QUALITATIVE DATA ANALYSIS: IDENTIFYING CODES AND EMERGENT THEMES USING QDA PROGRAMS

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BASIC INTRODUCTION

- Unit of Analysis vs. Unit of Coding
- Coding and Codes
- Deductive and Inductive Coding Methods
- Themes and Thematic Analysis

Unit of Analysis vs. Unit of Coding

Unit of Analysis

"The unit of analysis is the entity on which the interpretation of the study will focus" (Boyatzis, 1998, p. 62).

Unit of Coding

"The unit of coding is the most basic segment, or element, of the raw data or information that can be assessed in a meaningful way regarding the phenomenon. The unit of coding can never be an entity larger than the unit of analysis" (Boyatzis, 1998, p. 63).

Coding and Codes

Coding (Verb)

- Three types: open (breaking raw data apart), axial (bringing data back together into coherent whole), and selective (used in grounded theory)
- Open coding involves "breaking data apart and delineating concepts to stand for interpreted meaning of raw data" (Corbin & Strauss, 2015. p. 239)
- Coding "involves generating pithy labels for important features of the data of relevance to the research questions, guiding the analysis" (Clarke & Braun, 2013, p. 121).

Codes (Noun)

- Category codes of information relevant to answering the study's research questions
- Codes can be "generated inductively from the raw information or generated deductively from theory and prior research" (Boyatzis, 1998, p. 4).
- Although the terms ***code*** and ***theme*** are used interchangeably in the qualitative methodology literature, in thematic analysis, they are differentiated.
  - Code → open coding (GT)
  - Theme → axial coding (GT)

Themes and Thematic Analysis

Theme

"A theme is a coherent and meaningful pattern in the data relevant to the research question" (Clarke & Braun, 2013 p. 121).

Thematic Analysis

"Thematic analysis is essentially a method for identifying and analyzing patterns in qualitative data" (Clarke & Braun, 2013, p. 120)

Thematic Analysis: Clarke & Braun's (2013) Six Phases

1. Familiarization with the data: becoming intimately familiar with the raw data by reading and rereading
2. Coding: generating pithy labels (category codes of information) for important features of the raw data that are relevant to the study's research questions
3. Searching for themes: searching for themes is like coding your category code of information to identify similarity in the data (construction analogy: codes = bricks and tiles; themes = walls and roof)
4. Reviewing themes: asking yourself if the themes tell a convincing and compelling story about the data
5. Naming and defining themes: labels and definitions
6. Writing-up: report findings in chapter 4 of dissertation

* Not a linear model, rather a recursive process

DEDUCTIVE OPEN-CODING PROJECT EXAMPLE

Southern California Small Business Leaders and Emotional Intelligence: Exploring Perceptions of Effect and Value in the Workplace (Smith, 2015)

Deductive and Inductive Reasoning

Deductive

"A type of reasoning that starts with the general or abstract concept [theory] and reasons to specific instances" (Charmaz, 2014, p. 342).

Inductive

"A type of reasoning that begins with study of a range of individual cases [participants] and extrapolates patterns from them to form a conceptual category" (Charmaz, 2014, p. 342).

Deductive Coding Project Example: Qualitative Design Aspects

Design Aspect	Smith's (2015) Dissertation
Phenomenon of inquiry/interest	Individual abilities: emotional intelligence
Research design/genre	Sequential mixed methods (quan. → qual.)
Unit of analysis	Person: small business owner
Unit of coding	Critical incident*: emotional intelligence displayed in the workplace
Data source	One-on-one interviews
Data collection instrument	Semi-structured interview guide
Data analysis methods	Thematic analysis (deductive)

**Note.* Not necessarily a dramatic event, a critical incident is one that has significance for the person, one that makes the person stop and think about aspects of personal beliefs, values, attitudes, and/or behavior.

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Qualitative Research Questions

- RQ #3: To what extent, if any, and in what ways do Southern California small business leaders' emotional intelligence affect their workplace?
- RQ #4: To what extent, if any, do Southern California small business leaders value emotional intelligence in the workplace?

WLEIS* Codes: Self-Emotion Appraisal

WLEIS Code	Description	WLEIS Scale Item	Description
Self-Emotion Appraisal (SEA)	"This relates to the individual's ability to understand their deep emotions and be able to express these emotions naturally. People who have great ability in this area will sense and acknowledge their emotions well before most people" (Wong & Law, 2002, p. 246)	SEA-1	Interviewee has good sense of why he/she has feelings.
		SEA-2	Interviewee has good understanding of his/her own emotions.
		SEA-3	Interviewee really understands what he/she feels.
		SEA-4	Interviewee knows whether or not he/she is happy.

* Wong and Law Emotional Intelligence Scale (WLEIS)

WLEIS Codes: Others' Emotion Appraisal

WLEIS Code	Description	WLEIS Scale Item	Description
Others' Emotion Appraisal (OEA)	"This relates to peoples' ability to perceive and understand the emotions of those people around them. People who are high in this ability will be much more sensitive to the feelings and emotions of others as well as reading their minds" (Wong & Law, 2002, p. 246)	OEA-5	Interviewee knows employees' emotions from their behaviors.
		OEA-6	Interviewee is a good observer of employees' emotions.
		OEA-7	Interviewee is sensitive to the feelings and emotions of employees.
		OEA-8	Interviewee has good understanding of employees' emotions.

WLEIS Codes: Use of Emotion

WLEIS Code	Description	WLEIS Scale Item	Description
Use of Emotion (UOE)	"This relates to the ability of individuals to make use of their emotions by directing them towards constructive activities and personal performance" (Wong & Law, 2002, p. 246)	UOE-9	Interviewee sets goals for self and tries best to achieve them.
		UOE-10	Interviewee tells self he/she is a competent person.
		UOE-11	Interviewee is a self-motivated person.
		UOE-12	Interviewee encourages self to try best.

WLEIS Codes: Regulation of Emotion

WLEIS Code	Description	WLEIS Scale Item	Description
Regulation of Emotion (ROE)	"This relates to the ability of people to regulate their emotions, which will enable a more rapid recovery from psychological distress" (Wong & Law, 2002, p. 246)	ROE-13	Interviewee is able to control temper and handle difficulties rationally.
		ROE-14	Interviewee is capable of controlling own emotions.
		ROE-15	Interviewee can calm down quickly when very angry.
		ROE-16	Interviewee has good control of own emotions.

Deductive Open-Coding Demonstration

INDUCTIVE OPEN-CODING PROJECT EXAMPLE

Topic: Leadership competencies through the theoretical lens of Katz (1955)

Inductive Coding Project Example: Qualitative Design Aspects

Design Aspect	Study Excerpts
Phenomenon of inquiry/interest	Leadership competencies (Katz, 1955)
Research design/genre	Basic qualitative
Unit of analysis	Person: higher education leader
Unit of coding	Critical incident*: leadership competencies in the workplace
Data source	One-on-one interviews
Data collection instrument	Semi-structured interview guide
Data analysis methods	Thematic analysis (inductive)

**Note.* Not necessarily a dramatic event, a critical incident is one that has significance for the person, one that makes the person stop and think about aspects of personal beliefs, values, attitudes, and/or behavior.

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Deductive Open-Coding Demonstration

References

- Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, CA: Sage.
- Charmaz, K. (2014). *Constructing grounded theory* (2nd ed.). Thousand Oaks, CA: Sage.
- Clarke, V., & Braun, V. (2013). Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning. *The Psychologist, 26*(2), 120-123. Retrieved from eprints.uwe.ac.uk/21155/
- Corbin, J., & Strauss, A. (2015). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (4th ed.) Thousand Oaks, CA: Sage.

Seminal Qualitative Sources

- **Case Study**
  - Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.) Thousand Oaks, CA: Sage.
  - Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.
  - Stake, R. E. (2006). *Multiple case study analysis*. New York, NY: The Guilford Press
- **Content Analysis (Qualitative)**
  - Schreier, M. (2012). *Qualitative content analysis in practice*. Thousand Oaks, CA: Sage.
- **Critical Discourse Analysis**
  - Wodak, R., & Meyer, M. (Eds.). (2016). *Methods of critical discourse studies* (3rd ed.). Thousand Oaks, CA: Sage.

Seminal Qualitative Sources (cont.)

- **Ethnography/Autoethnography**
  - Ellis, C., & Bochner, A. P. (Eds.). (1996). *Composing ethnography: Alternative forms of qualitative writing*. Walnut Creek, CA: Altamira Press.
  - Ellis, C. (2004). *The ethographic I: A methodological novel about autoethnography*. Walnut Creek, CA: Altamira Press.
- **Grounded Theory**
  - Charmaz, K. (2014). *Constructing grounded theory* (2nd ed.). Thousand Oaks, CA: Sage.
  - Corbin, J., & Strauss, A. (2015). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (4th ed.). Thousand Oaks, CA: Sage.
  - Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. New Brunswick, NJ: Aldine Transaction.

Seminal Qualitative Sources (cont.)

- **Mixed Methods**
  - Creswell, J. W. (2015) *A concise introduction to mixed methods research*. Thousand Oaks, CA: Sage.
- **Oral History**
  - Ritchie, D. A. (2015). *Doing oral history* (3rd ed.). New York, NY: Oxford University Press.
- **Phenomenology/Phenomenography**
  - Cibangu. S. K., & Hepworth, M. (2016). The uses of phenomenology and phenomenography: A critical review. *Library & Information Science Research, 38*(2), 148-160. doi:10.1016/j.lisr.2016.05.001
  - Moustakas, C. (1994). *Phenomenological research methods.* Thousand Oaks, CA: Sage.
  - Van Manen, M. (2014). *Phenomenology of practice: Meaning-giving methods in phenomenological research and writing*. Walnut Creek, CA: Left Coast Press.
- **Visual arts-based/photovoice**
  - Rose, G. (2012). *Visual methodologies: An introduction to researching with visual materials*. Thousand Oaks, CA: Sage.

About the Author/Presenter

Debra A. Fisher, Ph.D. earned her doctorate in education with an emphasis on professional/interdisciplinary studies. In addition to education, her academic background includes English, philosophy, adult learning theory, and emergency management. Dr. Fisher is the founder/owner of CastleBridge Research Consulting, a research education, and communications company. As an independent consultant for more than 16 years, she has advised on 100s of dissertations. She supports academic and business clients by providing qualitative research analysis (ATLAS.ti and MAXQDA), advising/coaching, and developmental editing services. You can learn more about her and the services she provides at www.CastleBridgeResearch.com.

Dr. Fisher is presently training her second Golden Retriever, Caleb, to serve as a therapy dog for children with special needs, including those living with the challenges of cancer, hearing impairments, and learning disabilities.

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