B124

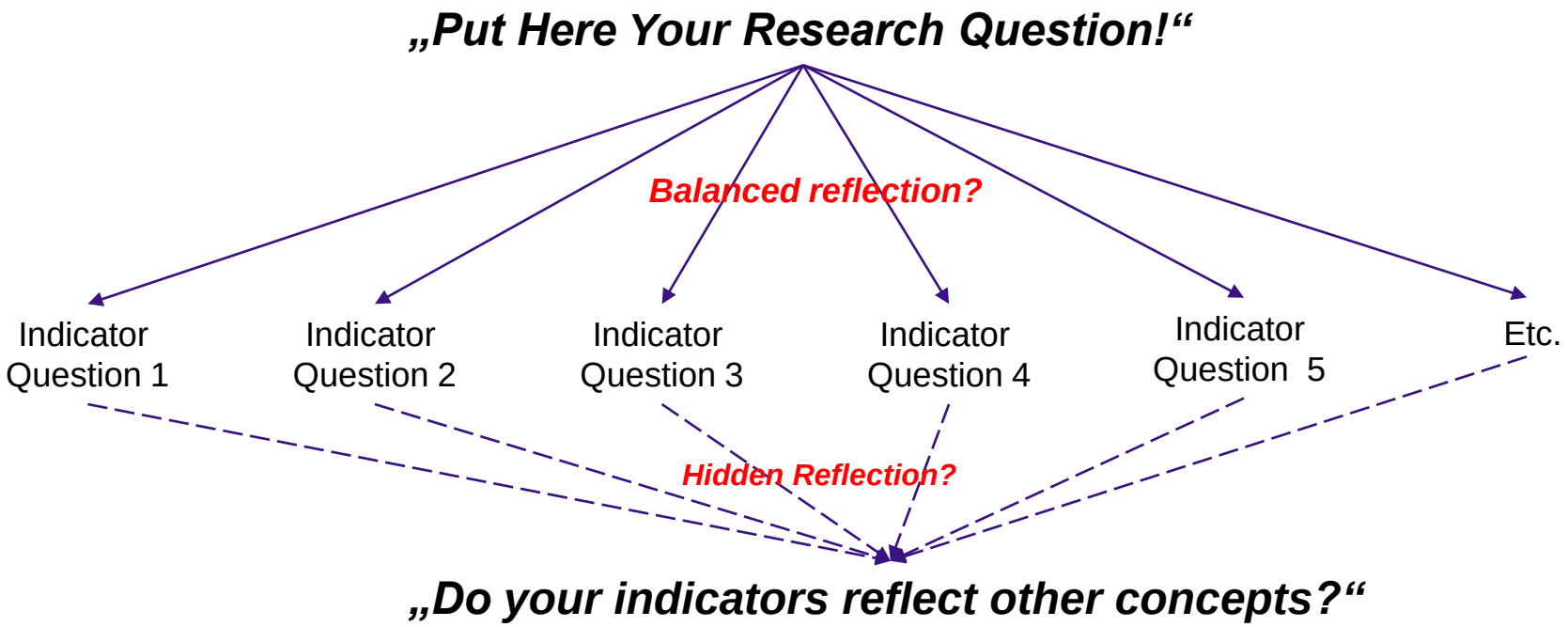
Research Method and Scientific Work:

Analysing data qualitatively

Week 7 Nov 2022

Prof. Dr. Tilmann Lindberg

Group assignment: Determining Content Validity of your Data Collection Tool



Key aspects to consider when choosing a qualitative analysis technique

- the methodological and philosophical basis of the research;
- the approach to theory development used in the research;
- the analytical approach used in the technique.

Saunders, M.N.K., Lewis, P. and Thornhill, A. (2015). Research Methods for Business Students, 7th ed, Pearson.

Approaches to Qualitative Analysis

- **Grounded Theory: Theory development purely from qualitative data**

- **Narrative Analysis: Working out events in chronological order**

- **Discourse analysis: Analysing how people speak and write about a certain subject**

- **Visual analysis: Analysing images taken from sites or from secondary data**

Wilson 2014, 284f

Analysing Qualitative Data

1. Transcribing your data

2. Reading and generating codes, themes and patterns

3. Interpreting your findings

4. Writing the report

Wilson 2014, 255

Transcribing your Data

- **Verbatim vs. Summarising Transcripts**
- **Full vs. partial transcripts**
- **In-interview (notes) vs. post-interview transcripts**
- **Role of the data → inspirational character or detailed text analysis?**

Wilson 2014, 255

Alternative ways of reducing the time needed to transcribe audio-recordings

Alternative	Potential problems
Pay a touch-typist to transcribe your audio-recordings	• Expense of paying someone else • Important data such as pauses, coughs, sighs and the like may not be included • You will not be familiarising yourself with the data as you are not transcribing them yourself • The transcription will still require careful checking as errors can creep in
Borrow a transcription machine with a foot-operated play–pause–rewind–fast forward mechanism and software to control the audio speed	• Although this will allow you to control the audio-recorder more easily, the speed of transcription will still be dependent upon your typing ability • The transcription will still require careful checking • You may not be able to gain access to a transcription machine

Saunders, M.N.K., Lewis, P. and Thornhill, A. (2015). Research Methods for Business Students, 7th ed, Pearson.

Alternative ways of reducing the time needed to transcribe audio-recordings

Alternative	Potential problems
'Dictate' your audio-recordings to your computer using voice-recognition software	• You will need to discover which voice-recognition software works best with your voice • You will also need to discover which voice-recognition software is suited to the needs of your research project • You will need to 'teach' the voice-recognition software to understand your voice • You will need to listen to and dictate the entire audio-recording • The transcription will still require careful checking as the software is not entirely accurate
Only transcribe those sections of each audio-recording that are pertinent to your research (**data sampling**)	• You will need to listen to the entire recording carefully first, at least twice • You may miss certain things, meaning you will have to go back to the audio-recording later • Those sections you transcribe will still require careful checking

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Analysing Qualitative Data: What do you look for?

- **Key elements:** Critical incidents or major events (order of importance)
- **Various settings:** Acknowledgment of phenomena in qualitatively different situations and cases
- **People:** Individuals and groups, their profiles, backgrounds, histories
- **Processes:** Description of sequences of actions as explained by the interviewees
- **Themes:** Cross-comparison of different observations to illuminate key themes

Discover patterns and themes for theory generation and hypothesis development

Wilson 2014, 284f

Analysing Qualitative Data: How to look for that?

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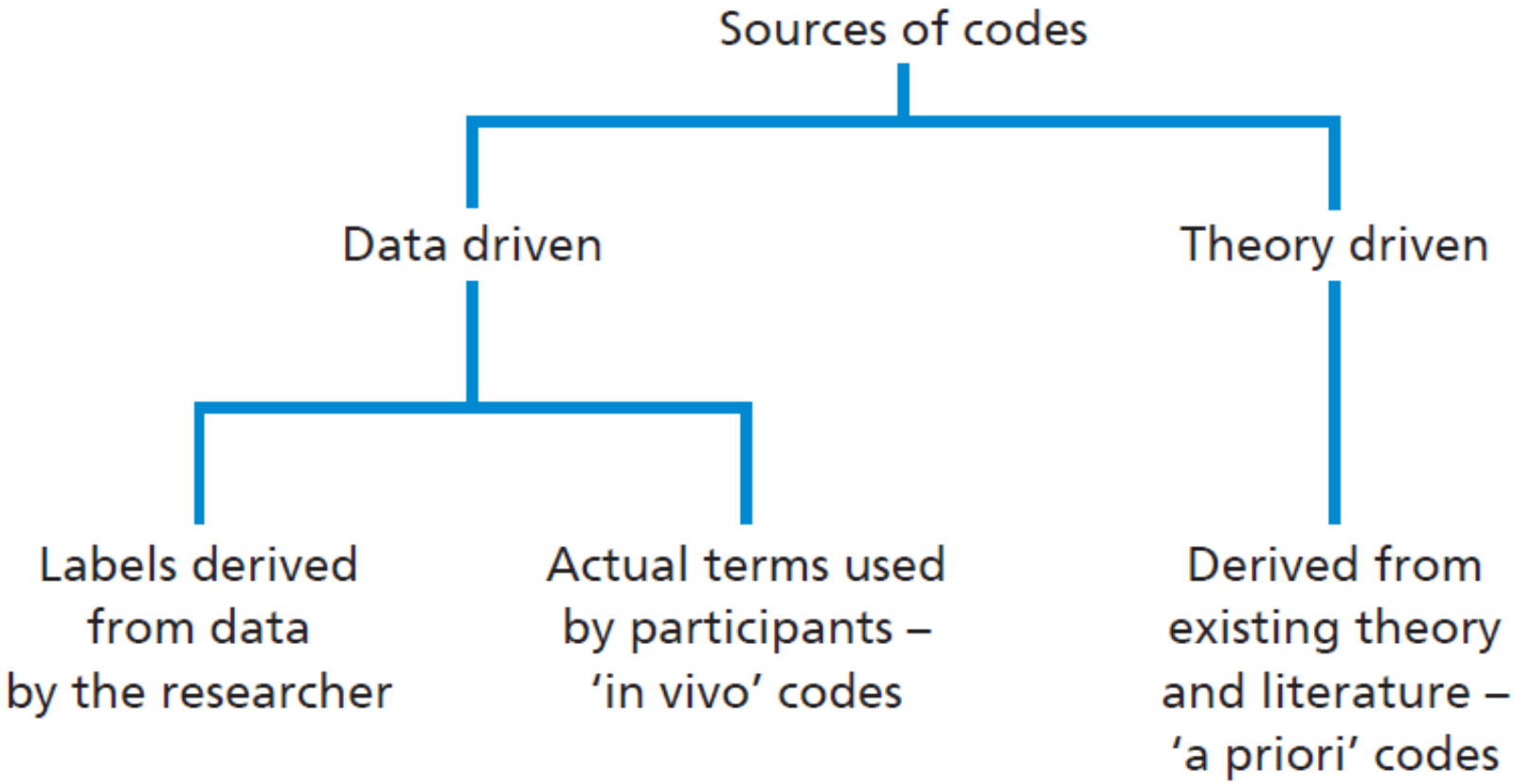
Coding:

"The goal of coding is to fracture the data and rearrange it into categories that facilitate the comparison of data within and between these categories and that aid in the development of theoretical concepts" (Wilson 2014, 284)

- **Theory-driven coding** (deductive) **vs. data-driven coding** (inductive**)**
- **Open coding** (generating codes from text) **vs. axial coding** (grouping and combining codes into high-level categories)
- **Full coding** (coding every part of the text) **vs. selective coding** (only coding text passages relevant to research question or theory development)

Wilson 2014, 284f

Sources and types of code



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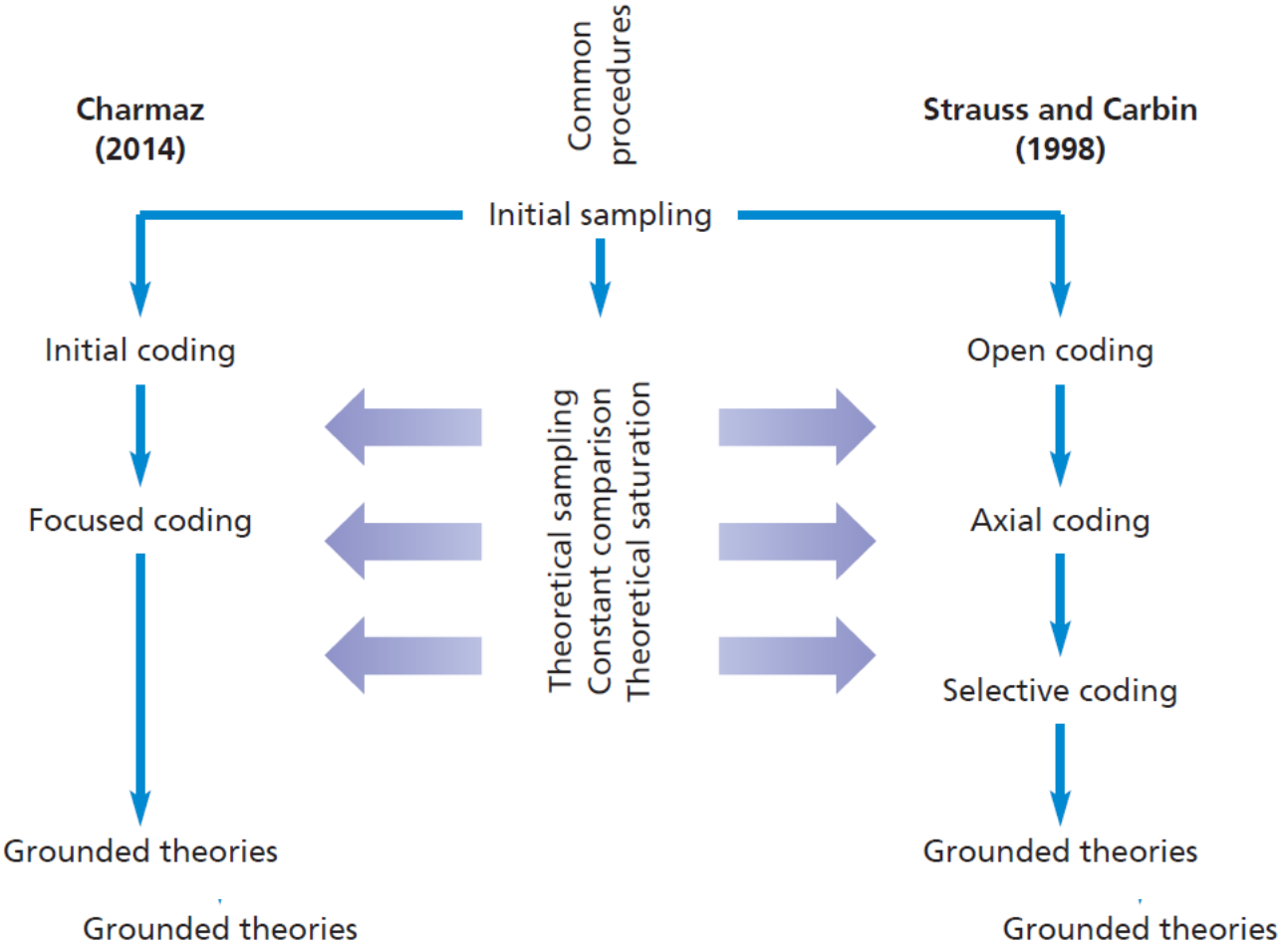
Use of Coding According to the Grounded Theory Method



Source: © Mark Saunders, Philip Lewis and Adrian Thornhill 2018

Analysing Qualitative Data: How to look for that?

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Table I: Categories, subcategories and codes for the perceptions of students about problem based learning

PBL	Categories	Sub-categories	Example of quotes used for coding
	Group work	Contributed to learning	"working in our groups helps for understanding certain aspects"
		Should be changed	"I don't really like the PBL groups"
	Facilitator	Contributed to learning	"the discussions with the facilitators" (contributed most to my learning)
		Should be changed	"facilitators should be more involved"
	Learning Objectives	Contributed to learning	"Setting clear learning objectives"
	- Feedback	Should be changed	"too many objectives for one session"
	Self-directed Learning	Contributed to learning	"researching information on my own" (contributed most to my learning)
	- Research - Resources	Should be changed	"provide more guidance when we gather material"
	The OT Course	Contributed to learning	"PBL as a learning tool does ensure interactive learning"
	- PBL - Lectures - Workload - Fieldwork	Should be changed	"NO PBL and more lectures"

The other side of the coin: OT students' perceptions of problem-based learning (scielo.org.za)

Aids to help your analysis

- Interim or progress summaries;
- transcript summaries;
- document summaries;
- self-memos;
- a research notebook;
- a reflective diary or journal.
- Software (MaxQDA, nVIVO, Atlas.ti, taguette [freeware])

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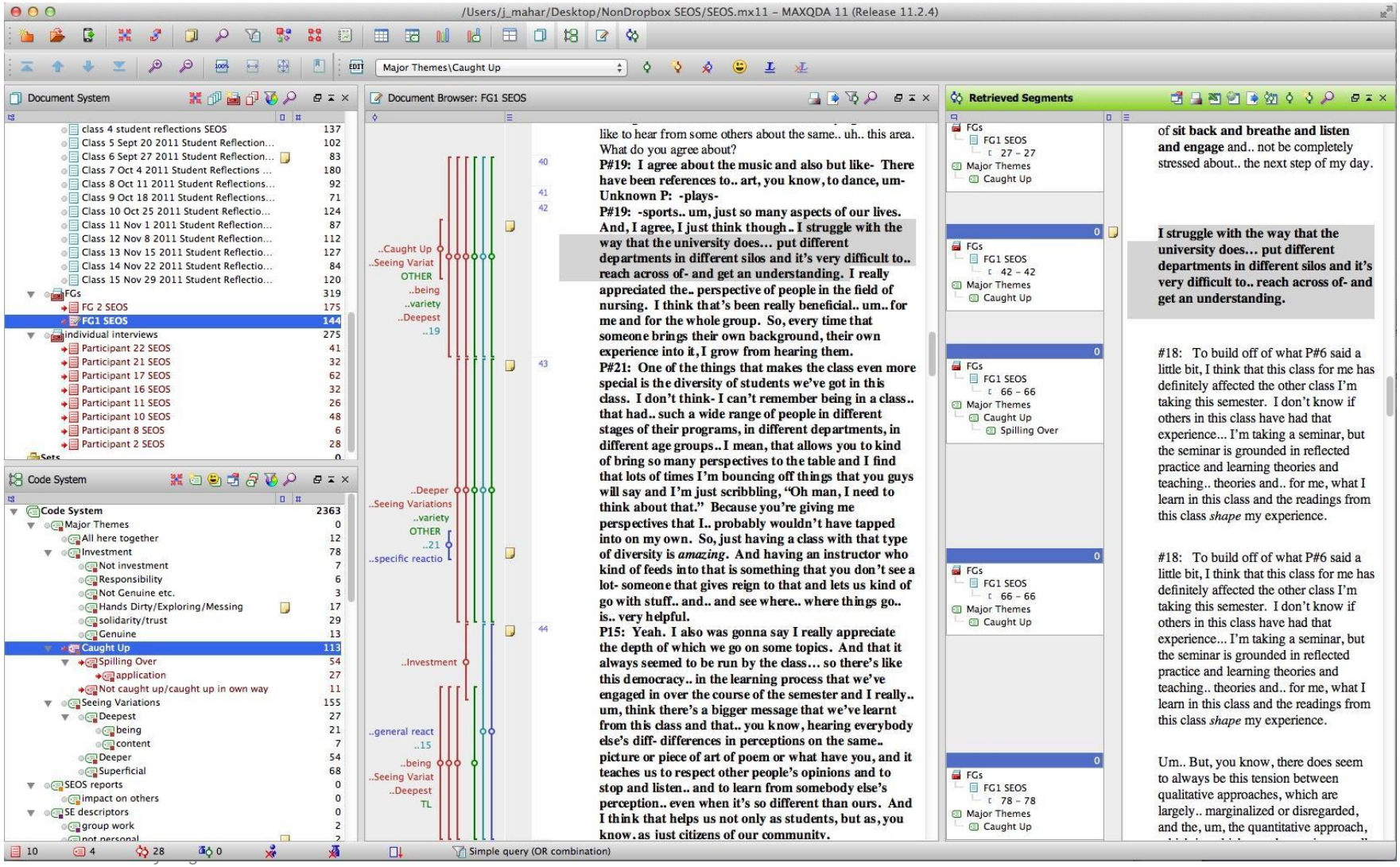
MaxQDA – Software-based Coding



View of Phenomenology and Qualitative Data Analysis Software (QDAS): A Careful Reconciliation | Forum Qualitative Sozialforschung / Forum: Qualitative Social Research (qualitative-research.net)

Uses of thematic analysis

1. comprehend often large and disparate amounts of qualitative data;
2. integrate related data drawn from different transcripts and notes;
3. Identify key themes or patterns from a data set for further exploration;
4. produce a thematic description of these data; and/or
5. develop and test explanations and theories based on apparent thematic patterns or relationships;
6. draw and verify conclusions.

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Thematic analysis: when searching for themes ask… (1 of 2)

- What are the key concepts in these codes?
- What, if anything, seems to be recurring in these codes?
- What seems to be important, whether it recurs often or not?
- What patterns and/or trends are evident in the coded data?
- Which codes appear to be related?
- How do a particular set of codes appear to be related?

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Thematic analysis: when searching for themes ask… (2 of 2)

- What is the essence of each apparent theme?
- How might themes be related to each other?
- Which themes appear to be main themes and which appear to be sub-themes (related to a main theme)? There may also be third level themes evident in your analysis.
- How may the relationship between themes be represented (as a hierarchy or a network) to produce a thematic map?
- Is there an overarching theme (or more than one) that unites your analysis?

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Template analysis: ways of reorganising a template

1. Insertion of a new code or theme into the hierarchy as the result of a relevant issue being identified through data collection for which there is no existing code or theme.
2. Deletion of a code or theme from the hierarchy if it is not needed.
3. Merging codes or themes that were originally considered distinctive.
4. Altering the classification of codes or themes, so that some are promoted to a higher level in the coding template, while others may be demoted.
5. Changing the scope of a code or theme. Inserted, deleted, merged and altered codes or themes may have implications for others in the coding template. This may result in the need to move a code or theme within the coding template, change its purpose or split it into two or more new codes or themes.

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Deductive explanation building procedure

1. Devise a theoretically based proposition, which you will then seek to test.
2. Undertake data collection through an initial, purposive case study in order to be able to compare the findings from this in relation to your theoretically based proposition.
3. Where necessary, amend the theoretically based proposition in the light of the findings from the initial case study.
4. Select a further, purposive case study to undertake a further round of data collection in order to compare the findings from this in relation to the revised proposition.
5. Where necessary, further amend the revised proposition in the light of the findings from the second case study.
6. Undertake further iterations of this process until a satisfactory explanation is derived.

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Elements of structured narrative analysis

- an abstract (which states the point of the story);
- an orientation (which describes the situation including when and where it took place and who was involved);
- a complicating action (which describes the sequence of events including a critical point);
- an evaluation (where the narrator explains the meaning of the narrative);
- a resolution (how the issue is solved – the outcome); and
- a coda (which ends the narrative and relates it to the present).

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Visual Analysis: you need to understand

- who took or created the image or images that you wish to analyse;
- how these images were taken or created;
- the purpose for which these images were taken or created;
- how these images have been used previously;
- any intended audience for these images, and;
- the intended effect(s) of the image maker and those who commissioned these images.

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