

Data analysis in qualitative research: A primer

KIN 250: Research Methods

Dr. Matthew Masucci

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* Additional information from: Cote, Salmela, & Baria, 1993; Marshall & Rossman, 1999; Taylor & Bogdan, 1998)

Our tasks:

- ▶ Discuss data analysis procedures used in “basic” qualitative work
- ▶ Hopefully get to some “hands on” work!
- ▶ Think a bit about representational strategies
 - So, what do your data and results look like??
 - What kind of handwriting does it have?
 - Formal, narrative, chronological, quantitative component, etc,

Preamble: The transcribing process

- ▶ This is an important point, because it can be done by either yourself or someone else!
- ▶ Do you transcribe verbatim?
- ▶ Use of code names and changing identity-revealing markers

Data analysis

- ▶ For the purposes of this class, I'm talking now generally about straight-forward qualitative, inductive analyses
- ▶ In general, most of you would be doing *interpretational* qualitative analyses
 - "Researcher overlays a structure of his or her own making on the data as a device for rendering the phenomenon under study easier to grasp." (Tesch, 1990)

Data analysis

- ▶ Sports studies work is most often done inductively, for from the bottom-up
 - Goal is to take all these “fuzzily bound” texts and develop a classification system that best captures the data, with minimal overlapping between categories/themes
 - However, previous research and theory should at least “inform” your analysis!

Data analysis: Overview (2)

- ▶ In many ways, your data analysis begins after the first interview
- ▶ Qualitative data analysis is a much messier, though not haphazard or random, process
- ▶ You never really do qualitative data analysis by yourself
 - But, less traditional division of labor in data collection/analysis
- ▶ Reflexivity: Refers to the process by which the researcher recognizes, periodically exploits, and always critiques, his or her place within the sphere of inquiry
 - *Keep a reflective journal (this also relates to rigor)*

Data analysis: Overview (3)

- ▶ Data analysis is the most difficult part of qualitative research to learn and explain to others (Taylor & Bogdan, 1998, p. 140)
- ▶ There is no “answer” or “right” way to analyze qualitative data
 - But...some make more or less sense
 - Again, this is cookie-cutter approach
 - Better to be conservative at this point...perhaps

The basics (Taylor & Bogdan, 1998)

- ▶ Read, reread, and re-reread for familiarity
- ▶ Ideally, have someone else read your transcripts
 - Check on your biases (we’ll talk about this)
 - Part of peer review
- ▶ Keep track of hunches, interpretations, & ideas (Part of *Reflexive journal*)
- ▶ Look for tentative themes/patterns
 - Conversation topics, vocabulary, recurring activities, meanings, feelings, etc.
- ▶ Negotiate “emic” (description of meaning created by the actor – culturally specific) vs “etic” (description of meaning assigned by observer) in formulating concepts

Data analysis: Coding

- ▶ *Coding* is the process by which you dissect your transcripts/data, so that you can then put together the thematic puzzle eventually (data reduction)
 - You examine everything that the participant says, in context, but then you take it OUT of the context of the participant to an extent
 - Also a means of attaching meaning to participants' words. This is a step-by-step, and simultaneously a fluid process
 - We'll use Cote, Salmela, Baria, & Russell (1993) as a rough guide!



Data analysis: Coding (2)

- ▶ “Open coding”: Separate data into individual “meaning units” or “tags”
 - the smallest segment of text that contains one recognizable piece of information
 - Your tags should, then, be *organic* in terms of phrasing and language
 - Some meaning units may even eventually seem to fit into two themes, in which case you need to restructure or reconceptualize

▶ Example:

I really like weightlifting. I like the way it makes me feel strong. I also like the way my clothes fit differently, and the way my body looks. Of course, the attention isn't all that bad, either...the ladies lookin' and shit. Anyway, you know how it is, the big thing is getting' huge and stuff, like hella huge (laughs and flexes in a joking manner)

Data analysis: Coding (3)

- ▶ Secondary coding or “creating categories”
 - involves gathering meaning units together that seem to capture the substance of a topic
 - In other words, they seem to fit in a cluster
- ▶ “Higher order” themes/General thematic categories:
 - developed to serve as the main *organizational categories*
 - used to create a thematic structure/framework that represents the data

Data analysis: Coding (4)

- ▶ Key is to keep going back to the data, to the research, to your own experiences, and to your reflexive journal
- ▶ Allow the categories to be “rough” for a while
 - Don’t slip into the tendency to automatically place similar sounding meaning units into a theme without first seeing if they *really* fit.
 - Themes should fit the data, not vice versa
 - Use “positive and negative incidents”
 - Negative cases
- ▶ Overlap should be minimal
- ▶ Inter-rater “reliability” sometimes used
 - “Consensus validation” (Lincoln & Guba, 1985)

How do you keep track of everything?

- ▶ *You can:*
 - create a folder
 - use note cards,
 - literally cut out from the transcripts and put in envelopes
 - Software programs that assist you in managing your data (e.g. NVIVO-7)
 - create tree diagrams for you, and will allow you, once “tags” are created, to attach them to raw meaning units
 - search for all places in all transcripts where a specific phrase is mentioned

Ways of Using Computers

- ▶ Field notes
- ▶ *Coding–attaching keywords, or tags to segments of text to permit later retrieval*
- ▶ *Storage–keeping text in an organized database*
- ▶ *Search and retrieval–locating relevant segments of text and making them available for inspection*
- ▶ *Data ‘linking’–connecting relevant data segments to each other, forming categories, clusters, or networks of information*

Flick, U. (2009). *An Introduction to Qualitative Research* (4th Ed.). Sage: London

Ways of Using Computers–II

- ▶ Memo writing–writing reflective commentaries on some aspect of the data
- ▶ Content analysis–counting frequencies, sequence, or locations of words and phrases
- ▶ Audit trail/collaborative research
- ▶ Theory building–developing systematic, conceptually coherent explanations of findings
- ▶ Graphic mapping–creating diagrams that depict findings or theories

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Demo- atlas-ti

- ▶ Here is a quick look at Atlas-ti 5.5

Creating thematic structure & representing your data

- ▶ It is useful way to show how all your themes fit together
- ▶ Sometimes you actually show your coding-thematic process explicitly (show example)
 - Use of quantification vs. “minor” themes
 - What’s your audience (faculty and journal)
- ▶ Use diagrams (e.g. Venn), arrows, etc. that make sense with your data
- ▶ Or...just write!