which is not part of your analyses. That is, rich descriptions of e.g.: a company, its products (services), its customers, the participants in your study (who were involved, why these participants, and if relevant: their age, gender, educational background, etc.), their inter-relations, work tasks, practices etc., duration of the study.
- The description of your case could be based on your own empirical work mixed with other's descriptions (research, documents, web page, etc.).

# Methodology chapter

A discussion of what you have chosen to do *and* how your choice is relevant and relates to the knowledge you seek.

- Paradigm
- A choice of methodology and methods --> justify. You should demonstrate that you are aware of strengths and weakness of your strategy and methods used.
- A detailed report of the fieldwork that was carried out:
  - What did you do, how did you do it, and why did you what you did (justification + relevance). Some of the activities can be summarized in an appendix outlining your activities in the field + e.g. your interview guide. How did you conduct observations (what kind of situations, what time, what activities, particular focus, etc.)? Whom did you interview, on what issue(s), in what situations or settings (during work hours, in an office, at a cafe?) Did you collect documents (which ones, from where, specific situation?).
- How did you work with your data (organise by indexing in themes, concepts? coding/memos?)
- Do you encounter any challenges during generation of data (access, change of method, some transcripts not read (verified) by participants, limited time, break down of recorder during an interview, etc.)



# Methodology chapter, cont.

Law + ethical considerations: e.g.

- sensitive data?
- personal data?
- consent form
- confidentiality
- anonymity (keys?)
- only collect material relating to the topic of your thesis
- deletion of material after successful end exam (date of completion)  
--> here you make use of Gisle's lecture.

Example:

“During data collection, I will follow the Norwegian regulations on collecting and managing personal information entitled: Personopplysningsloven (Personopplysningsloven, 2000). Pursuant to Section 8 of this law, I will collect data only from those who give written consent. Prior to getting consent, the participants will be informed about the conditions with which the data will be used, as defined in Section 19. In accordance with Section 11, I will only collect data which is relevant to my study, and use it only to the closely defined purpose of this thesis. No sensitive data will be collected, and all data will be kept confidential.” Rekaa, I. E. L. (2010) – master thesis. This excerpt appears with Rekaa's consent.

# Analytical chapter(s)

## (how you present your empirical material)

In working actively with your field material you show how you land on your conclusions (answer your research question(s)).

- Theory /concepts are briefly re-introduced and applied.
- Thoroughly analyse a broad variety of your research material (show patterns/deviations and explain what they mean – e.g. follow a statement or an argument about xxx through your different field material and explain what it means. Or, you can show and exemplify categories/topics of interest for your outcome by using your different field material.
- One or several chapters - how do they relate to each other?  
Perhaps a second level analysis?
- Analysis and discussion can be integrated. Alternatively, the discussion can be provided in a separate chapter. The discussion should link up to the issues discussed in chapter two and/or three (literature review + theory).

# Discussion/Interpretation

Put into perspective and contextualize your contribution.

Discuss with yourself and other researchers.

- If you do not integrate your analysis and discussion then you need a chapter devoted to discussion/interpretation. It's a matter of style (or how you work).
- What does the outcome (your findings) from your analysis tell? In what way is it important and relevant, for whom, and why? What e.g. did you point to in the literature review as challenging and how does your outcome relate to this?

# Conclusion

Summing up and cementation of the outcome of your fieldwork.

- Summary of findings, main problems and your conclusions.
- Present your research question(s) once more (you should return to them or to your initially stated aim through the conclusions drawn).
- What did they lead to?
- Comparisons with literature in chapter two -- how does your outcomes (findings) fit in?
- What is your contribution and what are its implications (practical, theoretical and/or methodological)?
- Possible directions for further research.

# References/ Bibliography

- Listing of all the texts referred to or cited
- Alphabetic or numbered, depending on the style requirements
- Referencing: <http://sokogskriv.no/> (n, en)
- Reference tutorial Harvard style
  - <https://ilrb.cf.ac.uk/citingreferences/tutorial/>

# Appendix

E.g.

- interview guide(s)
- photos
- a visual depiction like a drawing of the field site and/or the relations of material - immaterial members -> if relevant, such depiction could go into one of the chapters),
- list of photos/figures in the text with source and copyright
- maybe a log of activities in the field  
(date/time; activities (observation, interview, attending meetings, phone, email, online visits)).

# IMRAD

I - Introduction

M - Method

R - Results

A - and

D - Discussion

+ Abstract!!

Nygaard, L., 2008, Writing for Scholars. A Practical Guide to Making Sense and Being Heard, Liber, Copenhagen Business School Press

# A final word

*Remember, throughout your chapters, to bring with you your research questions. E.g. when writing the methodology chapter, think about the questions you seek answers to and how the methodology and methods have been fruitful in generating empirical material that answers these questions. Always remember to argue for and show the relevance of the choices you have made. Move between description and explanation.*

«Good writing springs from good data, properly gathered.»  
(Madden 2010, p. 152)

This outline is based on Silverman 2005, previous lectures, questions from and conversations with previous students of INF5220/9220