

# Qualitative Data Analysis Workshop



**ABRAHAM S. FISCHLER COLLEGE OF  
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# Qualitative Data Analysis



- ▶ Qualitative data analysis procedures are described in Chapter 3 of the applied dissertation proposal.
- ▶ After qualitative data are collected via interviews, focus groups, or open-ended questions on surveys, the researcher must make sense of the findings through a rigorous data analysis process.
- ▶ This presentation will cover some examples on how to organize and code qualitative data.

# Chapter 3: Methodology



Aim of the Study

Qualitative Research Approach

Participants

Data Collection Tools

Procedures

**Data Analysis**

Ethical Considerations

Trustworthiness

Potential Research Bias

Limitations

# Chapter 4: Findings



- ▶ Reporting your findings
- ▶ Examples: With an ethnographic approach, the findings may be reported in a smooth and flowing description narrative. The aim of the narrative is to portray a full context of the experiences and the culture of research participants as observed and analyzed.
- ▶ With a phenomenological approach, the findings will be reported differently. Examples might include descriptions of (a) experiential themes, (b) the essences of experience, and (c) relationships among essences.

# Overview



- ▶ What is qualitative data analysis?
- ▶ How do I conduct qualitative data analysis and present results?

# What is being analyzed?

- ▶ Words
- ▶ Feelings
- ▶ Actions
- ▶ Rituals
- ▶ Experiences
- ▶ Perspectives
- ▶ Impressions
- ▶ Events
- ▶ Artifacts
- ▶ Symbols

# First ,What Was Your Data Collection?

- ▶ Interviews and Transcripts
- ▶ Observations and Field Notes
- ▶ Documents
- ▶ Pictures and Images
- ▶ Audio and Visual Recordings



# Defining Qualitative Data Analysis

Qualitative data analysis is the rigorous process of selecting qualitatively distinct data, articulating the qualitative meaning ascribed to those units, and commenting on the qualitative similarities and differences noted between and among these distinct units of data.



# Defining Qualitative Data Analysis (cont.)

The goal of qualitative data analysis is to describe, explain, and/or interpret qualitative patterns by using words, numbers, matrices, pictures, sounds, or other forms of representation.

# No Findings (Not Research)

- ▶ Presenting data as if they were the findings
- ▶ Reproducing interview data, case histories, or collected stories in a reduced form with minimal or no interpretation of those data
- ▶ Containing no analysis and no interpretation

(Sandelowski & Barroso, 2003, pp. 909-910)

# The “Nuts and Bolts”

- ▶ Codes, Categories, and Themes
- ▶ Analysis
- ▶ Memos
- ▶ Evidence
- ▶ Style

# Decide How You Will Code

- ▶ Look at your research question (s)
- ▶ Look at the tradition.
- ▶ Are you going to have pre-existing categories (to support the literature)?
- ▶ Identify what type of coding you will use (this depends on your tradition).
- ▶ Are you going to use software?

# Examples: Phenomenological research approach

- ▶ Phenomenological research is focused identification of common experiences of study participants as it relates to a specific phenomenon (Creswell, 2007).
- ▶ I will use one-to-one interviews of hospice team managers to collect information for each of my three research questions.
  - ▶ Interviews will be audio recorded.
- ▶ My interview questions will focus on the hospice team manager's experience with patients who were referred to hospice service between 7-30 days before their death.

# Steps of Coding

- ▶ Open coding: First, you look at your data. Read the data over and over again. Next, you create labels to establish meaning from the things people are saying. You call these labels *categories*. It is like summarizing what you see happening. You look at words that participants are saying and you start labeling them. Categories emerge through the text; the categories will have meaning. Meaning will come from these explanations.



# Tips for Open Coding

- ▶ Read the data carefully. Read and reread the transcripts.
- ▶ Identify key statements in order to form categories.
- ▶ Assign categories; these categories or codes should relate to the significant statements.
- ▶ After you name the codes, you organize the related statement under its appropriate code. This is referred to as *open coding*.



# Coding continues



Identify the type of coding you will use; for example,

Axial coding: Looks at the relationships among the open codes. You have to look at what is common between the codes. What connections do you see?

What influences these connections? Look for the conditions that make it happen, the context in which it part of, and the strategies that are used to accomplish it? Last, what are the consequences of these strategies?

# Tips for Axial Coding

- ▶ After identifying the categories, the researcher rereads the transcripts to look for significant statements that fit under these categories. Then the researcher continues to read these significant statements over and over to find other codes that explain these significant statements. An explanation of these statement will emerge.
- ▶ Further codes may also be developed in this stage.

# Coding Continues...

- Selective coding: You are looking for core variables that make up all the data together: Then you look at the transcript and look for coding data that connects to these core variables.
- There are many type of coding you can use

# Codes, Categories, and Themes

- ▶ Articulating the relationship between meaning and data (codes, categories, themes)
- ▶ Internal integrity (i.e., Is there a high degree of homogeneity across the individual codes or across the coded units within the categories?)
- ▶ External integrity (i.e., Is there a high degree of heterogeneity or differentiation between the array of homogeneous codes, categories, or themes?)

(Chenail, 2008)

# Codes, Categories, and Themes (cont.)

- ▶ Exhaustive system of codes, categories, and themes (i.e., no significant and meaningful feature of the phenomenon under study falls outside of the array)
- ▶ Dual planes of focus: horizontality (i.e., category-to-category relationships) and verticality (i.e., category-to-phenomena relationships)

(Chenail, 2008)

# Codes, Categories, and Themes (cont.)

- ▶ Origination (i.e., Where does the responsibility reside for the creation of the codes/categories?)
- ▶ Verification (i.e., How are the codes/categories justified?)  
(Constas, 1992)



# Codes, Categories, and Themes (cont.)

- ▶ Nomination (i.e., What are the sources of names for codes and categories?)
- ▶ Timing (i.e., sharing when decisions were made--before the data collection began, after the data are collected, or throughout the data collection process)

(Constas, 1992)



# Phenomenological Data Analysis

- ▶ Extraction of data from interview text:
  - ▶ Transcription of participant interviews.
  - ▶ Identification of significant statements from interviews about their experience with the phenomenon.
    - ▶ Horizontalization (Creswell, 2007).
  - ▶ Group statements into larger units or themes.
    - ▶ Clusters of meaning (Creswell, 2007).
- ▶ Determination of coding type:
  - ▶ Open coding identifies concepts and categories by segmenting interview data into smaller units and labeling conceptual properties (Creswell, 2007).

# Example of Organizing Your Transcript

Question ID	Category/ Concept	Code	Narrative
1	Perception	P	I think that there are many reasons referrals are made late to hospice services .
1	Perception	P	patients that are referred too late to hospice do not have a chance to benefit from the preparation for death that hospice does.
1	Factors	LRF	it really starts with the referring doctor and their knowledge, perception, and experience with hospice services.
1	Factors	LRF	doctors do not know what hospice really does or its value.
1	Factors	LRF	Timely referral also depends on a doctor's perception of the value of hospice services.
1	Factors	LRF	If doctors or any other provider knows about hospice at all, they think that hospice is something that is available and helpful in the last 2 weeks of life only.
1	Factors	LRF	Referral also depends on a doctor's experience with hospice services that influences whether they timely or at all.
1	Perception	P	not all hospice experiences are positive and if a doc has an experience that is not positive, it may affect their referral to hospice.
1	Factors	LRF	there are doctors that do not want to have the end of life talk with their patients and they do not do it until the patient is a few weeks or days from death.
1	Perception	P	Oncologists are famous for this behavior.
1	Factors	LRF	lack of overall knowledge in healthcare about the benefit of hospice services in the last six months of life
1	Patient choice	PC	there are some patients that do not want to face their imminent death and they do not choose hospice until the last few weeks of life

Code	Category/ Concept	Code	Category/ Concept	Code	Category/ Concept
P	Participant perception statement	LRF	Late referral factor statement	PC	Patient choice statement

# Analysis

- ▶ Making sense of the codes, categories, and themes in context (i.e., research question and literature)
- ▶ Shifting from information to knowledge
- ▶ Asking yourself the question, “What have I learned?”

# Memos

- ▶ Memos are notes in which we make transparent the meaning of our codes, categories, themes, and analysis.
- ▶ Memos are the start of the analysis and the results.
- ▶ Memos create our audit trails.

# Evidence



- ▶ Data as star
- ▶ Juxtaposition
- ▶ Exemplars for every assertion, pronouncement, or declaration (Chenail, 1995)

# Style



- ▶ Avoid errors of deficiency and exuberance by staying close to the data.
- ▶ Develop a rhythm.
  - ▶ list section heading
  - ▶ present the distinction or finding
  - ▶ introduce the first data exemplar of this distinction
  - ▶ display the first data exemplar of this distinction
  - ▶ comment on the first data exemplar as evidence
  - ▶ make transition to second data exemplar and repeat the pattern until the closing of this section

(Chenail, 1995)

# Relationships



- ▶ Relationship between data collection and data analysis
- ▶ Relationship between data analysis and writing up results



# Quality Control: Validating Your Data

- ▶ Instrumentation
- ▶ Piloting
- ▶ Transparency
- ▶ Audit Trails
- ▶ Constant Comparison
- ▶ Member Checking
- ▶ Peer or Expert Debriefing
- ▶ Multiple Coders
- ▶ Exemplars
- ▶ Themes Verification

# Example of quality control

- ▶ Member checking or respondent validation is used to improve the validity of a study.
- ▶ Member checking during an interview.
  - ▶ The interviewer strives to build rapport with the interviewee to obtain honest and open responses.
  - ▶ During an interview:
    - ▶ The interviewer restates or summarizes information and then questions the participant to determine accuracy.
    - ▶ Member checks can be completed after a study by sharing all of the findings with the participants involved

(Carlson, 2010)

# Things to Remember

- ▶ Maintain Coherence and Build Confidence
- ▶ Stay Focused on the Research Question
- ▶ The Role and Place of the Literature
- ▶ Technology

# Themes



- ▶ Explain the themes that emerged.
- ▶ Verify the themes.
- ▶ Relate the themes back to the research questions.
- ▶ Did you answer your research questions?
- ▶ Did any new themes emerge?
- ▶ Relate everything back to your framework.

Raw data  
themes

Higher order  
themes

General  
dimensions

ordinary wood... has the ultimate feel, it feels like it's a golf club that you're very much in control of, rather than its in control of you.

club swung very well, it felt nice. You felt as if you were in control. The whole

just feels as though I'm in control of the clubhead right throughout the shot.

feel that I've no control over that clubhead at all.

This feels much more difficult to control...

but I could not control it due to the length and the flex of the shaft.

Controllable  
feel

Uncontrollable  
feel

Club  
control



# Resources

- ▶ <https://prpost.wordpress.com/2013/07/22/an-example-of-how-to-perform-open-coding-axial-coding-and-selective-coding/>
- ▶ <http://learningstore.uwex.edu/assets/pdfs/G3658-12.PDF>



# Examples

- ▶ <https://www.utexas.edu/academic/ctl/assessment/iar/programs/report/focus-QualCode.php>
- ▶ [http://onlineqda.hud.ac.uk/Intro\\_QDA/phpechopage\\_titleOnlineQDA-Examples\\_QDA.php](http://onlineqda.hud.ac.uk/Intro_QDA/phpechopage_titleOnlineQDA-Examples_QDA.php)
- ▶ <http://www.qualitative-research.net/index.php/fqs/article/view/1886/3528>
- ▶ <http://www.cjlt.ca/index.php/cjlt/article/view/174/170>
- ▶ <http://provalisresearch.com/products/qualitative-data-analysis-software/>



# References

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- ▶ Chenail, R. J. (2008). Categorization. In L. M. Given (Ed.), *The SAGE encyclopedia of qualitative research methods* (Vol. 1, pp. 72-73). Thousand Oaks, CA: SAGE.
- ▶ Chenail, R. J. (2012). Conducting qualitative data analysis: Managing dynamic tensions within. *The Qualitative Report*, 17, 1-6. Retrieved from <http://www.nova.edu/ssss/QR/QR17/chenail-tensions.pdf>

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[Qualitative data analysis slides courtesy of Ron Chenail]

- ▶ Constas, M. A. (1992). Qualitative analysis as a public event: The documentation of category development procedures. *American Educational Research Journal*, 29, 253-266.
- ▶ Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: SAGE.
- ▶ Sandelowski, M., & Barroso, J. (2003). Classifying the findings in qualitative studies. *Qualitative Health Research*, 13(7), 905-923.

# Resources

- ▶ Online QDA: <http://onlineqda.hud.ac.uk/index.php>
- ▶ *The Qualitative Report and The Weekly Qualitative Report:* <http://www.nova.edu/ssss/QR/>
- ▶ Foss, S. K., & Waters, W. (2003). *Coding & analysis of qualitative data*. Retrieved from <http://www.abdsurvivalguide.com/News/020603.htm>