

Coding

A short session for BlueUrban surveyors

Sept 8th 2022

p2
... But if they do, then I usually cook meat. Um, it's not
particular recipe that I've found online or anything. It's just
... my dad used to make growing up. Um, so really just
... easy to cook, easy to clean, don't have that many
... that expensive.

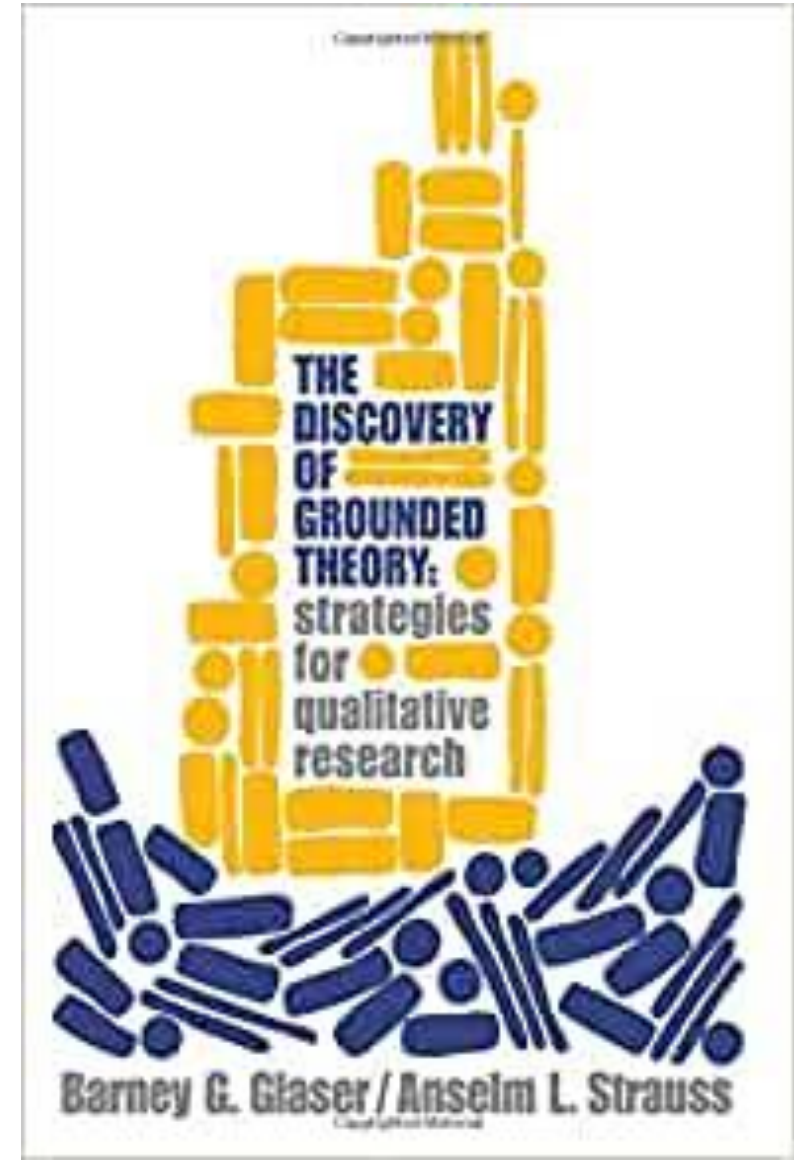
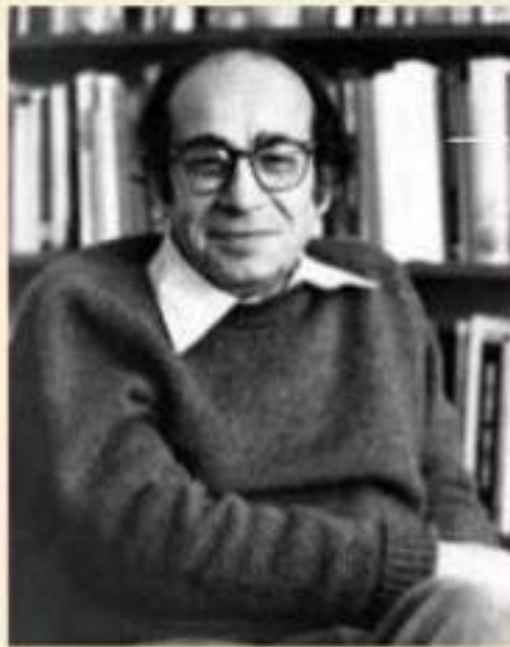
p3
... I'd actually never had until I was like maybe 24. I went to a
friend's house and she was making it. And it was really good, and I
... rice, so I've made that a couple of times. Um, other than that I
... don't really get too creative.

p1
... and then since that worked out really well, I used

- What are your own experiences with coding?
- What kind of ‚material‘ did you work with?
- How did you approach it?

Working with qualitative data – a grounded theory approach

Barney G. Glaser Anselm Strauss



Working with qualitative data – a grounded theory approach

Main approach: researcher's theory about a topic is constructed from the data that he/she analyzes

→ a **grounded theory** is one that is grounded in that data

→ **Inductive vs deductive approach**

This also means that the process of analyzing qualitative data is a crucial step in the development of a grounded theory

GT starts with a “study of a range of individual cases and extrapolates patterns from them to form a conceptual category” (Charmaz 2006: 188)

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What are advantages/disadvantages of such an approach?



- One main critique towards early GT:
 - Theories are not out there to be discovered by the researcher, but are actively constructed by the researcher (as a result of his/her interaction with the participants and the emerging analysis)
 - Influenced by knowledges/positionality/values and beliefs of the researcher
 - „Construcivist GT“

Grounded theory – a „family“ of methods

- There is not **one** grounded theory!
 - Three main schools: Glaserian, Straussian and constructivist GT
- But: similarities in methodological approaches, ways of organizing research, as well as analytical procedures

Common principles

Starting research with a broad research focus or question

Delaying literature review until later stages of research (controversial)

Conducting simultaneous data collection and analysis

Conducting constant comparison method

Keeping memos

Theoretical sensitivity

Theoretical sampling

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Coding – it's about...



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„naming segments of data with a label that simultaneously categorizes, summarizes, and accounts for each piece of data“
(Charmaz 2006: 43)

Phases of coding (Thornberg and Chamaz 2014)

- Coding is a constant, often un-linear process that is done throughout the study phase
 - it can begin during and while data collection is carried out
- Usually, there are two phases of coding that often overlap and can be jumped between:
 - **Initial coding**
 - **Focused coding**

Initial/open coding

- Keep close to the text/stock of data
- Quickly but carefully move through data
- Construct and keep codes short, simple, precise and active
- Scrutinize and code data by asking questions (cf. Thornberg and Charmaz 2014):

Questions for initial coding

- ‘What is this data a study of?’
- ‘What category does this incident indicate?’
- ‘What is actually happening in the data?’
- ‘What is the participant's main concern?’
- ‘What do the actions and statements in the data take for granted?’
- ‘What process(es) is at issue here? How can I define it?’
- ‘How does this process develop?’
- ‘How does the research participant(s) act and profess to think and feel while involved in this process?’
- ‘What might his or her observed behavior indicate?’
- ‘When, why, and how does the process change and what are its consequences?’



Main aim

- Critically and analytically look at data
 - Staying flexible and see what is happening in the data
 - Find fitting codes/labels with the help of analytical questions
-
- Hint: using gerund forms can help finding suitable initial codes
- e.g. „Believing that ...“ „Thinking that ...“ „Feeling ...“ „Avoiding ...“

Comparing data and transforming codes

- Constant comparison of data with data, codes with codes
 - Finding similarities and differences between the texts
- Initial coding and constant comparative practices lead to sorting and clustering of codes, also revising initial codes and creating new ones
 - More elaborated codes by merging and combining initial codes
- Pre-requisite for the second form of coding – focused coding

Focused coding

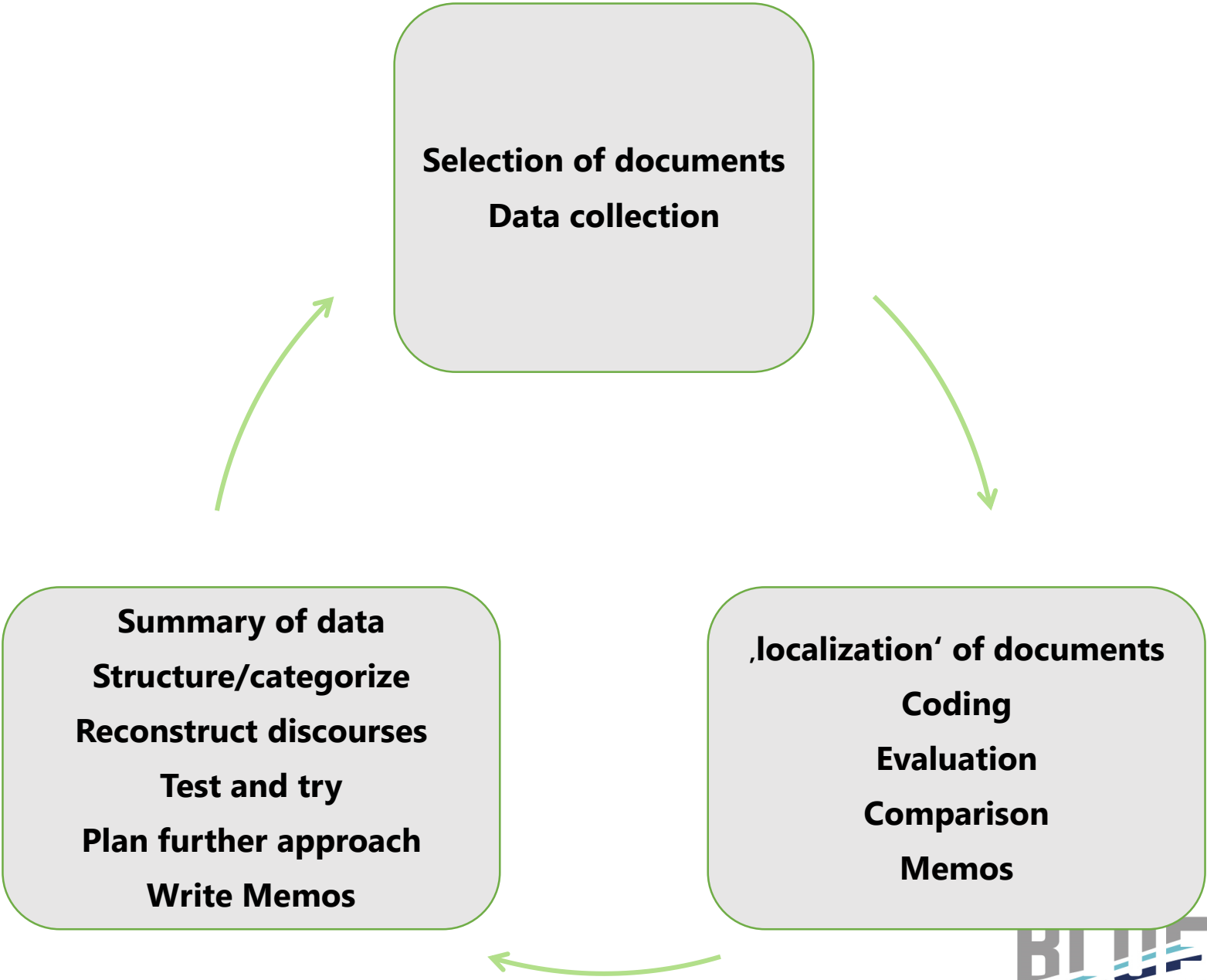
- As a result of initial coding and especially of constant comparative practices: researcher can identify/“discover“ the most important and/or frequently appearing codes
 - Those codes are the outcome of synthesizing initial codes into one core category that makes most analytical sense and captures as many initial codes as possible (aggregation of codes)
- This then guides further coding of texts and data collection

Example: Researching conflict around adaptation at Bremen's *Stadtstrecke*

- Discourse analysis of a conflict around an urban adaptation project in a Bremen city quarter
- Two discourse alliances (the citizen initiative and the administration) that especially differed in their evaluation of the existing tree stock on the dyke
- „argumentative discourse analysis“ (Hajer 2003), combined with elements of sociology of knowledge approach to discourse (Keller 2011)







Selection of documents

Data collection

'localization' of documents

Coding

Evaluation

Comparison

Memos

Summary of data

Structure/categorize

Reconstruct discourses

Test and try

Plan further approach

Write Memos

**Excerpt from Open Letter to Bremen's Senator for the Environment (2017):
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"However, you are responsible for the planned felling of the 136 plane trees on the Neustadt dyke, which are indispensable from an urban ecology point of view. [...] You are indeed responsible for this increase in pollution and the deterioration of the microclimate and the health hazards that go hand in hand with it, day after day, [...]. Especially as there are 3 old people's homes and the Red Cross Hospital in the front of Neustadt. Old and sick people are particularly affected by increasing heat periods and air pollution. [...]"

"This may already give the impression that you are less concerned with flood protection, which is allegedly endangered by the plane trees, than with replacing the 136 plane trees, which are indispensable from an urban ecology point of view, with "more suitable" trees. The cityscape-defining backdrop, however, would not be restored in the way you keep claiming."

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Initial/open coding

'What is actually happening in the data?'

'What is the participant's main concern?'

'What process(es) is at issue here? How can I define it?'

'What might his or her observed behavior indicate?'

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Initial/open coding

Making Senator responsible for the felling of trees
Believing that trees are important for urban ecology
Making Senator responsible for pollution,
change of microclimate and health hazards
Thinking that elderly and sick people are
being particularly affected

Believing that Senator is less concerned with flood
protection, Senator claiming that plane trees are
endangering flood protection
Believing that the aim is to replace them with other
trees
Being convinced that scenery at the dyke can not be
restored with new trees

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Aggregation of codes

Argument for saving trees: urban ecology importance

Argument for saving trees: Planting new trees is not working

Memos

Memo

Relates to protecting citizens

Memo

Relates to specific understanding of climate adaptation

Memo

Relates to category „deception of the public“

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Focused coding

Argument for saving trees: urban ecology importance

Argument for saving trees: Planting new trees is not working

Danger: Health hazards through felling of trees

Danger: change of urban landscape

Discursive strategy: Dramatizing & personalizing the problem

Recommended literature

- Charmaz, K., *Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis*. — SAGE, 2006.
- Glaser, B., *Doing Grounded Theory: Issues and Discussions*. — Sociology Press, 1998.
- Glaser, B., Strauss, A. *The Discovery of Grounded Theory: Strategies for Qualitative Research*. — Transaction Publishers, 2009.
- Kolb, Sharon M., *Grounded theory and the constant comparative method: Valid research strategies for educators*. — *Journal of Emerging Trends in Educational Research and Policy Studies* 3.1, 2012 (83).
- Montgomery, P., Bailey, P. H., *Field notes and theoretical memos in grounded theory*. — *Western Journal of Nursing Research*, 2007, 29(1), 65-79.
- Thornberg, R., & Charmaz, K. (2014). Grounded theory and theoretical coding. *The SAGE handbook of qualitative data analysis*, 5, 153-69.