Qualitative Data Analysis

Week 8
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Introduction

• Qualitative research generates a large and cumbersome amount of data.
• Data is usually generated from field notes, interview transcripts, focus groups and observations.
• The researcher must guard against being captivated by the richness of the data (analytic interruptus) and focus on carrying out a true analysis.
General Strategies

1. Analytical Induction-
   • It is an approach to the analysis of data in which the researcher seeks universal explanations of phenomena.
   • This is done by pursuing the collection of data until no cases that are inconsistent with a hypothetical explanation (deviant or negative case) of a phenomena are found.
The Process of Analytical Induction

Research Question

Hypothetical explanation of RQ

Examination of cases

- Deviant case not confirming
  - Reformulate hypothesis
- No Deviant cases
  - Hypothesis confirmed
    - End of examination of cases. Data collection ends
- Exclude Deviant cases
2. **Grounded Theory**-

- Defined as ‘*theory that was derived from data*’ systematically gathered and analyzed through the research process.
- In this method, data collection, analysis and eventual theory stand in close relationship to one another.
- The approach is iterative, meaning that *data collection and analysis proceed in tandem*, repeatedly referring back to each other.
- Key tool of grounded theory strategy is **CODING**—breaking down data into components, which are given names.
- Outcomes of grounded theory will be: **Concepts**, **Categories then Theory** either *Substantive theory* or *Formal theory*.
Tools/Techniques for Qualitative Analysis

• **Narrative Analysis** - concerned with the search for and analysis of the stories that people employ to understand the phenomena around them.
  – Riessman (1993) identified four models
    • **Thematic Analysis** - focus on what is said rather than how it is said
    • **Structural Analysis** - emphasis on the way the story is related.
    • **Inter-actional Analysis** - emphasis on dialogue between the teller of the story and the listener
    • **Performative Analysis** - emphasis on narrative as a performance that explores the use of words and gestures to get across a story
Thematic Analysis

• Concerned with the **search for themes from data collected**.
• A theme is more or less the **same as a code** or a group of codes.
• These codes should **relate back to** the concepts from the **literature review**
• General strategy should be to use a **Framework**, a method developed by National Centre for Social Research UK
• [http://www.framework-natcen.co.uk/](http://www.framework-natcen.co.uk/)
• Framework is described as a matrix, for ordering and synthesising data
• The idea is to **construct a index of central themes** and subthemes
• These themes are then represented in a matrix
• The themes and subthemes are the result of a thorough reading and re-reading of the transcripts or field notes that make up the data
The Framework Approach

**Theme: Employee Commitment**

<table>
<thead>
<tr>
<th>Interviewee 1</th>
<th>Sub Theme 1 Importance of Job</th>
<th>Sub Theme 2 Work is Necessary</th>
<th>Sub Theme 3 Boredom with work</th>
<th>Sub Theme 4 Working Hours Critique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place brief snippets from responses to questions.</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interviewee 2</th>
<th>Sub Theme 1 Importance of Job</th>
<th>Sub Theme 2 Work is Necessary</th>
<th>Sub Theme 3 Boredom with work</th>
<th>Sub Theme 4 Working Hours Critique</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Interviewee 3</th>
<th>Sub Theme 1 Importance of Job</th>
<th>Sub Theme 2 Work is Necessary</th>
<th>Sub Theme 3 Boredom with work</th>
<th>Sub Theme 4 Working Hours Critique</th>
</tr>
</thead>
</table>
Rules for inserting material into cells  


- Indicate where in the transcript the fragment comes from, use question number
- Keep the language of the research participant as far as possible
- Try not to insert too much quoted material
- Use abbreviations in cells so that cells do not become too full
Looking for Themes  Ryan and Bernard  
(2003)

• Repetitions- topics that recur again and again
• Indigenous categories- local expressions
• Metaphors or Analogies- participants examples and expression of their thoughts
• Similarities and Differences
• Missing data
• Theory related data
Interpreting the meaning of Themes/Description

Interrelating Themes/Description

Themes

Description

Coding the data

Reading through all data

Organising and Preparing Data for Analysis

Raw Data (transcripts, field notes etc)
Step 1- Organizing and Preparing

• This involves:
  – transcribing interviews
  – Optically scanning material
  – Typing up field notes

• **Sorting and arranging** the data into different types depending on the source of the data
Step 2- Read through all the data

• Obtain a general sense of the information
• Reflect on its overall meaning
• What general ideas are the participant saying?
• Write notes in margins
• Start recording thoughts about the data
Step 3- Coding the data

• Coding is the starting point for most qualitative research also called **indexing**

• It entails reviewing transcripts and field notes and **giving labels (names)** to component parts

• Coding also refers to the **creation of categories** in relation to data

• The **grouping together** of different instances of datum under an umbrella term to be regarded as of the same type
Consideration in developing Codes  Lofland and Lofland (1995)

- Of what general category is this item of data an instance?
- What does this item of data represents?
- What is this item of data about?
- Of what topic is this item of data an instance?
Types of Coding Practice
Strauss and Corbin (1990)

• **Open Coding** - the process of breaking down, examining and *categorizing data*

• **Axial Coding** - a set of procedures whereby data are put back together in new ways after open coding by *making connections between categories*

• **Selective Coding** - the procedure of *systematically relating the core category to other categories* and validating those relationships. The core category is the central issue or focus
Some ways in which Categories can be related

- **Cause** - Code A *causes* Code B
- **Property** - Code A is a *Property* of Code B
- **Aspect** - Code A is an *Aspect* of Code B
- **Associate** - Code A is *Associated* with Code B
- **Result** - Code A *Results* from Code B
- **Contrast** - Code A *contrasts* with Code B
Steps and Consideration in Coding  
Bryman (2008, pg.550-552)

1. Code as soon as possible i.e. code as you go along
2. Begin transcription at an early stage
3. Read through you initial set of transcripts and jot down a few general notes; interesting, important, significant
4. Do it again, this time make marginal notes perhaps keywords, names to themes in the data i.e. generate an index of terms
5. Review your codes and compare them to the concepts from your literature review
6. Finalize your codes and categories
7. Turn the data into fragments i.e. cut and paste the chunks of data into a file
8. Try to maintain track of origins of each chunk
9. Do this for all your transcripts
10. You should end up with a file for each category or code
Guidance for Coding Process
Tesch (1990, pg. 142-145)

1. Get a sense of the whole- read all transcripts
2. Pick one document- go through it, ask What is this about? Write thoughts in margin
3. After several transcripts have been read make a list of topics.
4. Cluster together similar topics
5. Go back to the data. Abbreviate the topics as codes and write the codes next to the appropriate segments of the text.

6. Find the most descriptive wording for your topics and turn them into categories.

7. Group topics that relate to each other.

8. Abbreviate each category.

9. Alphabetize these categories/codes.

10. Assemble the data belonging to each category in one place, keep track!
Tip on Coding

• Create codes:
  – that readers would expect
  – Based on past literature i.e. theme from Literature Review
  – That are surprising i.e. not anticipated at beginning of study or revealed from Lit Review
An Alternative Conceptualization  Bogdan and Biklen (1992, pg. 166-172)

- Setting and Context codes
- Perspectives held by subjects
- Subject’s way of thinking about people and objects
- Processes codes
- Activity codes
- Strategy codes
- Relationship and Social Structure codes
Final Tip on Coding

• Consider whether you should:
  – Develop codes on the basis of the emerging information collected from participants
  – Use predetermined codes and then fit the data to them
  – Use some combination of the above
Step 4- Generate a Description and Theme

• Description involves a detailed rendering of information
• Use the code to generate a small number of themes or categories 5 to 7
• These themes are the ones that appear as major findings and are used to create headings and subheadings in the Findings and Analysis Chapter of the Dissertation
Step 5- Interrelate Themes

• Use a **narrative passage** to convey the findings of the analysis

• **Interconnect themes** into a story line

• Build additional layers of **complex analysis**
  – Theme A cause Theme B etc
  – Intervening Themes

• Use visuals, figures and tables to aid discussions
• Grounded Theory- develop theme into a theoretical model
• Case Study- themes are analyzed for each individual case and across different cases
• Phenomenology- themes are shaped into a general description

• See handout on Collecting and Analysing Qualitative Data pg 4-9
Step 6- Interpretation

• Make sense of the data
• Get the meaning
• Ask- What were the lessons learned?
• Lessons could be:
  – Researchers personal interpretation
  – **Meaning derived from comparison of the findings with information gleaned from the literature and theories reviewed in earlier chapter or best practice**
• By doing this comparison you can
  – Suggest that the findings confirm past findings
  – Diverge from past findings
  – Suggest new questions that need to be asked (future research)
• More importantly you can form interpretations that call for:
  – Action
  – Reform and change
• That's how you get the Conclusions and Recommendations!
Using Nvivo 7 Software
Computer Assisted Qualitative Data Analysis Software (CAQDAS)

• They allow researchers to code text and retrieve coded text

• The computer software takes over the physical task of:
  – writing marginal codes of transcripts
  – Creating fragments by cutting and pasting all text relating to a code

• But the researcher must still interpret the data
More info Websites

- www.qsrinternational.com
- www.atlasti.com
- www.qualiresearch.com

- Free download of NVivo from Anglia Ruskin University E Library
Writing Up the Analysis

• **Use quotes** from participants and vary their lengths from short to long embedded messages

• Intertwine quotes with **your** interpretations

• **Use literature and best practice** i.e. industry examples or industry research findings to compare

• And of course **present in accordance with the Theme** derived i.e. use headings and sub headings
References


• Ritchie J, Spencer L, O’Connor W (2003) Carrying out Qualitative Analysis in J Ritchie and J Lewis (eds), Qualitative Research Practice: A Guide for Social Science Students and Researchers, London Sage

• Tesch R (1990) Qualitative Research: Analysis types and software tools, New York, Falmer