

5 October, 2018



Data Analysis

NGO Federatie, October 2018

Data Analysis

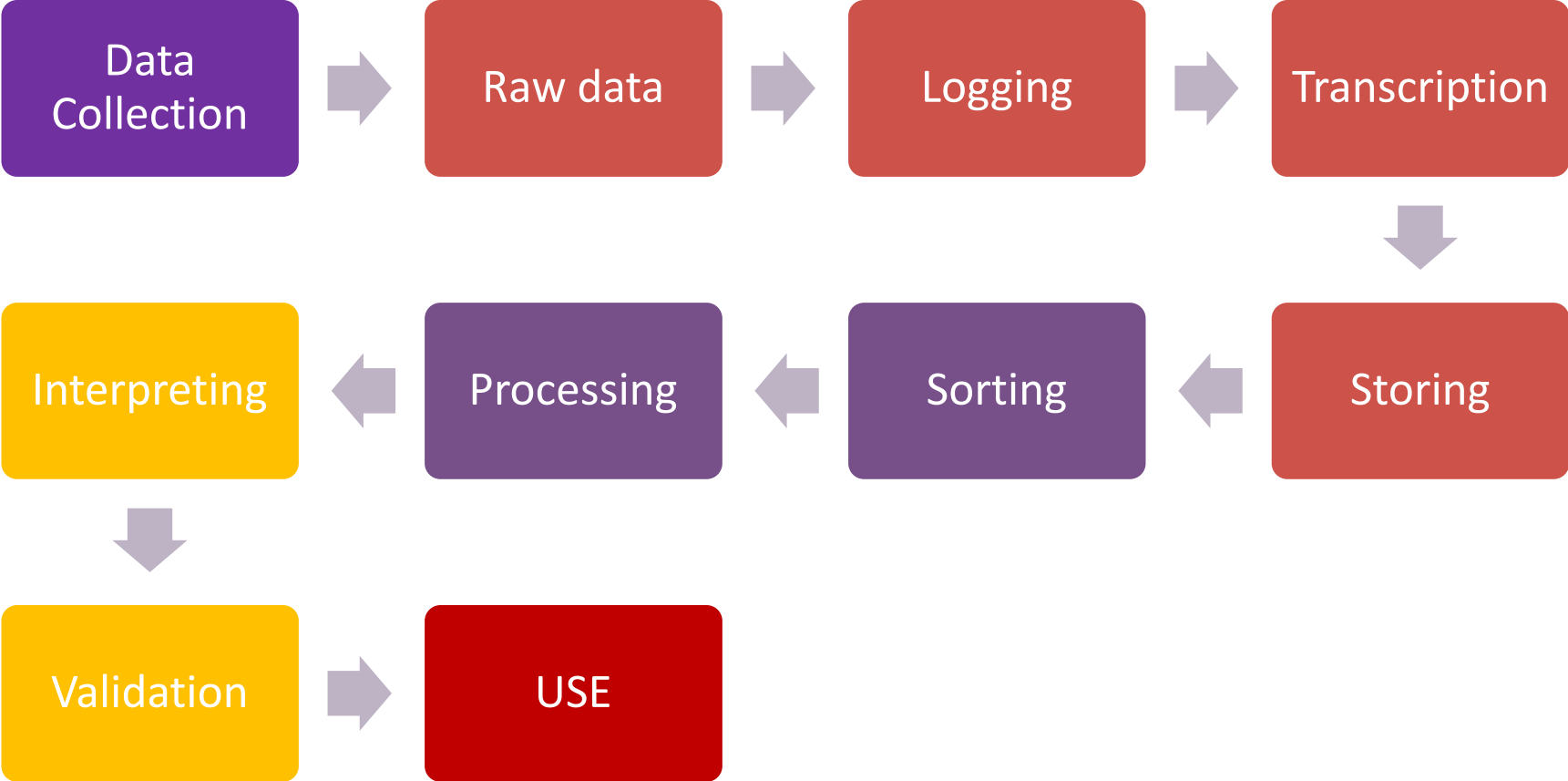
a process of taking things apart and putting them back together again”

(Laws, 2003: 381 ‘Research for Development’)

I believe she has fallen into some type of data-induced coma. My guess is that someone attempted to explain an analytic interpretation or dataset quirk and her brain just couldn't process...



Data Analysis Flow chart



Quant vs. Qual

- Needs to have been considered before data collection!
- Qualitative and quantitative data serve different purposes and answer different kinds of questions

	Quantitative	Qualitative
What does it say about your subject?	Provides an average picture, to a certain degree of precision	Explores the diversity and meaning
Typical questions	Who? What? When? How Much?	How? Why? What does it mean?
Scope	Wide	Deep

Analysing qualitative data

Allows you to:

- interpret the meanings of statements from respondents
- draw out themes from multiple responses to open-ended questions
- establish patterns across different types of texts
- draw out statistical data from qualitative data
- identify and explore anecdotes (stories/ responses) worthy of further interrogation
- identify stories that can provide rich depth to your reports

Analyzing qualitative data

How do I summarize and make sense of all these words?



Approaches to analysing qualitative data



- Different starting points:
 - **Theory-driven** - starting with the key questions, themes or indicators and identifying the data that corresponds to these
 - OR
 - **Narrative-driven** - starting with the data and letting the key questions and themes emerge

Approaches to analysing qualitative data



- Different ways of organising your data:
 - **Fragmenting through coding** – breaking up the statements into small pieces, drawing out themes and sub-themes

OR

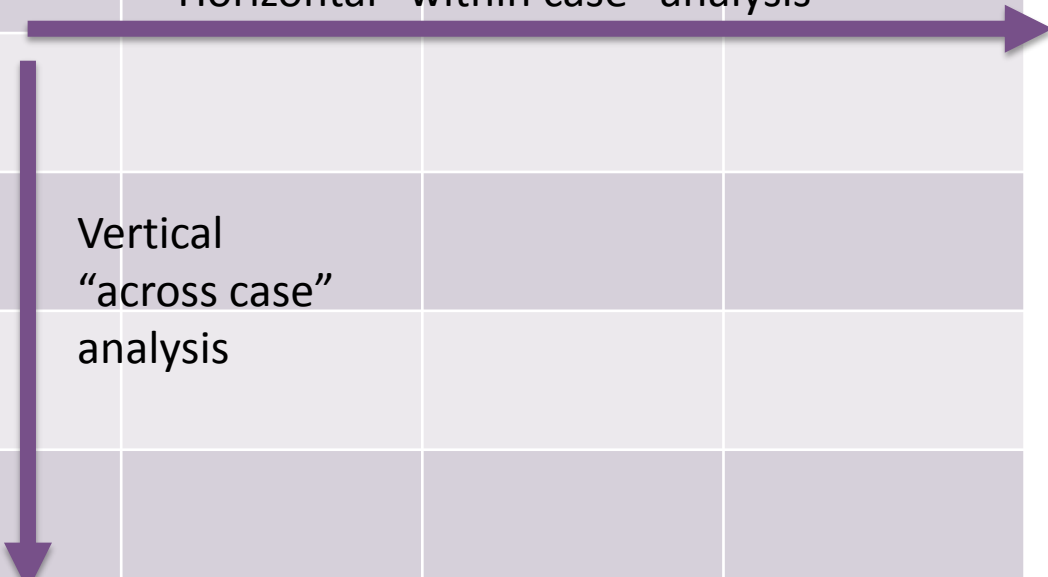
- **Maintaining the story** – the richness of the data lies in the long narrative

Analysis process




Respondent	Q1	Q2	Q3	Etc
Resp. 1				
Resp. 2				
Resp. 3				
Resp. 4				
Etc.				

Horizontal "within case" analysis

Vertical "across case" analysis



Analysis process

Respondent	Q1	Q2	Q3	Etc
Resp. 1	X		Y?	Looking for associations and patterns between findings
Resp. 2	Not X			
Resp. 3	X		Y?	
Resp. 4	X		Y?	
Etc.				

Analysis process

Respondent	Q1	Q2	Q3	Etc
Resp. 1				
Resp. 2				
Resp. 3			X?	Reviewing the data for new issues or patterns identified already
Resp. 4				
Etc.				

Analysing quantitative data

Allows you to:

- generate a broad picture around the key questions
- establish some basic patterns using percentages, averages and measures of spread
- spot trends and interesting points for deeper analysis
- spot outliers or unexpected findings
- draw some associations between different variables, e.g. X% of men of a certain age felt Y about women taking leadership roles
- create visual representations of the data in the form of charts, graphs and figures



Interpreting

Generating Evidence

- Identifying patterns
- Triangulation
- When to stop?

Assessing the quality

- Check the trends
- Check the contradictions
- Check the gaps

Drawing conclusions

- Preliminary conclusions and recommendations
- Select stories and quotes
- Reporting on the limitations

Exercise: making sense of your data

Assessing the quality of evidence

Checking the analysis, especially interrogating anomalies:

- Are they the result of bias or limitations, for example the methods chosen, the sample size, or the make-up of the focus groups?
- Are they the result of influence by the data collectors or analysts?
- Are they the result of contextual factors at the time of data collection, for example you gathered the data at a holiday time, during the harvest or rainy season, or at the time of political crisis?
- Is there a social silence on the topic? Were people not honest in their responses?
- Did you forget to collect some important data?

Your analysis should be systematic and verifiable, i.e. someone else doing the same analysis should arrive at roughly similar conclusions

Bond's Principles and checklist for assessing evidence

https://www.bond.org.uk/monitoring-and-evaluation/monitoring-and-evaluation-tools#evidence_principles



- 1) **Voice and Inclusion:** the perspectives of people living in poverty, including the most marginalised, are included in the evidence, and a clear picture is provided of who is affected and how
- 2) **Appropriateness:** the evidence is generated through methods that are justifiable given the nature of the purpose of the enquiry
- 3) **Triangulation:** the evidence has been generated using a mix of methods, data sources, and perspectives
- 4) **Contribution:** the evidence explores how change happens, the contribution of the intervention, and considers factors in the external environment

Validation

Creating spaces
for reflection

Sharing initial
findings

Taking on board
comments and
ideas

Documenting this
process

Use

Final report

Dissemination

Planning the
follow up?